Rwanda

Demographic and Health Survey

2014-15

CELEBRATING 2005 NISR'S 10 YEARS OF POLICY SUPPORT 2015 ANNIVERSARY

Republic of Rwanda

Rwanda
Demographic and Health Survey
2014-15

Final Report

National Institute of Statistics of Rwanda
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FOREWORD

From 2014 to 2015, with the aim of collecting data to monitor progress across Rwanda's health programs and policies, the Government of Rwanda (GOR) conducted the most recent Rwanda Demographic and Health Survey (RDHS) through the Ministry of Health (MOH) and the National Institute of Statistics of Rwanda (NISR) with the members of the national steering committee to the DHS and the technical assistance of ICF International. As a member of the steering committee, ICF International provided technical assistance in implementing the 2014-15 RDHS. The RDHS was sponsored by the GOR, the United States' Agency for International Development (USAID), One United Nations (ONE UN), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF), World Vision International (WVI), Partners in Health (PIH), and the Suisse Development Cooperation (SDC). This most recent RDHS builds on the assessments and findings of the 1992, 2000, 2005, and 2010 RDHS surveys, as well as the 2007-08 Rwanda Interim Demographic and Health Survey (RIDHS).

The main objective of the 2014-15 RDHS was to obtain current information on demographic and health indicators, including family planning; maternal mortality; infant and child mortality; nutrition status of mothers and children; prenatal care, delivery, and postnatal care; childhood diseases; and pediatric immunization. In addition, the survey was designed to measure indicators such as domestic violence, the prevalence of anemia and malaria among women and children, and the prevalence of HIV infection in Rwanda. For the first time, this 2014-15 RDHS also includes indicators to monitor HIV testing among children age 0-14 as well as domestic violence for males age 15-59.

The 2014-15 RDHS targeted women age 15-49 and men age 15-59 from randomly selected households across the country. Information about children under 5 was also collected. RDHS data collection fieldwork was conducted from November 9, 2014, to April 8, 2015. The data entry, editing, and cleaning was completed by May 15, 2015, and the final survey report was completed in March 2016.

Compared with the 2005 and 2010 RDHS, the 2014-15 survey shows promising results across multiple areas of health over the past 10 years. Such achievements include a decrease in maternal and infant mortality rates, an increase in prenatal care visits and utilization of delivery services, a steady decline in the total fertility rate, and relative stability in malaria and HIV prevalence. Compared with the 2010 RDHS, the 2014-15 survey also shows a slight increase in the utilization of modern contraceptives and higher immunization rates regarding coverage of children 12-23 months. Despite these improvements, the 2014-15 RDHS shows that there is still work to be done in the health sector, most notably in the area of pediatric and maternal nutrition, which remains a challenge in Rwanda. With this most recent data on nutrition across the country, Rwanda can now target health interventions and policies to tackle nutrition, with the hope of improving the nutritional status of the Rwandan people.

The Ministry of Health and the National Institute of Statistics of Rwanda invite policy makers, program managers, and all users to play an important role in using the valuable data showcased in the 2014-15 RDHS to contribute to enhancing Rwandans' quality of life. We hope that the RDHS datasets will be used efficiently and analyzed further by researchers so that the findings' potential impact on the health sector can be maximized.

Dr. Agnes BINAGWAHO
Minister of Health

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We express our gratitude to the Ministry of Health (MOH) for its close collaboration and to ICF International for its technical assistance throughout the survey. We gratefully acknowledge the support of the Steering Committee (SC) and Technical Advisory Committee (TAC) members, who contributed to the successful preparation and implementation of the survey.

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Yusuf MURANGWA
Director General
National Institutes of Statistics of Rwanda

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INTRODUCTION 1

Key Findings

- The 2014-15 Rwanda Demographic and Health Survey (RDHS) is a nationally representative survey of 12,699 households, 13,497 women age 15-49, and 6,217 men age 15-59.
- The 2014-15 RDHS is the fifth standard DHS conducted in Rwanda as part of the worldwide DHS Program.
- The primary purpose of the RDHS is to provide policymakers and planners with detailed information on fertility and family planning; infant, child, adult, and maternal mortality; maternal and child health; nutrition; malaria; knowledge of HIV/AIDS and other sexually transmitted infections; and domestic violence, among others.
- Anthropometry measurements and anemia and malaria testing were carried out among women and children in a subsample of 50 percent of households. HIV testing was carried out among adults in another 50 percent of households and children under age 15 in 15 percent of the households.

1.1 COUNTRY PROFILE

1.1.1 Geography

Rwanda is located in central Africa, immediately south of the equator between latitude 1°4' and 2°51'S and longitude 28°63' and 30°54' E. It has a surface area of 26,338 square kilometers and is bordered by Uganda to the north, Tanzania to the east, the Democratic Republic of the Congo to the west, and Burundi to the south. Landlocked, Rwanda lies 1,200 kilometers from the Indian Ocean and 2,000 kilometers from the Atlantic Ocean.

Rwanda forms part of the highlands of eastern and central Africa, with mountainous relief and an average elevation of 1,700 meters. However, there are three distinct geographical regions.

Western and north-central Rwanda is made up of the mountains and foothills of the Congo-Nile Divide, the Virunga volcano range, and the northern highlands. This region is characterized by rugged mountains intercut by steep valleys, with elevations generally exceeding 2,000 meters. The divide itself rises to 3,000 meters at its highest point but is dwarfed by the volcano range, where the highest peak, Mount Karisimbi, reaches 4,507 meters. The Congo-Nile Divide slopes westward to Lake Kivu, which lies 1,460 meters above sea level in the Rift Valley trough.

In Rwanda's center, mountainous terrain gives way to the rolling hills that give the country its nickname, "Land of a Thousand Hills." Here the average elevation varies between 1,500 and 2,000 meters. The area is also referred to as the central plateau (Randall Baker, 1970).

Further east lies a vast region known as the "eastern plateaus," where the hills level gradually into flat lowlands interspersed with a few hills and lake-filled valleys. The elevation of this region generally is below 1,500 meters.

Because of its elevation, Rwanda enjoys a temperate, sub-equatorial climate with average yearly temperatures around 18.5°C. The average annual rainfall is 1,250 millimeters, occurring over two rainy seasons of differing lengths that alternate with one long and one short dry season. The climate varies somewhat from region to region, depending on the altitude. The volcano range and northern highlands are generally cooler and wetter, with an average temperature of 16°C and an average rainfall above 1,300 millimeters per year. The maximum rainfall is 1,600 millimeters above the divide and the volcanic range. The hilly central region receives an average of 1,000 to 1,300 millimeters of rain per year, while rainfall on the eastern plateau, where the climate is relatively warmer and drier, generally falls below 1,000 millimeters and can be as low as 800 millimeters. Although Rwanda enjoys more or less constant temperatures, the climate is known to vary from year to year, with extreme variations in rainfall sometimes resulting in flooding or, more often, drought. These extremes have a profound impact on agricultural production.

Rwanda has a dense network of rivers and streams, which drain into the Congo River on the western slope of the Congo-Nile Divide and into the Nile River in the rest of the country via the Akagera River, which receives all of the streams of this watershed. Water resources also include several lakes surrounded by wetlands.

Deforestation caused mainly by land clearing for agricultural expansion has resulted in mostly anthropic vegetation, with only a few small areas of natural forestland (representing 7 percent of the country) remaining on the Congo-Nile Divide and the slopes of the volcanic range.

Rwanda is divided into four geographically based provinces North, South, East, and West and the City of Kigali. The lower administrative areas consist of 30 districts, 416 sectors, 2,148 cells, and 14,837 villages.

1.1.2 Economy

In Rwanda, regular efforts have been made to develop the service sector and to stimulate investment in the industrial sector. These efforts are now bearing positive results, as the service sector has contributed more to the economy than the agricultural sector in recent years.

Rwanda's economy has been growing steadily at about 8 percent per year since 2001, with gross domestic product (GDP) per capita more than tripling from $211 in 2001 to $719 in 2014. The rate of growth in food crop production was more than twice the population growth rate between 2007 and 2014. In fact, in fiscal year 2014-2015, GDP at current market prices was estimated to be Rwf 5,605 billion, up from Rwf 5,136 billion in 2013-2014. The service sector contributed 48 percent of GDP in 2014, and in this sector, the share of trade and transport represented 15 percent, and other services (e.g., information, communication, real estate activities, education, hotels and restaurants) represented 32 percent.

The agriculture sector contributed 33 percent of GDP, with food crops representing 23 percent of this total. The industrial sector contributed 14 percent of GDP, with different types of manufacturing representing 5 percent, mining and quarrying representing 2 percent, and approximately 5 percent attributable to adjustment for taxes less subsidies on products.

In fiscal year 2014-2015, estimates calculated at constant 2011 prices showed that GDP was 7.3 percent higher in real terms than in 2013-2014. In this period, the agriculture sector grew by 5 percent and contributed 1.6 percentage points to overall GDP growth. Activities in the industry sector grew by 7 percent and contributed 1 percentage point to GDP growth. The service sector increased by 8 percent and contributed 4 percentage points (NISR 2014-15).

Although the agricultural sector appears to have been overtaken by the service sector, it remains the backbone of Rwanda's economy and still employs many Rwandans. The Fourth Household Living Conditions Survey (EICV4) shows that the percentage of farmers whose main job is farming is 71 percent, with 61 percent of them independent famers and 10 percent wage farmers.

However, the agricultural sector faces major problems, including production dominated by small farming operations of less than one hectare, rudimentary techniques, and a low rate of investment. Agrarian reforms are gradually being introduced to address these problems; in particular, over recent years, land consolidation and regionalization of crops have been a focus of agricultural policies, as has protection of land from erosion. The results of the EICV4 show that 85 percent of crop-producing households in Rwanda have at least one of their plots protected from erosion, and 13 percent have at least one of their plots irrigated.

The EICV4 calculated an indicator of the incidence of poverty, which is the share of the population whose total consumption is below the poverty line (Rwf 159,375 in January 2014 prices), or the share of the population that cannot afford to buy a basic basket of goods (food and non-food).Thirty-nine percent of the population was identified as poor in 2013-2014, as compared with 45 percent in the Third Household Living Conditions Survey in 2010-2011.

Finally, because of the failure of most development strategies that had been based on structural adjustment programs focused on growth measured in terms of per capita GDP, the overwhelming majority of development partners are recognizing the need to incorporate social factors into development strategies. Therefore, new initiatives are geared toward pro-poor economic growth and poverty reduction to revive the economies of developing nations. Rwanda has adopted this new orientation, and the economic development and poverty reduction strategies developed every five years through this framework serve as a guide for elaborating different plans as well as an instrument for monitoring and evaluating the development progress made.

1.1.3 Population

The fourth population and housing census (RPHC4) in 2012 showed that the Rwandan population was 10,515,973 from which 5,451,105 (52 percent) of the country's residents were female, and 5,064,867 (48 percent) were male. According to projections, Rwanda's population would grow to 11,274,221 in 2015. The population increased from 4,831,527 in 1978 to 7,157,551 in 1991 and 8,128,553 in 2002 before reaching the 2012 total of 10,515,973. Thus, the population more than doubled between 1978 and 2012. The increase was essentially due to rapid population growth, which remains high despite the progressive decreases in the natural growth rate and the total fertility rate. In fact, according to census estimates, the natural growth rate was 2.6 percent between 2002 and 2012 and 3.1 percent between 1978 and 1991. The low natural growth rate of 1.2 percent between 1991 and 2002 is due to the high number of deaths caused by the genocide of 1994. Based on Rwanda Demographic and Health Surveys (RDHS) data, the total fertility rate is estimated to have declined from 6.1 in 2005 to 4.6 in 2010.

Population density is high across the country and has increased steadily over the years, from 183 inhabitants per square kilometer in 1978 to 272 in 1991, 321 in 2002, and 415 in 2012.

The population is largely rural: according to the RPHC4, almost 84 percent of the country's residents live in rural areas. Among the total urban population, 49 percent live in City of Kigali, the capital of the country. Also, the population is essentially young, with 43.4 percent of all Rwandans under age 15 according to the RPHC4.

The illiteracy rate in Rwanda declined between 2005 and 2010. Between the two RDHS surveys, the rate decreased from 29 percent to 23 percent among women age 15-49 and from 22 percent to 19 percent among men age 15-59. This means that 77 percent of women are considered literate, as compared with 80 percent of men. The educational level of Rwandans is still low. The 2010 RDHS results showed that 22 percent of women and 16 percent of men had no education, while 68 percent of women and 72 percent of men had attended primary school only. Nine percent of women and 11 percent of men had reached the secondary school level, while those with education beyond the secondary level made up only 1 percent of the female population and 2 percent of the male population.

Although numerous religions are practiced in Rwanda, the 2012 census showed that Christianity is by far the dominant faith, practiced in some form by 93 percent of the population (44 percent are Catholic, 38 percent are Protestant, and 12 percent are Adventist). The number of Muslim adherents remained at 2 percent of the population from 2002 to 2012. Only 0.4 percent of the population profess to have no religion.

Nearly all Rwandans speak the same language, Kinyarwanda, which is the country's official first language, followed by English and French. Kiswahili, the third most common foreign language, is generally spoken in urban areas and in the provinces bordering other countries where this language is widely spoken, such as the Democratic Republic of the Congo and Tanzania.

1.1.4 Population Policy

Out of concern for improving the country's quality of life, the Rwandan government has developed strategies to ensure an acceptable balance between demographic growth and available resources, particularly since the 1980s. A family planning initiative developed in 1982 provided for training, improved access to family planning services, and, in particular, promotion of family planning through trained communicators known as Abakangurambaga ("Awakeners of the People"). A subsequent policy was adopted in 1990 aimed at curbing demographic growth and reducing fertility through family planning (ONAPO, 1990a, 1990b, and 199c). To create an environment favorable to behavioral change that would result in lower fertility rates, other elements were included in the plan, such as increased production, public health improvements, land use planning, training of communicators, promotion of education and school attendance, and employment and advancement of women.

Following the 1994 genocide, population problems were seen in a new light, with an emphasis on both quality of life and population growth. A new national population policy was developed and issued to all development partners in 2003. This policy emphasizes quality of life by providing objectives and strategies to affect both demographic (fertility, mortality) and socioeconomic factors. The policy advocates slow population growth, managed sustainability of natural resources, food safety, access to primary and secondary education for all children(with a focus on technical and vocational instruction as well as information technology), good governance, equal opportunity, and participation in development by both men and women.

1.1.5 Health Policy

Rwanda's Health Sector Policy translates the Government's overall vision of development in the health sector, as set out in Vision 2020 and the Economic Development and Poverty Reduction Strategy (EDPRS 2, 2013-2018). Since the adoption of the previous Health Sector Policy in 2005, much has changed in terms of national socio-economic development policy and more specifically in the health sector policy. The new Health Sector Policy thus takes into account new orientations in the national development agenda and changes in the socio-economic and epidemiologic situation of the Rwandan population and in the institutional environment of the country and specifically in the health sector.

The health sector has a crucial role to play in the achievement of the national mid-term (EDPRS 2) goal of 11.5% economic growth rate. Continuous progress in the coverage and quality of promotive, preventive, curative and rehabilitative health interventions and in the health seeking behavior of the population ensure improvements in the health status and productivity of the Rwandan population. The health sector also has an influence on enabling environment for economic and social transformation as envisioned by the EDPRS 2. It aims to contribute among others, to a reduction in the fertility rate. Availability of high quality health services, as an important element of the service sector, contributes to the generation of collective wealth and is crucial to attracting investors and tourists.

The overall objective of the health sector policy is to ensure universal accessibility (in geographical and financial terms) of equitable and affordable quality health services (preventative, curative, rehabilitative and promotional services) for all Rwandans. This objective will be attained through the full implementation of (1) the various programs, while strengthening (2) the various systems that will support them at (3) all levels of service delivery together with (4) the governance of the sector.

To achieve the above objective health policy will require different directions such as:

- Improve demand, access and quality of essential health services
- Strengthen policies, resources and management mechanisms of health support systems to ensure optimal performance of the health programs
- Strengthen policies, resources and management mechanisms of health services delivery systems
- Strengthen the Health Sector Governance mechanisms

The implementation of this policy would not be a reality without involving different stakeholders and existing structures ensure the involvement of all of them.

- The Health Sector Working Group (HSWG comprises representatives of the MOH, development partners, and civil society.
- Technical working groups (TWGs) are operational entities where technical and policy issues are discussed by staff of the MOH with representatives of development partners, NGOs, FBOs, and CSOs. TWGs operate under the authority of the HSWG.
- The Single Project Implementation Unit (SPIU) aims at reducing the number of separate projects and the administrative burden of the MOH in managing and reporting on the various projects with off-budget resources.

The 2015 Health Policy will help the Government of Rwanda to sustain the achievements made through previous policies and existing strategies. Health sector has contributed in achieving objectives of EDPRS I (2008-2012) and the Millennium Development Goals (MDGs). Ministry of Health through its implementing agency (RBC) and health facilities at different levels will continue to be an integral part of implementing strategies aiming to achieve Vision 2020 and Sustainable Development Goals (SDGs).

1.2 Objectives and Methodology of the Survey

The government of Rwanda planned the 2014-15 RDHS with the support of its development partners and institutions interested in population and health issues. The 2014-15 RDHS is the fifth survey of its kind,

following standard DHS surveys conducted in 1992, 2000, 2005, and 2010. In addition in Rwanda interim RDHS was conducted in 2007-08.

The 2014-15 RDHS was implemented by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH) and the Rwanda Biomedical Center (RBC) under the guidance of a steering committee. The Demographic and Health Survey (DHS) Program of ICF International provided technical assistance through its contract with the United States Agency for International Development (USAID). Funding for the 2014-15 RDHS was provided by the Government of Rwanda and by development partners including USAID; United Nations agencies (One UN); the Global Fund to Fight AIDS, Tuberculosis, and Malaria; World Vision International; Partners in Health and Suisse Agency for Development and Cooperation.

1.2.1 Objectives of the Survey

The main objectives of the 2014-15 RDHS were to:

- Collect data at the national level to calculate essential demographic indicators, especially fertility and infant and child mortality, and analyze the direct and indirect factors that relate to levels and trends in fertility and child mortality
- Measure levels of knowledge and use of contraceptive methods among women and men
- Collect data on family health, including immunization practices; prevalence and treatment of diarrhea, acute upper respiratory infections, and fever among children under age 5; antenatal care visits; assistance at delivery; and postnatal care
- Collect data on knowledge, prevention, and treatment of malaria, in particular the possession and use of treated mosquito nets among household members, especially children under age 5 and pregnant women
- Collect data on feeding practices for children, including breastfeeding
- Collect data on the knowledge and attitudes of women and men regarding sexually transmitted infections (STIs) and HIV and evaluate recent behavioral changes with respect to condom use
- Collect data for estimation of adult mortality and maternal mortality at the national level
- Take anthropometric measurements to evaluate the nutritional status of children, men, and women
- Assess the prevalence of malaria infection among children under age 5 and pregnant women using rapid diagnostic tests and blood smears
- Estimate the prevalence of HIV among children age 0-14 and adults of reproductive age
- Estimate the prevalence of anemia among children age 6-59 months and adult women of reproductive age
- Collect information on early childhood development
- Collect information on domestic violence

1.2.2 Questionnaires

Three types of questionnaires were used in the 2014-15 RDHS: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. They are based on questionnaires developed by the worldwide DHS Program and on questionnaires used during the 2010 RDHS. To reflect relevant issues in population and health in Rwanda, the questionnaires were adapted during a series of technical meetings with various stakeholders from government ministries and agencies, nongovernmental organizations, and international donors. The questionnaires were translated from English into Kinyarwanda.

The Household Questionnaire was used to list all of the usual members and visitors in the selected households as well as to identify women and men eligible for individual interviews. Basic information was collected on the characteristics of each person listed, including relationship to the head of the household, sex, residence status, age, and marital status along with survival status of children's parents, education, birth registration, health insurance coverage, and tobacco use. The Household Questionnaire also collected information on the following: (1) dwelling characteristics; (2) possession of iodized salt; (3) possession and utilization of mosquito nets; (4) height and weight of women age 15-49, men age 15-59, and children age 0-5; (5) hemoglobin measurement of women and children; (6) blood collection from women and children for rapid and laboratory testing for malaria; and (7) blood collection from women, men, and children for laboratory testing for HIV.

The Woman's Questionnaire was administered to all women age 15-49 living in the sampled households. It was used to collect information on (1) background characteristics; (2) reproduction; (3) contraception; (4) pregnancy and postnatal care, including breastfeeding and feeding practices; (5) immunization, health, and nutrition of children(including early child development); (6) marriage and sexual activity; (7) fertility preferences; (8) husbands' characteristics and women's employment activity; (9) HIV/AIDS and other sexually transmitted infections; (10) other health issues; (11) adult and maternal mortality; and (12) domestic violence.

The Man's Questionnaire was administered to all men age 15-59 living in every second household in the sample. It was similar to the Woman's Questionnaire but did not include questions on use of contraceptive methods or birth history; pregnancy and postnatal care; child immunization, health, and nutrition; or adult and maternal mortality.

A detailed interviewers' manual was also developed, as well as other instructional manuals including one focusing on biomarkers such as HIV, anemia, and anthropometric measurements. Instruction manuals were available and used during the pretest from August 25 to September 22, 2014; the training for the main survey from October 5 to November 2, 2014; and data collection from November 9 to April 8, 2015.

1.2.3 Sample Design

The sampling frame used for the 2014-15 RDHS was the 2012 Rwanda Population and Housing Census (RPHC). The sampling frame consisted of a list of enumeration areas (EAs) covering the entire country, provided by the National Institute of Statistics of Rwanda, the implementing agency for the RDHS. An EA is a natural village or part of a village created for the 2012 RPHC; these areas served as counting units for the census.

The 2014-15 RDHS followed a two-stage sample design and was intended to allow estimates of key indicators at the national level as well as for urban and rural areas, five provinces, and each of Rwanda's 30 districts (for some limited indicators). The first stage involved selecting sample points (clusters) consisting of

EAs delineated for the 2012 RPHC. A total of 492 clusters were selected, 113 in urban areas and 379 in rural areas.

The second stage involved systematic sampling of households. A household listing operation was undertaken in all of the selected EAs from July 7 to September 6, 2014, and households to be included in the survey were randomly selected from these lists. Twenty-six households were selected from each sample point, for a total sample size of 12,792 households. However, during data collection, one of the households was found to actually be two households, which increased the total sample to 12,793. Because of the approximately equal sample sizes in each district, the sample is not self-weighting at the national level, and weighting factors have been added to the data file so that the results will be proportional at the national level.

All women age 15-49 who were either permanent residents of the household or visitors who stayed in the household the night before the survey were eligible to be interviewed. In half of the households, all men age 15-59 who either were permanent household residents or were visiting the night before the survey were eligible to be interviewed.

In the subsample of households not selected for the male survey, anemia and malaria testing were performed among eligible women who consented to being tested. With the parent's or guardian's consent, children aged 6-59 months were tested for anemia and malaria in this subsample. Height and weight information was collected from eligible women, and children (age 0-5) in the same subsample.

In the subsample of households selected for male survey, blood spot samples were collected for laboratory testing of HIV from eligible women and men who consented. Height and weight information was collected from eligible men. In one-third of the same subsample (or 15 percent of the entire sample), blood spot samples were collected for laboratory testing of children age 0-14 for HIV.

The domestic violence module was implemented in the households selected for the male survey: The domestic violence module for men was implemented in 50 percent of the household selected for male survey and domestic violence for women was conducted in the remaining 50 percent of household selected for male survey (or 25 percent of the entire sample, each).

1.2.4 Sample Coverage

All 492 enumeration areas selected for the sample were surveyed for the 2014-15 RDHS. A total of 12,793 households were selected, of which 12,717 were occupied at the time of the survey. Among these households, 12,699 completed the Household Questionnaire, yielding a response rate of 99.9 percent (Table 1.1). There was little variation in response rates by urban-rural residence.

In the 12,699 households surveyed, 13,564 women age 15-49 were identified as being eligible for the individual interview; interviews were completed with 13,497 of these women, yielding a response rate of 99.5 percent.

Male interviews were conducted in every second household. A total of 6,249 men age 15-59 were identified in this subsample of households. Of these men, 6,217 completed individual interviews, yielding a response rate of 99.5 percent.

Response rates among men were slightly higher in rural areas, while rates among women were almost the same in rural and urban areas.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Rwanda 2014-15

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	2,939	9,854	12,793
Households occupied	2,911	9,806	12,717
Households interviewed	2,895	9,804	12,699
Household response rate[1]	99.5	100.0	99.9
Interviews with women age 15-49			
Number of eligible women	3,446	10,118	13,564
Number of eligible women interviewed	3,427	10,070	13,497
Eligible women response rate[2]	99.4	99.5	99.5
Interviews with men age 15-59			
Number of eligible men	1,619	4,630	6,249
Number of eligible men interviewed	1,607	4,610	6,217
Eligible men response rate[2]	99.3	99.6	99.5

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

1.2.5 Anthropometry Measurements, Anemia, Malaria, and HIV Testing

In the subsample of households not selected for the male survey, blood specimens were collected from women age 15-49 and children age 6-59 months for measurement of anemia in the field. Blood specimens were collected and tested for malaria in the field using a rapid diagnostic test (RDT) and blood smears were collected dried and stained and later tested in the laboratory using a microscope. Additionally, in the household selected for male survey; one-half of households, blood specimens for HIV testing were collected from all women age 15-49 and men age 15-59 who consented to the test. HIV testing among children age 0-14 was implemented in 15 percent of the households with the consent of the child's parent or responsible guardian.

Sterile, non-reusable, self-retractable lancets were used to collect blood specimens for anemia, malaria, and HIV testing. The protocol for blood specimen collection and HIV testing was reviewed and approved by the Rwanda National Ethics Committee, the Institutional Review Board of ICF International, and the Centers for Disease Control and Prevention (CDC) in Atlanta.

Anthropometry

In the all of the households not selected for the male survey, height and weight measurements were recorded for children age 0-5, women age 15-49, and men age 15-59. Height and weight information was collected from eligible men in half of households selected for male survey.

Anemia testing

Blood specimens for hemoglobin measurement were collected from women age 15-49 and from all children age 6-59 months for whom consent was obtained from their parents or the adult responsible for them. Consent was also obtained from parents or responsible adults for young unmarried women age 15-17. The consent statement explained the purpose of the test, the procedures to be followed, the confidentiality of the results, and the voluntary nature of the test. It also indicated that the results would be made available as soon as the test was completed.

Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of children age 6-11 months) and collected in a microcuvette. Hemoglobin analysis was carried out on-site

using a battery-operated portable HemoCue analyzer. Results were provided verbally and in writing. Parents of children with a hemoglobin level under 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, non-pregnant women and pregnant women were referred for follow-up care if their hemoglobin levels were below 7 g/dl and 9 g/dl, respectively.

Malaria testing

Malaria diagnostic tests, including rapid diagnostic tests and tests using thick and thin blood smears, were conducted among eligible women and children. In the case of RDTs, a drop of blood was obtained by pricking the end of the finger, usually at the same time as anemia testing. RDT results were used to diagnose malaria and guide treatment of parasitic children during the survey. The parent or guardian of a child with a positive RDT result was provided with written results and the child was given artemisinin-based combination therapy (ACT) for treatment, according to the current malaria treatment guidelines. Women with a positive result were treated with ACT, while women with severe malaria were referred to the nearest health center for treatment. Thin and thick blood smears were also collected from eligible women (age 15-49) and children (age 6-59 months) who agreed to malaria testing. An informed consent statement was read to the eligible person or to the parent or adult responsible for a child or an unmarried young adult age 15-17.

A slide with a thick and thin blood smears was prepared, stained for all eligible women and children. These samples were collected two or three times weekly by survey supervisors, transmitted, to NISR for verification and stored at Parasitology and Entomology Laboratory for microscopic examination of malaria parasites, then referred to the National Reference Laboratory/RBC (NRL) for quality assurance and quality control. The RBC Malaria and Other Parasitic Diseases Division were in charge of internal and external quality control of malaria testing.

HIV testing

Interviewers collected finger-prick dried blood spot (DBS) specimens for laboratory testing of HIV from women age 15-49 and men age 15-59 who consented to be tested. Also, DBS specimens were collected from children age 0-14 with the consent of their parent or another responsible guardian. The protocol for DBS collection and analysis was based on the anonymous linked protocol developed for the DHS Program. This protocol allows for merging of HIV test results with background characteristics and other data collected in the individual questionnaires after removal of all information that could potentially identify an individual.

Interviewers explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to the respondent. If consent was given for HIV testing, four to five blood spots from the finger prick were collected on a filter paper card to which a barcode label unique to the respondent was affixed. A duplicate label was attached to the biomarker data collection form. A third copy of the barcode was affixed to the DBS transmittal sheet to track the blood samples from the field to the laboratory.

Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected from the field and transported to the NRL in Kigali. Upon arrival at the NRL, each blood sample was logged into the CSPro HIV Test Tracking System database and stored at -80˚C until tested.

The HIV testing protocol stipulated that blood could be tested only after questionnaire data collection had been completed, data had been verified and cleaned, and all unique identifiers other than the anonymous barcode number had been removed from the data file.

The testing algorithm calls for testing all samples on the first assay, the Vironostika® HIV Ag/Ab (Biomérieux) enzyme-linked immunoassay (ELISA I). A random 10 percent of samples deemed negative on

the ELISA I are subjected to a second ELISA (ELISA II),the Murex HIV Ag/Ab combination (DiaSorin); the other 90 percent are recorded as negative. All samples deemed positive on the ELISA I are subjected to the ELISA II. Concordant positive and negative results on the ELISA I and ELISA II are recorded as positive and negative, respectively. If the results of the first and second tests are discordant, a third confirmatory test, the HIV 2.2 western blot (DiaSorin), is administered. The final result is recorded as positive if the western blot confirms it to be positive and negative if the western blot confirms it to be negative. If the western blot results are indeterminate, the sample is recorded as indeterminate.

Polymerase chain reaction (PCR) was used in testing the specimens of children age 0-23 months.

After HIV testing had been completed, the test results for the 2014-15 RDHS were entered into a spreadsheet with a barcode as the unique identifier. The barcode was used to link the HIV test results with the data from the individual interviews.

All households, whether or not they were part of anthropometry, anemia, malaria, or HIV testing, were given a brochure explaining the causes and prevention of anemia, malaria, and HIV. Each respondent (whether providing consent or not) was given an informational brochure on HIV and a list of nearby sites providing HIV voluntary counseling and testing (VCT) services. Respondents who consented to HIV testing were given a voucher for transportation and a meal if they wished to receive free VCT services.

1.3 PRETEST

A pretest was conducted from August 25 to September 22, 2014. Thirty-four individuals (17 women and 17 men) participated in the four-week pretest training and fieldwork practice for the 2014-15 RDHS. The majority of participants had worked in previous RDHS surveys. Training was conducted by representatives from the NISR, the MOH, the RBC Malaria and Other Parasitic Diseases Division, the RBC HIV division, and the RBC NRL, with technical assistance from ICF International. UNICEF provided training on the early childhood development module. Classroom instruction was provided during the first three weeks, and pretest fieldwork took place over five days in three rural villages and two urban villages. After the fieldwork, a debriefing session was held with the pretest field staff, and modifications to the questionnaires were made based on lessons drawn from the exercise.

1.4 TRAINING OF FIELD STAFF

The main training for the 2014-15 RDHS started on October 5, 2014, and ended on November 2, 2014. A total of 136 participants from across the country were invited to participate in the training. They were selected based on merit. Eighty-eight of the participants were female, and 48 were male. From October 6-25, the training focused on the questionnaires. These sessions were conducted by NISR trainers with support from ICF International. Class presentations by trainers were followed by mock interviews, group practice, and role playing among participants in the classroom. Guest speakers and experts (e.g., from the MOH, the RBC, and UNICEF) made brief presentation son the national health strategies related to nutrition, contraception, malaria, maternal and child health, the HIV voluntary counseling and testing component, and early childhood development before the questionnaire training session corresponding to each of these topics. This led to an understanding among fieldworkers that items included in the questionnaire would be useful in evaluating these health topics.

All participants were trained on the questionnaires through October 26. From October 27-30, 34 participants identified as health technicians were separated and trained on biomarkers. Meanwhile, the remaining participants continued to be trained on the questionnaires. Training on biomarkers was provided by representatives from the NRL with support from ICF International. Health technicians learned how to

withdrawal blood samples for HIV testing, how to prepare blood slides for malaria testing, and how to conduct anemia and rapid malaria testing. In addition, procedures for handling and packaging dried blood spots and slides were reviewed and demonstrated. Training on taking anthropometry measurements (weight and height) was also covered in detail. Training included PowerPoint presentations to illustrate procedures and emphasized practice among lab technicians in order to ensure accuracy.

At the end of the main training, 17 teams were formed, each consisting of a team leader, a field editor, a health technician, a male interviewer, and three female interviewers. Team leaders received additional training on how to identify the selected households and different subsamples, data quality control procedures, and fieldwork coordination. Field editors received additional training on how to edit the questionnaires and on data quality control procedures.

1.5 FIELDWORK

Data collection for the 2014-15 RDHS was carried out by 17 field teams from November 9, 2014, to April 8, 2015. Each team was provided a vehicle with a driver. All questionnaires and blood specimens were transferred to the NISR office every 3-4 days by 10 supervisors from the NISR and NRL/RBC who also coordinated and supervised fieldwork activities. ICF International provided technical assistance during the entire five months of data collection period.

1.6 DATA PROCESSING

The processing of the 2014-15 RDHS data began as soon as questionnaires were received from the field. Completed questionnaires were returned to NISR headquarters. The numbers of questionnaires and blood samples (DBS and malaria slides) were verified by two receptionists. Questionnaires were then checked, and open-ended questions were coded by four editors who had been trained for this task and who had also attended the questionnaire training sessions for the field staff. Blood samples (DBS and malaria slides) with transmittal sheets were sent respectively to the RBC/NRL and Parasitological and Entomology Laboratory to be screened for HIV and tested for malaria.

Questionnaire data were entered via the CSPro computer program by 17 data processing personnel who were specially trained to execute this activity. Data processing was coordinated by the NISR data processing officer. ICF International provided technical assistance during the entire data processing period.

Processing the data concurrently with data collection allowed for regular monitoring of team performance and data quality. Field check tables were generated regularly during data processing to check various data quality parameters. As a result, feedback was given on a regular basis, encouraging teams to continue in areas of high quality and to correct areas of needed improvement. Feedback was individually tailored to each team. Data entry, which included 100 percent double entry to minimize keying errors, and data editing were completed on April 26, 2015. Data cleaning and finalization were completed on May 15, 2015.

HOUSEHOLD CHARACTERISTICS 2

Key Findings

- The mean size of a Rwandan household is 4.3 persons.
- Thirty-one percent of households are headed by women.
- Seventy-three percent of households use an improved source of drinking water.
- More than four in 10 households (44 percent) use an appropriate method to treat drinking water, primarily boiling (38 percent).
- Fifty-four percent of households have an improved, not shared sanitation facility.
- Almost one in four households (23 percent) have electricity.
- Three in five (60 percent) Rwandan households own a mobile phone.
- Fifty-six percent of children under age 5 have had their births registered.
- Nine percent of children under age 18 are orphan with one or both parent dead.
- Almost three-quarters of Rwandan adults are covered by health insurance.

A household is a person or a group of persons, related or unrelated, who live together and share common cooking and eating arrangements; it is often a domestic unit consisting of the members of a family who live together, with or without nonrelatives such as servants. This chapter summarizes demographic and socioeconomic characteristics of the people who live in the households in Rwanda that were sampled during the 2014-15 RDHS. The Household Questionnaire collected basic demographic and socioeconomic information (e.g., age, sex, educational attainment, and current school attendance) for all usual residents and visitors who slept in the household the night preceding the interview. This method of data collection allowed for analysis of the results for either the de jure population (usual residents) or the de facto population (persons in the household at the time of the survey). The Household Questionnaire also collected information on housing facilities, including dwelling characteristics, source of water supply, sanitation facilities, and household assets.

The information in this chapter is intended to facilitate interpretation of key demographic, socioeconomic, and health indices presented later in the report. It will also assist in the assessment of the representativeness of the survey sample.

2.1 HOUSEHOLD POPULATION BY AGE AND SEX

Table 2.1 shows the distribution by age and sex of the household population surveyed, according to urban-rural residence. The household survey involved 53,844 respondents, of whom 44,780 (83 percent) lived in rural areas and 9,064 (17 percent) lived in urban areas.

The distribution of the household population by age and sex is further depicted by the population pyramid in Figure 2.1. The pyramid is wide at the base, narrowing rapidly as it reaches the upper age limits, an indication of a population with high fertility. Although the base of the pyramid (age 0-4) remains large, it is narrower than the bars for the age group 5-9. This pattern reflects a recent decline in fertility. In addition, there

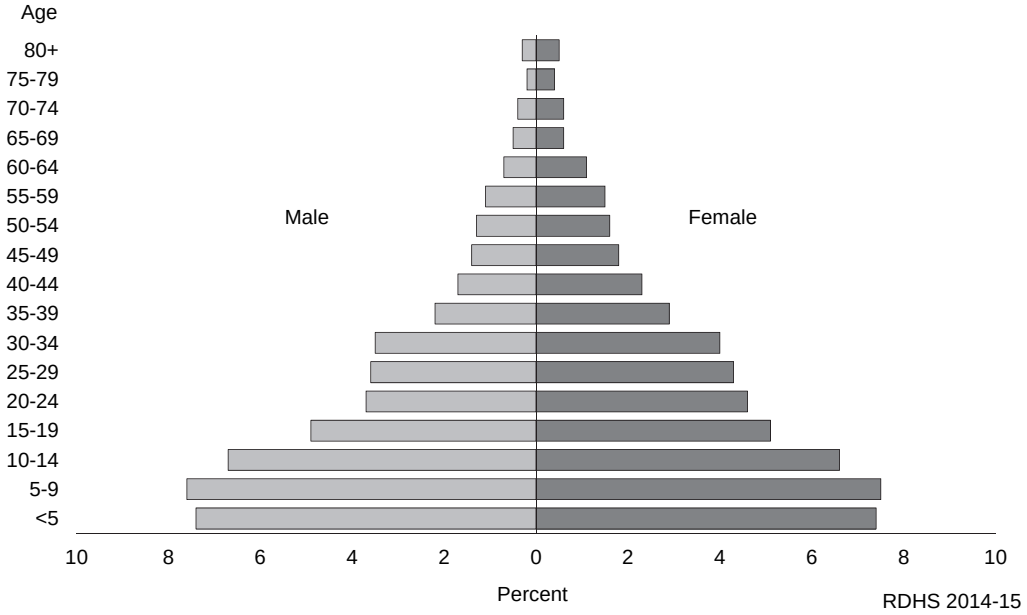
is a notable gender imbalance: there are 89 males for every 100 females in the total population. Further analysis reveals structural elements peculiar to the Rwandan population. First, both the male and female populations drop significantly from 10-14, to 15-19 and 30-34 to 35-39 age groups. The fall in the population at age 10-14 might relate to child mortality in previous years. The drop in the age 15-19 group can be directly attributed to the low birth rate during 1994-1999, while the fall observed in the 35-39 age group might be the effect of the genocide in 1994. The shape of the pyramid gradually evolves over time based on fertility, mortality, and international migration trends.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Rwanda 2014-15

	Urban			Rural			Rwanda		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	14.6	13.8	14.2	15.9	13.9	14.9	15.7	13.9	14.8
5-9	13.8	12.0	12.9	16.7	14.6	15.6	16.2	14.2	15.1
10-14	11.6	10.4	11.0	14.8	13.0	13.8	14.2	12.5	13.3
15-19	9.4	12.1	10.8	10.6	9.2	9.9	10.4	9.7	10.0
20-24	10.9	11.9	11.4	7.2	8.1	7.6	7.8	8.7	8.3
25-29	10.5	10.7	10.6	6.9	7.5	7.2	7.5	8.1	7.8
30-34	9.5	9.0	9.3	6.9	7.3	7.1	7.4	7.6	7.5
35-39	5.7	6.1	5.9	4.4	5.4	4.9	4.6	5.5	5.1
40-44	4.4	4.2	4.3	3.5	4.5	4.0	3.7	4.4	4.1
45-49	3.0	2.7	2.8	3.0	3.6	3.3	3.0	3.4	3.2
50-54	2.2	1.9	2.1	2.9	3.3	3.1	2.7	3.1	2.9
55-59	1.3	1.7	1.5	2.4	3.0	2.7	2.2	2.8	2.5
60-64	1.1	1.1	1.1	1.7	2.2	2.0	1.6	2.0	1.8
65-69	0.7	0.6	0.7	1.1	1.3	1.2	1.0	1.2	1.1
70-74	0.4	0.8	0.6	0.8	1.3	1.1	0.8	1.2	1.0
75-79	0.3	0.5	0.4	0.5	0.8	0.6	0.4	0.7	0.6
80+	0.3	0.6	0.4	0.8	1.0	0.9	0.7	0.9	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,430	4,634	9,064	20,985	23,793	44,780	25,415	28,427	53,844

Figure 2.1 **Population pyramid**



2.2 HOUSEHOLD COMPOSITION

Table 2.2 shows that the mean size of a Rwandan household is 4.3 persons. It has decreased slightly from the mean household size of 4.6 found in the 2005 RDHS and the mean of 4.4 found in the 2010 RDHS. Mean household size varies somewhat by residence, with 4.1 members in urban areas and 4.3 in rural areas. In addition, Table 2.2 shows that 69 percent of Rwandan households are headed by men and 31 percent by women. By residence, female-headed households represent 32 percent of all households in rural areas and 27 percent in urban areas. After increasing significantly from 21 percent to 36 percent between 1992 and 2000, the percentage of female-headed households has dropped in ensuing years, from 34 percent in 2005 and 33 percent in 2010 to 31 percent in 2014-15. More than half of all households (53 percent) contain three to five people, 23 percent have six to eight people, and 3 percent have nine or more people. One-person households make up only 8 percent of all households.

Table 2.2 also shows that 25 percent of households have foster and/or orphaned children; 20 percent have foster children, 11 percent have single orphans, and 2 percent have double orphans. No significant variation exists between rural and urban areas.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size, mean size of household, and percentage of households with orphans and foster children under age 18, according to residence, Rwanda 2014-15

	Residence		
Characteristic	Urban	Rural	Total
Household headship			
Male	72.7	68.2	69.0
Female	27.3	31.8	31.0
Total	100.0	100.0	100.0
Number of usual members			
1	12.4	7.3	8.2
2	14.3	11.9	12.3
3	16.6	18.8	18.5
4	17.8	19.6	19.3
5	13.9	15.9	15.6
6	9.9	12.6	12.1
7	7.3	7.4	7.4
8	3.7	3.7	3.7
9+	4.2	2.7	3.0
Total	100.0	100.0	100.0
Mean size of households	4.1	4.3	4.3
Percentage of households with orphans and foster children under age 18			
Foster children[1]	19.9	19.5	19.6
Double orphans	1.9	1.7	1.7
Single orphans[2]	9.8	11.1	10.9
Foster and/or orphan children	23.9	25.5	25.3
Number of households	2,188	10,511	12,699

Note: Table is based on de jure household members, i.e., usual residents.
[1] Foster children are those under age 18 living in households with neither their mother nor their father present.
[2] Includes children with one dead parent and an unknown survival status of the other parent

2.3 EDUCATIONAL ATTAINMENT

Tables 2.3.1 and 2.3.2 show the percent distribution of the female and male household populations according to highest level of education attained, by age, residence, province, and household wealth quintile. Educational attainment is important: it contributes to improved living conditions not only for the individual household but for society as a whole. Reproductive behavior, use of contraception, health habits, school attendance of household members, and habits relating to hygiene and nutrition are all influenced by educational attainment.

The data in these two tables show that 19 percent of women and 13 percent of men have never attended school. A comparison of these proportions with those of the previous survey shows improvement: at the time of the 2010 survey, 22 percent of women and 16 percent of men had no education at all. The percentage of women and men who have completed only primary school is nearly identical (14 percent for women and 14 percent for men). As educational attainment increases, the percentage of both women and men in these categories decreases: only 3 percent of women and men have completed a secondary-level education, and 2 percent of women and 3 percent of men have attended any schooling beyond the secondary level.

Table 2.3.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Rwanda 2014-15

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	22.6	77.3	0.0	0.0	0.0	0.0	0.1	100.0	3,279	0.2
10-14	1.7	89.1	2.0	7.2	0.0	0.0	0.0	100.0	3,567	2.7
15-19	1.4	42.0	16.3	39.2	1.1	0.1	0.0	100.0	2,756	5.3
20-24	4.8	41.6	14.6	25.3	11.2	2.4	0.0	100.0	2,466	5.2
25-29	10.7	52.6	16.7	6.7	7.9	5.4	0.0	100.0	2,292	3.9
30-34	16.4	50.0	20.6	5.1	3.8	4.1	0.0	100.0	2,147	3.7
35-39	17.5	36.9	33.4	6.5	3.3	2.4	0.1	100.0	1,575	4.5
40-44	24.2	32.0	35.1	3.5	2.2	2.9	0.0	100.0	1,257	4.1
45-49	35.6	26.7	31.6	3.7	0.6	1.8	0.0	100.0	980	2.7
50-54	46.4	31.8	16.7	2.7	1.5	0.9	0.2	100.0	869	0.6
55-59	50.1	30.7	16.8	0.5	1.6	0.3	0.1	100.0	790	0.0
60-64	61.2	26.2	9.7	2.0	0.7	0.2	0.0	100.0	577	0.0
65+	75.1	20.7	3.0	0.8	0.1	0.0	0.3	100.0	1,153	0.0
Residence										
Urban	9.7	41.5	14.9	17.7	8.6	7.5	0.0	100.0	3,890	4.9
Rural	20.8	54.1	14.0	8.9	1.8	0.4	0.0	100.0	19,818	2.6
Province										
City of Kigali	9.8	41.4	16.8	16.0	8.7	7.2	0.1	100.0	2,562	4.9
South	19.1	53.5	15.0	9.1	2.2	1.1	0.1	100.0	5,867	2.8
West	21.0	53.5	11.7	10.1	2.7	1.0	0.0	100.0	5,386	2.6
North	19.4	50.8	15.4	11.4	2.2	0.8	0.0	100.0	3,971	3.0
East	20.7	54.6	13.5	8.8	1.7	0.7	0.0	100.0	5,923	2.5
Wealth quintile										
Lowest	30.2	57.1	8.5	3.8	0.4	0.0	0.0	100.0	4,806	1.3
Second	23.0	57.1	12.7	6.8	0.4	0.0	0.0	100.0	4,785	2.2
Middle	19.5	55.1	15.6	8.4	1.4	0.1	0.1	100.0	4,697	2.8
Fourth	14.3	51.3	17.7	13.5	2.7	0.5	0.0	100.0	4,720	3.5
Highest	7.8	39.3	16.3	19.5	9.7	7.4	0.0	100.0	4,701	5.2
Total	19.0	52.0	14.1	10.3	2.9	1.6	0.0	100.0	23,709	2.9

Note: Total includes one woman with age missing.
[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

The percentage of women and men who have completed primary school or higher has increased since 2010, from 19 percent to 29 percent among women and from 22 percent to 30 percent among men. The figures for 2014-15 also show significant gains across generations. For example, among females, the proportion with

no education drops from 75 percent for women age 65 and over to 2 percent for girls between age 10 and age 14. The percentage among males in these age groups drops from 41 percent to 3 percent. In addition, the gap in educational attainment between the sexes has narrowed in the younger age groups. For example, among those age 25-29, only 37 percent of women have completed primary school or higher, as compared with 44 percent of men. However, among those age 20-24, the proportions are almost identical: 54 percent of women and 55 percent of men. The gender gap reverses among those age 15-19, with 57 percent of women and only 46 percent of men have completed primary school or higher.

Table 2.3.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Rwanda 2014-15

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	23.7	76.2	0.0	0.0	0.0	0.0	0.1	100.0	3,316	0.1
10-14	2.9	90.2	1.5	5.4	0.0	0.0	0.1	100.0	3,619	2.4
15-19	2.2	51.4	12.1	33.4	0.9	0.0	0.0	100.0	2,639	4.8
20-24	4.3	40.3	15.4	24.5	10.8	4.6	0.0	100.0	1,990	5.3
25-29	8.2	48.1	17.5	8.5	9.3	8.2	0.1	100.0	1,912	4.5
30-34	14.1	46.9	22.9	5.6	4.5	6.0	0.0	100.0	1,879	4.2
35-39	15.9	33.0	36.2	5.8	3.6	5.5	0.0	100.0	1,175	5.0
40-44	16.0	34.5	33.6	7.5	3.6	4.5	0.3	100.0	933	4.9
45-49	22.8	28.9	36.2	5.4	2.6	4.0	0.0	100.0	767	4.7
50-54	27.9	37.1	25.4	3.4	3.3	2.5	0.4	100.0	698	2.9
55-59	28.0	40.1	24.6	2.9	2.3	2.1	0.0	100.0	570	2.9
60-64	33.0	41.2	18.3	3.7	1.8	2.1	0.0	100.0	402	2.4
65+	40.5	40.0	14.0	2.8	1.3	1.1	0.3	100.0	739	1.6
Residence										
Urban	7.0	42.3	16.5	15.8	8.3	10.0	0.1	100.0	3,663	5.0
Rural	14.7	59.4	13.8	8.9	2.0	1.1	0.1	100.0	16,978	2.7
Province										
City of Kigali	7.1	42.2	18.8	13.7	8.3	9.7	0.2	100.0	2,415	5.0
South	14.6	58.8	13.7	8.7	2.1	1.8	0.2	100.0	4,986	2.6
West	15.1	56.9	12.7	10.3	3.2	1.8	0.1	100.0	4,651	2.9
North	12.8	57.7	15.6	9.5	2.6	1.8	0.0	100.0	3,384	3.0
East	13.9	59.1	13.4	10.0	2.1	1.4	0.0	100.0	5,205	2.8
Wealth quintile										
Lowest	23.9	64.2	7.4	4.2	0.3	0.0	0.0	100.0	3,613	1.3
Second	16.5	62.1	13.2	7.0	1.0	0.1	0.2	100.0	3,896	2.4
Middle	13.4	60.4	15.3	8.6	1.9	0.3	0.1	100.0	4,175	2.8
Fourth	9.7	57.1	17.4	11.5	2.8	1.4	0.1	100.0	4,372	3.4
Highest	5.8	40.9	16.9	17.5	8.8	10.1	0.0	100.0	4,585	5.2
Total	13.4	56.3	14.3	10.1	3.1	2.6	0.1	100.0	20,641	3.0

Note: Total includes two men with age missing.
[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

By residence, the data show significant gaps in educational attainment. In rural areas, 21 percent of women and 15 percent of men have no education, as compared with 10 percent of women and 7 percent of men in urban areas. There are also variations among provinces. The City of Kigali has the lowest percentage of residents with no education (10 percent of women and 7 percent of men). Conversely, the West province has the highest proportion of women and men with no education (21 percent and 15 percent, respectively). As level of educational attainment increases, the gaps between the provinces widen: in the City of Kigali, 16 percent of women have completed secondary school or higher, as compared with 2 percent to 4 percent in other provinces; among men, 18 percent have completed secondary school or higher, compared with 4 percent to 5 percent in other provinces. Results by wealth quintile show that the proportions of both women and men with no education decrease as the household standard of living increases. Conversely, educational level increases with household wealth: 17 percent of women and 19 percent of men in the highest quintile have completed secondary school or higher, as compared with less than 1 percent of women and men in the lowest quintile. In

households in the highest wealth quintile, there is practically no gap in educational attainment between women and men up to the secondary level.

2.4 SCHOOL ATTENDANCE

The level of school attendance of children is the primary indicator of a population's access to education and, indirectly, its socioeconomic development. The 2014-15 RDHS asked questions concerning school attendance of all respondents between age 3 and age 24. Table 2.4 shows net attendance ratios (NARs) and gross attendance ratios (GARs) by sex and level of schooling, according to background characteristics.

Net school attendance ratios measure school attendance among children who have reached the official school age. At the primary school level, the NAR is the percentage of the primary school age population (age 7-12 in Rwanda) that actually attends primary school. Table 2.4 shows that the primary-level NAR is 92 percent, which means that slightly more than 9 in 10 children in Rwanda between age 7 and 12 attend primary school. The ratio is the same in urban and rural areas (92 percent). In the provinces, the ratio ranges from a high of 93 percent in North to a low of 91 percent in South. Household wealth also affects the NAR, which is 86 percent among children in the lowest wealth quintile and 95 percent and 94 percent among children in the middle and fourth quintiles, respectively. The NAR is slightly higher for female children (92 percent) than for male children (91 percent).

At the secondary level, where children are age 13-18, the NAR is much lower, at 29 percent; that is, only 29 percent of the official secondary school age population actually attends school. There are notable disparities between the sexes (32 percent for females versus 27 percent for males). The NAR is higher in urban areas than in rural areas (39 percent and 27 percent, respectively). By province, there is a gap between West, with an NAR of 33 percent, and the other provinces, whose NARs are between 25 percent (East) and 31 percent (City of Kigali). NARs clearly increase with increasing wealth, from 15 percent in the lowest quintile to 43 percent in the highest quintile.

Table 2.4 also shows gross school attendance ratios. Unlike the NAR, the GAR measures school attendance among young people regardless of age. The GAR for primary school is the total number of students of any age attending primary school, expressed as a percentage of the official primary school age population (age 7-12). Unless there are significant numbers of overage and underage students at a given level of schooling, the GAR is always higher than the NAR and can, in some cases, exceed 100 percent. In Rwanda, the GAR at the primary level is 136 percent, which means that a significant proportion of children who do not fall into the official primary school age category are attending school at the primary level. These are likely to be children over age 12 or under age 7 who are attending primary school; in fact, a program exists to reintegrate children who drop out of primary school for any reason. In 2010, the GAR was higher for girls than for boys (146 percent versus 141 percent); in 2014-15, by contrast, the GAR was slightly higher for boys than girls (137 percent versus 135 percent).

At the secondary level, the GAR is low (40 percent). The reason is either that official secondary school age children are still in primary school or that they have dropped out of secondary school or never attended at all. The ratio is different for girls (43 percent) and boys (37 percent), and it is higher in urban areas than in rural areas (54 percent versus 37 percent). In 2010, City of Kigali had by far the highest secondary school GAR. In 2014-15, however, West had the highest GAR (47 percent), followed by City of Kigali and North (42 percent each).East had the lowest GAR (34 percent). The GAR increases with increasing wealth, from 20 percent in the lowest quintile to 59 percent in the highest quintile.

Table 2.4 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling, and the gender parity index (GPI), according to background characteristics, Rwanda 2014-15

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index[3]	Male	Female	Total	Gender parity index[3]
PRIMARY SCHOOL								
Residence								
Urban	93.3	90.1	91.7	0.97	141.0	133.6	137.4	0.95
Rural	90.9	92.8	91.8	1.02	136.6	135.7	136.2	0.99
Province								
City of Kigali	91.8	91.9	91.8	1.00	142.3	139.9	141.2	0.98
South	90.4	90.7	90.6	1.00	135.2	134.2	134.7	0.99
West	91.1	92.8	92.0	1.02	139.3	132.7	135.9	0.95
North	91.3	94.2	92.7	1.03	136.1	136.8	136.5	1.01
East	91.8	92.6	92.2	1.01	136.5	136.7	136.6	1.00
Wealth quintile								
Lowest	84.5	86.6	85.5	1.02	122.3	122.9	122.6	1.00
Second	90.1	93.7	91.9	1.04	131.6	139.1	135.4	1.06
Middle	94.1	95.3	94.7	1.01	145.2	138.1	141.5	0.95
Fourth	94.1	94.7	94.4	1.01	148.2	139.4	143.8	0.94
Highest	93.5	91.6	92.6	0.98	138.9	137.9	138.4	0.99
Total	91.2	92.4	91.8	1.01	137.2	135.4	136.3	0.99
SECONDARY SCHOOL								
Residence								
Urban	40.2	38.7	39.4	0.96	57.7	50.7	53.9	0.88
Rural	24.1	29.9	26.9	1.24	33.7	40.8	37.2	1.21
Province								
City of Kigali	32.5	29.2	30.7	0.90	48.4	36.6	41.8	0.76
South	24.3	29.1	26.7	1.20	33.4	40.7	37.0	1.22
West	28.6	38.0	33.1	1.33	42.2	52.6	47.2	1.25
North	26.4	36.2	31.6	1.37	36.4	46.7	41.8	1.28
East	24.9	25.3	25.1	1.01	33.8	34.7	34.3	1.03
Wealth quintile								
Lowest	13.6	15.5	14.6	1.14	19.2	20.9	20.1	1.09
Second	20.5	23.2	21.9	1.14	27.0	29.3	28.2	1.08
Middle	22.7	29.6	26.0	1.30	33.5	39.9	36.6	1.19
Fourth	27.4	39.3	33.0	1.43	38.9	55.3	46.6	1.42
Highest	42.9	43.1	43.0	1.00	60.3	57.9	59.0	0.96
Total	26.5	31.5	29.0	1.19	37.4	42.6	40.0	1.14

[1] The NAR for primary school is the percentage of the primary school age (7-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary school age (13-18 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary school age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary school age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
[3] The gender parity index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The gender parity index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

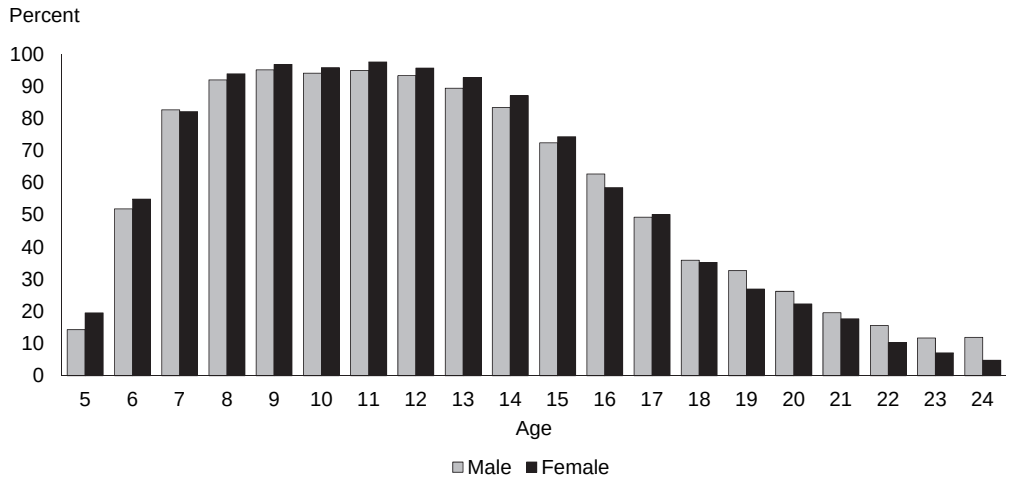
The table also includes a third school attendance indicator: the gender parity index (GPI), which is the ratio of the NAR/GAR for females to the NAR/GAR for males. The narrower the gap between the sexes, the closer the index is to 1. The NAR GPI for primary school is 1.01, and there are only minimal variations according to residence, province, or wealth quintile. This indicates an absence of disparity between the sexes.

The NAR GPI for secondary school is 1.19; this indicates that boys are somewhat educationally disadvantaged at this level. The inequality is greater in rural areas, which have a GPI of 1.24 compared with 0.96 in urban areas.

Figure 2.2 shows that the rate of school attendance, which is low at age 5, begins to increase at age 6 and reaches a high level between age 9 and age 12. This period corresponds to the primary school years for

children in classes three, four, five, and six in the normal primary cycle. After age 12, the age at the beginning of the secondary cycle, the curve declines steadily, reaching its lowest point at age 24. It should also be noted that the proportion of females who attend school is higher than the proportion of males at age 5, age 6, and age 8-15, while the situation generally reverses beginning at age 16.

Figure 2.2 **Age-specific attendance rates**



Note: Figure shows percentage of the de jure household population age 5-24 years attending school

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2.5 HOUSEHOLD CONDITIONS

The Household Questionnaire gathered information on certain household characteristics: access to electricity, source of drinking water, type of toilet facilities, and type of roofing and flooring materials. Information was also sought concerning ownership of various modern durable goods, including a radio, television, mobile phone, refrigerator, bicycle, motorcycle/scooter, and car/truck. Household characteristics and ownership of durable goods were used to evaluate the socioeconomic conditions of the household.

2.5.1 Household Drinking Water

With respect to drinking water, Table 2.5 shows, at the national level, that 73 percent of households have access to an improved source of drinking water. Protected springs are the most common improved source of drinking water used by households (32 percent), followed by public taps/standpipes (27 percent). Only 10 percent of households have running water in their dwelling, yard, or plot. Overall, 27 percent of households use unimproved sources of water, which are considered unhealthy. For example, 14 percent of households use an unprotected spring as a water source, which increases household members' risk of contracting diarrhea and other waterborne diseases.

With respect to residence, it appears that urban households are more likely than rural households to use improved drinking water (91 percent versus 69 percent). In contrast, 31 percent of households in rural areas use unsafe drinking water, as compared with 9 percent of those in urban areas. In fact, 16 percent of rural households collect their water from an unprotected spring, 13 percent collect it from surface water, and 2 percent retrieve it from an unprotected well.

Regarding the time spent in round-trip travel to obtain drinking water, Table 2.5 shows that slightly less than half of households (49 percent) spend 30 minutes or longer to get to the water source and return, and 41 percent spend fewer than 30 minutes. Only 11 percent of households have water on their premises. Fifty-

five percent of households in rural areas take 30 minutes or longer to obtain drinking water, as compared with 19 percent of households in urban areas. The proportions of households that spend less than 30 minutes to obtain drinking water vary slightly between rural areas (41 percent) and urban areas (38 percent).

With respect to treatment of water prior to drinking, 44 percent of households use an appropriate treatment method prior to drinking, while the other 56 percent do not treat their water prior to drinking.

Table 2.5 Household drinking water

Percent distribution of households and de jure population by source of drinking water, time to obtain drinking water, and treatment of drinking water, according to residence, Rwanda 2014-15

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	90.9	69.2	72.9	90.4	68.7	72.3
Piped into dwelling/yard/plot	42.1	2.7	9.5	43.6	2.8	9.6
Public tap/standpipe	39.3	24.8	27.3	37.7	24.2	26.5
Tube well or borehole	0.8	1.6	1.4	0.9	1.7	1.6
Protected well	0.5	2.3	2.0	0.5	2.2	1.9
Protected spring	7.8	37.0	32.0	7.4	37.0	32.0
Rain water	0.3	0.8	0.7	0.4	0.9	0.8
Non-improved source	8.9	30.8	27.0	9.5	31.2	27.6
Unprotected well	0.5	1.9	1.7	0.6	2.0	1.7
Unprotected spring	3.6	15.8	13.7	3.9	15.9	13.9
Tanker truck/cart with tank	0.0	0.1	0.1	0.0	0.1	0.1
Surface water	4.8	13.0	11.6	5.0	13.3	11.9
Other	0.1	0.0	0.0	0.1	0.0	0.0
Missing	0.0	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises	43.2	3.7	10.5	44.5	3.9	10.7
Less than 30 minutes	37.7	41.3	40.7	36.0	40.7	39.9
30 minutes or longer	19.0	54.8	48.7	19.5	55.3	49.3
Don't know/missing	0.0	0.2	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[1]						
Boiled	62.4	33.2	38.3	64.9	33.5	38.7
Bleach/chlorine added	4.6	4.8	4.8	5.0	5.2	5.2
Strained through cloth	0.1	0.1	0.1	0.1	0.2	0.2
Ceramic, sand, or other filter	2.2	3.8	3.5	2.4	4.1	3.8
Solar disinfection	0.2	0.0	0.0	0.2	0.0	0.0
Let it stand	0.3	0.5	0.4	0.2	0.4	0.4
Other	0.4	0.1	0.1	0.4	0.1	0.1
No treatment	32.8	60.2	55.5	30.2	59.4	54.5
Percentage using an appropriate treatment method[2]	66.6	39.4	44.1	69.3	40.2	45.0
Number	2,188	10,511	12,699	9,033	45,052	54,085

[1] Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent.
[2] Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting.

The most common method to treat water prior to drinking is boiling (38 percent), followed by adding bleach/chlorine (5 percent) and using ceramic/sand or another filter (4 percent). Households in rural areas are more likely to drink untreated water (60 percent) than those in urban areas (33 percent).

2.5.2 Household Sanitation Facilities

With respect to type of toilet facilities, Table 2.6 shows that 54 percent of households have access to an improved, unshared toilet facility (57 percent in rural areas and 42 percent in urban areas). Only 1 percent of households have toilets that flush to a piped sewer system, while 4 percent use a ventilated improved pit (VIP) latrine. However, almost half of households (48 percent) use unshared pit latrines with a slab. These

toilets are considerably more common in rural households than urban households (52 percent and 30 percent, respectively). Seventeen percent of Rwandan households use a toilet facility that would be considered improved except that it is shared with other households; most of these facilities are pit latrines with slabs (15 percent).

Twenty-nine percent of households use an unimproved facility, with the majority (24 percent) using a pit latrine without a slab or an open pit. Twenty-seven percent of rural households and 11 percent of urban households use this type of facility. It should be noted that 4 percent of households in Rwanda have no sanitation facility at all (1 percent in urban areas and 4 percent in rural areas). It is interesting to note that rural households are more likely to have improved and not shared facilities. Although urban households have more improved facilities, they are mostly shared with other households.

Table 2.6 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Rwanda 2014-15

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility						
Flush/pour flush to piped sewer system	5.7	0.2	1.1	6.6	0.2	1.3
Flush/pour flush to septic tank	1.3	0.0	0.2	1.5	0.0	0.3
Flush/pour flush to pit latrine	1.2	0.1	0.3	1.4	0.1	0.3
Ventilated improved pit (VIP) latrine	4.1	3.8	3.8	5.3	4.1	4.3
Pit latrine with slab	29.7	51.9	48.0	34.6	55.0	51.6
Composting toilet	0.2	0.6	0.6	0.1	0.6	0.5
Total	42.1	56.6	54.1	49.5	60.0	58.3
Shared facility[1]						
Flush/pour flush to piped sewer system	0.7	0.0	0.1	0.6	0.0	0.1
Flush/pour flush to septic tank	0.0	0.0	0.0	0.0	0.0	0.0
Flush/pour flush to pit latrine	0.4	0.0	0.1	0.4	0.0	0.1
Ventilated improved pit (VIP) latrine	4.4	0.7	1.4	3.8	0.6	1.1
Pit latrine with slab	38.5	10.6	15.4	31.9	8.5	12.4
Composting toilet	0.2	0.1	0.1	0.1	0.1	0.1
Total	44.2	11.5	17.1	36.9	9.2	13.8
Non-improved facility						
Flush/pour flush not to sewer/septic tank/pit latrine	0.8	0.2	0.3	0.8	0.2	0.3
Pit latrine without slab/open pit	11.2	27.1	24.3	11.4	27.0	24.4
Bucket	0.0	0.0	0.0	0.0	0.0	0.0
No facility/bush/field	1.4	4.4	3.9	1.1	3.4	3.0
Other	0.2	0.1	0.1	0.3	0.1	0.1
Missing	0.0	0.1	0.1	0.0	0.1	0.1
Total	13.7	32.0	28.8	13.6	30.8	27.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,188	10,511	12,699	9,033	45,052	54,085

[1] Facilities that would be considered improved if they were not shared by two or more households

2.5.3 Household Hand Washing Places

Washing hands with water and soap before eating, while preparing food, and after leaving the toilet is a simple, inexpensive, and good practice that protects against many diseases. During the survey, the interviewers asked each household if there was a place used for hand washing, and, if so, they asked if they could observe the place to see if water and soap or some other cleansing agent was available.

Table 2.7 shows that only 12 percent of households had a place for hand washing that was observed by an interviewer. Among households where there was a place for hand washing, over one third (37 percent) had water and soap. Nearly one in seven households had water only, and the same proportion had soap but no water. In urban areas, 20 percent of households had a place for hand washing, as compared with 10 percent of

households in rural areas. Among households where place for hand washing was observed sixty-seven percent had soap and water available in urban area compared with only 25 percent in rural area. A higher percentage of rural than urban households had no water, no soap, and no other cleansing agent available (39 percent versus 12 percent among household where a place for hand washing was observed).

Among the provinces, households in North and East are least likely to have a place for hand washing (7 percent and 8 percent, respectively). In contrast, 13 percent of households in West, 14 percent in South, and 17 percent in City of Kigali have a place for hand washing. Among households where a place for hand washing was observed, households the highest percentage of household with soap and water is in City of Kigali 83 percent) while the lowest is in West (11 percent). The proportion of households with a place for hand washing increases with increasing wealth, from 9 percent among households in the lowest three quintiles to 20 percent of those in the highest quintile. Half of households in the lowest wealth quintile (50 percent) had no water, soap, or other cleansing agent available, as compared with only 9 percent of households in the highest quintile.

Table 2.7 Hand washing

Percentage of households in which the place most often used for washing hands was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, according to residence, province, and wealth quintile, Rwanda 2014-15

Background characteristic	Percentage of households where place for washing hands was observed	Number of households	Among households where place for hand washing was observed, percentage with: Soap and water[1]	Water and cleansing agent[2] other than soap only	Water only	Soap but no water[3]	Cleansing agent other than soap only[2]	No water, no soap, no other cleansing agent	Missing	Total	Number of households with place for hand washing observed
Residence											
Urban	19.5	2,188	66.9	0.3	10.3	8.9	0.0	11.9	1.8	100.0	426
Rural	9.8	10,511	25.1	0.2	17.1	17.4	0.2	38.5	1.4	100.0	1,028
Province											
City of Kigali	16.8	1,496	83.3	0.0	6.9	1.2	0.0	5.8	2.8	100.0	251
South	13.8	3,103	25.2	0.5	21.8	4.3	0.3	46.3	1.6	100.0	427
West	13.1	2,789	11.1	0.3	5.5	49.9	0.0	32.9	0.3	100.0	367
North	7.0	2,090	24.8	0.0	27.0	7.3	0.9	37.9	2.1	100.0	147
East	8.1	3,221	57.1	0.0	18.7	0.9	0.0	22.0	1.4	100.0	262
Wealth quintile											
Lowest	9.0	2,920	9.3	0.0	18.1	21.3	0.0	50.3	1.0	100.0	262
Second	8.8	2,636	15.0	0.0	11.3	24.7	1.0	47.6	0.5	100.0	233
Middle	9.4	2,441	24.9	0.4	16.4	20.5	0.0	36.8	0.9	100.0	230
Fourth	10.4	2,290	34.2	0.4	19.9	13.0	0.0	31.7	0.8	100.0	238
Highest	20.4	2,412	70.4	0.2	12.4	5.3	0.0	8.9	2.8	100.0	492
Total	11.5	12,699	37.4	0.2	15.1	14.9	0.2	30.7	1.5	100.0	1,455

[1] Soap includes soap or detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.
[2] Cleansing agents other than soap include locally available materials such as ash, mud, or sand.
[3] Includes households with soap only as well as those with soap and another cleansing agent

2.5.4 Household Characteristics

The survey collected household information on access to electricity, type of housing materials, number of rooms used for sleeping, the place used for cooking, types of cooking fuel, and presence of tobacco smoking inside the house. These characteristics and others were used to evaluate the socioeconomic and living conditions of the household.

Table 2.8 shows that only 23 percent of households in Rwanda have access to electricity. The situation has improved since 2010, when only 10 percent of households had electricity. The results show large

disparities between urban and rural areas. Only 12 percent of rural households have electricity, as compared with 73 percent of urban households.

Table 2.8 Household characteristics

Percent distribution of households by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Rwanda 2014-15

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	72.9	12.4	22.8
No	27.1	87.5	77.1
Total	100.0	100.0	100.0
Roofing material			
Metal/iron sheets	89.7	57.6	63.1
Ceramic tiles	8.4	41.6	35.9
Other	1.9	0.8	1.0
Total	100.0	100.0	100.0
Flooring material			
Earth, sand	29.1	84.2	74.7
Dung	0.1	0.9	0.7
Ceramic tiles	4.7	0.6	1.3
Cement	65.7	14.1	23.0
Carpet	0.2	0.0	0.1
Other	0.2	0.1	0.1
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	32.1	26.4	27.4
Two	32.7	45.4	43.2
Three or more	34.8	28.0	29.2
Missing	0.3	0.1	0.2
Total	100.0	100.0	100.0
Place for cooking			
In the house	14.4	26.4	24.3
In a separate building	44.8	55.1	53.3
Outdoors	37.7	17.5	20.9
No food cooked in household	2.9	1.0	1.4
Missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
Cooking fuel			
Electricity	0.3	0.0	0.1
LPG/natural gas/biogas	1.5	0.1	0.3
Kerosene	0.6	0.0	0.1
Charcoal	65.5	4.8	15.3
Wood	26.1	76.7	68.0
Straw/shrubs/grass	2.9	16.7	14.4
Agricultural crop	0.0	0.6	0.5
No food cooked in household	2.9	1.0	1.4
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	94.6	98.9	98.1
Frequency of smoking in the home			
Daily	9.5	15.6	14.6
Weekly	2.4	4.0	3.7
Monthly	0.9	1.0	1.0
Less than monthly	0.4	0.4	0.4
Never	86.9	78.9	80.3
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number	2,188	10,511	12,699

LPG = Liquid petroleum gas
[1] Includes charcoal, wood/straw/shrubs/grass, and agricultural crops

The type of material used for flooring is extremely important. Some materials propagate diseases causing germs and parasites. The large majority (75 percent) of floors in Rwandan houses are earth or sand. This proportion is higher in rural areas (84 percent) than in urban areas (29 percent). Twenty-three percent of households have cement floors. This type of flooring is more commonly observed in urban than in rural areas (66 percent versus 14 percent). The results indicate an improvement in flooring materials since 2010, when 81 percent of floors were earth/sand and 16 percent were cement.

Table 2.8 shows that 43 percent of households have two rooms for sleeping (33 percent of urban households and 45 percent of rural households). It should be noted that, in 27 percent of households, all household members sleep in a single room. This proportion is higher in urban areas (32 percent) than in rural areas (26 percent).

More than half (53 percent) of households cook their meals in a separate building, while 21 percent cook outdoors. Twenty-four percent of households cook in the same structure that is used for sleeping (14 percent of urban and 26 percent of rural households).

Table 2.8 shows that 68 percent of households use wood as cooking fuel. More rural households than urban households use wood as cooking fuel (77 percent versus 26 percent). The second and third most common cooking fuels are charcoal (used by 15 percent of households) and straw/shrubs/grass (used by 14 percent of households). Sixty-six percent of households in urban areas use charcoal for cooking, as compared with only 5 percent of those in rural areas. Electricity is rarely used for cooking in Rwanda. Most households use a solid fuel for cooking (98 percent), with no significant difference between rural and urban areas.

Fifteen percent of households report that someone smokes inside the house on a daily basis (16 percent in rural areas and 10 percent in urban areas).Four in five households (80 percent) report that no one smokes in the house.

2.5.5 Household Possession of Durable Goods

To evaluate households' socioeconomic level, the survey gathered information on possession of various household durable goods, the means of transportation used by household members, and ownership of agricultural land and livestock/farm animals.

Table 2.9 shows that, overall, mobile telephones (60 percent) are the most frequently owned household good. More urban (86 percent) than rural (54 percent) households reported owning a mobile telephone. The proportion of households owning a mobile telephone has increased significantly since 2010, when only 40 percent of households owned a mobile telephone. The second most common household asset is a radio, owned by 55 percent of households. The proportion of households owning a radio is much higher in urban areas (67 percent) than in rural areas (52 percent). Ten percent of households own a television, twice as high as the proportion in 2010 (5 percent). There is a significant difference in television ownership between urban (39 percent) and rural (4 percent) households. Only 2 percent of households own a refrigerator (8 percent in urban areas and less than 1 percent in rural areas). Three percent of households own a computer, again with disparities between urban (14 percent) and rural (1 percent) areas. Bicycles are used as a means of transportation in 15 percent of households (16 percent of households in rural areas and 10 percent of households in urban areas). Only 1 percent of Rwandan households own a car or truck, while 2 percent own a motorcycle or scooter.

Overall, 72 percent of households own agricultural land. The proportion varies significantly by urban-rural residence: 80 percent of rural households own agricultural land, as compared with 36 percent of urban

households. Fifty-three percent of households possess farm animals (58 percent of households in rural areas and 26 percent of households in urban areas).

Table 2.9 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence, Rwanda 2014-15

Possession	Residence		Total
	Urban	Rural	
Household effects			
Radio	67.1	51.9	54.5
Television	38.6	3.6	9.6
Mobile telephone	86.4	54.2	59.8
Non-mobile telephone	1.0	0.1	0.2
Refrigerator	8.4	0.2	1.6
Computer	13.9	1.0	3.2
Means of transport			
Bicycle	10.0	15.9	14.9
Animal-drawn cart	0.2	0.0	0.0
Motorcycle/scooter	4.4	1.3	1.8
Car/truck	5.9	0.2	1.2
Boat without a motor	0.0	0.2	0.2
Boat with a motor	0.0	0.0	0.0
Ownership of agricultural land	36.3	79.9	72.4
Ownership of farm animals[1]	26.4	58.1	52.6
Number	2,188	10,511	12,699

[1] Cows, milk cows, bulls, goats, sheep, chickens, pigs, rabbits, or horses/donkeys/mules

2.5.6 Household Wealth

Table 2.10 shows the percent distribution of the de jure population by wealth quintile and Gini coefficient. The wealth index was developed on the basis of de jure population data and was generated via a principal components analysis. Information on household goods was derived from responses to questions about ownership of certain durable goods (e.g., television, radio, car, mobile telephone) and questions about certain housing characteristics (access to electricity, source of drinking water, type of toilet facilities, type of flooring material, number of rooms used for sleeping, and type of cooking fuel).

In its current form, which takes better account of urban-rural differences in scores and indicators of wealth, the wealth index is created in three steps. In the first step, a subset of indicators common to both urban and rural areas is used to create wealth scores for households in both areas. Categorical variables to be used are transformed into separate dichotomous (0-1) indicators. These indicators and those that are continuous are then analyzed using a principal components analysis to produce a common factor score for each household. In a second step, separate factor scores are produced for households in urban and rural areas using area-specific indicators. The third step combines the separate area-specific factor scores to produce a nationally applicable combined wealth index by adjusting area-specific scores through a regression on the common factor scores. The resulting combined wealth index has a mean of zero and a standard deviation of one. Once the index is computed, national-level wealth quintiles (from lowest to highest) are obtained by assigning household scores to each de jure household member, ranking each person in the population by his or her score, and then dividing the ranking into five equal categories, each comprising 20 percent of the population.

The results show that, in urban areas, 75 percent of the de jure population falls into the richest quintile, as compared with only 9 percent in rural areas. City of Kigali has the largest percentage of households in the highest wealth quintile (73 percent). Twenty-three percent of households in rural areas fall into the poorest quintile.

Table 2.10 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini coefficient, according to residence and province, Rwanda 2014-15

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	5.8	4.7	4.8	9.6	75.2	100.0	9,033	0.20
Rural	22.9	23.1	23.0	22.1	8.9	100.0	45,052	0.25
Province								
City of Kigali	5.3	4.9	6.0	10.9	72.9	100.0	6,023	0.25
South	25.7	20.9	19.3	20.6	13.6	100.0	13,132	0.22
West	25.6	24.0	20.6	17.1	12.7	100.0	12,398	0.21
North	19.3	22.4	23.0	22.3	13.0	100.0	8,858	0.16
East	16.4	20.7	24.3	24.6	14.1	100.0	13,674	0.26
Total	20.0	20.0	20.0	20.0	20.0	100.0	54,085	0.24

2.6 BIRTH REGISTRATION

Registering a child's birth with civil authorities establishes the child's legal family ties and his or her right to a name and nationality prior to the age of majority. It confers on the child the right to be recognized by his or her parents and the right to state protection if his or her rights are abused by parents. It gives the child access to social assistance through the parents, including health insurance, and establishes family lineage. Registration is therefore an essential formality.

Registration of a child with civil authorities, if performed correctly, also provides a reliable source of socio demographic statistics. For this reason, the survey asked, for all children age 0 to 4 in each household, whether the child had a birth certificate or whether the child's birth had been registered with the civil authorities. Table 2.11 shows that 56 percent of children have been registered with the civil authorities. The percentage has dropped significantly since 2010, when 63 percent of births were registered. Only 3 percent of children under age 5 possess birth certificates. Children age 2-4 are more likely to be registered than those younger than age 2 (60 percent and 50 percent, respectively). There is no difference regarding to gender whether or not children are registered with the civil authorities. Children in the poorest households are less likely to be registered (43 percent) than children in households in the other wealth quintiles (53 to 66 percent). There is no discrepancy by urban/rural residence. Results by province show that children in North and City of Kigali are most likely to be registered with the civil authorities (67 percent and 59 percent, respectively).

Table 2.11 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Rwanda 2014-15

Background characteristic	Children whose births are registered			Number of children
	Percentage who had a birth certificate	Percentage who did not have a birth certificate	Percentage registered	
Age				
<2	2.9	47.2	50.1	3,244
2-4	2.5	57.6	60.0	4,671
Sex				
Male	2.7	53.3	56.0	3,972
Female	2.6	53.4	55.9	3,942
Residence				
Urban	4.7	50.7	55.4	1,271
Rural	2.3	53.8	56.1	6,643
Province				
City of Kigali	2.6	56.8	59.4	900
South	2.4	47.6	50.0	1,808
West	3.3	51.7	55.0	1,902
North	4.3	62.7	66.9	1,149
East	1.5	53.1	54.6	2,156
Wealth quintile				
Lowest	1.0	42.2	43.3	1,916
Second	1.8	50.7	52.5	1,728
Middle	2.5	56.9	59.4	1,579
Fourth	2.5	63.9	66.4	1,383
Highest	6.6	57.6	64.2	1,310
Total	2.7	53.3	56.0	7,915

2.7 CHILDREN'S LIVING ARRANGEMENTS AND ORPHANHOOD

Because the family is the primary safety net for children, any strategy aimed at protecting children must place a high priority on strengthening the family's capacity to care for children. It is therefore essential to identify orphaned children and to determine whether those who have one or both parents alive are living with either or both surviving parents. Table 2.12 presents these two types of information for children under age 18, according to background characteristics.

The data show that 63 percent of Rwandan children under age 18 live with both of their parents. This proportion declines steadily with age, from 74 percent among children under age 2 and 68 percent among those age 2 to 4 to 49 percent among those age 15 to 17. The results show practically no difference according to child's sex. The proportion of children living with both of their parents is higher in rural areas (64 percent) than in urban areas (59 percent). The lowest proportion of children living with both parents is in the South province (59 percent), while the highest proportion is in the North and West provinces (66 percent each). Twenty-two percent of children under age 18 live with their mother only, whether their father is alive (17 percent) or deceased (5 percent); and 2 percent live with their father only. Twelve percent do not live with either parent.

Overall, 9 percent of children under age 18 have lost one or both parents: 8 percent have lost their fathers, 3 percent have lost their mothers, and 1 percent have lost both parents. Because a parent's risk of dying increases with time, the proportion of children who have lost their father and/or mother increases significantly with age, from 1 percent among those less than age 2 and 3 percent among those age 2 to 4 to 7 percent among those age 5 to 9. The proportion increases further among children age 10 to 14 (13 percent) and age 15 to 17 (23 percent).

Table 2.12 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Rwanda 2014-15

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/ mother				
Age														
0-4	70.5	21.8	1.4	0.6	0.2	4.2	0.3	0.2	0.1	0.7	100.0	4.8	2.1	7,915
<2	73.7	23.6	0.8	0.1	0.0	0.9	0.2	0.0	0.0	0.5	100.0	1.2	1.1	3,244
2-4	68.3	20.6	1.8	1.0	0.3	6.5	0.3	0.3	0.2	0.8	100.0	7.2	2.8	4,671
5-9	66.6	15.8	3.9	1.7	0.7	8.3	0.8	0.9	0.5	0.7	100.0	10.5	6.8	8,189
10-14	57.9	14.5	7.6	2.4	1.0	11.4	1.1	2.2	1.2	0.7	100.0	15.9	13.2	7,224
15-17	48.8	11.5	12.0	1.4	1.2	13.6	2.0	4.6	3.4	1.4	100.0	23.6	23.4	3,361
Sex														
Male	63.6	17.0	5.0	1.8	0.7	7.9	0.9	1.4	1.0	0.8	100.0	11.1	9.1	13,363
Female	62.8	16.4	5.3	1.3	0.7	9.3	0.9	1.5	1.0	0.9	100.0	12.7	9.4	13,324
Residence														
Urban	59.1	19.1	4.3	2.6	0.8	8.8	0.9	2.2	1.2	0.9	100.0	13.1	9.5	3,996
Rural	63.9	16.3	5.3	1.3	0.7	8.5	0.9	1.4	0.9	0.8	100.0	11.7	9.2	22,692
Province														
City of Kigali	63.7	17.3	3.9	2.5	0.7	7.8	0.6	2.0	0.9	0.6	100.0	11.3	8.1	2,566
South	59.4	18.9	5.5	1.6	0.7	9.3	1.1	1.5	1.2	0.9	100.0	13.1	10.1	6,442
West	66.4	15.1	5.3	1.0	0.9	7.3	0.8	1.4	1.0	0.9	100.0	10.6	9.5	6,280
North	66.0	14.1	5.4	0.9	0.7	9.4	0.7	1.2	1.0	0.7	100.0	12.2	8.9	4,439
East	61.7	17.6	5.2	2.1	0.5	8.8	0.9	1.5	0.7	0.9	100.0	12.0	9.0	6,961
Wealth quintile														
Lowest	51.4	26.3	8.4	1.6	0.7	7.8	0.8	1.1	1.0	1.0	100.0	10.6	12.1	5,653
Second	63.4	16.6	5.7	1.3	0.5	8.3	1.0	1.2	1.1	0.9	100.0	11.6	9.5	5,486
Middle	69.3	13.2	5.1	1.2	0.7	7.2	0.6	1.2	0.8	0.8	100.0	9.8	8.4	5,379
Fourth	70.1	11.9	3.2	1.4	0.7	9.0	0.9	1.4	0.7	0.6	100.0	12.0	7.0	5,384
Highest	62.2	14.8	3.0	2.3	0.9	10.9	1.1	2.8	1.3	0.8	100.0	16.1	9.2	4,786
Total <15	65.3	17.5	4.2	1.5	0.6	7.9	0.7	1.0	0.6	0.7	100.0	10.2	7.2	23,327
Total <18	63.2	16.7	5.2	1.5	0.7	8.6	0.9	1.5	1.0	0.8	100.0	11.9	9.3	26,688

Note: Table is based on de jure members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent

2.8 SCHOOL ATTENDANCE BY SURVIVORSHIP OF PARENTS

Access to education is considered an "essential service" and is included among the key components of national responses to guarantee orphans access to services on an equal basis with other children.

To assess whether orphans are educationally disadvantaged in relation to other children, an indicator was devised to compare school attendance among orphans and non-orphans. The results are presented in Table 2.13 for children age 10 to 14, the age group in which school attendance is generally assumed for all children.

The data show a clear relationship between parent survivorship and school attendance among children age 10 to 14. Although 95 percent of children whose parents are both alive and who are living with one of their parents attend school, only 83 percent of children who have lost both parents attend school. The ratio of school attendance for orphaned and non-orphaned children is less than 1 (0.88), indicating an educational disadvantage for orphans.

Table 2.13 School attendance by survivorship of parents

For de jure children age 10-14, the percentage attending school by parental survival and the ratio of the percentage attending, by parental survival, according to background characteristics, Rwanda 2014-15

	Percentage attending school by survivorship of parents				
Background characteristic	Both parents deceased	Number	Both parents alive and living with at least one parent	Number	Ratio[1]
Sex					
Male	77.1	47	93.8	2,763	0.82
Female	(90.5)	42	95.8	2,637	(0.95)
Residence					
Urban	*	12	97.8	750	*
Rural	81.0	78	94.3	4,649	0.86
Province					
City of Kigali	*	5	97.0	436	*
South	(79.0)	30	94.5	1,280	(0.84)
West	*	22	95.8	1,314	*
North	*	19	95.5	1,010	*
East	*	13	92.8	1,360	*
Wealth quintile					
Lowest	(87.0)	24	89.0	970	(0.98)
Second	(87.3)	26	92.7	1,000	(0.94)
Middle	*	12	95.3	1,190	*
Fourth	*	13	97.0	1,254	*
Highest	*	15	99.2	985	*
Total	83.4	89	94.8	5,400	0.88

Note: Table is based only on children who usually live in the household. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent

2.9 HEALTH INSURANCE COVERAGE AND BANK ACCOUNTS

Information on bank accounts and health insurance coverage was collected during the survey. The proportion of households in which at least one person has a bank account and health insurance coverage is shown in Table 2.14 by type of health insurance, urban-rural residence, province, and household wealth quintile.

Forty-six percent of Rwandan households have at least one member with a bank account. This proportion is higher among households in urban areas (67 percent), City of Kigali (64 percent), and the highest wealth quintile (81 percent) than other households.

Overall, 79 percent of Rwandan households have at least one member covered by health insurance. This proportion is similar to that found in the 2010 RDHS (78 percent). There is slight variation by residence (81 percent in urban areas and 78 percent in rural areas). There are considerable differences by province, with proportions varying from a low of 76 percent in South to a high of 84 percent in North. Households in the higher wealth quintiles are generally more likely to have at least one member insured than those in the lower wealth quintiles.

With respect to type of health insurance coverage, nearly all households with at least one member insured are insured by Mutual Health Insurance (97 percent). Other types of coverage reported by households include *La Rwandaise d'Assurance Maladie* (RAMA; now the Rwanda Social Security Board, or RSSB) (6 percent), Military Medical Insurance (MMI) (1 percent), and private insurance (1 percent). These other types

of insurance are more commonly reported by households in urban areas, the City of Kigali, and the highest wealth quintile.

Table 2.14 Household bank account and health insurance

Percentage of households in which at least one member has a bank account and is covered by health insurance, and percentage of households with specific types of health insurance, according to residence, province, and wealth quintile, Rwanda 2014-15

Residence/region	Percentage of households with at least one member who has a bank account	Percentage of households with at least one member covered by health insurance	Number of households	Type of insurance: Mutual/ community	RAMA (RSSB)	MMI	Private/ commercial	Other	Number of households with at least one member covered by health insurance
Residence									
Urban	66.5	81.4	2,188	93.1	14.1	2.5	4.2	1.5	1,780
Rural	41.8	78.2	10,511	97.9	3.7	0.5	0.2	0.1	8,218
Province									
City of Kigali	64.2	77.4	1,496	93.5	11.2	2.7	5.0	1.5	1,158
South	45.6	76.2	3,103	98.0	5.0	0.5	0.6	0.2	2,365
West	41.2	78.1	2,789	96.9	5.4	0.7	0.3	0.1	2,179
North	41.7	84.4	2,090	97.5	5.0	0.6	0.4	0.3	1,764
East	45.2	78.6	3,221	97.7	3.9	0.8	0.2	0.1	2,532
Wealth quintile									
Lowest	11.7	63.5	2,920	99.3	0.1	0.0	0.0	0.1	1,855
Second	32.4	75.0	2,636	99.5	0.5	0.1	0.0	0.0	1,978
Middle	48.0	82.4	2,441	98.6	1.8	0.4	0.1	0.1	2,010
Fourth	66.7	87.8	2,290	96.7	5.2	1.2	0.4	0.1	2,010
Highest	81.2	88.9	2,412	91.8	18.7	2.7	3.8	1.3	2,145
Total	46.1	78.7	12,699	97.1	5.5	0.9	0.9	0.3	9,998

Information about individual health insurance coverage is presented in Table 2.15 by type of insurance, according to selected background characteristics. Overall, 74 percent of women and 73 percent of men age 15-49 are insured. Women age 15-19 (72 percent) and 45-49 (71 percent) and men age 15-19 (70 percent) are slightly less likely to be insured than other women and men. According to marital status, currently married women (79 percent) and men (80 percent) are more likely to be insured than women and men in other categories, particularly those who are divorced or separated. Women and men in North have higher levels of coverage than those in the other provinces. There is no variation by urban-rural residence among men. However, urban women are more likely to have coverage than rural women (78 percent versus 73 percent). Among women, the proportion with insurance increases with increasing education; from 66 percent among those who have no education to 85 percent among those who have a secondary education or higher. The corresponding figures among men are 62 percent and 85 percent. Women and men in the higher wealth quintiles are more likely to have health insurance than those in the lower wealth quintiles. For example 85 percent of women in the highest quintile are covered by health insurance as compared to 57 percent of those in the lowest quintile.

In terms of type of health insurance coverage, 94 percent of both women and men are insured by Mutual Health Insurance. Other types of coverage reported are RAMA, MMI, and private insurance. These other types of insurance are more commonly reported by women and men who are married, live in urban areas, reside in the City of Kigali, have a secondary education or higher, and are in the highest wealth quintile.

Table 2.15 Health insurance among adult women and men

Percentage of women age 15-49 and men age 15-59 covered by health insurance, and percent distribution of respondents with specific types of health insurance, according to selected background characteristics, Rwanda 2014-15

Background characteristic	Percentage of respondents covered by health insurance	Number of respondents	Type of insurance							Number of respondents covered by health insurance
			Mutual/ community	RAMA (RSSB)	MMI	Private/commercial	Other	Don't know/missing	Total	
					WOMEN					
Age										
15-19	71.5	2,768	96.2	3.0	0.1	0.3	0.2	0.2	100.0	1,980
20-24	75.5	2,457	97.3	1.8	0.2	0.3	0.1	0.3	100.0	1,856
25-29	76.0	2,300	92.9	5.0	1.2	0.6	0.3	0.1	100.0	1,749
30-34	74.0	2,151	90.9	6.0	1.6	0.9	0.4	0.2	100.0	1,592
35-39	74.0	1,575	91.2	6.0	1.2	1.3	0.2	0.1	100.0	1,165
40-44	75.3	1,269	93.5	5.2	0.4	0.6	0.3	0.0	100.0	956
45-49	71.0	977	95.4	3.0	0.7	0.6	0.4	0.0	100.0	694
Marital status										
Never married	74.0	5,100	95.9	3.1	0.1	0.5	0.3	0.2	100.0	3,775
Married	79.2	4,655	89.3	7.5	1.7	1.1	0.3	0.0	100.0	3,688
Living together	67.5	2,327	98.5	0.6	0.3	0.1	0.2	0.3	100.0	1,571
Divorced/separated	64.2	842	98.7	0.6	0.2	0.2	0.0	0.3	100.0	541
Widowed	73.0	572	97.4	2.2	0.4	0.0	0.0	0.0	100.0	418
Residence										
Urban	77.6	2,626	85.2	9.8	1.7	2.3	0.9	0.1	100.0	2,037
Rural	73.2	10,871	96.3	2.7	0.5	0.2	0.1	0.2	100.0	7,955
Province										
City of Kigali	73.9	1,799	87.5	7.3	1.7	2.6	0.8	0.1	100.0	1,329
South	70.9	3,214	94.4	3.9	0.6	0.6	0.3	0.3	100.0	2,280
West	71.5	2,965	94.4	4.5	0.7	0.3	0.1	0.1	100.0	2,120
North	80.7	2,211	95.5	3.4	0.5	0.2	0.3	0.1	100.0	1,783
East	75.0	3,308	96.1	2.9	0.7	0.2	0.0	0.2	100.0	2,480
Education										
No education	66.2	1,665	99.4	0.1	0.1	0.1	0.2	0.0	100.0	1,102
Primary	71.6	8,678	98.4	0.6	0.6	0.2	0.1	0.2	100.0	6,215
Secondary and higher	84.8	3,154	81.8	14.0	1.4	1.9	0.7	0.2	100.0	2,676
Wealth quintile										
Lowest	57.2	2,561	99.5	0.0	0.0	0.0	0.2	0.2	100.0	1,465
Second	67.7	2,631	99.5	0.2	0.1	0.0	0.0	0.2	100.0	1,782
Middle	75.8	2,597	98.3	1.3	0.2	0.0	0.0	0.2	100.0	1,968
Fourth	82.4	2,634	95.7	2.8	1.1	0.3	0.0	0.1	100.0	2,172
Highest	84.8	3,073	82.8	12.5	1.8	2.1	0.8	0.1	100.0	2,605
Total 15-49	74.0	13,497	94.1	4.2	0.7	0.6	0.2	0.2	100.0	9,992

Continued…

Table 2.15—*Continued*

Background characteristic	Percentage of respondents covered by health insurance	Number of respondents	Type of insurance							Number of respondents covered by health insurance
			Mutual/ community	RAMA (RSSB)	MMI	Private/co mmercial	Other	Don't know/missing	Total	
					MEN					
Age										
15-19	70.3	1,282	96.8	2.6	0.3	0.1	0.2	0.0	100.0	901
20-24	71.5	994	97.0	0.9	0.3	0.5	1.1	0.3	100.0	711
25-29	75.7	946	92.1	6.8	0.0	0.7	0.2	0.2	100.0	716
30-34	75.0	930	92.2	6.4	0.5	0.9	0.0	0.1	100.0	697
35-39	73.6	567	90.4	6.2	1.1	1.9	0.5	0.0	100.0	418
40-44	72.1	473	89.7	7.1	1.0	1.6	0.7	0.0	100.0	341
45-49	72.5	385	92.8	5.3	0.3	1.1	0.4	0.0	100.0	279
Marital status										
Never married	72.1	2,691	94.2	4.2	0.2	0.7	0.5	0.2	100.0	1,941
Married	80.1	1,833	91.0	6.8	0.7	1.2	0.3	0.1	100.0	1,469
Living together	63.4	959	98.4	0.8	0.5	0.2	0.2	0.0	100.0	608
Divorced/separated	42.1	79	93.1	3.8	0.0	3.1	0.0	0.0	100.0	33
Widowed	70.4	16	100.0	0.0	0.0	0.0	0.0	0.0	100.0	11
Residence										
Urban	73.1	1,169	84.6	9.0	1.4	3.1	1.7	0.1	100.0	855
Rural	72.8	4,408	96.1	3.4	0.1	0.2	0.0	0.1	100.0	3,208
Province										
City of Kigali	68.8	804	84.9	7.1	1.6	4.1	2.1	0.2	100.0	554
South	70.7	1,327	94.2	4.9	0.0	0.4	0.2	0.3	100.0	939
West	73.2	1,182	95.3	4.0	0.5	0.2	0.0	0.0	100.0	865
North	79.4	851	95.7	3.5	0.1	0.4	0.4	0.0	100.0	676
East	72.8	1,413	95.2	4.3	0.3	0.2	0.0	0.0	100.0	1,029
Education										
No education	61.9	496	99.6	0.0	0.0	0.0	0.4	0.0	100.0	307
Primary	69.7	3,636	99.2	0.3	0.1	0.2	0.2	0.1	100.0	2,534
Secondary and higher	84.5	1,445	80.8	14.6	1.2	2.3	0.9	0.2	100.0	1,222
Wealth quintile										
Lowest	53.5	819	99.5	0.0	0.0	0.0	0.3	0.2	100.0	438
Second	67.6	991	99.7	0.2	0.1	0.0	0.0	0.0	100.0	670
Middle	75.3	1,097	98.7	1.1	0.0	0.1	0.0	0.1	100.0	826
Fourth	78.5	1,234	95.9	3.4	0.1	0.4	0.0	0.1	100.0	969
Highest	80.8	1,436	82.6	12.5	1.2	2.4	1.3	0.1	100.0	1,159
Total 15-49	72.8	5,577	93.7	4.6	0.4	0.8	0.4	0.1	100.0	4,062
50-59	73.2	640	96.3	2.7	0.1	0.7	0.2	0.0	100.0	468
Total 15-59	72.9	6,217	94.0	4.4	0.4	0.8	0.4	0.1	100.0	4,531

RESPONDENT CHARACTERISTICS 3

Key Findings

- Twelve percent of women and 9 percent of men age 15-49 have no education, while 23 percent and 26 percent, respectively, have at least some secondary education.
- Eighty percent of women and 84 percent of men are literate.
- Sixty-four percent of women and 81 percent of men age 15-49 are exposed to at least one source of mass media once a week.
- Eighty-six percent of women and 87 percent of men were employed in the 12 months preceding the survey, with the majority (76 percent of women and 58 percent of men) employed in the agricultural sector.
- Three in five working women are self-employed.
- Only 2 percent of women and 10 percent of men age 15-49 use tobacco. products

This chapter provides a sociodemographic profile of women age 15-49 and men age 15-59 who responded to the survey questions. The information that the women and men provided is important for understanding the behavior of the population with respect to contraception, sexually transmitted infections (STIs), HIV/AIDS, and fertility preferences. As with the Household Questionnaire, the individual questionnaire gathered information concerning the respondent's age, place of residence, marital status, and educational attainment. In addition, the individual questionnaire collected data on literacy, exposure to mass media, employment and occupation, and on tobacco use. These characteristics are used to interpret findings elsewhere in the report.

3.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Given the importance of age in analyzing demographic characteristics, special attention was paid to ensuring that this statistic was accurately recorded in the survey. Prior to recording any information, the interviewer asked respondents to gather all official documents with information about themselves and other members of the household. If no official documents were available, the interviewer confirmed the age provided by the respondent through reference to major life events (e.g., age at time of marriage, age of first child) or well-known national or regional events.

Table 3.1 shows the distribution of women and men age 15-49 grouped by five-year age increments. The proportions in each age group decline with increasing age. Among women, the percentages range from a high of 21 percent for the 15-19 age group to a low of 7 percent for the 45-49 age group. The corresponding percentages among men are 23 percent and 7 percent.

All women and men in the sample were asked their marital status. In the 2014-15 RDHS, all women and men were considered married if they were in a union with a partner, whether the union was formal (legally married) or informal (living together). According to this definition, Table 3.1 shows that nearly 2 in 5 women (38 percent) had never been married at the time of the survey, while slightly more than half of women were married (35 percent were legally married and 17 percent were living together with a man). In addition, 6 percent of women were divorced or separated, and 4 percent were widowed. Just under half (48 percent) of men age

15-49 were single, while half were married (33 percent were legally married and 17 percent were living with a woman). One percent of men were separated or divorced, and less than 1 percent were widowed.

The distribution of respondents by residence shows that the majority of women (81 percent) and men (79 percent) live in rural areas. Similarly, the distribution of respondents by province shows no significant disparities between women and men. The City of Kigali has the lowest proportion of respondents (13 percent of women and 14 percent of men), followed by North (16 percent of women and 15 percent of men). One-quarter of women and men live in East.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Rwanda 2014-15

	Women			Men		
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	20.5	2,768	2,779	23.0	1,282	1,281
20-24	18.2	2,457	2,473	17.8	994	999
25-29	17.0	2,300	2,319	17.0	946	964
30-34	15.9	2,151	2,155	16.7	930	932
35-39	11.7	1,575	1,570	10.2	567	559
40-44	9.4	1,269	1,249	8.5	473	469
45-49	7.2	977	952	6.9	385	381
Religion						
Catholic	39.8	5,377	5,426	44.6	2,488	2,503
Protestant	45.1	6,084	5,971	38.3	2,135	2,107
Adventist	11.9	1,601	1,626	11.5	641	656
Muslim	2.0	267	303	3.0	168	180
Jehovah's Witness	0.7	97	99	0.8	46	46
Traditional	0.0	5	3	0.0	0	0
Other	0.0	5	5	0.0	1	1
No religion	0.3	46	49	1.7	94	88
Missing	0.1	16	15	0.1	5	4
Marital status						
Never married	37.8	5,100	5,205	48.2	2,691	2,736
Married	34.5	4,655	4,611	32.9	1,833	1,817
Living together	17.2	2,327	2,279	17.2	959	937
Divorced/separated	6.2	842	838	1.4	79	80
Widowed	4.2	572	564	0.3	16	15
Residence						
Urban	19.5	2,626	3,427	21.0	1,169	1,507
Rural	80.5	10,871	10,070	79.0	4,408	4,078
Province						
City of Kigali	13.3	1,799	1,876	14.4	804	823
South	23.8	3,214	3,435	23.8	1,327	1,441
West	22.0	2,965	3,060	21.2	1,182	1,209
North	16.4	2,211	2,170	15.3	851	830
East	24.5	3,308	2,956	25.3	1,413	1,282
Education						
No education	12.3	1,665	1,600	8.9	496	487
Primary	64.3	8,678	8,509	65.2	3,636	3,565
Secondary and higher	23.4	3,154	3,388	25.9	1,445	1,533
Wealth quintile						
Lowest	19.0	2,561	2,523	14.7	819	807
Second	19.5	2,631	2,516	17.8	991	956
Middle	19.2	2,597	2,461	19.7	1,097	1,034
Fourth	19.5	2,634	2,523	22.1	1,234	1,188
Highest	22.8	3,073	3,474	25.7	1,436	1,600
Total 15-49	100.0	13,497	13,497	100.0	5,577	5,585
50-59	na	na	na	na	640	632
Total 15-59	na	na	na	na	6,217	6,217

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable

The distribution of respondents by religion indicates that almost half of women are Protestant (45 percent), while 40 percent are Catholic. Among men, 45 percent are Catholic and 38 percent are Protestant. The Adventist faith is the next most common religion among both sexes (12 percent), followed by Muslim (2 percent of women and 3 percent of men). Table 3.1 also shows the distribution of women and men according to household wealth quintile. The development of the wealth index is explained in Chapter 2.

Table 3.1 also provides data on educational attainment. Women are more likely than men to have no education (12 percent versus 9 percent) and less likely to have a secondary education or higher (23 percent versus 26 percent). However, the gap between women and men is not wide at the primary level.

3.2 EDUCATIONAL ATTAINMENT

Tables 3.2.1 and 3.2.2 show the distributions of female and male respondents by highest level of education attained. The proportion of women who either attended some primary schooling or completed primary school only is almost equal to that of men (64 percent and 65 percent, respectively). At the secondary level or higher, the proportions are 23 percent among women and 26 percent among men. The proportions for both women and men drop significantly from the primary to secondary and the secondary to postsecondary levels.

The data by age show that the proportions of women and men with no education have decreased significantly in the younger generation. Among men, the proportion with no education is 21 percent in the 45-49 age group but only 2 percent in the 15-24 age group. The corresponding proportions among women are 36 percent and 3 percent. The gap between women and men with no education has narrowed significantly: among women and men age 45 to 49, the gap is about 15 percentage points, while among those age 15-19 the gap is so small as to be insignificant.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Rwanda 2014-15

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	2.6	42.0	16.0	32.1	5.9	1.3	100.0	5.3	5,225
15-19	1.1	41.7	17.2	38.6	1.2	0.1	100.0	5.3	2,768
20-24	4.4	42.3	14.7	24.7	11.2	2.7	100.0	5.2	2,457
25-29	10.6	53.1	16.4	6.8	7.8	5.3	100.0	3.9	2,300
30-34	16.5	50.5	20.1	5.1	3.8	4.0	100.0	3.6	2,151
35-39	17.2	37.4	33.1	7.1	3.2	2.2	100.0	4.5	1,575
40-44	24.3	32.0	35.2	3.6	2.2	2.7	100.0	4.1	1,269
45-49	35.8	26.9	30.8	3.9	0.6	1.9	100.0	2.6	977
Residence									
Urban	5.3	29.7	19.1	23.8	11.6	10.6	100.0	5.9	2,626
Rural	14.0	45.8	22.2	13.9	3.2	0.8	100.0	4.2	10,871
Province									
City of Kigali	4.3	30.6	21.9	22.1	11.3	9.7	100.0	5.8	1,799
South	11.5	45.0	23.0	14.8	3.8	1.9	100.0	4.5	3,214
West	15.1	44.4	18.9	15.3	4.5	1.8	100.0	4.3	2,965
North	11.4	43.3	23.6	16.3	4.0	1.5	100.0	4.6	2,211
East	15.7	45.1	21.2	13.5	3.3	1.3	100.0	4.1	3,308
Wealth quintile									
Lowest	23.2	55.6	14.5	5.9	0.8	0.0	100.0	2.7	2,561
Second	15.6	52.2	20.4	11.0	0.7	0.1	100.0	3.8	2,631
Middle	13.2	46.4	24.3	13.5	2.4	0.1	100.0	4.3	2,597
Fourth	7.5	38.0	27.8	21.0	4.8	0.9	100.0	5.2	2,634
Highest	3.9	24.6	21.0	25.7	13.9	10.9	100.0	6.6	3,073
Total	12.3	42.7	21.6	15.8	4.9	2.7	100.0	4.6	13,497

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

In the 15-24 age group, the median number of years of school completed for young women and young men is about the same. In addition, 40 percent of young women age 15-19 have attended or completed secondary school, as compared with 35 percent of young men.

Educational attainment varies by residence. The proportion of women and men with no education is higher in rural areas (14 percent for women and 10 percent for men) than in urban areas (5 percent for women and 4 percent for men).

Results by province show a wide gap between the city of Kigali and the rest of the country. In Kigali, only 4 percent of women and men age 15-49 have no education, while the proportions in the other provinces vary from 11 percent (North) to 16 percent (East) among women and from 9 percent (North) to 11 percent (West) among men.

The data show a positive relationship between educational attainment and household wealth: the proportions of women and men with no education decrease as household wealth increases.

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Rwanda 2014-15

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	2.4	46.2	13.4	29.9	5.8	2.2	100.0	5.1	2,276
15-19	1.5	51.2	12.1	34.2	1.0	0.1	100.0	4.8	1,282
20-24	3.7	39.7	15.1	24.3	12.1	5.1	100.0	5.4	994
25-29	8.1	49.0	15.9	8.5	9.8	8.6	100.0	4.5	946
30-34	14.3	50.2	21.2	4.5	3.7	6.1	100.0	4.0	930
35-39	12.9	35.6	38.4	4.6	3.9	4.6	100.0	5.1	567
40-44	16.1	34.9	33.5	8.0	3.7	3.7	100.0	4.9	473
45-49	21.2	27.0	40.1	4.7	3.2	3.9	100.0	5.1	385
Residence									
Urban	4.2	30.2	19.2	20.9	12.2	13.3	100.0	5.9	1,169
Rural	10.1	47.6	21.8	14.5	3.8	2.1	100.0	4.4	4,408
Province									
City of Kigali	4.1	31.9	23.2	16.1	12.2	12.5	100.0	5.7	804
South	9.1	46.7	21.7	14.9	4.1	3.5	100.0	4.5	1,327
West	11.3	44.4	18.8	17.3	5.3	2.9	100.0	4.6	1,182
North	8.6	44.0	25.6	14.5	4.5	2.8	100.0	4.8	851
East	9.6	48.0	19.0	16.3	4.1	3.1	100.0	4.4	1,413
Wealth quintile									
Lowest	19.7	60.2	12.0	7.5	0.6	0.0	100.0	2.8	819
Second	12.1	54.3	21.8	10.3	1.4	0.1	100.0	3.9	991
Middle	8.7	48.3	24.5	14.4	3.5	0.6	100.0	4.5	1,097
Fourth	5.7	42.4	24.5	18.9	5.2	3.4	100.0	5.1	1,234
Highest	3.4	25.7	20.8	23.1	13.2	13.9	100.0	6.3	1,436
Total 15-49	8.9	44.0	21.2	15.9	5.6	4.5	100.0	4.8	5,577
50-59	28.1	39.4	25.5	3.1	2.1	1.8	100.0	2.7	640
Total 15-59	10.9	43.5	21.7	14.6	5.2	4.2	100.0	4.6	6,217

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

3.3 LITERACY

In this survey, literacy was established by asking respondents who reported not having attended school or having attended only primary school to read a sentence in any language of his/her choice (Kinyarwanda, French, English and Swahili) that was presented to them. Respondents were then classified into one of the following three levels: cannot read at all, can read part of a sentence, or can read a whole sentence. The test was

given only to women and men who had less than a secondary education; those with a secondary or postsecondary education (23 percent of women and 26 percent of men) were considered literate and not in need of testing.

Tables 3.3.1 and 3.3.2 show that the proportion of women and men who cannot read at all has decreased from previous generations, especially among women. For women, this proportion drops from 39 percent in the 45-49 age group to 9 percent in the 15-19 age group. For men, the proportion decreases from 19 percent to 12 percent. The data show also that a higher proportion of women than men cannot read (20 percent of women and 16 percent of men).

Eighty percent of women and 84 percent of men are considered literate; that is, they have attended secondary school or, if they have attended only primary school or not attended school, they are able to read all or part of a sentence.

The level of literacy varies appreciably by residence. Literacy is higher in urban areas than in rural areas (91 percent versus 78 percent among women and 91 percent versus 82 percent among men).

The results by province show a gap between the City of Kigali and the rest of the country: in Kigali, 92 percent of women and men are literate. In the other provinces, the proportion varies from 76 percent (East) to 80 percent (North and South) among women and from 81 percent (South and West) to 85 percent (North and East) among men. Results according to wealth show that literacy levels increase considerably from the poorest to the richest quintile (from 62 percent to 93 percent among women and from 68 percent to 93 percent among men).

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Rwanda 2014-15

		No schooling or primary school								
Background characteristic	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number of women
Age										
15-24	39.3	43.7	5.9	10.8	0.0	0.0	0.2	100.0	88.9	5,225
15-19	40.0	44.9	5.8	9.2	0.0	0.0	0.1	100.0	90.7	2,768
20-24	38.6	42.4	6.0	12.7	0.0	0.0	0.3	100.0	86.9	2,457
25-29	19.8	50.9	8.8	20.3	0.1	0.0	0.1	100.0	79.5	2,300
30-34	12.9	53.5	8.5	25.0	0.0	0.0	0.1	100.0	74.9	2,151
35-39	12.4	57.8	8.7	21.0	0.0	0.0	0.1	100.0	78.9	1,575
40-44	8.5	56.0	7.3	27.9	0.0	0.3	0.0	100.0	71.8	1,269
45-49	6.4	44.4	9.3	39.3	0.0	0.5	0.1	100.0	60.1	977
Residence										
Urban	45.9	40.6	4.6	8.8	0.0	0.0	0.1	100.0	91.1	2,626
Rural	17.9	51.5	8.2	22.2	0.0	0.1	0.1	100.0	77.6	10,871
Province										
City of Kigali	43.2	44.9	4.1	7.7	0.0	0.0	0.1	100.0	92.1	1,799
South	20.4	53.4	6.1	19.9	0.0	0.1	0.0	100.0	79.9	3,214
West	21.7	48.4	7.8	22.0	0.0	0.0	0.1	100.0	77.9	2,965
North	21.8	47.4	10.7	19.6	0.2	0.2	0.2	100.0	79.9	2,211
East	18.0	50.0	8.3	23.5	0.0	0.1	0.2	100.0	76.3	3,308
Wealth quintile										
Lowest	6.8	45.2	10.4	37.4	0.1	0.1	0.1	100.0	62.4	2,561
Second	11.8	54.2	9.0	24.8	0.0	0.1	0.1	100.0	75.0	2,631
Middle	16.0	56.4	7.7	19.5	0.0	0.2	0.2	100.0	80.1	2,597
Fourth	26.7	53.6	7.4	12.0	0.0	0.1	0.1	100.0	87.7	2,634
Highest	50.5	39.1	3.6	6.7	0.0	0.0	0.1	100.0	93.2	3,073
Total	23.4	49.3	7.5	19.6	0.0	0.1	0.1	100.0	80.2	13,497

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Rwanda 2014-15

		No schooling or primary school								
Background characteristic	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number of men
Age										
15-24	38.0	42.1	7.6	12.0	0.0	0.0	0.3	100.0	87.7	2,276
15-19	35.2	44.0	8.3	12.1	0.0	0.0	0.3	100.0	87.6	1,282
20-24	41.5	39.7	6.6	11.9	0.0	0.0	0.2	100.0	87.8	994
25-29	27.0	48.3	8.3	16.4	0.0	0.0	0.0	100.0	83.6	946
30-34	14.3	54.7	9.4	21.5	0.0	0.0	0.1	100.0	78.4	930
35-39	13.1	62.7	7.2	16.6	0.1	0.0	0.3	100.0	83.0	567
40-44	15.5	59.5	7.8	17.2	0.0	0.0	0.0	100.0	82.8	473
45-49	11.7	60.9	8.2	19.0	0.0	0.2	0.0	100.0	80.8	385
Residence										
Urban	46.5	38.1	6.4	8.8	0.1	0.1	0.1	100.0	91.0	1,169
Rural	20.5	53.3	8.4	17.6	0.0	0.0	0.2	100.0	82.3	4,408
Province										
City of Kigali	40.8	44.7	6.8	7.1	0.1	0.1	0.3	100.0	92.4	804
South	22.5	49.8	8.2	19.4	0.0	0.0	0.1	100.0	80.5	1,327
West	25.5	45.4	10.1	18.9	0.0	0.0	0.2	100.0	80.9	1,182
North	21.8	54.5	8.4	15.1	0.0	0.0	0.1	100.0	84.8	851
East	23.5	54.9	6.5	15.0	0.0	0.0	0.1	100.0	84.9	1,413
Wealth quintile										
Lowest	8.1	44.9	14.6	32.3	0.0	0.0	0.0	100.0	67.7	819
Second	11.8	58.5	9.7	19.9	0.0	0.0	0.1	100.0	80.0	991
Middle	18.5	58.5	6.9	16.0	0.0	0.0	0.1	100.0	84.0	1,097
Fourth	27.5	54.2	6.6	11.5	0.0	0.0	0.2	100.0	88.3	1,234
Highest	50.1	37.5	5.1	6.9	0.0	0.1	0.2	100.0	92.7	1,436
Total 15-49	25.9	50.1	8.0	15.7	0.0	0.0	0.1	100.0	84.1	5,577
50-59	7.0	53.9	7.3	31.1	0.0	0.5	0.1	100.0	68.2	640
Total 15-59	24.0	50.5	8.0	17.3	0.0	0.1	0.1	100.0	82.4	6,217

[1] Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence

3.4 EXPOSURE TO MASS MEDIA

Data on the exposure of women and men to mass media are especially important to the development of education programs and the dissemination of all types of information, particularly information about health and family planning. Tables 3.4.1 and 3.4.2 present data on the exposure of women and men to mass media (print or broadcast). It should be stated at the outset that it is not necessary for a household to own a radio or television or to buy a newspaper to have access to these media, because many people listen to the radio or watch television at the homes of friends and neighbors.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Rwanda 2014-15

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	9.6	21.3	67.4	3.4	29.1	2,768
20-24	6.5	19.9	66.3	3.0	31.3	2,457
25-29	4.9	14.6	61.1	2.1	36.7	2,300
30-34	4.4	14.9	59.2	2.1	38.9	2,151
35-39	5.1	12.6	57.4	2.3	41.3	1,575
40-44	4.7	10.9	56.0	1.3	42.3	1,269
45-49	4.1	8.8	53.5	1.7	44.9	977
Residence						
Urban	10.4	51.0	76.9	7.6	17.8	2,626
Rural	5.0	7.5	57.9	1.2	40.6	10,871
Province						
City of Kigali	9.8	52.1	80.6	7.1	14.4	1,799
South	6.1	10.8	63.5	2.0	35.2	3,214
West	4.6	9.5	52.3	1.2	45.3	2,965
North	5.6	12.0	62.9	2.2	35.5	2,211
East	5.4	9.9	56.8	1.6	41.2	3,308
Education						
No education	0.3	3.0	40.9	0.0	58.3	1,665
Primary	3.6	10.8	58.5	0.6	39.5	8,678
Secondary and higher	15.6	37.1	81.1	8.8	15.2	3,154
Wealth quintile						
Lowest	2.8	3.4	28.5	0.4	69.4	2,561
Second	3.2	3.2	50.1	0.3	48.6	2,631
Middle	4.3	3.9	62.9	0.5	35.5	2,597
Fourth	6.5	8.7	78.0	1.2	21.1	2,634
Highest	12.2	53.9	83.7	8.8	11.3	3,073
Total	6.0	16.0	61.6	2.4	36.2	13,497

Tables 3.4.1 and 3.4.2 show that, at the national level, 36 percent of women and 20 percent of men are not exposed to any media, a moderate increase from the 2010 RDHS figures of 31 percent and 12 percent, respectively. Radio is the most common form of media exposure: 62 percent of women and 79 percent of men report listening to the radio at least once a week. Men watch television more frequently than women: 16 percent of women and 30 percent of men watch television at least once a week. Only 6 percent of women, as compared with 14 percent of men, report reading a newspaper at least once a week. The proportions of women and men who are exposed to all three media are very low (2 percent and 10 percent, respectively).

The data by age show that younger women receive relatively more exposure to mass media than older women. The proportions of women who are not exposed to any media vary from 29 percent among those age 15-19 to 45 percent among those age 45-49. Among men, age differences are narrow and uneven.

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Rwanda 2014-15

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	9.9	28.9	75.8	6.4	22.1	1,282
20-24	18.1	37.1	83.9	12.9	14.2	994
25-29	17.2	33.9	83.0	12.2	15.6	946
30-34	13.9	27.3	76.7	9.3	21.9	930
35-39	14.4	27.5	77.3	10.3	21.6	567
40-44	16.6	24.7	80.8	10.5	18.3	473
45-49	11.9	24.1	77.9	7.8	20.9	385
Residence						
Urban	32.1	61.7	88.4	26.5	8.9	1,169
Rural	9.7	21.7	76.9	5.5	21.8	4,408
Province						
City of Kigali	38.0	65.2	90.1	32.4	7.1	804
South	6.2	15.7	70.9	3.8	27.9	1,327
West	8.6	21.5	73.5	4.4	24.8	1,182
North	8.2	24.2	83.1	3.9	16.3	851
East	17.3	34.5	83.7	10.9	14.6	1,413
Education						
No education	0.0	12.9	62.2	0.0	36.8	496
Primary	8.9	24.8	77.5	5.7	21.2	3,636
Secondary and higher	33.4	49.3	89.8	23.8	7.9	1,445
Wealth quintile						
Lowest	3.9	14.9	55.4	1.9	43.0	819
Second	5.1	15.3	70.6	2.3	28.3	991
Middle	8.3	16.9	78.6	4.2	20.1	1,097
Fourth	15.3	28.1	87.8	9.1	10.9	1,234
Highest	30.8	60.8	92.3	24.6	5.4	1,436
Total 15-49	14.4	30.1	79.3	9.9	19.1	5,577
50-59	9.0	17.3	75.7	4.8	23.2	640
Total 15-59	13.9	28.8	79.0	9.3	19.5	6,217

Results by residence reveal significant differentials. In urban areas, 18 percent of women are not exposed to any media, as compared with 41 percent in rural areas. The differential is also wide among men: the proportion of men not exposed to any media varies from 9 percent in urban areas to 22 percent in rural areas.

Results by province show significant differences between City of Kigali and other provinces: the percentage of women who are not exposed to any media is 14 percent in City of Kigali; while in other provinces this proportion varies from 35 percent (South) to 45 percent (West). Among men, the proportion is 7 percent in the city of Kigali, while it varies from 15 percent (East) to 28 percent (South) in other provinces. Educational attainment has a considerable correlation with level of media exposure. Among both women and men, those who have no education are least likely to be exposed to all three media. The results show that 58 percent of women with no education are not exposed to any media, as compared with 15 percent of women with a secondary education or higher. Among men, 37 percent of those with no education are not exposed to any media, compared with only 8 percent of those with a secondary education or higher.

As in the case of educational attainment, there is a positive relationship between household wealth and media exposure. Women and men in the richest households have the highest levels of exposure to all three media: 9 percent of women and 25 percent of men. In contrast, less than 1 percent of women and 2 percent of men in the poorest households have access to all three media.

3.5 EMPLOYMENT

The 2014-15 RDHS asked both women and men whether they were employed at the time of the survey. Respondents who reported having held a job, paid or unpaid, in any sector during the 12 months preceding the survey were considered employed.

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Rwanda 2014-15

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed[1]	Not currently employed				
Age						
15-19	52.5	9.2	38.0	0.2	100.0	2,768
20-24	73.1	9.5	17.4	0.0	100.0	2,457
25-29	85.3	7.4	7.3	0.0	100.0	2,300
30-34	87.6	7.1	5.3	0.0	100.0	2,151
35-39	88.8	7.2	4.0	0.0	100.0	1,575
40-44	88.9	6.9	4.2	0.0	100.0	1,269
45-49	88.0	7.6	4.4	0.0	100.0	977
Marital status						
Never married	62.3	8.9	28.6	0.1	100.0	5,100
Married or living together	86.7	7.5	5.8	0.0	100.0	6,982
Divorced/separated/widowed	88.2	7.6	4.2	0.0	100.0	1,415
Number of living children						
0	60.8	8.9	30.1	0.1	100.0	4,754
1-2	84.8	8.0	7.2	0.0	100.0	4,007
3-4	88.4	7.6	4.1	0.0	100.0	2,894
5+	88.7	6.6	4.8	0.0	100.0	1,842
Residence						
Urban	63.7	8.9	27.3	0.1	100.0	2,626
Rural	81.0	7.8	11.1	0.0	100.0	10,871
Province						
City of Kigali	64.9	10.3	24.8	0.0	100.0	1,799
South	81.8	7.0	11.1	0.1	100.0	3,214
West	76.9	4.6	18.5	0.0	100.0	2,965
North	80.2	8.9	10.9	0.0	100.0	2,211
East	79.6	10.3	10.0	0.0	100.0	3,308
Education						
No education	86.3	7.2	6.5	0.0	100.0	1,665
Primary	83.1	8.0	8.9	0.0	100.0	8,678
Secondary and higher	58.2	8.5	33.1	0.1	100.0	3,154
Wealth quintile						
Lowest	82.8	8.2	9.1	0.0	100.0	2,561
Second	84.0	6.5	9.5	0.0	100.0	2,631
Middle	81.1	8.5	10.4	0.0	100.0	2,597
Fourth	78.6	7.5	13.9	0.1	100.0	2,634
Highest	64.3	9.4	26.2	0.1	100.0	3,073
Total	77.7	8.0	14.2	0.0	100.0	13,497

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.5.1 shows that 78 percent of women were employed in the seven days before the survey, while 8 percent were not currently employed but had worked sometime in the previous 12 months and 14 percent had not been employed in the preceding 12 months. The percentage of women working at the time of the survey increases steadily with age, from 53 percent at age 15-19 to 73 percent at age 20-24, 85 percent at age 25-29, and 88-89 percent at age 30-49. Women who were separated, divorced, or widowed (88 percent) and married women (87 percent) were more likely to be employed at the time of the survey than women who had never been married (62 percent). Number of children is also related to a woman's employment status. As number of children

increases, the proportion of women who work also increases, from 61 percent among those with no children to 89 percent for those with five children or more.

Data by residence show that rural women were more likely to be working at the time of the survey (81 percent) than urban women (64 percent). The city of Kigali has the lowest percentage of women who are working (65 percent). In other provinces, the proportion of currently employed women ranges from 77 percent in West to 82 percent in South. Results by educational attainment show that women with no education (86 percent) are more likely to be employed than women with a primary education only (83 percent) and those with a secondary education or higher (58 percent). Finally, women in households in the two poorest wealth quintiles are more likely to be employed (83-84 percent) than women in the richest households (64 percent).

Table 3.5.2 shows that 85 percent of men age 15-49 were employed in the seven days before the survey, while 2 percent were not currently employed but had worked sometime in the last 12 months and 13 percent had not been employed in the preceding 12 months As with women, the percentage of men working at the time of the survey increases with age, from 57 percent among those age 15-19 to 96-98 percent among those age 25 to 49. Currently married men are more likely to be working (98 percent) than separated, divorced, or widowed men (96 percent) and those who have never been married (71 percent). With respect to residence, men in rural areas (86 percent) were more likely to have been working at the time of the survey than men in urban areas (80 percent).

By province, the data show that City of Kigali had the lowest proportion of men who were working at the time of the survey (82 percent); the highest proportions were reported in North and South (87 percent each).

Men with no education (97 percent) were more likely to be employed than men with a primary education (91 percent) and men with a secondary education or higher (65 percent). Finally, similar to findings among women, the proportion of men who were working was lower in the richest households than in the poorest households (80 percent versus 90 percent).

The proportion of men who were working at the time of the survey exceeded the proportion of women who were working in all categories of background characteristics. Since 2010, the proportion of women working at the time of the survey has increased from 73 percent to 78 percent, while the proportion among men has slightly decreased from 90 percent to 85 percent. As can be seen, in both 2010 and 2014-15, women were less likely than men to be working at the time of the survey.

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Rwanda 2014-15

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of men
	Currently employed[1]	Not currently employed				
Age						
15-19	56.8	1.7	41.0	0.5	100.0	1,282
20-24	80.7	2.2	16.9	0.2	100.0	994
25-29	96.1	1.2	2.7	0.0	100.0	946
30-34	97.2	1.3	1.5	0.0	100.0	930
35-39	98.3	1.1	0.6	0.0	100.0	567
40-44	98.1	1.5	0.3	0.0	100.0	473
45-49	97.2	2.2	0.6	0.0	100.0	385
Marital status						
Never married	70.7	1.9	27.0	0.3	100.0	2,691
Married or living together	98.3	1.3	0.4	0.0	100.0	2,792
Divorced/separated/widowed	95.5	2.4	2.2	0.0	100.0	94
Number of living children						
0	71.7	1.9	26.2	0.3	100.0	2,760
1-2	97.7	1.2	1.2	0.0	100.0	1,288
3-4	98.3	1.6	0.1	0.0	100.0	912
5+	98.2	1.5	0.3	0.0	100.0	617
Residence						
Urban	79.7	1.8	18.4	0.1	100.0	1,169
Rural	86.4	1.6	11.9	0.1	100.0	4,408
Province						
City of Kigali	81.8	1.2	16.9	0.0	100.0	804
South	86.6	1.0	11.9	0.5	100.0	1,327
West	83.6	2.2	14.2	0.0	100.0	1,182
North	86.9	1.1	12.0	0.0	100.0	851
East	85.2	2.2	12.5	0.1	100.0	1,413
Education						
No education	96.8	2.2	1.1	0.0	100.0	496
Primary	91.2	1.4	7.3	0.1	100.0	3,636
Secondary and higher	65.2	2.0	32.4	0.4	100.0	1,445
Wealth quintile						
Lowest	89.9	2.1	7.9	0.0	100.0	819
Second	90.9	0.7	8.2	0.2	100.0	991
Middle	85.6	2.9	11.4	0.2	100.0	1,097
Fourth	82.5	1.1	16.3	0.1	100.0	1,234
Highest	79.8	1.4	18.7	0.1	100.0	1,436
Total 15-49	85.0	1.6	13.3	0.1	100.0	5,577
50-59	95.7	1.7	2.6	0.0	100.0	640
Total 15-59	86.1	1.6	12.2	0.1	100.0	6,217

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.6.1 shows information on women's occupations. The majority of women who were employed at the time of the survey or who had worked during the preceding 12 months were employed in agriculture (76 percent, as compared with 77 percent in 2010). In terms of other occupations, 11 percent of working women worked in sales and services, 4 percent worked in domestic services, 3 percent performed skilled manual labor and 2 percent performed unskilled manual labor. Only 3 percent reported working in a technical, professional, or managerial occupation. Results by age show that older women are more likely to work in agriculture than younger women (87 percent of those age 45-49 and 72 percent of those age 15-19). As expected, data by residence show that the proportion of women working in agriculture is higher in rural areas (87 percent) than in urban areas (23 percent). Also, this proportion is much lower in the city of Kigali (24 percent) than in other provinces, where the proportion of employed women working in agriculture varies from 80 percent (West) to 87 percent (East). With respect to educational attainment, 91 percent of women with no education and 81 percent of women with only a primary education work in agriculture, as compared with 45 percent of women with a

secondary education or higher. The proportion of employed women who work in agriculture also decreases with increasing wealth and is especially low among those in the highest quintile (28 percent).

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Rwanda 2014-15

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agri-culture	Missing	Total	Number of women
Age										
15-19	0.4	0.1	8.7	1.4	3.3	13.0	71.7	1.3	100.0	1,709
20-24	2.0	0.7	14.0	3.4	2.2	5.8	71.3	0.5	100.0	2,028
25-29	4.3	1.0	13.7	3.7	2.5	2.7	72.0	0.2	100.0	2,133
30-34	3.8	0.5	11.8	2.8	1.7	1.5	77.8	0.2	100.0	2,037
35-39	4.0	0.2	11.1	2.9	1.4	1.2	79.2	0.0	100.0	1,511
40-44	3.2	0.4	10.5	1.7	1.3	0.6	82.2	0.2	100.0	1,215
45-49	2.0	0.1	6.1	2.2	1.4	0.9	87.3	0.0	100.0	934
Marital status										
Never married	2.7	0.8	12.0	3.6	3.0	10.3	66.4	1.1	100.0	3,634
Married or living together	3.3	0.3	11.2	2.4	1.5	0.8	80.5	0.1	100.0	6,579
Divorced/separated/widowed	1.4	0.3	10.6	2.2	2.2	2.5	80.8	0.0	100.0	1,355
Number of living children										
0	3.1	1.0	11.6	3.7	3.0	10.2	66.3	1.1	100.0	3,318
1-2	3.7	0.4	12.9	2.9	1.8	2.3	75.8	0.1	100.0	3,720
3-4	2.6	0.2	10.3	2.3	1.7	0.9	81.9	0.0	100.0	2,776
5+	1.2	0.1	9.4	1.1	1.4	0.7	86.1	0.0	100.0	1,754
Residence										
Urban	8.5	2.4	37.5	5.9	5.3	16.9	23.2	0.4	100.0	1,907
Rural	1.8	0.1	6.2	2.1	1.4	1.4	86.5	0.4	100.0	9,661
Province										
City of Kigali	6.7	2.2	34.9	7.3	6.0	18.8	23.7	0.2	100.0	1,353
South	2.9	0.3	7.9	2.6	1.1	2.6	82.2	0.4	100.0	2,853
West	2.4	0.4	11.4	1.5	2.0	2.1	79.7	0.4	100.0	2,416
North	2.3	0.2	8.7	2.3	1.9	1.5	82.5	0.7	100.0	1,971
East	1.9	0.1	5.7	2.0	1.3	1.7	86.9	0.2	100.0	2,975
Education										
No education	0.1	0.0	4.6	1.0	1.7	1.5	91.0	0.0	100.0	1,556
Primary	0.2	0.0	9.3	2.6	2.1	4.2	81.4	0.2	100.0	7,907
Secondary and higher	15.2	2.5	24.2	4.6	2.2	4.9	45.2	1.2	100.0	2,105
Wealth quintile										
Lowest	0.1	0.0	4.2	1.5	1.3	0.7	92.0	0.3	100.0	2,329
Second	0.1	0.0	5.7	1.4	1.4	1.0	90.1	0.3	100.0	2,381
Middle	1.0	0.0	5.4	2.4	1.9	0.6	88.5	0.1	100.0	2,327
Fourth	2.0	0.2	9.6	3.1	2.3	1.9	80.6	0.4	100.0	2,267
Highest	11.5	2.2	32.6	5.4	3.5	16.1	27.8	0.8	100.0	2,265
Total	2.9	0.5	11.4	2.7	2.1	4.0	76.1	0.4	100.0	11,568

Table 3.6.2 shows similar data for men's occupations. As with women, the majority of men work in agriculture (58 percent, as compared with 60 percent in 2010). Twelve percent of working men perform skilled manual labor, 11 percent are employed in sales and services and 10 percent of perform unskilled manual labor. Only 5 percent reported working in a technical, professional, or managerial occupation. These proportions have remained similar since 2010. As is the case with women, results by age show that older men are somewhat more likely to work in agriculture than younger ones. Results by province show that 30 percent of men in City of Kigali work in skilled manual jobs, 22 percent work in sales and services, 15 percent work in the unskilled manual sector, and only 15 percent work in agriculture. In other provinces, agricultural occupations dominate. As expected, the proportion of men working in agriculture is higher in rural areas than in urban areas (69 percent versus 13 percent). Conversely, it appears that urban men are more likely than rural men to work in other occupations. In particular, urban men are significantly more likely than rural men to perform skilled manual labor (28 percent versus 8 percent) and to be employed in sales and services (23 percent versus 8 percent). The difference is not large for unskilled manual labor (15 percent in urban areas and 9 percent in rural areas). With respect to educational attainment, the results show that, as with women, the majority of men who have no

education work in agriculture (74 percent, as compared with 30 percent of those with a secondary education or higher). Among those with a secondary education or higher, 23 percent work in professional/ technical/managerial occupations. Results according to wealth show that a majority of men in the poorest households work in agriculture (77 percent). Only 21 percent of men in the richest quintile work in agriculture, and 23 percent are engaged in skilled manual labor.

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Rwanda 2014-15

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agri-culture	Missing	Total	Number of men
Age										
15-19	0.8	0.0	7.9	7.4	15.6	7.5	60.4	0.4	100.0	751
20-24	3.4	0.5	13.9	9.9	14.3	4.9	53.0	0.1	100.0	824
25-29	9.1	0.3	12.9	13.6	11.7	2.0	50.4	0.0	100.0	921
30-34	6.0	0.4	11.8	14.7	7.4	1.2	58.4	0.0	100.0	916
35-39	4.8	0.2	9.3	14.1	7.3	1.0	63.2	0.0	100.0	564
40-44	6.0	0.6	11.4	11.9	4.2	0.6	65.3	0.0	100.0	472
45-49	5.1	0.4	8.6	15.4	2.9	0.3	67.3	0.0	100.0	383
Marital status										
Never married	5.7	0.4	12.3	10.3	13.8	5.8	51.5	0.2	100.0	1,955
Married or living together	4.8	0.3	10.4	13.5	7.2	0.7	63.0	0.0	100.0	2,781
Divorced/separated/widowed	2.2	0.0	10.4	15.3	16.3	0.8	55.0	0.0	100.0	92
Number of living children										
0	5.9	0.4	11.4	10.5	13.6	5.6	52.4	0.2	100.0	2,030
1-2	6.4	0.6	11.9	14.0	9.9	0.8	56.4	0.0	100.0	1,273
3-4	3.3	0.2	12.0	12.1	6.0	0.9	65.6	0.0	100.0	911
5+	2.6	0.0	7.8	14.7	4.3	0.4	70.2	0.0	100.0	615
Residence										
Urban	11.8	1.2	22.5	28.0	15.1	7.8	13.3	0.2	100.0	953
Rural	3.5	0.1	8.4	8.4	8.7	1.6	69.3	0.1	100.0	3,876
Province										
City of Kigali	10.2	1.2	22.0	30.0	14.6	7.3	14.7	0.0	100.0	668
South	4.3	0.1	7.6	7.9	7.2	2.7	69.9	0.4	100.0	1,163
West	4.5	0.2	9.4	10.9	10.8	1.7	62.5	0.0	100.0	1,014
North	3.5	0.5	8.8	10.0	12.2	1.2	63.9	0.0	100.0	749
East	4.6	0.1	11.7	9.3	8.3	2.4	63.8	0.0	100.0	1,235
Education										
No education	0.0	0.0	6.5	7.4	10.3	2.1	73.6	0.0	100.0	490
Primary	0.6	0.1	9.8	11.6	10.8	2.8	64.1	0.0	100.0	3,367
Secondary and higher	23.2	1.3	18.2	16.9	7.1	3.1	30.0	0.3	100.0	972
Wealth quintile										
Lowest	0.1	0.0	4.0	7.0	11.2	0.6	76.9	0.2	100.0	754
Second	0.4	0.1	6.3	9.1	10.6	0.3	73.1	0.0	100.0	908
Middle	1.0	0.0	8.9	9.0	9.1	1.2	70.9	0.0	100.0	970
Fourth	4.5	0.3	11.1	10.1	9.4	2.3	62.1	0.1	100.0	1,031
Highest	15.9	1.1	21.6	22.7	10.0	8.0	20.5	0.2	100.0	1,166
Total 15-49	5.1	0.3	11.2	12.3	10.0	2.8	58.2	0.1	100.0	4,829
50-59	3.1	0.6	5.0	8.6	3.1	0.5	79.1	0.0	100.0	623
Total 15-59	4.9	0.4	10.5	11.8	9.2	2.5	60.6	0.1	100.0	5,452

Table 3.7 shows the distribution of women employed during the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment. Overall, 44 percent of women in agricultural occupations were paid in cash and in-kind, 14 percent were paid in-kind only, 30 percent were not paid for their work, and only 13 percent were paid in cash only. Women in nonagricultural occupations were more likely to be paid in cash only (81 percent) than those working in agriculture (13 percent). Only 4 percent of women in nonagricultural occupations were not paid for their work.

In the majority of cases, women are self-employed, regardless of their occupation (60 percent of women in agricultural occupations and 54 percent of those in nonagricultural occupations). Women who work in

agriculture are more likely to work for a family member than women in nonagricultural occupations (17 percent versus 4 percent). Slightly more than 2 in 5 women (42 percent) working in nonagricultural occupations are employed by a non-family member, while this proportion is about 22 percent among women working in agricultural occupations. Finally, 62 percent of employed women work all year, whereas about 3 in 10 work occasionally.

Table 3.7 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Rwanda 2014-15

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	13.0	81.2	29.0
Cash and in-kind	43.6	13.4	36.4
In-kind only	13.5	1.0	10.5
Not paid	29.8	4.3	24.0
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	17.3	4.3	14.4
Employed by non-family member	22.4	41.5	26.8
Self-employed	60.2	54.1	58.6
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Continuity of employment			
All year	60.9	66.9	62.2
Seasonal	8.2	5.1	7.5
Occasional	30.9	28.0	30.3
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	8,804	2,720	11,568

Note: Total includes 44 weighted women with missing information on type of employment who are not shown separately.

3.6 USE OF TOBACCO

The consumption of tobacco has a negative impact on children's health, because it affects not only the health of those who consume it but also the health of those in proximity to people who consume it. For this reason, the 2014-15 RDHS asked questions to determine the level of tobacco consumption among survey respondents. Table 3.8.1 shows the percentages of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, according to their background characteristics and maternity status. The results show that the vast majority of women in Rwanda do not use tobacco (98 percent). The proportion of women who smoke cigarettes or a pipe is very low, at less than 1 percent; however, 1 percent consume other tobacco products.

Although the proportion of women who smoke tobacco is low, it appears that the oldest women age 45-49 (5 percent), those in South Province (3 percent), those with no education (4 percent) and those in the lowest wealth quintile (3 percent) are more likely to use other tobacco products.

Table 3.8.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, according to background characteristics and maternity status, Rwanda 2014-15

Background characteristic	Uses tobacco			Does not use tobacco	Number of women
	Cigarettes	Pipe	Other tobacco		
Age					
15-19	0.1	0.0	0.0	99.9	2,768
20-24	0.1	0.1	0.2	99.7	2,457
25-29	0.4	0.3	0.8	98.6	2,300
30-34	0.3	0.4	1.3	98.1	2,151
35-39	0.7	1.2	1.3	96.9	1,575
40-44	0.6	2.5	3.3	94.0	1,269
45-49	1.3	3.2	4.8	91.5	977
Maternity status					
Pregnant	0.2	0.2	1.2	98.6	984
Breastfeeding (not pregnant)	0.4	0.6	1.2	97.8	3,850
Neither	0.4	0.9	1.2	97.7	8,663
Residence					
Urban	0.6	0.1	0.4	98.9	2,626
Rural	0.3	0.9	1.4	97.5	10,871
Province					
City of Kigali	0.6	0.1	0.5	98.8	1,799
South	0.7	0.5	3.1	96.0	3,214
West	0.1	0.1	0.2	99.6	2,965
North	0.3	1.3	0.8	97.9	2,211
East	0.4	1.4	0.9	97.5	3,308
Education					
No education	0.7	2.3	3.8	93.7	1,665
Primary	0.4	0.7	1.1	97.9	8,678
Secondary and higher	0.3	0.0	0.0	99.6	3,154
Wealth quintile					
Lowest	0.5	1.6	3.1	95.1	2,561
Second	0.4	0.8	1.5	97.4	2,631
Middle	0.4	0.8	1.0	97.9	2,597
Fourth	0.3	0.6	0.4	98.9	2,634
Highest	0.3	0.1	0.1	99.5	3,073
Total	0.4	0.7	1.2	97.8	13,497

Table 3.8.2 shows the percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics. The results show that 90 percent of men age 15-49 in Rwanda do not use tobacco. Nine percent of men reported smoking cigarettes and 2 percent reported smoking pipes, while approximately 1 percent reported consuming other tobacco products.

The proportion of men who smoke cigarettes increases with increasing age, from 1 percent among those age 15-19 to 16 percent among those age 40-44, before declining slightly to 14 percent among those age 45-49. The proportion of men who smoke pipes follows a similar pattern (from 0 percent at age 15-19 to 9 percent at age 45-49). There are only minimal differences between urban and rural men in consumption of cigarettes or other tobacco products; about 9 percent in urban and rural areas smoke cigarettes. By province, men in South and East are more likely to smoke cigarettes (12 percent and 11 percent, respectively) than men in Kigali City and North (9 percent); men in West are least likely to smoke cigarettes (4 percent). As with women, men who have no education (18 percent) and those in the lowest wealth quintile (17 percent) are more likely to smoke cigarettes than their counterparts; they are also more likely to smoke pipes.

Table 3.8.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Rwanda 2014-15

Background characteristic	Uses tobacco			Does not use tobacco	Number of men	Percent distribution of men who smoke cigarettes by number of cigarettes smoked in the past 24 hours						Total	Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+	Don't know/ missing		
Age													
15-19	1.2	0.0	0.2	98.7	1,282	*	*	*	*	*	*	100.0	16
20-24	4.8	0.1	0.6	95.1	994	(5.8)	(30.4)	(41.0)	(15.1)	(5.5)	(2.2)	100.0	47
25-29	11.8	0.9	1.0	87.8	946	3.3	28.9	42.6	12.6	7.5	5.2	100.0	112
30-34	12.5	2.5	1.3	86.2	930	3.5	28.3	44.1	7.0	15.9	1.3	100.0	116
35-39	15.4	2.9	0.4	83.8	567	4.0	25.7	51.2	9.5	7.2	2.4	100.0	88
40-44	16.0	6.3	1.0	80.3	473	8.2	31.0	37.0	3.4	16.6	3.8	100.0	76
45-49	14.2	9.0	0.8	80.4	385	8.7	27.2	43.8	12.8	5.4	2.2	100.0	55
Residence													
Urban	8.6	0.4	0.7	91.2	1,169	3.1	15.4	48.1	16.2	11.5	5.7	100.0	100
Rural	9.3	2.5	0.7	89.4	4,408	5.6	31.0	42.4	8.4	9.8	2.7	100.0	408
Province													
City of Kigali	8.7	0.8	0.8	90.7	804	4.2	15.8	50.6	13.5	13.8	2.2	100.0	70
South	12.2	2.9	1.0	86.3	1,327	8.3	41.3	34.6	5.6	7.0	3.3	100.0	162
West	4.4	0.4	0.3	95.3	1,182	4.3	26.0	41.7	7.8	11.4	8.9	100.0	51
North	8.7	2.5	0.4	90.4	851	1.7	22.9	53.7	8.4	8.8	4.6	100.0	74
East	10.7	3.0	0.8	87.6	1,413	4.0	22.5	45.6	14.5	12.2	1.1	100.0	152
Education													
No education	17.7	6.4	1.6	77.5	496	6.5	35.8	36.2	10.0	8.9	2.6	100.0	87
Primary	10.2	2.1	0.8	88.8	3,636	4.8	27.3	46.6	9.3	9.5	2.5	100.0	372
Secondary and higher	3.4	0.3	0.1	96.5	1,445	4.9	18.9	33.5	15.0	17.8	10.0	100.0	50
Wealth quintile													
Lowest	16.5	5.3	1.0	80.4	819	2.9	40.8	43.8	6.9	5.1	0.6	100.0	135
Second	10.2	3.2	0.8	88.2	991	5.2	23.2	47.0	13.0	7.3	4.3	100.0	101
Middle	9.8	1.7	1.0	89.2	1,097	8.2	30.3	37.1	3.5	14.8	6.2	100.0	108
Fourth	6.6	1.0	0.3	93.1	1,234	6.7	23.7	47.2	13.0	9.4	0.0	100.0	81
Highest	5.8	0.5	0.5	93.9	1,436	3.1	14.3	43.8	16.6	16.6	5.7	100.0	84
Total 15-49	9.1	2.0	0.7	89.8	5,577	5.1	28.0	43.5	10.0	10.2	3.2	100.0	509
50-59	19.1	16.0	3.8	69.5	640	13.1	31.8	36.0	10.3	7.0	1.7	100.0	123
Total 15-59	10.2	3.5	1.0	87.7	6,217	6.7	28.7	42.1	10.0	9.6	3.0	100.0	631

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figures is based on fewer than 25 unweighted cases.

Among men who smoke cigarettes, 44 percent reported smoking from 3 to 5 cigarettes in the 24 hours preceding the survey, 28 percent smoked from 1 to 2 cigarettes, 10 percent smoked 6-9 cigarettes, and 10 percent smoked 10 or more cigarettes. Notably, 5 percent of men who reported that they smoke did not smoke a cigarette in the 24 hours before the interview.

PROXIMATE DETERMINANTS OF FERTILITY 4

Key Findings

- The median age at first marriage among women age 25-49 is 22 years,
- The median age at first marriage among men age 30-49 is 26 years.
- Median age at first marriage among women has increased slightly since 2010, from 21 years to 22 years.
- The percentage of never-married women (38 percent versus 39 percent in RDHS 2010) and men (48 percent versus 51 percent for RDHS 2010) has decreased slightly in the past five years.
- Two percent of currently married men age 15-49 are in polygamous unions; 7 percent of currently married women have co-wives.
- Only 2 percent of women and men age 30-49 reported having had sex before age 15.
- Twelve percent of men reported that they had sex by age 18, as compared with 20 percent of women.

This chapter addresses the key factors that define the risk of becoming pregnant. These factors include age at first marriage, age at first sexual intercourse, sexual activity, postpartum abstinence, and amenorrhea.

4.1 MARITAL STATUS

In Rwanda, formal unions (married) or informal unions (living together) between men and women are the sole culturally permissible contexts for sexual activity. Marital status can therefore be considered the primary factor initiating exposure to the risk of pregnancy. In the data discussed in this section, the term *married* refers to men and women bound together legally, while *living together* refers to couples cohabiting in informal unions. People are considered *never married* if they have never been married or lived together with a partner. *Ever-married* people include those who are currently married as well as those who are living with a partner, widowed, separated, or divorced.

Table 4.1 shows the distribution of women and men by marital status, according to age at the time of the survey. Of the 13,497 women interviewed, 52 percent were in a union. This proportion has remained relatively stable since the 2010 RDHS, when the figure was 50 percent.

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Rwanda 2014-15

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
				WOMEN					
Age									
15-19	96.2	0.1	2.9	0.2	0.6	0.0	100.0	3.1	2,768
20-24	58.8	11.3	24.7	1.3	3.7	0.3	100.0	35.9	2,457
25-29	24.0	39.7	28.9	2.5	4.2	0.8	100.0	68.6	2,300
30-34	11.4	58.7	20.0	3.6	4.0	2.2	100.0	78.7	2,151
35-39	7.1	62.5	16.3	4.6	4.0	5.6	100.0	78.7	1,575
40-44	4.1	55.7	15.0	5.3	5.9	14.2	100.0	70.6	1,269
45-49	3.5	52.1	10.0	6.7	3.8	23.8	100.0	62.1	977
Total 15-49	37.8	34.5	17.2	2.8	3.4	4.2	100.0	51.7	13,497
				MEN					
Age									
15-19	99.8	0.0	0.2	0.0	0.0	0.0	100.0	0.2	1,282
20-24	82.1	4.1	12.9	0.1	0.8	0.0	100.0	17.0	994
25-29	41.4	26.3	29.7	1.0	1.4	0.2	100.0	56.0	946
30-34	14.1	55.0	28.3	1.1	1.4	0.1	100.0	83.3	930
35-39	8.2	68.5	21.7	0.4	1.0	0.2	100.0	90.2	567
40-44	3.2	74.4	19.6	0.7	1.2	0.8	100.0	94.0	473
45-49	2.8	75.5	17.7	0.9	1.1	2.1	100.0	93.2	385
Total 15-49	48.2	32.9	17.2	0.5	0.9	0.3	100.0	50.1	5,577
50-59	1.9	73.9	16.6	2.2	2.5	2.9	100.0	90.5	640
Total 15-59	43.5	37.1	17.1	0.7	1.1	0.5	100.0	54.2	6,217

Thirty-five percent of women are in formal marriages, the same percentage as in 2010, while the proportion of women in informal unions has increased from 15 percent to 17 percent. The proportion of women who are divorced has declined from 5 percent to 3 percent, while the proportion of women who are separated has increased from 1 percent to 3 percent. The proportion of widows has declined slightly, from 5 percent to 4 percent. Thirty-eight percent of women have never been married, similar to the figure in 2010 (39 percent). Young women in the 15 to 19 age group (96 percent) are most likely to have never been married.

Among men age 15-49, 48 percent have never been married, 50 percent are in a union, 2 percent are either separated, divorced, or widowed. Thirty-three percent of those in a union are in a formal marriage, while 17 percent are in an informal marriage (living together with a partner). These figures are slightly different from those found in the 2010 RDHS, with an increase in the proportion of married men and a decrease in the proportion of men who have never been married. There has been no change in the proportion of men who are separated or divorced.

4.2 POLYGAMY

The survey asked currently married women (in formal or informal marriages) whether their partners had other wives. Table 4.2.1 shows the percent distribution of married women by number of co-wives, according to background characteristics. Although polygamy is illegal in Rwanda and is not very common, it affects 7 percent of women who are in a union. The proportion of women in polygamous unions is slightly lower than the proportion in 2010 (8 percent). The percentage of women with only one co-wife has decreased (from 7 percent to 6 percent), while the percentage with more than one co-wife has remained the same (1 percent).

Table 4.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, Rwanda 2014-15

Background characteristic	Number of co-wives					Total	Number of women
	0	1	2+	Don't know	Missing		
Age							
15-19	95.5	3.4	0.0	1.2	0.0	100.0	85
20-24	96.2	2.6	0.6	0.5	0.0	100.0	883
25-29	93.9	3.8	1.1	1.1	0.1	100.0	1,577
30-34	92.0	5.7	1.4	0.7	0.1	100.0	1,693
35-39	91.0	6.5	1.1	1.2	0.2	100.0	1,240
40-44	88.1	8.8	2.0	1.1	0.0	100.0	896
45-49	86.7	9.6	2.3	1.2	0.2	100.0	607
Residence							
Urban	93.2	4.4	1.2	1.2	0.0	100.0	1,194
Rural	91.6	6.0	1.4	0.9	0.1	100.0	5,788
Province							
City of Kigali	94.3	3.7	0.8	1.2	0.0	100.0	842
South	92.7	4.8	1.4	0.8	0.3	100.0	1,606
West	90.3	6.8	1.3	1.6	0.0	100.0	1,542
North	94.2	4.2	0.8	0.6	0.1	100.0	1,130
East	89.9	7.5	1.8	0.7	0.1	100.0	1,863
Education							
No education	87.0	9.9	2.2	0.7	0.3	100.0	1,154
Primary	92.2	5.4	1.2	1.1	0.1	100.0	4,921
Secondary and higher	96.4	1.9	0.8	0.8	0.1	100.0	907
Wealth quintile							
Lowest	87.2	9.3	1.6	1.7	0.3	100.0	1,313
Second	90.4	6.5	2.1	0.9	0.2	100.0	1,472
Middle	92.9	5.3	1.3	0.4	0.0	100.0	1,453
Fourth	93.4	4.5	1.1	0.9	0.1	100.0	1,380
Highest	95.3	3.0	0.6	1.0	0.0	100.0	1,365
Total	91.9	5.7	1.3	1.0	0.1	100.0	6,982

The proportion of women with one or more co-wives increases steadily with age, from 3 percent among those age 15-19 to 12 percent among those age 45-49. The extent of polygamy differs by residence; the percentage of married women living in polygamous unions is 6 percent in urban areas and 7 percent in rural areas. There is also variation between the provinces, from a low of 5 percent in Kigali and North to a high of 9 percent in East. Women's level of education is related to polygamy: the percentage of married women with one or more co-wives is four times higher among those with no education (12 percent) than among those with a secondary education or higher (3 percent). The proportion of women in polygamous unions decreases with increasing wealth, from 11 percent among those in the lowest wealth quintile to 4 percent among those in the highest quintile.

Table 4.2.2 shows information on polygamy for men. The proportion of married men in polygamous unions is very low (2 percent, identical to the figure in 2010). The percentage of men in such unions increases with age, from less than 1 percent among those less than age 30 to 5 percent among those age 45-49.

Table 4.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Rwanda 2014-15

Background characteristic	Number of wives 1	2+	Total	Number of men
Age				
15-19	*	*	100.0	3
20-24	100.0	0.0	100.0	169
25-29	99.6	0.4	100.0	530
30-34	98.2	1.8	100.0	775
35-39	97.5	2.5	100.0	512
40-44	96.5	3.5	100.0	445
45-49	95.3	4.7	100.0	359
Residence				
Urban	97.5	2.5	100.0	494
Rural	97.9	2.1	100.0	2,298
Province				
City of Kigali	98.4	1.6	100.0	361
South	98.8	1.2	100.0	605
West	97.2	2.8	100.0	627
North	98.8	1.2	100.0	472
East	96.5	3.5	100.0	727
Education				
No education	95.8	4.2	100.0	392
Primary	98.1	1.9	100.0	2,050
Secondary and higher	98.0	2.0	100.0	350
Wealth quintile				
Lowest	97.0	3.0	100.0	492
Second	97.6	2.4	100.0	601
Middle	98.3	1.7	100.0	585
Fourth	98.2	1.8	100.0	554
Highest	97.8	2.2	100.0	560
Total 15-49	97.8	2.2	100.0	2,792
50-59	93.8	6.2	100.0	579
Total 15-59	97.1	2.9	100.0	3,371

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

4.3 AGE AT FIRST UNION

Marriage remains the legally sanctioned context for sexual intercourse in Rwanda. Therefore, despite the existence of prenuptial intercourse, age at first marriage constitutes the beginning of exposure to the risk of pregnancy. For this reason, analysis of age at first union is very important.

Table 4.3 shows the percentage of currently married women and men by current age, according to their age at first marriage. Only 2 percent of women reported being married by age 15. At age 18, the proportion is significantly higher (14 percent). Thirty-one percent of women are married by age 20, 51 percent by age 22, and 73 percent by age 25. The median age at first union is 21.9 years, which is relatively late. This figure has changed only minimally since 2010 (21.4 years).

According to the data, men marry at a later age than women. Less than half of men age 30-49 were married by age 25 (46 percent), as compared with three-quarters of women (76 percent) in the same age group. The median age at first union among men age 30-59 is 25.4 years.

Table 4.3 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Rwanda 2014-15

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Number of respondents	Median age at first marriage
				WOMEN				
Age								
15-19	0.0	na	na	na	na	96.2	2,768	a
20-24	0.4	6.8	20.8	na	na	58.8	2,457	a
25-29	1.1	8.2	21.2	42.7	66.5	24.0	2,300	22.8
30-34	1.1	13.6	29.9	46.9	69.1	11.4	2,151	22.4
35-39	1.2	15.8	38.6	58.6	75.3	7.1	1,575	21.0
40-44	2.0	18.1	36.2	61.3	82.3	4.1	1,269	21.1
45-49	3.0	17.8	36.1	56.2	81.0	3.5	977	21.5
25-49	1.5	13.7	30.8	51.3	73.0	12.0	8,272	21.9
30-49	1.7	15.8	34.6	54.6	75.5	7.4	5,972	21.5
				MEN				
Age								
15-19	0.0	na	na	na	na	99.8	1,282	a
20-24	0.0	0.6	5.2	na	na	82.1	994	a
25-29	0.0	1.1	4.6	13.2	41.3	41.4	946	a
30-34	0.0	3.0	10.8	23.1	45.8	14.1	930	25.5
35-39	0.0	2.7	9.9	24.1	48.6	8.2	567	25.2
40-44	0.0	2.0	5.8	18.8	46.7	3.2	473	25.4
45-49	0.0	1.9	8.7	19.3	39.0	2.8	385	26.3
30-49	0.0	2.6	9.3	21.9	45.6	8.7	2,355	25.6
30-59	0.0	2.7	9.5	22.9	47.2	7.2	2,995	25.4

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Table 4.4 shows the median age at first union among women and men according to background characteristics. The median age at first marriage is slightly lower among rural women than among urban women (21.7 years versus 23.2 years).

The data show variations by province: among women, East and North have the earliest age at first union (21.2 years), while South and City of Kigali have the latest (22.6 years and 23.7 years, respectively). Level of education is also related to age at first union. The median age at first union is 20.3 years among women with no education and 21.8 years among those with a primary education (age at marriage was not computed for those with a secondary education because less than 50 percent of the respondents began living with their spouse/partner for the first time before reaching age 25). Results according to wealth quintile show little difference among the four lowest quintiles; however, women in the richest quintile (23.5 years) enter into their first union later than women in the other quintiles (21.4 to 21.9 years).

Differentials in age at first marriage are more observed among men than women in all background characteristics.

Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 25-49 and median age at first marriage among men age 30-59, according to background characteristics, Rwanda 2014-15

Background characteristic	Women age 25-49	Men age 30-59
Residence		
Urban	23.2	28.2
Rural	21.7	24.8
Province		
City of Kigali	23.7	28.5
South	22.6	26.0
West	21.5	24.1
North	21.2	24.3
East	21.2	25.2
Education		
No education	20.3	24.4
Primary	21.8	25.0
Secondary and higher	a	29.6
Wealth quintile		
Lowest	21.4	25.7
Second	21.6	24.6
Middle	21.4	24.5
Fourth	21.9	24.6
Highest	23.5	27.8
Total	21.9	25.4

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
a = Omitted because less than 50 percent of the respondents began living with their spouse or partner for the first time before reaching the beginning of the age group

4.4 AGE AT FIRST SEXUAL INTERCOURSE

Although marriage is still considered the only socially sanctioned context for sexual activity, prenuptial sex is increasingly common. For this reason, the survey asked respondents their age at the time they first had sexual intercourse. Table 4.5 shows percentages for both women and men according to age at first sexual intercourse, along with the median age at first intercourse.

Very few women reported having had sexual intercourse before age 15 (2 percent). Approximately one in five women (19 percent) had sexual intercourse by age 18. At age 20, two in five women (39 percent) have had sexual intercourse. The median age at first sexual intercourse is 21.8 years, an increase of approximately one year since 2010 (20.7 years). It appears that the median age at first intercourse is nearly identical to the median age at first union, which implies that the majority of Rwandan women have their first sexual intercourse at the time of their first union.

Very few men age 30-49 reported that they have had sexual intercourse prior to age 15 (2 percent). Among men in that age group, the median age at first sexual intercourse is 22.5 years. Unlike women, men's age at first sexual intercourse is about three years younger than their age at first union. This difference in age at first sexual intercourse and age at first union is the same as that found in 2010.

Table 4.5 Age at first sexual intercourse

Percentage of women age 15-49 and men age 15-59 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Rwanda 2014-15

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number	Median age at first intercourse
				WOMEN				
Age								
15-19	6.8	na	na	na	na	79.9	2,768	a
20-24	3.0	18.1	40.2	na	na	35.5	2,457	a
25-29	2.5	15.3	32.3	55.7	79.0	11.9	2,300	21.5
30-34	2.1	18.3	37.6	55.9	76.1	4.5	2,151	21.3
35-39	1.8	20.6	44.7	66.0	80.7	2.7	1,575	20.4
40-44	2.6	21.2	42.4	67.2	85.7	1.8	1,269	20.6
45-49	3.5	21.3	41.6	60.5	83.9	2.0	977	21.0
25-49	2.4	18.7	38.7	na	na	5.5	8,272	21.8
30-49	2.4	20.0	41.1	61.7	80.6	3.0	5,972	21.0
				MEN				
Age								
15-19	13.4	na	na	na	na	76.5	1,282	a
20-24	7.0	20.5	37.9	na	na	42.2	994	a
25-29	4.5	17.4	30.0	46.0	72.1	12.9	946	22.5
30-34	2.3	12.7	30.6	45.8	67.7	4.0	930	22.6
35-39	1.7	11.4	25.5	44.2	69.4	1.8	567	22.6
40-44	1.6	10.2	27.6	45.1	66.4	1.1	473	22.5
45-49	2.7	15.4	31.7	51.0	69.2	1.0	385	21.8
25-49	2.8	13.8	29.2	na	na	5.4	3,301	22.4
30-49	2.1	12.3	28.9	46.1	68.1	2.4	2,355	22.5
25-59	2.6	14.2	29.9	na	na	4.7	3,941	22.3
30-59	1.9	13.1	29.8	47.1	68.2	2.1	2,995	22.4

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

Table 4.6 shows women's and men's median age at first sexual intercourse according to background characteristics. Neither area of residence nor wealth quintile is related to median age at first sexual intercourse among either women or men. The greatest variation among women is by level of education: the higher the level of education, the higher the median age at first sexual intercourse. Median age ranges from 19.6 years among women with no education to 23.6 years among those with a secondary education or higher. Among men the difference is small, with a corresponding range of 22.2 years to 23.0 years. Median age at first intercourse among women varies slightly across the provinces, from 20.5 years in East to 21.7 years in South. Among men, it varies from 21.9 years in West to 23.0 years in South.

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 25-49 and median age at first sexual intercourse among men age 30-59, according to background characteristics, Rwanda 2014-15

Background characteristic	Women age 25-49	Men age 30-59
Residence		
Urban	21.1	22.4
Rural	21.0	22.3
Province		
City of Kigali	21.2	22.5
South	21.7	23.0
West	21.0	21.9
North	20.7	22.0
East	20.5	22.2
Education		
No education	19.6	22.2
Primary	21.0	22.3
Secondary and higher	23.6	23.0
Wealth quintile		
Lowest	20.4	22.7
Second	21.1	22.5
Middle	20.9	22.2
Fourth	21.3	22.0
Highest	21.7	22.6
Total	21.0	22.3

4.5 RECENT SEXUAL ACTIVITY

Frequency of sexual intercourse is a direct determinant of fertility. Therefore, the survey asked all women and men, regardless of marital status, how long it had been since they last had sexual intercourse. Table 4.7.1 shows the data on most recent sexual activity among women, according to background characteristics.

Half of all women age 15-49 had sexual intercourse in the four weeks preceding the survey. Recent sexual activity was most common among women in their 30s, about three-quarters of whom reported being sexually active in the previous four weeks. The results also show that married women are most likely to have been sexually active in the past four weeks (92 percent). Recent sexual activity decreases with marital duration, from a high of 94 percent among women who have been married less than five years to a low of 88 percent among women who have been married 20 years or more.

Women in rural areas reported a higher level of sexual activity in the past four weeks (51 percent) than women in urban areas (45 percent).

The percentage of women who had sexual intercourse in the four weeks before the survey decreases as level of education increases, from 65 percent among those with no education to 28 percent among those with a secondary education or higher.

Table 4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Rwanda 2014-15

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of women
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing			
Age							
15-19	5.3	5.5	9.3	0.0	79.9	100.0	2,768
20-24	36.7	13.6	14.2	0.0	35.5	100.0	2,457
25-29	66.2	12.3	9.5	0.1	11.9	100.0	2,300
30-34	74.9	10.3	10.1	0.2	4.5	100.0	2,151
35-39	73.6	10.0	13.6	0.1	2.7	100.0	1,575
40-44	64.1	10.5	23.5	0.1	1.8	100.0	1,269
45-49	55.9	6.6	34.2	1.3	2.0	100.0	977
Marital status							
Never married	3.5	10.0	17.2	0.0	69.4	100.0	5,100
Married or living together	91.5	6.7	1.7	0.1	0.0	100.0	6,982
Divorced/separated/widowed	9.3	26.3	63.2	1.2	0.0	100.0	1,415
Marital duration[2]							
0-4 years	93.8	6.0	0.3	0.0	0.0	100.0	1,680
5-9 years	92.4	7.1	0.6	0.0	0.0	100.0	1,537
10-14 years	91.4	6.9	1.7	0.0	0.0	100.0	1,078
15-19 years	91.8	5.7	2.3	0.1	0.0	100.0	962
20-24 years	88.0	8.5	3.4	0.2	0.0	100.0	619
25+ years	87.8	5.8	6.1	0.2	0.0	100.0	410
Married more than once	89.6	7.5	2.7	0.2	0.0	100.0	696
Residence							
Urban	45.0	13.6	15.0	0.0	26.5	100.0	2,626
Rural	50.8	9.1	13.8	0.2	26.2	100.0	10,871
Province							
City of Kigali	47.1	12.7	15.0	0.0	25.2	100.0	1,799
South	48.3	10.0	14.2	0.1	27.4	100.0	3,214
West	49.6	8.7	13.7	0.0	27.9	100.0	2,965
North	48.1	8.3	13.0	0.2	30.3	100.0	2,211
East	53.4	10.7	14.1	0.4	21.4	100.0	3,308
Education							
No education	64.7	10.2	20.3	0.6	4.2	100.0	1,665
Primary	54.7	9.9	13.7	0.1	21.6	100.0	8,678
Secondary and higher	27.9	10.1	11.5	0.0	50.5	100.0	3,154
Wealth quintile							
Lowest	47.8	13.5	20.4	0.2	18.2	100.0	2,561
Second	53.2	9.0	13.5	0.2	24.1	100.0	2,631
Middle	54.5	7.7	11.9	0.2	25.6	100.0	2,597
Fourth	50.5	7.7	10.6	0.1	31.1	100.0	2,634
Highest	43.3	11.7	13.8	0.2	31.0	100.0	3,073
Total	49.6	10.0	14.0	0.2	26.2	100.0	13,497

[1] Excludes women who had sexual intercourse within the last 4 weeks
[2] Excludes women who are not currently married

Table 4.7.2 presents information on recent sexual activity among men according to background characteristics. The data indicate that 50 percent of men age 15-49 had sexual intercourse in the four weeks preceding the survey. The proportion of men who are sexually active increases with age and reaches its peak at age 40-44 (91 percent). As with women, married men are more likely to be sexually active (95 percent) than unmarried men. The results show similar levels of sexual activity at all marital durations, with a decrease observed only among men married for 25 years or more (88 percent).

Table 4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Rwanda 2014-15

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of men
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing			
Age							
15-19	1.8	6.1	15.5	0.1	76.5	100.0	1,282
20-24	20.8	14.6	22.4	0.0	42.2	100.0	994
25-29	57.4	12.8	16.7	0.1	12.9	100.0	946
30-34	82.2	7.3	6.4	0.0	4.0	100.0	930
35-39	85.8	8.9	3.6	0.0	1.8	100.0	567
40-44	90.9	5.8	1.9	0.3	1.1	100.0	473
45-49	84.7	10.2	3.9	0.2	1.0	100.0	385
Marital status							
Never married	4.5	12.9	23.8	0.1	58.7	100.0	2,691
Married or living together	94.9	4.9	0.2	0.1	0.0	100.0	2,792
Divorced/separated/widowed	13.7	47.7	38.6	0.0	0.0	100.0	94
Marital duration[2]							
0-4 years	95.4	4.2	0.4	0.0	0.0	100.0	775
5-9 years	94.6	5.1	0.1	0.2	0.0	100.0	647
10-14 years	95.6	4.4	0.0	0.0	0.0	100.0	455
15-19 years	95.5	4.3	0.3	0.0	0.0	100.0	369
20-24 years	93.7	5.5	0.0	0.8	0.0	100.0	170
25+ years	88.0	12.0	0.0	0.0	0.0	100.0	59
Married more than once	94.2	5.8	0.0	0.0	0.0	100.0	317
Residence							
Urban	44.2	15.0	15.8	0.1	24.9	100.0	1,169
Rural	51.4	8.0	11.3	0.1	29.2	100.0	4,408
Province							
City of Kigali	45.7	14.7	13.6	0.1	25.9	100.0	804
South	44.4	9.4	15.5	0.1	30.6	100.0	1,327
West	52.9	7.4	9.8	0.0	29.9	100.0	1,182
North	55.6	6.2	10.4	0.3	27.4	100.0	851
East	51.4	10.3	11.5	0.0	26.8	100.0	1,413
Education							
No education	74.9	8.8	6.6	0.0	9.6	100.0	496
Primary	55.4	8.8	10.5	0.1	25.2	100.0	3,636
Secondary and higher	27.4	11.5	18.5	0.0	42.6	100.0	1,445
Wealth quintile							
Lowest	56.3	9.7	9.6	0.0	24.4	100.0	819
Second	58.5	6.0	8.7	0.0	26.8	100.0	991
Middle	53.5	7.5	12.6	0.0	26.5	100.0	1,097
Fourth	44.9	8.2	12.6	0.3	34.0	100.0	1,234
Highest	41.8	14.5	15.5	0.1	28.2	100.0	1,436
Total 15-49	49.9	9.5	12.2	0.1	28.3	100.0	5,577
50-59	78.1	14.3	6.7	0.0	0.9	100.0	640
Total 15-59	52.8	10.0	11.7	0.1	25.5	100.0	6,217

[1] Excludes men who had sexual intercourse within the last 4 weeks
[2] Excludes men who are not currently married

Results by residence show a difference between rural (51 percent) and urban (44 percent) areas in the proportion of men who are sexually active. By province, South has the lowest proportion of men who had sexual intercourse in the four weeks before the survey (44 percent), while North has the highest proportion (56 percent). As with women, the percentage of men who had sexual intercourse during the four weeks before the survey decreases as level of education increases, from 75 percent among those with no education to 27 percent among those with a secondary education or higher. The data also indicate that the proportion of men who are sexually active generally decreases with increasing wealth.

FERTILITY 5

Key Findings

- The total fertility rate for the three years preceding the survey is 4.2 births per woman, with rural women having almost one child more than urban women (4.3 and 3.6 respectively).
- Fertility has decreased from 6.1 births per woman in 2005 to 4.6 in 2010 and to 4.2 in 2014-15, a two-child decline in the past 10 years.
- Forty-five percent of births occur within three years of a previous birth, with 14 percent occurring within 24 months.
- Childbearing begins rather late in Rwanda, with 7 percent of women giving birth by age 18 and 43 percent by age 22.
- Seven percent of adolescent women age 15-19 are already mothers or pregnant with their first child.

For more than 30 years, Rwanda has collected socio demographic data to evaluate fertility levels, patterns, trends, and other general characteristics of its population. These efforts include the following surveys:

- The 1978 Rwanda General Population and Housing Census,
- The 1983 National Fertility Survey,
- The 1991 Rwanda General Population and Housing Census,
- The 1992 Rwanda Demographic and Health Survey (RDHS),
- The 1996 Socio-demographic Survey,
- The 2000 RDHS,
- The 2002 Rwanda General Population and Housing Census,
- The 2005 RDHS, the 2007-08 Rwanda Interim Demographic and Health Survey (RIDHS), the 2010 RDHS,
- The 2012 Rwanda General Population and Housing Census, and
- The current survey, 2014-15 RDHS.

Information from women's birth histories obtained in the 2014-15 RDHS is used to estimate fertility levels, determine the timing of births, and describe the relationship of variables such as residence and educational attainment with fertility. This information provides recent indicators of fertility rates and birth spacing not only at the national level but also by province and residence.

Fertility is one of the three principal components of population dynamics, the other two being mortality and migration (United Nations, 1973). The collection of data on fertility levels, trends, and differentials has been a prime objective of the Demographic and Health Survey (DHS) Program since its inception. The DHS surveys have contributed to the development of different policies in Rwanda and therefore have played an important role in providing evidence on the country's overall population dynamics.

This chapter analyzes the fertility data gathered in the 2014-15 RDHS, presents data on age at first birth and birth intervals, and concludes with an analysis of teenage fertility.

Fertility data were obtained by asking a series of questions to all female respondents. Interviewers recorded the total number of children born to each woman, the number of children currently living with their mother, the number of children living elsewhere, and the number of children who had died. A complete birth history for each woman was then compiled, from the earliest to the most recent birth. The following information was gathered for each birth: type of birth (single or multiple), sex of child, date of birth, and survival status. For living children, respondents were asked the current age of the child and whether the child was living with his or her mother or elsewhere. For children who had died, respondents were asked age at the time of death. The interviewer verified that the number of living and dead children reported by the mother initially was consistent with the number of children obtained from the birth history.

Because the DHS is a retrospective survey, the data can be used to estimate not only current fertility levels but also fertility trends over the past 30 years. Despite the organization and controls established to ensure achievement of the survey objectives (including training, instructions to field and data processing personnel, and quality controls at all levels), the data obtained may be subject to various types of errors, primarily errors inherent in all retrospective surveys, including:

- **Underreporting of births**, in particular the omission of children living elsewhere and children who died very young (a few days or hours after birth), which can result in underestimation of fertility levels.

- **Misreporting of date of birth and/or age** and, in particular, the tendency to round off age or year of birth, which can result in under- or overestimation of fertility at certain ages and/or for certain periods.

- **Selective survival bias** (selectivity effect), because the women surveyed are those who have survived. Assuming that the fertility of women who died prior to the survey differs from the fertility of the survivors, the fertility levels obtained in the survey may be slightly biased.

Finally, for the men's survey, as for the women's survey, information was gathered concerning total number of children born by asking men a series of questions, including the number of children they had, the gender of each child, the number of children living with them, the number of children living elsewhere, and the number of children who had died. However, men were not asked to provide a complete birth history.

5.1 Fertility Levels and Differentials

Current fertility levels are commonly measured in terms of age-specific fertility rates (ASFRs). ASFRs are calculated by dividing the number of births to women in each specific five-year age group by the number of woman-years of exposure in that age group during the reference period. The total fertility rate (TFR), another common measurement of current fertility, is the average number of children a woman would bear in her lifetime if fertility rates were to remain constant at the level prevailing during the period under consideration, in this case the three years preceding the survey. A three-year rate was chosen to allow reporting

of the most current information, to reduce sampling errors, and to avoid problems with possible intentional displacement of births from five to six years before the survey as a means of reducing the workload of collecting information for children under age 5.

Table 5.1 indicates that, at the national level, ASFRs follow the classic pattern of countries with high fertility. This pattern is characterized by relatively high early fertility (45 births per 1,000 among women age 15-19) followed by a rapid increase to higher levels among women age 20-29 (179 to 213 per 1,000). Fertility is still high at age 30-34 (186 per 1,000) and 35-39 (134 per 1,000) before declining precipitously at the end of the childbearing years (12 per 1,000 at age 45-49). By the end of her childbearing years, a Rwandan woman has had an average of 4.2 births. Even though the current TFR is high, it has declined overtime from 6.1 in 2005 and 4.6 in 2010. The data in Table 5.1 also show clear differentials in fertility by residence: women in urban areas have lower fertility (3.6) than those in rural areas (4.3). This means that, if current fertility levels were to remain constant, by the end of her childbearing years a woman living in a rural area would have an average of 0.7 children more than a woman living in an urban area.

Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Rwanda 2014-15

	Residence		
Age group	Urban	Rural	Total
15-19	41	46	45
20-24	143	190	179
25-29	185	220	213
30-34	185	187	186
35-39	107	139	134
40-44	52	67	65
45-49	1	13	12
TFR(15-49)	3.6	4.3	4.2
GFR	124	146	142
CBR	34.3	32.3	32.6

Notes: Age-specific fertility rates are per 1,000 women. Rates for the 45-49 age group may be slightly biased due to truncation. Rates are for the period 1-36 months prior to the interview.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate, expressed per 1,000 women age 15-44
CBR: Crude birth rate, expressed per 1,000 population

Table 5.1 also shows the crude birth rate (CBR), or the average number of live births annually in the total population, estimated at 33 per 1,000 for the country as a whole, and the general fertility rate (GFR), or the average number of live births per 1,000 women of reproductive age (age 15-44), estimated at 142 per 1,000. Similar to the TFR, these two indicators vary significantly by residence. Rural areas have a GFR of 146 per 1,000, as compared with 124 per 1,000 in urban areas. Conversely, the CBR for rural areas (32 per 1,000) is two points less than the CBR for urban areas (34 per 1,000). This might be explained by the increasing number of youths migrating from rural to urban areas. This leads to a larger proportion of the urban population being made up of younger adults, those in the prime fertility ages. Thus, even though the fertility rate per woman is lower in urban areas than in rural areas, the fact that there are proportionally more women in urban areas means that the crude birth rate per population is higher.

Table 5.2 presents fertility rates by background characteristics. The TFR varies by province, ranging from a high of 4.6 children per woman in West and East to a low of 3.6 children per woman in the city of Kigali, 3.7 in North, and 4.0 in South. In other words, women in the West and East provinces have an average of one more child than women in City of Kigali.

The TFR is associated with educational attainment, varying from 3.0 children among women with a secondary education or higher to 5.1 children among women with no education. There is a similar relationship between fertility and wealth; the TFR is almost two children lower among women in the highest wealth quintile than among those in the lowest quintile.

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Rwanda 2014-15

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	3.6	6.6	4.8
Rural	4.3	7.5	5.6
Province			
City of Kigali	3.6	6.9	4.6
South	4.0	6.9	5.0
West	4.6	7.4	5.9
North	3.7	6.3	5.6
East	4.6	8.4	5.9
Education			
No education	5.1	6.6	6.1
Primary	4.5	8.0	5.4
Secondary and higher	3.0	5.8	3.9
Wealth quintile			
Lowest	5.1	7.7	5.3
Second	4.6	7.7	5.6
Middle	4.1	8.0	5.8
Fourth	3.9	7.1	5.7
Highest	3.3	6.2	4.9
Total	4.2	7.3	5.5

Note: Total fertility rates are for the period 1-36 months prior to the interview.

Table 5.2 also shows the mean number of lifetime live births (children ever born) among women age 40 to 49. This figure is an indicator of completed, or cumulative, fertility. Unlike the TFR, which measures current or recent fertility among women age 15 to 49, cumulative fertility shows the past fertility of women surveyed at the end of their childbearing years. In a population whose fertility does not change, the cumulative fertility rate more or less coincides with the TFR. However, TFRs that are lower than the mean number of children ever born to women at the end of their childbearing years indicate a downward trend in fertility.

In Rwanda, the total cumulative fertility rate is 5.5 children, considerably higher than the TFR (4.2). The difference (1.3) suggests a substantial decline in fertility. The difference between the two rates was 0.5 children in 2005 and 1.3 children in 2010.

The fertility results by background characteristics show cumulative fertility rates above the TFR for all categories, indicating that fertility is declining among all women. However, the difference between cumulative fertility (number of children ever born) and the TFR is greatest in the North province (1.9 children) and in the three highest wealth quintiles (1.6 to 1.8 children).In the lowest wealth quintile, the difference is negligible (0.2 children).

Table 5.2 shows the percentage of women who reported being pregnant at the time of the survey. At the national level, 7 percent of women age 15-49 reported being pregnant. This is likely an underestimate because women in the early stages of pregnancy may be unaware or unsure of their pregnancy status. Age, residence, culture, and/or beliefs may also affect a woman's willingness to report her condition. In Rwanda, women generally declare their pregnancies only when their condition becomes visible. For these reasons, the differentials in pregnancy rates shown here must be interpreted with a great deal of caution. It should be noted, however, that the findings are generally consistent with current fertility levels. The lowest pregnancy rates are observed among women with a secondary education or higher, those living in the wealthiest households, and

those living in the North province (6 percent for each category). These groups also tend to have the lowest current fertility levels.

5.2 FERTILITY TRENDS

Trends in fertility can be examined in two ways. One is to utilize data from the 2014-15 RDHS alone, examining the information on births over time gathered in the birth histories. A second way to examine trends is to compare the data from the 2014-15 survey with data from previous surveys. Both indicate that there has been a decline in fertility in Rwanda.

The data collected in the 2014-15 RDHS were used to track fertility trends over the course of five-year periods up to 20 years prior to the survey (Table 5.3.1 and Figure 5.1). To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother's age at the time of the birth. Because women age 50 and above were not interviewed in the survey, the rates are successively truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for a period of 15 to 19 years before the survey because these women would have been over age 50 at the time of the 2014-15 RDHS and would not have been interviewed.

ASFR shave declined over time among young women age 15-19, from 58 per 1,000 in the period 15-19 years before the survey to 44 per 1,000 in the five years preceding the survey. Among women age 20-24, the ASFR fell from 242 during the 15-19 years preceding the survey to 179 during years 0-4 before the survey. Finally, among women age 25-29, the ASFR fell from 299 in the 15-19 years preceding the survey to 207 during the five years before the survey.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Rwanda 2014-15

	Number of years preceding survey			
Mother's age at birth	0-4	5-9	10-14	15-19
15-19	44	40	50	58
20-24	179	199	218	242
25-29	207	264	289	299
30-34	182	231	276	[270]
35-39	131	188	[228]	-
40-44	66	[112]	-	-
45-49	[14]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of the interview.

As mentioned above, trends can also be assessed by comparing results across surveys and censuses. Two national demographic data collection efforts are conducted regularly in Rwanda: the General Population and Housing Census and the RDHS. The censuses of 1978, 1991, 2002, and 2012 gathered information on population dynamics and were used to estimate fertility levels for those years by asking questions about births that occurred in the 12 months preceding the survey. This method generally results in underestimates of fertility levels. The DHS surveys employ a more accurate method (women's birth histories) that yields more reliable results. Yet, the various RDHS surveys (1992, 2000, 2005, 2007-08, and 2010) and the censuses of 1991, 2002, and 2012 have produced more or less similar results with respect to TFRs.

Figure 5.1 **Age-specific fertility rates for five-year periods preceding the survey**

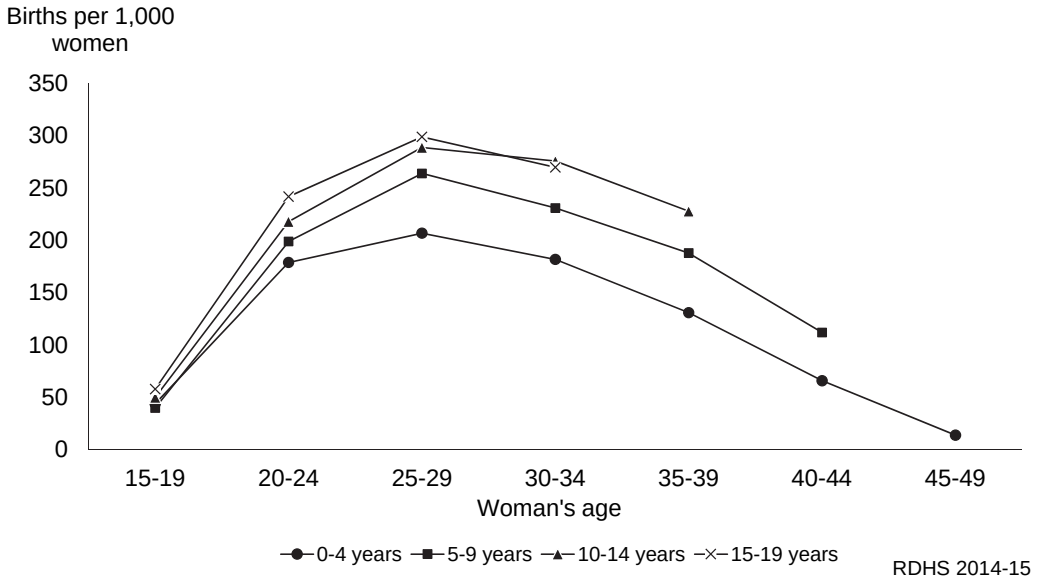


Table 5.3.2 shows ASFRs for the six DHS surveys (including the interim DHS), and Figure 5.2 presents past fertility trends based on the results of the 2000, 2005, 2010, and 2014-15 RDHS surveys and the 2007-2008 RIDHS. Fertility during the period 1992-2005 remained relatively stable at around six children per woman. The total fertility rate then dropped to 5.5 in 2007-08 and declined considerably thereafter, to 4.6 in 2010 and 4.2 in 2014-15. The ASFR curves follow a similar pattern, increasing rapidly with age, peaking between age 25-29, and then tapering off steadily up to age 45 to 49.

Table 5.3.2 Trends in fertility

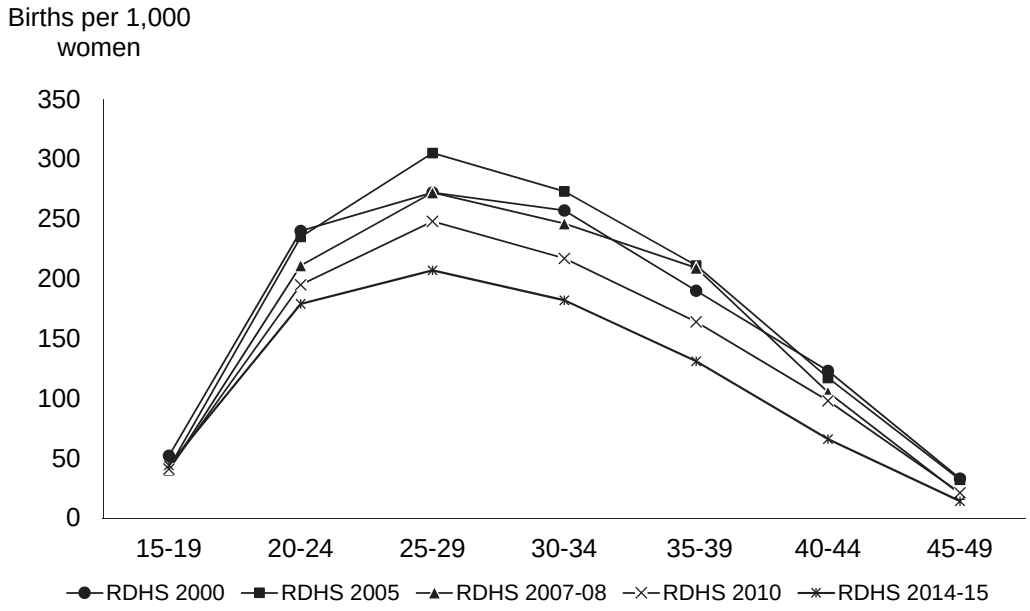
Age-specific fertility rates (per 1,000 women) and total fertility rates, Rwanda 1992 to 2014-15

Mother's age at birth	1992	2000	2005	2007-08	2010	2014-15
15-19	60	52	42	40	41	44
20-24	227	240	235	211	195	179
25-29	294	272	305	272	248	207
30-34	270	257	273	246	217	182
35-39	214	190	211	209	164	131
40-44	135	123	117	105	98	66
45-49	46	33	32	20	21	14
Total	6.2	5.8	6.1	5.5	4.6	4.2

Note: Age-specific fertility rates are per 1,000 women.

It should be noted that the ASFRs in the 40-44 and 45-49 age groups have declined relatively slowly over time. However, the curve for the 2014-15 RDHS is below the other four ASFR curves at all ages and drops lower after age 25 than the other four curves, indicating a trend toward declining fertility among women in these generations.

Figure 5.2 **Trends in age-specific fertility rates, various sources**



5.3 CHILDREN EVER BORN AND LIVING

Table 5.4 presents the distribution of all women and currently married women by age group and according to: number of children ever born, mean number of children ever born, and mean number of living children. Data on the number of children ever born reflect the accumulation of births to women over their entire reproductive lifespan and therefore have limited reference to current fertility levels, particularly when a country has experienced a decline in fertility. However, this information is useful for observing how average family size varies across age groups and for observing levels of primary infertility.

On average, Rwandan women attain a parity of 5.8 children by the end of their childbearing years. This number is considerably higher than the TFR of 4.2 per woman, a discrepancy that is attributable to the gradual decrease in fertility.

As expected, women age 40 or older have much higher parities, with substantial proportions having 10 or more births each by the end of their childbearing years. For example, 27 percent of women age 45-49 have given birth to eight or more children.

The same pattern is observed among currently married women, except that the mean number of children ever born is higher in this group (3.5 children) than among all women (2.3 children). The difference in mean number of children ever born between all women and currently married women can be attributed to the substantial proportion of young, unmarried women in the former category.

The results show that 95 percent of young women age 15-19 have never given birth. This proportion declines steadily to 20 percent among women age 25-29, 8 percent or lower among women age 30-49.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Rwanda 2014-15

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
Age															
15-19	94.5	5.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,768	0.06	0.05
20-24	52.5	33.6	11.5	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,457	0.64	0.61
25-29	19.5	25.6	32.7	15.5	5.4	1.1	0.2	0.1	0.0	0.0	0.0	100.0	2,300	1.66	1.57
30-34	8.1	10.6	22.3	25.6	18.6	9.2	3.9	1.2	0.4	0.1	0.0	100.0	2,151	2.89	2.67
35-39	4.2	5.3	9.5	15.3	20.4	20.6	12.3	7.6	3.4	1.2	0.2	100.0	1,575	4.22	3.74
40-44	3.0	3.9	5.3	9.3	15.0	17.4	15.3	15.0	8.2	5.0	2.4	100.0	1,269	5.23	4.36
45-49	3.8	2.6	4.4	7.8	11.2	15.1	15.2	13.3	11.4	7.2	7.9	100.0	977	5.81	4.60
Total	34.6	14.4	13.2	10.3	8.5	6.8	4.6	3.5	2.1	1.2	0.8	100.0	13,497	2.28	1.99
CURRENTLY MARRIED WOMEN															
Age															
15-19	42.4	51.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	85	0.64	0.59
20-24	15.3	55.1	24.8	4.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	883	1.20	1.13
25-29	4.8	26.3	41.2	18.8	7.0	1.3	0.3	0.2	0.0	0.0	0.0	100.0	1,577	2.03	1.92
30-34	2.6	8.1	22.8	27.7	21.6	10.4	4.8	1.5	0.4	0.1	0.0	100.0	1,693	3.18	2.95
35-39	0.8	2.9	8.9	14.9	21.3	22.9	13.7	8.8	4.0	1.5	0.3	100.0	1,240	4.57	4.07
40-44	0.9	1.8	3.4	6.9	14.1	16.7	17.9	18.5	10.5	6.5	2.6	100.0	896	5.77	4.88
45-49	1.9	1.6	3.7	5.0	9.1	11.6	15.5	16.5	14.2	9.3	11.5	100.0	607	6.49	5.22
Total	4.6	16.4	20.4	15.5	13.3	10.0	7.3	5.8	3.4	1.9	1.4	100.0	6,982	3.51	3.10

5.4 BIRTH INTERVALS

Birth intervals, or the length of time between two successive live births, are important not only because they influence the health status of both mother and child but also because they play a role in fertility analysis and in the design of reproductive health programs. Short birth intervals (less than 24 months) are considered harmful to the health and nutritional status of children and increase their risk of premature death. In addition, short birth intervals expose a woman to a greater risk of complications during and after pregnancy (miscarriage or eclampsia, for example) and are associated with high cumulative fertility. Table 5.5 shows the distribution of non-first births in the five years preceding the survey by the number of months since the preceding birth.

The results show that 5 percent of births occur less than 18 months apart and that 9 percent occur between 18 and 23 months after the preceding birth. Thus, 14 percent of births occur less than two years after a prior birth. However, a relatively large proportion of births (30 percent) occur between two and three years after the preceding birth, and over half (56 percent) occur three or more years apart. The median birth interval is slightly more than three years (38.5 months), which means that half of all non-first births take place 38.5 months after the preceding birth.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	*	*	*	*	*	*	100.0	6	*
20-29	8.9	12.8	32.9	24.3	12.4	8.7	100.0	1,861	34.0
30-39	3.4	7.9	29.9	20.8	15.5	22.5	100.0	2,985	40.8
40-49	2.4	6.0	23.9	20.2	14.2	33.3	100.0	766	46.1
Sex of preceding birth									
Male	4.9	9.4	29.6	21.9	15.5	18.7	100.0	2,803	38.8
Female	5.3	9.1	30.6	21.8	13.1	20.1	100.0	2,816	38.3
Survival of preceding birth									
Living	4.0	9.2	30.2	22.4	14.5	19.6	100.0	5,265	38.9
Dead	21.2	10.1	27.8	13.5	11.7	15.8	100.0	354	30.9
Birth order									
2-3	6.6	10.4	29.1	24.0	14.0	15.8	100.0	3,037	37.2
4-6	3.3	7.6	30.5	18.0	15.1	25.4	100.0	1,932	41.6
7+	3.6	8.7	33.3	23.1	13.0	18.4	100.0	651	38.0
Residence									
Urban	6.9	10.6	30.4	17.8	11.3	23.0	100.0	866	37.3
Rural	4.8	9.0	30.0	22.6	14.8	18.7	100.0	4,753	38.7
Province									
City of Kigali	6.6	10.6	26.5	21.1	12.0	23.3	100.0	613	38.9
South	4.5	7.6	31.5	21.8	14.1	20.5	100.0	1,283	39.1
West	6.6	10.2	36.7	22.0	10.9	13.6	100.0	1,392	34.2
North	2.8	9.2	26.3	20.3	17.7	23.7	100.0	782	42.2
East	4.9	9.2	26.3	22.8	16.7	20.1	100.0	1,548	40.3
Education									
No education	4.9	7.4	31.6	20.5	14.9	20.6	100.0	1,018	39.1
Primary	4.8	9.6	30.2	22.3	14.3	18.7	100.0	4,107	38.3
Secondary and higher	7.9	9.9	25.8	20.7	13.3	22.4	100.0	494	39.8
Wealth quintile									
Lowest	5.1	8.0	32.4	22.7	14.6	17.1	100.0	1,403	38.1
Second	4.7	8.5	32.0	20.9	15.8	18.1	100.0	1,225	38.1
Middle	5.0	8.8	31.2	23.4	12.7	18.9	100.0	1,130	37.8
Fourth	3.7	10.6	27.0	23.4	15.2	20.1	100.0	965	40.2
Highest	7.4	11.2	25.7	18.1	12.8	24.7	100.0	897	39.1
Total	5.1	9.3	30.1	21.8	14.3	19.4	100.0	5,619	38.5

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

With respect to age, birth intervals are shorter for younger women than for older women. The median duration increases from 34 months at age 20 to 29 to 46 months at age 40 to 49. Differentials by gender are not significant (39 months for boys and 38 months for girls). Birth intervals vary with birth order, from 37 months for birth orders 2-3 to 42 months for birth orders 4-6 and 38 months for birth order 7 or above. Survival of the preceding child is an important factor related to birth interval. When the preceding child has died, the median interval between that birth and the next birth is 31 months; when the preceding child is alive, the median interval is 39 months, or approximately eight months longer.

The median interval between births is slightly higher in rural areas (39 months) than in urban areas (37 months). By province, the birth interval varies from a low of 34 months in West to a high of 42 months in North.

Median birth intervals are longer among birth whose mother with a secondary education or higher (40 months) than among those with no education (39 months) and those whose mother with a primary education

(38 months). Similarly, birth intervals are slightly longer among women in the fourth and highest wealth quintiles (40 months and 39 months, respectively) than among those in the three lowest quintiles (38 months).

5.5 EXPOSURE TO THE RISK OF PREGNANCY

Exposure to the risk of pregnancy depends on several factors, including the duration of postpartum amenorrhea—the period between childbirth and the return of ovulation—and the period when a woman abstains from sexual intercourse (postpartum abstinence). These two factors largely determine which women are insusceptible to becoming pregnant and the length of the period of insusceptibility. Women are considered insusceptible if they abstain from intercourse following childbirth and/or are amenorrheic. In the latter case, the risk of pregnancy is low even if sexual activity is resumed without contraceptive protection. Table 5.6 shows the percentage of births in the three years preceding the survey for which mothers were postpartum amenorrheic, abstaining, and insusceptible. It also shows median and mean durations for these indicators.

Table 5.6 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Rwanda 2014-15

	Percentage of births for which the mother is:			
Months since birth	Amenorrheic	Abstaining	Insusceptible[1]	Number of births
<2	95.5	52.7	96.5	207
2-3	84.3	19.5	86.1	240
4-5	74.1	14.5	76.0	276
6-7	66.0	13.3	69.0	348
8-9	61.8	17.3	66.7	324
10-11	47.6	17.0	56.0	263
12-13	38.8	8.7	45.3	273
14-15	33.1	6.8	37.3	266
16-17	33.3	11.0	39.8	293
18-19	20.8	11.3	29.6	286
20-21	16.3	7.8	22.2	267
22-23	16.0	5.9	19.8	256
24-25	8.7	7.1	14.5	287
26-27	8.0	7.8	13.8	249
28-29	4.9	11.3	15.0	278
30-31	7.8	6.5	13.3	259
32-33	5.3	4.4	9.3	257
34-35	6.4	8.5	13.3	252
Total	34.9	12.4	40.2	4,883
Median	10.5	0.9	11.8	na
Mean	12.8	5.1	14.7	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

In Rwanda, 35 percent of women who gave birth during the three years preceding the survey were amenorrheic, and another 12 percent were abstinent. Forty percent were insusceptible, meaning that they were either amenorrheic, abstinent, or both. The median duration of postpartum amenorrhea is 11 months, and the mean is 13 months. Duration, intensity, and frequency of exclusive breastfeeding affect the return of ovulation (see Chapter 10 on nutrition) and are partly responsible for these relatively long durations. However, the median duration of postpartum amenorrhea has remained unchanged since 2010 (11 months). The median and mean durations of postpartum abstinence are very short (1 month and 5 months, respectively).

As expected, the amenorrheic status of women who gave birth during the three years preceding the survey decreases with increasing duration since birth: almost all of the women (96 percent) who gave birth less than 2 months before the survey remained amenorrheic, around three-quarters (74 percent) remained amenorrheic for 4 or 5 months, approximately three in five (62 percent) were still amenorrheic at 8-9 months,

and only 8 percent remained so at 26-27 months. Beyond 28 months, the proportion of women for whom menstruation had not yet returned varied between 5 percent and 8 percent.

Postpartum abstinence decreases quickly over time, from 53 percent at less than 2 months postpartum to only 20 percent at 2-3 months postpartum. The percentage of women who abstain for 4 months or longer varies from a high of 17 percent to a low of 4 percent.

Table 5.7 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	9.1	0.9	10.8
30-49	12.4	1.0	13.2
Residence			
Urban	7.8	0.7	9.9
Rural	10.8	1.0	12.0
Province			
City of Kigali	6.3	0.7	10.5
South	11.8	0.8	13.2
West	11.7	0.7	13.0
North	10.0	0.7	11.5
East	9.0	1.6	10.2
Education			
No education	15.9	0.7	16.0
Primary	10.7	0.9	11.6
Secondary and higher	6.1	1.4	7.5
Wealth quintile			
Lowest	13.0	0.6	17.4
Second	10.3	0.7	10.8
Middle	10.6	0.9	12.7
Fourth	9.8	1.3	12.2
Highest	6.9	1.4	8.0
Total	10.5	0.9	11.8

Note: Medians are based on status at the time of the survey (current status).
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

Table 5.7 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility following births in the three years preceding the survey. The duration of amenorrhea varies with age: women age 15-29 have shorter periods of amenorrhea (9 months) than women age 30-49 (12 months). The duration of postpartum amenorrhea is 8 months in urban areas, as compared with 11 months in rural areas. By province, women in City of Kigali have the shortest period of amenorrhea (6 months), while those in South and West have the longest periods (12 months). Results differ according to level of education: the median duration of amenorrhea is shortest among women with a secondary education or higher (6 months) and longest among women with no education (16 months). Duration of postpartum amenorrhea decreases with increasing wealth, from 13 months among women in the lowest wealth quintile to 7 months among those in the highest quintile. Duration of postpartum insusceptibility follows the same pattern as that of postpartum amenorrhea.

5.6 MENOPAUSE

Women cease being exposed to the risk of pregnancy when they reach menopause. Women were considered menopausal if they were neither pregnant nor postpartum amenorrheic and had not had a menstrual period in the six months preceding the survey or if they reported themselves as having entered menopause.

Table 5.8 shows the percentage of women age 30-49 who are menopausal. Overall, 8 percent of women reported being menopausal. The proportion increases with age, from 5 percent among women age 30-34 and 35-39 to 13 percent among those age 44-45 and 31 percent among those age 48-49.

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Rwanda 2014-15

Age	Percentage menopausal[1]	Number of women
Age		
30-34	5.1	2,151
35-39	5.0	1,575
40-41	7.7	552
42-43	6.2	487
44-45	13.4	430
46-47	15.4	400
48-49	30.8	378
Total	8.3	5,972

[1] Percentage of all women who are not pregnant and not postpartum amenorrheic, not currently using contraceptive method, whose last menstrual period occurred six or more months preceding the survey, and report that they are in menopausal.

5.7 AGE AT FIRST BIRTH

The age at which childbearing begins is an important demographic indicator because it has a direct bearing on a woman's cumulative fertility, particularly when there is little or no contraceptive use. The earlier a woman begins childbearing, the greater her likelihood of having many children. Also, having children at too young an age can have negative repercussions for the mother's health and can put her children at risk. Table 5.9 shows the distribution of women by age at first birth and the median age at first birth according to age at the time of the survey.

The median age at first birth among women age 25-49 is 22.7 years. There is no clear trend across age groups. Median age at first birth has increased slightly since 2010 (22.4 years).

Table 5.9 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Rwanda 2014-15

	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
Age								
15-19	0.2	na	na	na	na	94.5	2,768	a
20-24	0.1	6.1	20.5	na	na	52.5	2,457	a
25-29	0.3	5.9	18.1	37.7	68.2	19.5	2,300	23.0
30-34	0.2	6.1	21.4	40.5	67.0	8.1	2,151	23.0
35-39	0.4	6.9	26.0	49.0	72.9	4.2	1,575	22.1
40-44	0.7	8.7	24.6	47.5	78.3	3.0	1,269	22.2
45-49	1.0	7.9	24.2	43.4	72.5	3.8	977	22.7
25-49	0.4	6.8	22.2	42.8	70.9	9.2	8,272	22.7

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 5.10 shows median age at first birth according to various socioeconomic characteristics. Women in rural areas (22.6 years) have a lower median age at first birth than those in urban areas (23.3 years). The city of Kigali and the South province have the highest median age at first birth (23.5 years). In the other provinces, median age at first birth varies from a low of 22.1 years in East to a high of 23.5 years in South. Women's level of educational attainment is related to their median age at first birth: age at first birth rises as women's educational level increases. Results by household wealth show that median age at first birth varies from a high among women in the highest wealth quintile (23.6 years) to a low among those in the lowest quintile (22.1 years). For women age 30-49, the median age at first birth is 21.4 for women with no education and 24.8 for the women with secondary and higher education.

Table 5.10 Median age at first birth

Median age at first birth among women age 25-49 and 30-49, according to background characteristics, Rwanda 2014-15

Background characteristic	Women age 25-49	Women age 30-49
Residence		
Urban	23.3	23.1
Rural	22.6	22.4
Province		
City of Kigali	23.5	23.4
South	23.5	23.6
West	22.5	22.2
North	22.2	21.8
East	22.1	21.8
Education		
No education	21.4	21.4
Primary	22.6	22.6
Secondary and higher	a	24.8
Wealth quintile		
Lowest	22.1	22.2
Second	22.5	22.5
Middle	22.4	22.1
Fourth	22.9	22.7
Highest	23.6	23.3
Total	22.7	22.5

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

5.8 TEENAGE FERTILITY

Teenage fertility is an important demographic factor for several reasons. First, children born to very young mothers are at greater risk of illness and death. Second, teenage mothers are more likely to suffer complications during pregnancy and less likely to treat them, exposing them to a greater risk of complications during delivery and a greater risk of dying for reasons related to childbearing. Third, early childbearing seriously affects a woman's ability to pursue an education, thereby limiting her job opportunities.

Table 5.11 shows the proportion of young women age 15-19 who have already had one or more children as well as those currently in their first pregnancy. Seven percent of young women between age 15 and age 19 have already begun childbearing (6 percent are already mothers and 2 percent are pregnant for the first time). At age 15, 1 percent of young women have begun childbearing. The percentage increases steadily and rapidly with age: 4 percent of young women age 17 have already had at least one child or are pregnant for the first time. At age 19, 21 percent of young women have begun childbearing (16 percent have already had at least one child and 5 percent are pregnant for the first time).

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	0.9	0.1	1.0	666
16	1.7	0.3	2.0	559
17	2.9	1.4	4.3	518
18	8.4	3.1	11.5	557
19	15.9	4.9	20.8	468
Residence				
Urban	5.6	2.3	7.9	564
Rural	5.4	1.7	7.1	2,204
Province				
City of Kigali	6.5	3.7	10.2	357
South	4.1	1.5	5.6	665
West	4.8	0.9	5.8	592
North	4.0	0.9	4.9	525
East	8.1	2.6	10.7	628
Education				
No education	(12.7)	(0.0)	(12.7)	30
Primary	6.9	2.3	9.2	1,632
Secondary and higher	3.2	1.1	4.3	1,106
Wealth quintile				
Lowest	9.0	2.1	11.1	433
Second	6.1	2.0	8.2	509
Middle	5.4	1.9	7.3	501
Fourth	4.0	1.4	5.5	599
Highest	4.1	1.7	5.8	726
Total	5.5	1.8	7.3	2,768

Note: Figures in parentheses are based on 25-49 unweighted cases.

There are differences in teenage pregnancy across the provinces: the proportion of young women who have begun childbearing varies from a low of 5 percent in North to a high of 11 percent in East. Early childbearing occurs more frequently among young women with a primary education (9 percent) than among those with a secondary education or higher (4 percent). There are also differentials by wealth quintile: the proportion of young women who have begun childbearing varies from 6 percent in the richest two quintiles to 11 percent in the lowest quintile. After decreasing from 11 percent in 1992 to 7 percent in 2000 and 4 percent in 2005, the proportion of young women who have begun childbearing has shown slight increase from 6 percent in 2010 to 7 percent in 2014-15.

FERTILITY PREFERENCES 6

Key Findings

- About half of currently married women (47 percent) and men (49 percent) age 15-49 want no more children or are sterilized.
- The mean ideal number of children is 3.4 among women and 3.0 among men. Mean ideal number of children among women has remained stable in the last five years.
- The gap between the total fertility rate (TFR) and the total wanted fertility rate (TWFR) has narrowed marginally within the last five years, from 1.5 children in the 2010 RDHS to 1.1 children in 2014-15.

Data on fertility preferences are used to evaluate the effectiveness of couples' efforts to control their own fertility and to assess Rwanda's future contraceptive needs not only for spacing but also for limiting the total number of births. To obtain information about fertility preferences, the 2014-15 RDHS asked women and men whether they wanted another child (more children), how long they wanted to wait before having their next child, and the total number of children they considered to be ideal. Some of the data focus on only women and men who were married at the time of the survey.

Data on attitudes and opinions about procreation have always been somewhat controversial. Some researchers believe that responses to questions about fertility preferences are subject to three potential flaws: first, they represent viewpoints, which are subject to change, rather than firm convictions; second, they do not take into account the effects of social pressure and the attitudes of other family members, particularly the spouse, who can exert enormous influence over reproductive health decisions; and, third, they are obtained from a sample of respondents of differing ages with differing birth histories. Their responses relate to medium- or long-term goals that may change over time or are of limited predictive value for the young or recently married individuals who respond. The responses of older women and men who are at the end of their childbearing years are inevitably influenced by their birth histories.

Despite possible problems with interpretation, data on fertility preferences can improve understanding the factors affecting fertility in Rwanda, a country where contraceptive prevalence is increasing and fertility is starting to decline.

6.1 DESIRE FOR CHILDREN

The desire to have children in the future generally correlates with a woman's age and the number of living children she and her husband currently have.

The 2014-15 RDHS asked women and men a series of questions designed to discern their desire to delay their next birth or to stop having children altogether. The results are presented in Table 6.1 by number of living children (including any current pregnancy) at the time of the survey. Data are shown for currently married women and men only.

Forty-seven percent of married women reported wanting no more children, while about half (49 percent) wanted to have another child. The proportion of women who do not want more children increased

between 2005 and 2010 (from 42 percent to 52 percent) before the decline to 47 percent in the current survey. As a result of this decline, the proportion of women wanting more children has increased from 44 percent in 2010 to 49 percent in 2014-15. Among the women in this group, 10 percent want another child within two years, 39 percent want to delay their next birth by two or more years, and less than 1 percent want to have another child but are uncertain when. In general, 87 percent of married women in Rwanda can be considered potential candidates for family planning: those who do not want any more children (47 percent) and those who want to delay their next birth (39 percent). The proportion of women who want more children decreases as parity increases. For example, the percentage of women who want to delay their next birth declines from 78 percent among those with one child to 17 percent among those with four children and 5 percent among those who have six children or more. On the other hand, the proportion of women who want no more children increases considerably with number of living children, from 1 percent among those with no children to 73 percent among those with four children and 89 percent among those with six children or more (Table 6.1). Women who want no more children have presumably reached their desired family size and should be using a contraceptive method to avoid unwanted pregnancies. Finally, the data show that 93 percent of married women with no children would like to have a child, and the majority of these women (89 percent) would like to have one soon.

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Rwanda 2014-15

	Number of living children							Total	Total
Desire for children	0	1	2	3	4	5	6+	15-49	15-59
				WOMEN[1]					
Have another soon[2]	89.0	17.9	10.3	6.2	4.6	1.8	1.2	9.7	na
Have another later[3]	3.7	78.0	64.1	37.1	17.0	10.7	4.8	39.3	na
Have another, undecided when	0.0	0.4	0.3	0.1	0.1	0.0	0.1	0.2	na
Undecided	0.8	0.3	1.3	2.3	2.0	0.8	1.1	1.3	na
Want no more	0.7	2.7	22.9	52.4	73.3	82.5	88.7	47.2	na
Sterilized[4]	0.6	0.2	0.5	1.4	1.9	3.1	3.1	1.5	na
Declared infecund	5.2	0.4	0.6	0.5	0.9	0.4	0.9	0.7	na
Missing	0.0	0.1	0.1	0.1	0.2	0.6	0.2	0.2	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number	158	1,224	1,564	1,257	1,126	746	907	6,982	na
				MEN[5]					
Have another soon[2]	88.6	12.3	8.6	4.0	3.9	2.1	0.3	8.1	7.0
Have another later[3]	6.2	84.0	59.6	39.0	18.0	11.3	7.3	40.9	34.4
Have another, undecided when	0.0	0.0	0.5	0.2	0.2	0.3	0.3	0.3	0.2
Undecided	1.3	0.7	0.7	0.9	2.0	0.3	0.7	0.9	0.8
Want no more	1.5	2.7	30.2	55.4	74.2	85.3	90.7	49.1	55.7
Sterilized[4]	0.0	0.0	0.2	0.4	1.7	0.4	0.8	0.5	0.6
Declared infecund	2.3	0.4	0.0	0.1	0.0	0.0	0.0	0.2	1.1
Missing	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	72	526	617	491	437	292	356	2,792	3,371

na=Not applicable
[1] The number of living children includes the current pregnancy.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization
[5] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Unlike most countries in sub-Saharan Africa, the proportion of married men in Rwanda who want no more children (49 percent) is about the same as that among women. The same is true for the proportion of men who want more children later (41 percent). As it is the case with women, the proportion of men who want more children decreases as parity increases, and the proportion of men who want no more children increases

with increasing parity. The percentage of men who want to delay their next child ranges from a high of 84 percent among those with one child to a low of 7 percent among those who have six or more children. It should be noted that, at each parity level, the differences between married men and women who want more children are minimal.

Table 6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Rwanda 2014-15

	Number of living children[1]							
Background characteristic	0	1	2	3	4	5	6+	Total
Residence								
Urban	(0.0)	2.2	26.7	59.4	74.3	83.4	90.5	44.4
Rural	1.6	3.2	22.5	52.5	75.3	85.9	91.9	49.5
Province								
City of Kigali	*	1.5	24.2	58.0	77.2	88.4	89.5	43.8
South	(0.0)	4.3	28.5	57.0	82.7	88.7	94.2	52.6
West	(2.9)	2.0	23.6	47.9	62.2	77.1	89.5	46.9
North	(4.2)	5.9	20.8	60.7	79.6	83.5	92.9	50.9
East	(0.0)	1.7	19.2	48.9	75.6	90.4	92.1	47.5
Education								
No education	*	9.2	28.5	52.8	73.5	85.6	93.8	63.6
Primary	2.0	2.2	22.2	53.6	74.4	85.8	91.2	47.8
Secondary and higher	(0.0)	2.9	25.7	56.1	84.2	83.5	(85.2)	34.1
Wealth quintile								
Lowest	(0.0)	3.0	29.6	54.2	82.0	89.7	94.9	49.8
Second	(3.4)	3.4	21.5	54.7	72.2	89.2	91.8	46.6
Middle	*	3.2	18.7	53.8	73.2	81.8	91.6	49.3
Fourth	(2.7)	3.0	21.2	48.6	75.0	85.4	92.6	51.2
Highest	(0.0)	2.2	25.3	56.4	73.5	82.7	88.2	46.5
Total	1.3	3.0	23.4	53.8	75.1	85.6	91.8	48.7

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] The number of living children includes the current pregnancy.

Tables 6.2.1 and 6.2.2 show the percentages of currently married women and men who want no more children according to background characteristics. In these tables, respondents who have been sterilized or whose spouse has been sterilized are considered to want no more children. Results by residence show that the proportions of women and men who want no more children are somewhat higher in rural areas (50 percent for women and 51 percent for men) than in urban areas (44 percent for women and 45 percent for men). The situation is the same as in 2010, when women and men in rural areas were more likely to want to limit births than those in urban areas.

By province, the proportion of married women who want no more children ranges from a low of 44 percent in the City of Kigali to a high of 53 percent in South. Results by level of education show that women with no education are more likely wanting to limit births (64 percent) than women with a primary (48 percent) or secondary (34 percent) education. There are no substantial differences by wealth quintile in the desire to limit births: women in the fourth quintile are most likely to want to stop childbearing (51 percent), while women in the second and highest quintiles are least likely to want to do so (47 percent).

By province, the results for men differ from those for women: West has the lowest proportion of men who have reached their desired number of children (46 percent), and South has the highest (55 percent). As with women, married men with no education are more likely to want to limit births (61 percent) than men with a primary (49 percent) or secondary (38 percent) education. The proportion of men who want no more children does not vary consistently with wealth quintile.

Table 6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Rwanda 2014-15

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	*	0.7	28.5	67.5	67.7	(85.3)	86.0	44.8
Rural	1.9	3.2	30.9	53.0	77.2	85.7	92.3	50.6
Province								
City of Kigali	*	4.2	37.2	64.9	78.9	(86.4)	(91.5)	50.2
South	*	1.9	38.1	62.7	84.8	93.9	92.2	54.9
West	*	3.3	29.7	45.1	61.5	80.2	90.9	46.4
North	*	1.4	23.0	54.6	72.9	(88.2)	94.4	48.6
East	*	2.7	24.7	53.2	79.6	81.8	89.7	48.3
Education								
No education	*	5.7	39.9	65.3	72.3	87.3	89.2	60.5
Primary	0.0	2.4	29.4	52.7	76.2	86.4	92.6	49.4
Secondary and higher	*	2.1	28.5	62.5	(77.7)	(77.5)	(86.2)	38.3
Wealth quintile								
Lowest	*	3.9	41.7	59.5	78.7	(90.1)	(93.2)	50.3
Second	*	3.2	26.4	52.3	74.5	90.9	87.0	47.0
Middle	*	1.1	26.1	53.1	81.0	85.2	91.6	50.2
Fourth	*	2.0	33.4	55.9	74.7	72.3	98.8	51.5
Highest	*	3.1	26.6	59.4	70.5	91.0	86.7	49.2
Total 15-49	1.5	2.7	30.4	55.8	75.8	85.7	91.4	49.6
50-59	*	*	(59.8)	*	84.8	87.2	94.5	88.8
Total 15-59	1.4	4.4	31.7	57.2	77.0	86.0	93.0	56.3

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

6.2 IDEAL NUMBER OF CHILDREN

Women's reproductive behavior can be influenced by the ideal number of children they would like to have and the ideal number their husband or partner would like to have. Two questions were used to determine this ideal number. Women with no living children were asked: *If you could choose the exact number of children you would like to have in your lifetime, how many would you have?* Women with living children were asked: *If you could go back to the time when you had no children and choose the exact number of children you would like to have in your lifetime, how many would you have chosen?*

These seemingly simple questions may be embarrassing, particularly for women with living children who may wish to specify an ideal number that differs from the number of children they already have. Also, it might be difficult for some women to think in terms of a total number of children to have.

The ideal numbers of children reported by all women and married women are 3.4 and 3.6, respectively (Table 6.3). In both cases, the ideal is lower than the total fertility rate (TFR) of 4.2, which means that women's ideal family size is smaller than actual fertility. An examination of the distribution of reported ideal family size shows that, among 85 percent of women, the ideal number of children ranges from two to four. Thirty-six percent of women prefer three children, 26 percent prefer four and 23 percent prefer two. For 12 percent of women, the ideal family size is five children or more. Only 2 percent of women have an ideal number of children below two.

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Rwanda 2014-15

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	1.1	0.3	0.2	0.3	0.2	0.3	0.3	0.5
1	1.1	3.1	1.3	2.4	1.4	1.1	0.3	1.6
2	31.4	30.7	21.1	13.3	14.7	12.7	10.4	23.1
3	41.5	47.4	42.1	29.9	22.6	23.8	17.6	36.2
4	19.1	14.3	28.3	39.9	34.2	30.8	32.6	25.5
5	3.7	2.5	3.6	8.2	15.2	11.0	14.7	6.5
6+	1.7	1.5	2.4	5.0	10.7	18.5	20.4	5.6
Non-numeric responses	0.4	0.3	0.9	1.0	1.0	1.7	3.7	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,487	2,103	1,989	1,608	1,373	916	1,020	13,497
Mean ideal number of children for:[2]								
All	3.0	2.9	3.2	3.6	3.9	4.2	4.5	3.4
Number	4,469	2,097	1,971	1,592	1,360	900	982	13,372
Currently married	3.1	2.9	3.3	3.7	3.9	4.3	4.6	3.6
Number of currently married	154	1,221	1,549	1,244	1,114	733	875	6,890
				MEN[3]				
0	0.2	0.0	0.3	0.1	0.7	0.0	0.7	0.3
1	1.2	1.3	2.6	3.9	2.1	3.0	1.4	1.8
2	38.6	37.4	23.4	17.4	24.1	29.7	22.9	32.1
3	41.8	49.8	50.6	43.2	26.6	36.8	34.8	41.9
4	14.5	8.9	18.4	29.7	33.4	20.2	25.0	18.2
5	2.2	1.5	3.8	4.9	7.9	5.4	4.3	3.3
6+	1.4	1.1	0.8	0.8	4.5	4.8	10.6	2.3
Non-numeric responses	0.1	0.0	0.1	0.0	0.7	0.0	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,673	641	649	508	451	296	357	5,577
Mean ideal number of children for:[2]								
All	2.8	2.8	3.0	3.2	3.3	3.1	3.5	3.0
Number	2,670	641	648	508	448	296	356	5,569
Currently married	3.0	2.8	3.0	3.2	3.3	3.1	3.5	3.1
Number of currently married	72	526	616	491	434	292	355	2,787
Mean ideal number of children for men 15-59:[2]								
All men	2.8	2.8	3.0	3.2	3.3	3.1	3.3	3.0
Number of men	2,690	658	683	536	522	387	733	6,209
Currently married men	2.9	2.7	3.0	3.1	3.3	3.1	3.3	3.1
Number of currently married men	79	539	645	511	502	379	711	3,366

[1] The number of living children includes the current pregnancy.
[2] Means are calculated excluding respondents who gave non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

The mean ideal family size for women in general increases from 3.0 children among those with no children to 4.5 children among those with six children or more. A similar finding was observed among women who were married at the time of the survey.

The results indicate that many women would ideally want to have fewer children than they already have. For example, three-quarters of women with six or more children say that if they could start over, they would have preferred fewer than six. Similarly, more than two-thirds of women with five children say they would ideally like to have fewer.

Among all women, mean ideal family size decreased from 4.3 in 2005 to 3.3 in 2010 and more or less stabilizing at 3.4 in 2014-15.

In the case of men, ideal numbers of children are 3.0 for all men and 3.1 for married men. As with women, men reported an ideal number of children that was lower than the TFR. Among 92 percent of men, the ideal number of children ranges from two to four, with 42 percent preferring three children, 32 percent preferring two, and 18 percent preferring four. Only 3 percent would like to have five children, and 2 percent want six children or more. However 2 percent of men would like to have fewer than two children.

Table 6.4 shows the mean ideal number of children for all women, according to current age and background characteristics. Ideal number of children tends to increase gradually with age, from 3.0 children among women age 15-19 to 3.2 among those age 25-29 and 4.3 among those age 45-49.

Ideal number of children is almost the same in urban and rural areas (3.3 and 3.4, respectively), and there is only minimal variation by province. In terms of education, the higher the educational level, the lower the mean ideal number of children: 3.9 among women with no education versus 3.0 among women with a secondary education or higher. Ideal number of children is almost constant across household wealth quintiles.

Table 6.4 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Rwanda 2014-15

Background characteristic	Mean	Number of women[1]
Age		
15-19	3.0	2,762
20-24	2.9	2,450
25-29	3.2	2,287
30-34	3.5	2,131
35-39	3.8	1,555
40-44	4.0	1,239
45-49	4.3	949
Residence		
Urban	3.3	2,611
Rural	3.4	10,761
Province		
City of Kigali	3.2	1,786
South	3.2	3,193
West	3.5	2,925
North	3.5	2,201
East	3.4	3,266
Education		
No education	3.9	1,633
Primary	3.4	8,593
Secondary and higher	3.0	3,146
Wealth quintile		
Lowest	3.4	2,536
Second	3.4	2,600
Middle	3.4	2,575
Fourth	3.4	2,606
Highest	3.3	3,056
Total	3.4	13,372

[1] Number of women who gave a numeric response

6.3 FERTILITY PLANNING STATUS

For each child born in the five years preceding the survey and for the current pregnancy (if the respondent was pregnant), the mother was asked if she had wanted to be pregnant at that time, if she would have preferred to be pregnant later, or if she had not wanted to become pregnant at all. The responses to these questions were used to measure couples' effectiveness in controlling their fertility. Such questions require a woman to concentrate in order to remember her desires accurately at one or more specific times during the past five years. The data may be subject to rationalization, as an undesired pregnancy often results in the birth of a child to whom the mother later becomes attached.

Table 6.5 shows that 64 percent of births were wanted at the time they occurred, while 25 percent occurred earlier than women would have liked. Unwanted births represented approximately 11 percent of births overall.

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Rwanda 2014-15

Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	76.4	21.3	2.3	0.0	100.0	2,630
2	67.1	30.1	2.7	0.0	100.0	2,043
3	63.6	29.3	6.9	0.2	100.0	1,399
4+	51.2	21.1	27.6	0.1	100.0	2,916
Mother's age at birth						
<20	52.3	42.4	5.3	0.0	100.0	611
20-24	70.9	26.4	2.6	0.1	100.0	2,330
25-29	68.9	25.0	6.0	0.1	100.0	2,584
30-34	62.4	24.0	13.5	0.0	100.0	1,971
35-39	55.3	16.6	27.9	0.2	100.0	1,055
40-44	45.2	7.7	47.1	0.0	100.0	399
45-49	(42.4)	(2.4)	(55.2)	(0.0)	100.0	39
Total	64.1	24.5	11.3	0.1	100.0	8,988

Note: Figures in parentheses are based on 25-49 unweighted cases.

A majority of births are desired and arrive according to the desired timing, regardless of birth order. In fact, the results show that 76 percent of first births arrived at the desired time, as compared with 67 percent of second births and 51 percent of fourth- or higher-order births. However, the percentage of unwanted births increases steadily with birth order, from 2 percent of first births to 7 percent of third births and more than one-quarter of fourth-and higher-order births.

Beginning at age 20, the percentage of planned births decreases with age, dropping from 71 percent among women age 20-24 to 45 percent among those age 40-44. In fact, births to older women (age 40-44) generally seem to be less well planned: 47 percent of births in this age group were not wanted. It must also be noted that, among women less than age 20 at the time of the birth, only 52 percent of births were planned, 42 percent were wanted later in life, and 5 percent were unwanted.

Table 6.6 compares the total wanted fertility rate (TWFR) with the current TFR for the five years preceding the survey. Calculation of the TWFR is the same as for the TFR, except that unwanted births are omitted. If all unwanted births were eliminated, the TFR for Rwandan women would be 3.1 children rather than 4.2 children.

The TWFR is higher in rural areas (3.2) than in urban areas (2.7). It is lowest in City of Kigali (2.7) and highest in the East province (3.5). The TWFR decreases with increasing education, from 3.8 among women with no education to 2.5 among women with a secondary education or higher. It also decreases with increasing wealth, from 3.7 among women in the lowest quintile to 2.5 among those in the highest quintile.

Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Total wanted fertility rates	Total fertility rate
Residence		
Urban	2.7	3.6
Rural	3.2	4.3
Province		
City of Kigali	2.7	3.6
South	3.0	4.0
West	3.1	4.6
North	2.8	3.7
East	3.5	4.6
Education		
No education	3.8	5.1
Primary	3.3	4.5
Secondary and higher	2.5	3.0
Wealth quintile		
Lowest	3.7	5.1
Second	3.4	4.6
Middle	3.0	4.1
Fourth	2.8	3.9
Highest	2.5	3.3
Total	3.1	4.2

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

FAMILY PLANNING 7

Key Findings

- Knowledge of at least one contraceptive method among women and men age 15-49 is nearly universal in Rwanda.
- More than half of currently married women are using a contraceptive method (53 percent), with most women using a modern method (48 percent).
- The contraceptive methods most commonly used by married women are injectables (24 percent), the pills (8 percent), and implants (8 percent).
- Use of modern methods has increased from 45 percent in 2010 to 48 percent in 2014-15.
- The public health sector remains the major provider of contraceptive methods; 91 percent of modern contraceptive users obtain their contraception from a government source.
- Twenty-eight percent of family planning users discontinue use of a method within 12 months of starting its use. Side effects and health concerns (34 percent) are the main reason for discontinuation.
- Thirty-one percent of users of the rhythm method know when the fertile period occurs.
- Nineteen percent of currently married women have an unmet need for family planning services, with 11 percent in need of spacing and 8 percent in need of limiting.

This chapter presents 2014-15 RDHS results related to contraceptive prevalence, knowledge, attitudes, and behavior. Although the focus is on women, some of the results from the men's survey are also presented because men play an important role in the realization of reproductive health goals. In addition, comparisons are made, where feasible, with findings from previous surveys to evaluate trends in Rwanda over the past decade.

7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about fertility control is an important step toward gaining access to and then using a suitable contraceptive method in a timely and effective manner. The interviewers collected data on knowledge of contraception by describing the method and asking whether the respondent recognized it. Information was collected on 11 modern family planning methods: female and male sterilization, pills, intrauterine devices (IUDs), injectables, implants, male and female condoms, the Lactational Amenorrhea Method (LAM), emergency contraception, and the standard days method. Information was also collected on two traditional methods: rhythm and withdrawal. Any other method mentioned spontaneously by the respondent was recorded on the questionnaire.

Table 7.1 shows that knowledge of at least one method of contraception is nearly universal among both women and men in Rwanda regardless of marital status or sexual experience. Modern methods are more widely known than traditional methods. The most widely known methods among both women and men are the male condom (98 percent and 100 percent, respectively), injectables (97 percent and 94 percent), and the pill (97 percent and 93 percent), while emergency contraception is the least known method (35 percent and 45 percent).

In the case of each method, knowledge is highest among currently married women and men with the exception of emergency contraception (most likely to be known by sexually active unmarried respondents) and the male condom (equally likely to be known by married and unmarried men). On average, women and men have heard of 11 to 12 methods out of all methods.

Table 7.1 Knowledge of contraceptive methods

Percentage of all women and men, currently married women and men, and sexually active unmarried women and men age 15-49 who know any contraceptive method, by specific method, Rwanda 2014-15

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men[1]
Any method	99.5	100.0	99.4	99.8	100.0	100.0
Any modern method	99.4	100.0	99.4	99.8	100.0	100.0
Female sterilization	80.9	85.9	82.8	85.2	91.1	83.5
Male sterilization	77.2	86.3	78.3	83.0	91.8	77.3
Pill	97.1	99.4	98.1	93.2	98.3	92.9
IUD	81.9	90.6	82.1	80.4	89.1	77.1
Injectables	97.2	99.6	97.7	94.2	99.1	93.4
Implants	93.8	98.6	94.4	88.1	97.2	88.5
Male condom	98.0	99.1	97.9	99.5	99.9	100.0
Female condom	83.5	87.6	84.6	80.7	87.0	80.1
Lactational amenorrhea (LAM)	79.2	89.4	80.5	69.5	82.2	60.1
Emergency contraception	35.2	35.4	43.5	45.3	51.2	54.5
Standard days method	82.3	92.0	83.7	78.3	89.7	70.2
Any traditional method	93.9	98.0	94.4	92.8	97.9	93.6
Rhythm	91.6	95.1	91.4	90.7	96.6	86.5
Withdrawal	74.1	88.9	79.6	80.1	92.7	83.3
Other	0.5	0.6	0.4	0.7	0.9	0.5
Mean number of methods known by respondents 15-49	10.7	11.5	10.9	10.7	11.7	10.5
Number of respondents	13,497	6,982	313	5,577	2,792	134
Mean number of methods known by respondents 15-59	na	na	na	10.8	11.7	10.5
Number of respondents	na	na	na	6,217	3,371	140

na = Not applicable
[1] Had last sexual intercourse within 30 days preceding the survey

Table 7.2 shows that there is little variation in knowledge of contraceptive methods by background characteristics. Regardless of their background, over 99 percent of currently married women and men have heard of at least one contraceptive method and at least one modern method.

Table 7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, Rwanda 2014-15

	Women			Men		
Background characteristic	Heard of any method	Heard of any modern method[1]	Number	Heard of any method	Heard of any modern method[1]	Number
Age						
15-19	99.1	99.1	85	*	*	3
20-24	100.0	100.0	883	100.0	100.0	169
25-29	100.0	100.0	1,577	100.0	100.0	530
30-34	100.0	100.0	1,693	100.0	100.0	775
35-39	100.0	100.0	1,240	100.0	100.0	512
40-44	100.0	100.0	896	100.0	100.0	445
45-49	99.7	99.7	607	100.0	100.0	359
Residence						
Urban	99.9	99.9	1,194	100.0	100.0	494
Rural	100.0	100.0	5,788	100.0	100.0	2,298
Province						
Kigali City	100.0	100.0	842	100.0	100.0	361
South	100.0	100.0	1,606	100.0	100.0	605
West	100.0	100.0	1,542	100.0	100.0	627
North	100.0	100.0	1,130	100.0	100.0	472
East	99.8	99.8	1,863	100.0	100.0	727

(Continued…)

Table 7.2—*Continued*

Background characteristic	Women			Men		
	Heard of any method	Heard of any modern method[1]	Number	Heard of any method	Heard of any modern method[1]	Number
Education						
No education	99.8	99.8	1,154	100.0	100.0	392
Primary	100.0	100.0	4,921	100.0	100.0	2,050
Secondary and higher	100.0	100.0	907	100.0	100.0	350
Wealth quintile						
Lowest	99.9	99.9	1,313	100.0	100.0	492
Second	100.0	100.0	1,472	100.0	100.0	601
Middle	100.0	100.0	1,453	100.0	100.0	585
Fourth	100.0	100.0	1,380	100.0	100.0	554
Highest	99.8	99.8	1,365	100.0	100.0	560
Total 15-49	100.0	100.0	6,982	100.0	100.0	2,792
50-59	na	na	na	100.0	100.0	579
Total 15-59	na	na	na	100.0	100.0	3,371

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), emergency contraception, and standard days method

7.2 CURRENT USE OF CONTRACEPTIVE METHODS

This section presents information on the prevalence of current contraceptive use among women age 15-49 at the time of the survey. Level of current use of contraceptives is one of the indicators most frequently used to assess the success of family planning program activities and one of the determinants of fertility. This section focuses on levels, trends, and differentials in current use of family planning.

7.2.1 Current Use of Contraception by Age

Table 7.3 shows that 31 percent of all women, 53 percent of currently married women, and 36 percent of sexually active unmarried women are using a contraceptive method. The majority of women who are using a contraceptive method use a modern method (28 percent of all women). The most commonly used methods among all women are injectables (14 percent), the pills (5 percent), and implants (5 percent). Three percent of women use traditional methods.

More than half of currently married women (53 percent) are currently using contraception: 48 percent use modern methods and 6 percent use traditional methods. The most commonly used methods among currently married women are injectables (24 percent), the pills (8 percent), and implants (8 percent). The use of contraception among currently married women varies by age, gradually rising from 35 percent among women age 15-19 to a peak of 58 percent among women age 35 to 39 before dropping to 42 percent among women age 45-49. Most women who have been sterilized are age 35 or older, while younger women are more likely to use non-permanent methods of contraception such as injectables and pills.

The high level of contraceptive use among sexually active unmarried women (36 percent) is driven by the high prevalence of injectables, implants, and male condom (16 percent, 8 percent and 6 percent, respectively).

Table 7.3 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Rwanda 2014-15

			Modern method											Traditional method					
Age	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Pill	IUD	Injec-tables	Im-plants	Male condom	Female condom	LAM	Standard days method	Any traditional method	Rhythm	With-drawal	Other	Not currently using	Total	Number of women
ALL WOMEN																			
Age																			
15-19	2.3	2.0	0.0	0.0	0.2	0.0	1.1	0.5	0.2	0.0	0.0	0.0	0.3	0.3	0.0	0.0	97.7	100.0	2,768
20-24	21.3	20.1	0.0	0.0	3.3	0.2	12.9	2.4	1.1	0.0	0.1	0.1	1.2	0.3	0.8	0.0	78.7	100.0	2,457
25-29	41.9	39.2	0.1	0.1	7.5	0.7	21.5	6.3	2.3	0.0	0.1	0.6	2.7	1.2	1.4	0.0	58.1	100.0	2,300
30-34	47.6	44.4	0.3	0.2	7.7	1.3	22.9	8.0	3.3	0.0	0.2	0.5	3.2	1.4	1.7	0.0	52.4	100.0	2,151
35-39	48.6	43.3	1.9	0.2	7.5	1.4	19.2	7.6	4.1	0.0	0.2	1.1	5.4	2.4	2.9	0.0	51.4	100.0	1,575
40-44	44.1	36.6	3.1	0.5	5.6	1.0	15.0	6.7	3.7	0.0	0.1	0.9	7.4	4.2	3.3	0.0	55.9	100.0	1,269
45-49	27.8	20.0	1.8	0.1	1.8	0.8	8.0	4.4	2.5	0.0	0.0	0.5	7.7	3.9	3.8	0.0	72.2	100.0	977
Total	30.9	27.8	0.7	0.1	4.7	0.7	14.1	4.7	2.2	0.0	0.1	0.4	3.1	1.5	1.6	0.0	69.1	100.0	13,497
CURRENTLY MARRIED WOMEN																			
Age																			
15-19	35.3	32.8	0.0	0.0	4.9	0.0	18.7	6.0	3.2	0.0	0.0	0.0	2.5	1.2	1.2	0.0	64.7	100.0	85
20-24	47.4	44.3	0.0	0.0	8.2	0.4	27.7	4.9	2.7	0.0	0.3	0.1	3.1	0.7	2.3	0.0	52.6	100.0	883
25-29	54.7	50.9	0.1	0.1	10.1	0.8	28.0	7.6	3.2	0.0	0.2	0.9	3.8	1.7	2.1	0.0	45.3	100.0	1,577
30-34	54.9	51.1	0.3	0.2	9.1	1.2	26.7	8.9	3.9	0.0	0.2	0.6	3.8	1.6	2.1	0.0	45.1	100.0	1,693
35-39	57.7	51.0	2.4	0.3	9.0	1.8	22.6	8.4	4.8	0.0	0.2	1.4	6.7	3.0	3.7	0.0	42.3	100.0	1,240
40-44	56.9	46.6	3.9	0.6	7.6	1.2	19.0	8.4	4.5	0.0	0.2	1.2	10.3	5.7	4.6	0.0	43.1	100.0	896
45-49	41.6	29.5	2.5	0.2	2.5	1.2	11.9	6.4	4.0	0.0	0.0	0.8	12.1	5.9	6.2	0.0	58.4	100.0	607
Total	53.2	47.5	1.2	0.2	8.4	1.1	24.0	7.7	3.8	0.0	0.2	0.8	5.8	2.7	3.1	0.0	46.8	100.0	6,982
SEXUALLY ACTIVE UNMARRIED WOMEN[1]																			
Age																			
15-19	11.6	11.6	0.0	0.0	1.6	0.0	2.0	2.2	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.4	100.0	66
20-24	34.3	34.3	0.0	0.0	5.4	0.0	21.5	3.6	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.7	100.0	65
25-29	51.3	51.3	0.0	0.0	8.0	1.2	19.8	20.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.7	100.0	56
30-34	42.5	40.6	0.0	0.0	2.6	1.4	23.0	6.0	7.6	0.0	0.0	0.0	1.9	0.0	1.9	0.0	57.5	100.0	60
35-39	(52.1)	(52.1)	(0.0)	(0.0)	(3.3)	(0.0)	(23.9)	(17.0)	(7.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(47.9)	100.0	30
40-44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	22
45-49	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	14
Total	35.6	34.9	0.3	0.0	4.0	0.8	16.0	8.3	5.6	0.0	0.0	0.0	0.6	0.3	0.4	0.0	64.4	100.0	313

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
LAM = Lactational amenorrhea method
[1] Women who have had sexual intercourse within 30 days preceding the survey

7.2.2 Current Use of Contraception by Background Characteristics

There is modest variation by background characteristics in current use of contraceptive methods (Table 7.4). Currently married women in urban areas and their rural counterparts differ slightly in terms of use of a contraceptive method (57 percent and 53 percent, respectively). Discrepancies are also observed between urban women and rural women in use of modern methods (51 percent and 47 percent, respectively). By province, North has the highest proportion of married women using a contraceptive method (61 percent), while West has the lowest proportion (47 percent).

There is a direct association between women's use of family planning methods and the number of children they have. The majority of women do not begin to use contraception until they have had at least one child. Only 2 percent of married women with no living children use contraception; the percentage increases to 54 percent among women with one or two children and 58 percent among those with three to four children.

Use of any contraceptive method increases with increasing education, from 48 percent among women with no education to 55 percent among women with a secondary education or higher. Use of any contraception increases with increasing wealth as well, from 48 percent among women in the lowest wealth quintile to 57 percent among those in the highest quintile.

Table 7.4 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Rwanda 2014-15

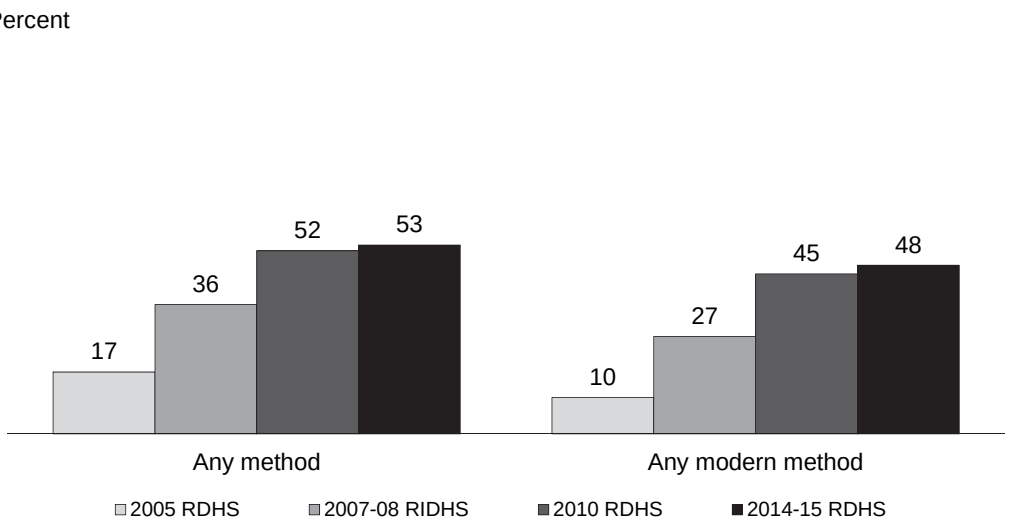
			Modern method											Traditional method				
Background characteristic	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Pill	IUD	Inject-ables	Implants	Male condom	Female condom	LAM	Standard days method	Any tradi-tional method	Rhythm	With-drawal	Not currently using	Total	Number of women
Number of living children																		
0	1.8	1.8	0.3	0.0	0.2	0.3	0.2	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	98.2	100.0	358
1-2	54.3	50.4	0.3	0.1	10.2	0.8	27.2	7.5	3.2	0.0	0.2	0.9	4.0	1.6	2.4	45.7	100.0	2,757
3-4	58.1	52.8	1.6	0.1	9.4	1.5	26.0	8.6	4.5	0.0	0.2	0.9	5.3	2.6	2.7	41.9	100.0	2,302
5+	56.0	45.1	2.6	0.6	5.4	1.2	21.0	8.5	4.7	0.0	0.2	1.0	10.9	5.3	5.6	44.0	100.0	1,564
Residence																		
Urban	56.5	51.1	2.0	0.1	9.7	3.5	18.0	10.6	5.2	0.1	0.3	1.7	5.4	2.9	2.5	43.5	100.0	1,194
Rural	52.6	46.7	1.1	0.3	8.1	0.6	25.3	7.1	3.5	0.0	0.2	0.7	5.8	2.6	3.2	47.4	100.0	5,788
Province																		
Kigali City	54.5	49.7	1.6	0.0	9.8	3.8	16.6	10.6	4.8	0.1	0.6	1.9	4.8	2.3	2.5	45.5	100.0	842
South	52.7	48.2	0.9	0.3	8.3	1.3	25.5	8.4	3.1	0.0	0.0	0.6	4.5	2.2	2.4	47.3	100.0	1,606
West	47.1	41.2	2.0	0.1	5.6	0.3	22.7	6.2	3.3	0.0	0.3	0.7	5.9	3.1	2.8	52.9	100.0	1,542
North	60.8	55.0	1.0	0.2	9.3	0.7	29.5	8.9	3.9	0.0	0.3	1.2	5.8	2.7	3.1	39.2	100.0	1,130
East	53.6	46.5	0.8	0.4	9.5	0.7	24.0	6.3	4.4	0.0	0.0	0.5	7.1	2.9	4.2	46.4	100.0	1,863
Education																		
No education	48.1	40.7	1.1	0.5	5.4	0.4	23.8	6.2	3.1	0.0	0.1	0.2	7.3	3.8	3.6	51.9	100.0	1,154
Primary	54.2	48.8	1.3	0.2	8.8	0.8	25.5	7.6	3.7	0.0	0.2	0.6	5.4	2.4	3.1	45.8	100.0	4,921
Secondary and higher	54.7	49.1	1.1	0.3	9.4	3.6	16.3	9.9	5.1	0.1	0.4	2.8	5.6	3.0	2.6	45.3	100.0	907
Wealth quintile																		
Lowest	48.4	44.9	0.6	0.2	6.0	0.1	29.0	6.3	2.3	0.0	0.2	0.2	3.5	1.5	2.0	51.6	100.0	1,313
Second	50.0	45.8	0.8	0.2	8.5	0.2	25.6	6.7	3.2	0.0	0.2	0.4	4.2	1.9	2.3	50.0	100.0	1,472
Middle	54.6	48.1	1.0	0.3	8.0	0.6	25.3	7.8	4.4	0.0	0.1	0.5	6.5	2.9	3.6	45.4	100.0	1,453
Fourth	56.4	48.7	0.9	0.4	9.2	0.8	24.5	7.4	3.8	0.0	0.2	1.4	7.7	3.6	4.1	43.6	100.0	1,380
Highest	56.8	50.0	2.8	0.0	10.0	3.8	15.7	10.2	5.4	0.1	0.2	1.8	6.9	3.5	3.4	43.2	100.0	1,365
Total	53.2	47.5	1.2	0.2	8.4	1.1	24.0	7.7	3.8	0.0	0.2	0.8	5.8	2.7	3.1	46.8	100.0	6,982

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method

7.2.3 Trends in Current Use of Family Planning

Figure 7.1 shows trends in contraceptive use among currently married women since 2005. After increasing from 17 percent in 2005 to 52 percent in 2010, the use of any method changed only slightly in 2014-15 (53 percent). One of the Ministry of Health's targets in its Health Sector Strategic Plan (HSSP III, 2012-18) was an increase in the contraceptive prevalence rate among married women from 52 percent in 2010 to 62 percent in 2015. Use of any modern method also increased dramatically between 2005 and 2010 (from 10 percent to 45 percent) and then rose slightly in 2014-15 (48 percent) (Figure 7.1).

Figure 7.1 **Trends in contraceptive use among currently married women**



7.3 TIMING OF STERILIZATION

Table 7.5 shows the distribution of women age 15-49 by age group at the time of sterilization and median age at sterilization. Thirty-seven percent of Rwandan women who have been sterilized had the operation at age 35-39, while 30 percent did so at age 30-34. Few women are sterilized at young ages (e.g., only 3 percent of women under age 25 have been sterilized). The median age at sterilization is 34 years.

Table 7.5 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, Rwanda 2014-15

	Age at time of sterilization								
	<25	25-29	30-34	35-39	40-44	45-49	Total	Number of women	Median age[1]
Total	2.8	10.1	30.0	36.8	19.2	1.2	100.0	96	34.4

[1] Median age at sterilization is calculated only for women sterilized before age 40 to avoid problems of censoring.

7.4 SOURCE OF SUPPLY

To assess the contribution of public and private medical service providers to the sale or distribution of the various modern methods of contraception, the women surveyed were asked where they first obtained the method they use. They were also asked where they had most recently obtained the contraceptive method they were using at the time of the survey.

Table 7.6 shows that the majority of women in Rwanda obtain modern methods of contraception from the public health sector (91 percent, as compared with 92 percent in 2010). The most common source where contraception is obtained is from a health center, while 25 percent obtain it from a community health worker. Other sources are the private medical sector (4 percent) and the non-medical private sector (kiosks, friends, relatives) (3 percent).

Public health sector sources supply over 90 percent of users of female sterilization, the pills, injectables, and implants, with community health workers servicing about one-third of pills and injectables users. This is mainly a result of government of Rwanda through creation of health posts in cells and the secondary health post nearest faith based health facilities, and the contribution of community health workers. As expected, more than one-third of users of male condoms obtain their method from a private source, mainly kiosks and pharmacies.

Table 7.6 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Rwanda 2014-15

Source	Female sterilization	Pill	IUD	Injectables	Implants	Male condom	Total
Public sector	***96.5***	***93.3***	***71.4***	***96.0***	***91.3***	***59.8***	***90.8***
Referral hospital	23.0	0.0	7.2	0.2	1.3	0.1	1.1
District hospital	65.7	0.6	17.4	0.3	3.2	0.5	3.1
Health center	7.7	50.9	43.1	51.6	81.8	41.3	54.7
Health post	0.0	3.9	1.3	6.0	3.1	0.9	4.3
Outreach	0.0	4.7	2.3	3.2	2.0	0.4	2.8
Community health worker	0.0	33.2	0.0	34.7	0.0	16.6	24.6
Other public	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Private medical sector	***2.6***	***6.5***	***18.8***	***3.3***	***2.5***	***6.4***	***4.4***
Polyclinic	1.2	0.2	9.3	0.1	0.4	0.4	0.4
Clinic	1.4	0.0	5.9	0.6	0.6	0.0	0.6
Dispensary	0.0	1.9	0.0	1.8	0.6	0.5	1.4
Pharmacy	0.0	4.3	0.0	0.3	0.2	5.2	1.3
Family planning clinic	0.0	0.1	3.5	0.5	0.7	0.4	0.6
Other private	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Other source	***0.0***	***0.1***	***0.0***	***0.0***	***0.0***	***30.1***	***2.6***
Kiosk	0.0	0.0	0.0	0.0	0.0	29.7	2.4
Church	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Friend/relative	0.0	0.1	0.0	0.0	0.0	0.4	0.2
Other	0.0	0.1	0.0	0.0	0.0	2.2	0.2
Don't know	0.0	0.0	0.0	0.0	0.0	0.9	0.1
Missing	0.9	0.0	9.1	0.6	6.1	0.6	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	96	632	91	1,905	638	295	3,734

Note: Total includes other modern methods but excludes lactational amenorrhea method (LAM).

7.5 USE OF SOCIAL MARKETING BRANDS OF PILLS AND CONDOMS

Women who said they were currently using pills or condoms as a method of contraception were asked which brands of pills and condoms they used. Interviewers presented a brochure with photographs of different brands of pills and condoms to assist respondents in identification of the brand. At the time of the 2014-15 RDHS, Microgynon, Lofemenal, and Ovrette/Microlut were the socially marketed brands of contraceptive pills. Microlut was introduced in 2012-2013. Generic condoms, Prudence Plus, and Plaisir were the socially marketed condom brands. Table 7.7 shows that more than 9 in 10 pill users (94 percent) use Microgynon, and 3 percent use Ovrette/Microlut. Forty-five percent of condom users use Prudence Plus and 38 percent use generic condoms. There is almost no variation in the use of socially marketed brands of pills and condoms by residence or province. Also, there are no significant differences in use of socially marketed brands according to education or wealth.

Table 7.7 Use of social marketing brand pills and condoms

Percentage of pill and condom users age 15-49 using a social marketing brand, by background characteristics, Rwanda 2014-15

	Among pill users						Among condom users[1]					
Background characteristic	Percentage using Microgynon	Percentage using Lofemenal	Percentage using Ovrette/ Microlut	Percentage using other	Don't know/ missing	Number of women using the pill	Percentage using Prudence Plus	Percentage using Plaisir	Percentage using generic	Percentage using other	Don't know/ missing	Number of women using condoms
Age												
15-19	*	*	*	*	*	6	*	*	*	*	*	6
20-24	92.3	0.0	6.5	0.0	1.2	81	(36.7)	(15.2)	(40.7)	(0.0)	(7.4)	27
25-29	91.3	0.5	5.7	0.6	1.8	173	49.0	14.9	32.0	2.0	2.1	54
30-34	94.7	2.8	0.2	0.0	2.3	165	36.8	14.1	48.1	0.0	1.0	72
35-39	97.1	1.8	0.7	0.0	0.4	117	46.5	15.8	32.5	0.0	5.3	64
40-44	95.9	1.4	0.0	1.4	1.3	72	(54.9)	(15.0)	(30.2)	(0.0)	(0.0)	47
45-49	*	*	*	*	*	18	(47.4)	(8.5)	(41.3)	(0.0)	(2.8)	25
Residence												
Urban	94.0	1.2	2.7	0.4	1.8	593	45.4	13.4	38.2	0.4	2.6	272
Rural	94.4	1.0	2.4	0.4	1.9	501	46.5	10.3	39.9	0.5	2.8	228
Province												
Kigali City	91.9	2.3	4.6	0.0	1.2	92	(40.0)	(29.3)	(29.2)	(0.0)	(1.6)	44
South	94.6	0.5	4.3	0.0	0.6	150	47.6	10.4	42.0	0.0	0.0	52
West	91.0	4.4	0.3	2.2	2.0	94	43.1	13.9	38.3	0.0	4.7	59
North	94.1	0.8	3.2	0.0	1.9	112	(61.7)	(18.9)	(16.9)	(0.0)	(2.5)	48
East	96.2	0.4	1.0	0.0	2.4	184	38.4	8.0	48.9	1.1	3.5	93
Education												
No education	91.0	0.0	3.8	0.0	5.2	66	(35.0)	(8.3)	(54.8)	(0.0)	(1.8)	40
Primary	94.8	1.7	2.2	0.4	0.9	470	50.1	10.5	36.3	0.5	2.6	201
Secondary and higher	92.3	0.9	3.9	0.0	2.9	96	33.4	33.7	29.1	0.0	3.8	55
Wealth quintile												
Lowest	90.8	0.9	3.9	1.1	3.3	94	(46.4)	(4.8)	(41.1)	(0.0)	(7.7)	36
Second	97.1	1.5	1.4	0.0	0.0	133	54.8	5.9	35.8	0.0	3.6	54
Middle	93.0	0.0	2.8	0.0	4.1	123	46.8	5.5	44.1	1.6	2.0	65
Fourth	95.5	1.5	2.2	0.0	0.8	133	44.5	13.8	38.5	0.0	3.1	61
Highest	92.9	2.6	3.0	0.7	0.7	149	36.4	32.8	30.8	0.0	0.0	79
Total	94.0	1.4	2.6	0.3	1.7	632	45.0	14.5	37.5	0.4	2.7	295

Note: Condom use is based on women's reports. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Among condom users not also using the pill

7.6 INFORMED CHOICE

Informed choice is an important aspect of the delivery of family planning services. It is required that all family planning providers inform method users of potential side effects and what they should do if they encounter such problems. This information is designed to assist users in coping with side effects and, thus, to decrease discontinuation of temporary methods. Contraceptive users should also be informed of the choices they have with respect to other methods. Table 7.8 shows the percentage of current users of modern methods who were informed about side effects or problems associated with the method used and informed of other methods they could use. Data are grouped according to method, initial source, and background characteristics.

A majority of users were given information about each of the three topics considered to be essential parts of informed choice: 70 percent were informed about potential side effects of their method, 68 percent were told what to do if they experienced side effects, and 87 percent were given information about other contraception options. Although their numbers are relatively small, it is nevertheless of concern that women who have been sterilized appear to be least likely to be informed about side effects; only slightly more than half said they were told of other methods they could use. The data show that public and private medical sources appear to be about equally likely to inform women about side effects and other methods.

Table 7.8 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source, Rwanda 2014-15

	Among women who started last episode of modern contraceptive method within five years preceding the survey:			
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if side effects experienced	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				
Female sterilization	58.3	43.5	54.6	55
Pill	65.7	63.7	89.9	557
IUD	78.8	76.9	84.8	79
Injectables	69.9	67.5	87.7	1,686
Implants	76.4	74.7	85.5	561
Initial source of method[1]				
Public sector	70.6	68.3	87.5	2,821
Referral hospital	(77.4)	(65.2)	(60.1)	30
District hospital	66.4	61.5	74.8	92
Health center	70.9	69.1	88.5	2,413
Health post	69.3	64.2	84.8	132
Outreach	71.9	68.9	89.9	106
Community health worker	(58.1)	(51.8)	(79.9)	47
Private medical sector	69.9	64.7	80.7	107
Polyclinic	*	*	*	16
Clinic	*	*	*	19
Dispensary	(73.8)	(68.6)	(86.5)	39
Pharmacy	*	*	*	16
Family planning clinic	*	*	*	17
Missing	*	*	*	9
Total	70.3	68.0	87.0	2,937

Note: Table includes users of only the methods listed individually. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Source at start of current episode of use

7.7 CONTRACEPTIVE DISCONTINUATION

Couples can realize their reproductive goals only when they use contraceptive methods correctly and consistently. Discontinuation of a method is a major concern for managers of family planning programs. All segments of contraceptive use since January 2009 were recorded in the "calendar" section of the Woman's Questionnaire. In analyses of the data, the month of the interview and the two months prior to the survey are excluded to avoid any bias that might be introduced by unrecognized pregnancies. One-year contraceptive discontinuation rates based on calendar data are presented in Table 7.9.

Twenty-eight percent of women who started using family planning method discontinued using it within 12 months. Discontinuation rates are highest among pill users (42 percent) and lowest among users of implants (3 percent). Eleven percent of episodes of use were discontinued due to the fear of side effects or health concerns, 10 percent because women switched to another method, while 5 percent were discontinued because of the desire for a more effective method, 4 percent due to the woman wanted to become pregnant, and 3 percent because the method failed.

Table 7.9 Twelve-month contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Rwanda 2014-15

Method	Method failure	Desire to become pregnant	Other fertility-related reasons[2]	Side effects/ health concerns	Wanted more effective method	Other method-related reasons[3]	Other reasons	Any reason[4]	Switched to another method[5]	Number of episodes of use[6]
Pill	4.2	4.4	2.7	16.9	9.0	2.0	2.3	41.5	20.6	1,402
Injectables	1.7	4.3	2.4	13.7	3.2	0.5	1.6	27.5	8.4	3,548
Implants	0.3	0.6	0.0	2.1	0.0	0.0	0.1	3.1	0.7	758
Male condom	5.8	4.6	3.8	0.4	9.4	2.8	10.6	37.3	14.7	391
Other[1]	(12.4)	(4.8)	(0.0)	(0.0)	(4.8)	(1.3)	(1.8)	(25.1)	(6.4)	267
Standard days method	13.2	5.1	1.0	0.0	5.9	1.9	2.4	29.4	7.2	310
All methods	3.2	3.9	2.0	11.0	4.5	0.9	2.1	27.7	10.1	6,878

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months preceding the survey. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes IUD, LAM, rhythm, and withdrawal
[2] Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation
[3] Includes lack of access/too far, costs too much, and inconvenient to use
[4] Reasons for discontinuation are mutually exclusive and add to the total given in this column.
[5] The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within two months of discontinuation.
[6] Number of episodes of use includes both episodes of use that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation.

7.8 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE

Table 7.10 shows the percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by reasons for discontinuation of method. The most common reason for discontinuing a method is health concerns or side effects (34 percent), followed by desire to become pregnant (28 percent), desire for a more effective method , and become pregnant while using it (11 percent each). The frequency with which reasons were reported varied according to the method. Discontinuations of rhythm and withdrawal were most often due to failure (i.e., becoming pregnant while using; (48 percent and 47 percent, respectively). The main reason for discontinuation of the pill, IUDs, injectables, and implants was side effects or health concerns.

Table 7.10 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, Rwanda 2014-15

Reason	Pill	IUD	Injectables	Implants	Male condom	Rhythm	Withdrawal	Other/ missing	All methods
Became pregnant while using	12.8	11.7	5.5	3.2	17.3	47.8	46.7	45.7	11.1
Wanted to become pregnant	21.6	22.6	31.4	23.2	23.5	35.4	28.0	33.8	28.2
Husband disapproved	0.4	4.5	1.0	1.7	16.2	0.0	1.8	0.0	1.6
Wanted a more effective method	15.2	1.3	9.1	9.5	18.9	9.5	11.5	9.1	10.9
Side effects/health concerns	34.7	46.5	39.6	44.7	1.1	0.0	0.0	1.2	33.9
Lack of access/too far	1.2	0.0	1.0	0.6	2.4	0.0	0.0	0.0	1.0
Cost too much	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Inconvenient to use	2.6	0.0	0.9	0.0	5.1	2.2	3.9	5.3	1.6
Up to God/fatalistic	0.1	0.0	0.3	0.7	0.6	0.0	0.0	0.0	0.2
Difficult to get pregnant/menopausal	0.6	0.0	0.3	0.4	0.5	0.0	0.0	0.0	0.3
Infrequent sex/husband away	5.8	3.0	5.4	2.7	5.1	0.0	2.3	1.2	4.9
Marital dissolution/separation	0.5	0.5	0.8	0.8	0.4	0.0	0.0	1.1	0.7
Other	1.6	7.5	2.3	9.7	3.7	2.0	2.3	1.1	2.8
Missing	3.0	2.3	2.3	2.9	5.4	3.2	3.5	1.5	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	1,075	47	2,714	394	219	140	182	98	4,869

7.9 KNOWLEDGE OF FERTILE PERIOD

A basic understanding of the physiology of human reproduction is useful for the successful practice of contraception. Successful use of some methods depends in large part on understanding when during the menstrual cycle a woman is most likely to conceive. Such knowledge is especially critical for the practice of rhythm/periodic abstinence.

To assess this understanding, women were asked whether there were certain days during the menstrual cycle when a woman is more likely to become pregnant if she has sexual intercourse. Those who answered yes were asked when those days occurred during the cycle. The question provided four explicit responses: "just before her period begins," "during her period," "right after her period has ended," and "halfway between two periods." Respondents could also provide a different response or state that they did not know when this occurred. These responses can be grouped into three categories of decreasing knowledge:

- Correct knowledge: halfway between two periods, the middle of the cycle.
- Possibly correct knowledge: just before her period begins and right after her period has ended. These responses are too vague to be considered accurate but, depending on how a woman views "right after her period has ended" or "just before her period begins," these answers could indicate the fertile period.
- Incorrect knowledge: during her period, "no specific time," "other," and "don't know."

Table 7.11 provides the results for all women, for women using the rhythm method, and for women not using the rhythm method. Overall, only 20 percent of women reported the correct timing of the fertile period, that is, halfway through the menstrual cycle. This proportion represents an increase from 2010, when only 12 percent of women reported the correct timing of the fertile period.

The data also show that 59 percent of women have possibly correct knowledge and that 21 percent have incorrect knowledge or don't know that there is a time during the menstrual cycle when a woman is more likely to conceive. Knowledge of the fertile period is considerably higher among users of rhythm/periodic abstinence (31 percent) than among nonusers (19 percent). However, 58 percent of rhythm/periodic abstinence users have only possibly correct knowledge of the fertile period, and 11 percent do not know when a woman should stop having sexual intercourse in order to avoid becoming pregnant or do not know that such a time exists. The proportion of women using rhythm/periodic abstinence who have correct knowledge of the fertile period has declined slightly relative to the figure reported in 2010 (38 percent).

Table 7.11 Knowledge of fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Rwanda 2014-15

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins	11.8	13.7	13.7
During her menstrual period	1.6	2.7	2.7
Right after her menstrual period has ended	45.9	45.3	45.3
Halfway between two menstrual periods	30.9	19.4	19.6
Other	0.0	0.1	0.1
No specific time	7.4	13.1	13.0
Don't know	2.4	5.5	5.5
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	204	13,293	13,497

7.10 NEED AND DEMAND FOR FAMILY PLANNING SERVICES

7.10.1 Need and Demand for Family Planning among Currently Married Women

This section provides information on the extent of need and potential demand for family planning services in Rwanda. Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone their next birth (spacing) or stop childbearing altogether (limiting). Specifically, women are considered to have an unmet need for spacing if they are:

- At risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years or are unsure if or when they want to become pregnant.
- Pregnant with a mistimed pregnancy.
- Postpartum amenorrheic for up to two years following a mistimed birth and not using contraception.

Women are considered to have an unmet need for limiting if they are:

- At risk of becoming pregnant, not using contraception, and want no (more) children.
- Pregnant with an unwanted pregnancy.
- Postpartum amenorrheic for up to two years following an unwanted birth and not using contraception.

Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant.

Women using contraception are considered to have a met need. Women using contraception who say they want no (more) children are considered to have a met need for limiting, and women who are using contraception and say they want to delay having a child, or are unsure if or when they want a (another) child, are considered to have a met need for spacing.

Unmet need, total demand, percentage of demand satisfied, and percentage of demand satisfied by modern methods are defined as follows:

Unmet need:	The sum of unmet need for spacing plus unmet need for limiting
Total demand for family planning:	The sum of unmet need plus total contraceptive use
Percentage of demand satisfied:	Total contraceptive use divided by the sum of unmet need plus total contraceptive use
Percentage of demand satisfied by modern methods:	Use of modern contraceptive methods divided by the sum of unmet need plus total contraceptive use

In the past, the definition of unmet need used information from the contraceptive calendar and other questions that were not included in every survey, which led to unmet need being calculated inconsistently. The revised definition uses only information that has been collected in every survey so that unmet need can be measured in the same way over time (Bradley et al., 2012).

Table 7.12.1 presents estimates of unmet need, met need, and total demand for family planning among currently married Rwandan women. Nineteen percent of currently married women have an unmet need for family planning (the same proportion as in 2010); 11 percent have an unmet need for spacing, and 8 percent have an unmet need for limiting. The total demand for family planning among currently married women is 72 percent, and almost three-quarters of that demand (74 percent) is satisfied. The demand for limiting is the same as the demand for spacing (36 percent each).

Table 7.12.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Rwanda 2014-15

	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]					
Background characteristic	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
Age												
15-19	2.7	1.0	3.6	33.4	1.9	35.3	36.1	2.8	38.9	90.7	84.3	85
20-24	14.2	0.7	14.8	43.1	4.3	47.4	57.3	5.0	62.2	76.1	71.2	883
25-29	15.6	2.6	18.1	42.3	12.4	54.7	57.9	14.9	72.8	75.1	69.9	1,577
30-34	14.4	7.5	21.9	29.3	25.6	54.9	43.7	33.1	76.8	71.5	66.6	1,693
35-39	8.3	13.7	22.0	14.6	43.1	57.7	22.8	56.8	79.6	72.4	64.0	1,240
40-44	2.9	16.8	19.7	4.8	52.2	56.9	7.7	69.0	76.7	74.3	60.8	896
45-49	0.0	13.8	13.8	0.0	41.6	41.6	0.0	55.3	55.3	75.1	53.2	607
Residence												
Urban	10.6	6.7	17.3	29.5	27.0	56.5	40.1	33.6	73.8	76.6	69.3	1,194
Rural	10.7	8.6	19.3	24.9	27.6	52.6	35.6	36.3	71.9	73.2	65.0	5,788
Province												
Kigali City	10.5	7.1	17.7	28.9	25.5	54.5	39.5	32.7	72.2	75.5	68.9	842
South	9.7	9.6	19.2	23.1	29.6	52.7	32.8	39.1	71.9	73.3	67.0	1,606
West	14.5	8.2	22.8	23.1	24.0	47.1	37.6	32.3	69.9	67.4	58.9	1,542
North	8.0	6.9	14.9	27.6	33.3	60.8	35.6	40.2	75.8	80.3	72.6	1,130
East	10.0	8.6	18.6	27.6	26.0	53.6	37.6	34.6	72.2	74.3	64.5	1,863
Education												
No education	10.5	12.2	22.7	14.4	33.7	48.1	24.9	45.9	70.8	67.9	57.5	1,154
Primary	10.8	8.1	19.0	26.9	27.3	54.2	37.7	35.5	73.2	74.1	66.7	4,921
Secondary and higher	9.8	4.1	14.0	34.0	20.7	54.7	43.8	24.8	68.6	79.6	71.5	907
Wealth quintile												
Lowest	12.8	9.4	22.2	23.2	25.2	48.4	36.0	34.6	70.6	68.6	63.6	1,313
Second	11.6	9.7	21.3	25.7	24.2	50.0	37.3	34.0	71.3	70.1	64.2	1,472
Middle	10.1	7.4	17.5	26.3	28.3	54.6	36.3	35.8	72.1	75.7	66.7	1,453
Fourth	9.0	8.6	17.6	25.5	31.0	56.4	34.5	39.5	74.0	76.2	65.8	1,380
Highest	9.9	6.3	16.1	27.8	29.0	56.8	37.7	35.3	73.0	77.9	68.5	1,365
Total	10.7	8.3	18.9	25.7	27.5	53.2	36.4	35.8	72.2	73.8	65.8	6,982

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, standard days method, and lactational amenorrhea method (LAM).

There is minimal variance in unmet need by age except for the youngest and oldest women, who have the lowest percentages of unmet need. Up through age 34, most unmet need for family planning involves spacing. At age 35 and thereafter, most unmet need is associated with limiting childbearing. Total unmet need for family planning is higher in rural areas (19 percent) than in urban areas (17 percent). By province, total unmet need is highest in West (23 percent) and lowest in North (15 percent). Unmet need decreases with increasing education and wealth.

There are notable differences by women's characteristics in percentage of demand satisfied. As expected, percentages of demand satisfied are higher among urban women (77 percent), those living in wealthier households (78 percent), and those with more education (80 percent) and North province (80 percent).

Total demand for family planning did not change between 2010 and 2014-15 (72 percent). However, over that period, the percentage of total demand satisfied by modern methods increased from 62 percent to 66 percent.

7.10.2 Need and Demand for Family Planning among All Women and Women Who Are Not Currently Married

Table 7.12.2 presents estimates of unmet need, met need, and total demand for family planning among all women and among women who are not currently married. Thirteen percent of all women and 6 percent of women not currently married have an unmet need for family planning. Total demand for family planning is 43 percent among all women and 13 percent among women not currently married; the corresponding proportions of demand satisfied among these women are 71 percent and 55 percent. The demand for spacing is slightly higher than the demand for limiting among all women (22 percent and 21 percent, respectively) as well as among women who are not currently married (7 percent and 6 percent, respectively).

Table 7.12.2 Need and demand for family planning for all women and for women who are not currently married

Percentage of all women and women not currently married age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Rwanda 2014-15

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
						ALL WOMEN						
Age												
15-19	3.3	0.2	3.4	2.1	0.2	2.3	5.4	0.3	5.7	39.6	34.6	2,768
20-24	9.3	0.7	10.0	18.7	2.5	21.3	28.0	3.2	31.2	68.1	64.3	2,457
25-29	12.6	2.5	15.2	31.3	10.7	41.9	43.9	13.2	57.1	73.4	68.7	2,300
30-34	12.3	6.9	19.1	24.3	23.3	47.6	36.6	30.1	66.7	71.3	66.6	2,151
35-39	6.8	12.1	18.9	11.6	37.0	48.6	18.4	49.1	67.6	72.0	64.0	1,575
40-44	2.4	13.7	16.1	3.5	40.5	44.1	6.0	54.2	60.2	73.2	60.9	1,269
45-49	0.0	9.4	9.4	0.0	27.8	27.8	0.0	37.2	37.2	74.7	53.8	977
Residence												
Urban	7.1	3.7	10.8	15.3	14.2	29.5	22.4	17.9	40.4	73.2	66.6	2,626
Rural	7.6	5.4	13.0	14.6	16.6	31.2	22.2	22.0	44.2	70.6	63.3	10,871
Province												
Kigali City	6.8	4.0	10.8	15.8	13.6	29.4	22.7	17.6	40.3	73.1	67.6	1,799
South	6.9	6.2	13.1	12.7	17.1	29.8	19.6	23.2	42.8	69.5	63.9	3,214
West	9.3	4.8	14.2	12.9	14.5	27.4	22.2	19.3	41.5	65.9	58.1	2,965
North	5.4	4.2	9.6	14.9	18.7	33.6	20.3	22.8	43.2	77.8	70.6	2,211
East	8.2	5.4	13.6	17.6	16.5	34.1	25.8	21.9	47.7	71.5	62.7	3,308
Education												
No education	8.0	10.0	18.0	10.7	26.5	37.2	18.7	36.5	55.1	67.4	57.9	1,665
Primary	8.2	5.5	13.7	16.6	17.6	34.2	24.8	23.1	47.9	71.4	64.8	8,678
Secondary and higher	5.2	1.3	6.5	11.6	6.8	18.4	16.9	8.0	24.9	73.8	66.4	3,154
Wealth quintile												
Lowest	9.0	7.0	16.0	13.3	16.6	29.9	22.3	23.6	45.9	65.1	60.9	2,561
Second	8.1	6.1	14.2	15.8	15.7	31.5	23.9	21.8	45.7	68.8	63.2	2,631
Middle	7.7	4.6	12.3	16.1	17.1	33.2	23.8	21.7	45.5	73.0	64.7	2,597
Fourth	6.2	5.1	11.3	14.9	17.4	32.3	21.1	22.5	43.6	74.1	64.5	2,634
Highest	6.5	3.0	9.5	13.7	14.3	28.0	20.3	17.2	37.5	74.6	66.3	3,073
Total	7.5	5.1	12.6	14.7	16.2	30.9	22.2	21.2	43.4	71.1	63.9	13,497

(Continued…)

Table 7.12.2—*Continued*

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
WOMEN NOT CURRENTLY MARRIED												
Age												
15-19	3.3	0.2	3.4	1.1	0.1	1.2	4.4	0.3	4.7	26.1	21.4	2,683
20-24	6.5	0.7	7.2	5.1	1.5	6.6	11.6	2.2	13.8	47.7	46.8	1,574
25-29	6.2	2.5	8.7	7.2	6.9	14.1	13.3	9.4	22.7	61.9	60.8	723
30-34	4.5	4.5	9.0	5.8	14.6	20.5	10.4	19.2	29.5	69.4	66.6	457
35-39	1.6	6.2	7.8	0.5	14.7	15.2	2.1	20.9	23.0	66.0	64.1	335
40-44	1.2	6.3	7.4	0.6	12.5	13.1	1.7	18.8	20.5	63.7	61.3	372
45-49	0.0	2.3	2.3	0.0	5.1	5.1	0.0	7.3	7.3	69.2	61.2	370
Residence												
Urban	4.3	1.2	5.4	3.4	3.6	7.1	7.7	4.8	12.5	56.5	53.5	1,432
Rural	4.0	1.8	5.8	2.8	4.1	6.9	6.8	5.8	12.7	54.2	52.1	5,083
Province												
Kigali City	3.6	1.2	4.8	4.3	3.1	7.4	7.9	4.3	12.2	60.7	60.7	957
South	4.1	2.8	6.9	2.3	4.5	6.8	6.4	7.4	13.8	49.7	47.5	1,608
West	3.6	1.2	4.8	1.9	4.1	6.0	5.5	5.3	10.8	55.5	52.7	1,423
North	2.7	1.3	4.0	1.7	3.4	5.1	4.4	4.7	9.1	55.8	53.3	1,081
East	5.8	1.3	7.1	4.8	4.1	8.9	10.6	5.4	16.1	55.5	52.4	1,445
Education												
No education	2.3	4.9	7.2	2.3	10.3	12.6	4.6	15.2	19.8	63.7	61.2	511
Primary	4.7	2.1	6.8	3.2	4.8	8.0	8.0	6.9	14.9	54.0	52.5	3,758
Secondary and higher	3.4	0.1	3.5	2.6	1.1	3.7	6.0	1.3	7.3	51.6	46.7	2,247
Wealth quintile												
Lowest	5.1	4.5	9.6	2.8	7.6	10.4	7.9	12.1	20.0	52.1	50.7	1,248
Second	3.7	1.5	5.2	3.2	4.8	8.0	6.9	6.3	13.2	60.5	56.4	1,159
Middle	4.6	1.0	5.7	3.3	2.9	6.1	7.9	3.9	11.8	52.0	49.5	1,144
Fourth	3.2	1.2	4.4	3.2	2.6	5.8	6.4	3.8	10.2	56.6	54.4	1,255
Highest	3.9	0.4	4.2	2.5	2.5	5.0	6.3	2.8	9.2	54.1	52.2	1,709
Total	4.1	1.6	5.7	2.9	4.0	6.9	7.0	5.6	12.6	54.7	52.4	6,515

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, standard days method, and lactational amenorrhea method (LAM).

Unmet need does not vary extensively by age with the exception of the youngest and oldest women, who have the lowest percentages of unmet need. Up to age 34, most unmet need for family planning involves spacing. Beginning at age 35, most unmet need is for limiting childbearing. Total unmet need for family planning among all women is slightly higher in rural areas (13 percent) than in urban areas (11 percent). At the provincial level, total unmet need is highest in West and East (14 percent) and lowest in North (10 percent) among all women; the proportions of unmarried women with unmet need are lowest in North (4 percent) and highest in East and South (7 percent for each).

7.11 FUTURE USE OF CONTRACEPTION

Future demand for specific methods of family planning can be assessed from the survey results. In the 2014-15 RDHS, women who were not currently using a method of contraception were asked about their intention to use family planning in the future. Those who intended to use contraception in the future were asked which methods they prefer to use. This is an important indicator of how demand for family planning may change in the future. The results are presented in Table 7.13.

Seven in 10 (71 percent) currently married women who are non-users intend to use family planning in the future, while 28 percent do not intend to do so. The proportion of women intending to use contraception increases from 64 percent among those with no children to a peak of 79 percent among those with one child before decreasing slightly among those with two (78 percent) or three (77 percent) children. The proportion

among women with four or more children is 63 percent. The proportion of women intending to use family planning in the future is slightly lower than the figure reported in the 2010 RDHS (74 percent).

Table 7.13 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Rwanda 2014-15

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
Intends to use	63.5	78.7	78.3	76.8	62.8	71.4
Unsure	0.4	1.6	0.0	0.4	0.7	0.7
Does not intend to use	36.2	19.7	21.0	22.2	35.8	27.5
Missing	0.0	0.0	0.7	0.6	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	152	603	686	543	1,279	3,264

[1] Includes current pregnancy

7.12 EXPOSURE TO FAMILY PLANNING MESSAGES

The mass media play an important role in communicating messages about family planning. Data on levels of exposure to radio, television, and printed materials are important for program managers and planners to effectively target population subgroups for information, education, and communication campaigns. To assess the effectiveness of family planning information disseminated through various media, interviewers asked respondents if they had been exposed to family planning messages on the radio or television, in video or films, and in print (newspapers and magazines) in the few months preceding the survey.

Table 7.14 shows that radio is by far the most widely accessed source of family planning messages in Rwanda, with 52 percent of women and 64 percent of men age 15-49 having heard a family planning message on the radio in the past few months. Eight percent each of women reported having seen a family planning message on television or in a newspaper/magazine; while 10 percent each of men reported having seen a family planning message from these two media.

It is also important to note that, 47 percent of women and 34 percent of men have not been exposed to any family planning messages in any of the three specified media sources. These proportions represent a considerable increase since 2010 (33 percent for women and 16 percent for men).

Women in rural areas (48 percent) were more likely to report not having been exposed to family planning messages than those in urban areas (40 percent). Women with no education (59 percent) were more likely to have had no exposure than those with a primary education (49 percent) or a secondary education or higher (34 percent). The same pattern is observed in women in the lowest wealth quintile (67 percent) compared to the higher quintiles (36-53 percent). Results by province showed that the highest percentage of women who had no exposure to family planning messages is observed in West (58 percent), while the lowest percentage is observed in North (39 percent). Similar patterns were observed among men.

Table 7.14 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio, on television, or in a newspaper or magazine in the past few months, according to background characteristics, Rwanda 2014-15

	Women					Men				
Background characteristic	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of women	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of men
Age										
15-19	44.4	6.5	9.0	52.8	2,768	50.6	6.2	6.2	48.0	1,282
20-24	53.9	9.8	10.8	44.3	2,457	66.4	11.0	12.4	32.0	994
25-29	53.1	7.8	6.5	45.3	2,300	68.5	10.3	11.5	30.8	946
30-34	52.5	7.7	6.9	46.4	2,151	67.6	9.4	7.8	31.4	930
35-39	53.8	7.4	7.1	45.4	1,575	68.3	12.0	8.2	30.2	567
40-44	53.6	6.8	5.8	45.7	1,269	73.1	10.8	12.9	25.8	473
45-49	54.1	5.9	3.5	45.0	977	70.7	10.9	11.8	28.3	385
Residence										
Urban	55.5	21.8	12.6	40.4	2,626	71.2	23.2	18.7	26.3	1,169
Rural	50.6	4.2	6.5	48.4	10,871	62.6	6.0	7.2	36.5	4,408
Province										
Kigali City	53.5	20.2	9.3	41.7	1,799	69.1	20.6	15.2	29.1	804
South	52.2	7.0	7.9	46.6	3,214	65.7	5.8	6.4	33.2	1,327
West	40.9	3.6	5.3	58.1	2,965	56.3	8.1	8.6	42.8	1,182
North	59.8	7.9	12.5	38.8	2,211	66.8	7.6	11.6	32.4	851
East	53.8	4.7	5.3	45.3	3,308	65.8	9.2	9.2	32.7	1,413
Education										
No education	41.0	2.7	0.4	58.8	1,665	56.0	4.2	0.3	43.5	496
Primary	49.9	4.7	4.7	49.2	8,678	62.0	6.5	4.8	37.2	3,636
Secondary and higher	61.7	18.3	19.7	34.1	3,154	73.4	19.1	24.9	24.1	1,445
Wealth quintile										
Lowest	32.7	2.0	2.2	67.0	2,561	49.7	3.2	3.2	49.7	819
Second	45.7	2.8	4.3	53.4	2,631	58.5	4.4	4.2	40.6	991
Middle	55.5	3.4	6.2	43.7	2,597	64.0	3.6	4.4	35.5	1,097
Fourth	61.5	4.6	9.6	37.1	2,634	67.3	8.7	10.6	31.5	1,234
Highest	60.3	22.7	14.6	35.6	3,073	74.7	22.0	20.2	23.0	1,436
Total 15-49	51.6	7.6	7.6	46.9	13,497	64.4	9.6	9.6	34.4	5,577
50-59	na	na	na	na	na	71.6	8.5	6.1	27.8	640
Total 15-59	na	na	na	na	na	65.1	9.4	9.3	33.7	6,217

na = Not applicable

7.13 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

To gain insight into the level of contact between nonusers and family planning providers, interviewers in the 2014-15 RDHS asked women who were not using contraception whether a fieldworker or health worker had visited them during the 12 months preceding the survey and discussed family planning. In addition, women were asked whether they had visited a health facility in the 12 months preceding the survey for any reason and whether anyone at the facility had discussed family planning with them during the visit. This information is important to determine whether family planning initiatives in Rwanda are reaching nonusers of family planning.

Table 7.15 shows that 14 percent of non-users during the 12 months preceding the survey had been visited by fieldworkers who discussed family planning. Among women who were not using contraception, only 17 percent had visited a health facility and discussed family planning at the facility in the past 12 months, while 38 percent had visited a health facility but did not discuss family planning.

Overall, 75 percent of non-users did not discuss family planning either with a fieldworker or at a health facility. There were differences according to residence: 82 percent of women in urban areas and 74 percent in rural areas had not discussed family planning with a community health worker or at a health facility. By province, the highest percentage of women who did not discuss family planning is found in Kigali City (83 percent) while the lowest is observed in East (68 percent)

Percentage of women who did not discuss family planning either with fieldworker or at a health facility increases as level of education increases; 68 percent of women with no education had not discussed family planning with a community health worker or at a health facility, as compared to 86 percent of those with a secondary or higher education. Similar relationship is observed for wealth quintile.

Table 7.15 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who did not discuss family planning either with a fieldworker or at a health facility, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	4.2	3.9	30.8	92.8	2,705
20-24	10.9	15.0	44.2	78.5	1,935
25-29	16.7	24.9	42.4	67.3	1,336
30-34	25.0	31.3	38.4	57.0	1,127
35-39	25.0	31.0	38.6	57.1	809
40-44	24.5	21.9	39.9	62.8	710
45-49	14.8	14.2	37.9	76.3	706
Residence					
Urban	8.3	12.3	42.3	82.3	1,850
Rural	15.4	18.2	37.0	73.5	7,479
Province					
Kigali City	8.5	10.9	42.2	83.3	1,269
South	14.1	17.1	42.1	74.7	2,257
West	12.5	15.7	36.6	77.4	2,153
North	16.2	13.8	34.7	76.5	1,469
East	17.2	24.0	35.2	68.1	2,180
Education					
No education	18.4	22.4	35.0	67.8	1,046
Primary	16.0	19.7	35.2	71.9	5,710
Secondary and higher	8.0	8.9	45.7	85.6	2,574
Wealth quintile					
Lowest	17.4	19.5	33.1	70.5	1,795
Second	16.7	19.4	34.8	71.8	1,804
Middle	15.7	19.2	37.1	73.0	1,734
Fourth	13.5	17.1	39.8	76.0	1,783
Highest	8.3	11.3	44.1	83.0	2,213
Total	14.0	17.0	38.1	75.2	9,329

INFANT AND CHILD MORTALITY 8

Key Findings

- Infant mortality rate in Rwanda in 2014-15 is 32 per 1,000 live birth; and under 5 mortality rate is 50 per 1,000 live births.
- Infant mortality declined from 50 deaths to 32 deaths per 1,000 live births between the 2010 RDHS and the 2014-15 RDHS.
- Under-5 mortality has declined from 76 deaths in 2010 RDHS to 50 deaths per 1,000 live births in 2014-15 RDHS
- Neonatal and postneonatal mortality rates are 20 deaths per 1,000 live births and 13 deaths per 1,000 live births, respectively.
- The perinatal mortality rate is 29 deaths per 1,000 pregnancies.
- Childhood mortality is higher in rural areas than in urban areas. Mortality rates are lowest among households in the highest wealth quintile.

This chapter describes levels and trends in neonatal, postneonatal, infant, and child mortality in Rwanda. Infant and child mortality rates reflect a country's socioeconomic situation as well as the quality of life of the population under study. Childhood mortality is affected by socioeconomic conditions and can vary according to the demographic characteristics of children and their mothers.

Therefore, differentials in infant and child mortality are presented by socioeconomic and demographic characteristics in this chapter.

Disaggregation of mortality indicators by economic, social, and demographic categories helps to identify population groups at risk. Preparation, implementation, monitoring, and evaluation of socioeconomic programs and policies depend to a large extent on identification of a target population. The data presented here can help to identify populations at-risk and indicate their current mortality status, which can be compared with previously collected data to determine whether improvements in health and quality of life have occurred over time.

The data used to compute the childhood mortality rates presented in this chapter were derived from the birth history section of the Woman's Questionnaire. Each woman age 15-49 was asked whether she had ever given birth, and, if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple, the sex of the child, the date of birth (month and year, according to either the Gregorian or the Khmer calendar system), survival status, age of the child on the date of the interview if alive, and, if not alive, the age at death of each live birth. Childhood mortality rates are defined as follows:

- **Neonatal mortality:** the probability of dying within the first month of life
- **Postneonatal mortality:** the probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality)
- **Infant mortality:** the probability of dying between birth and the first birthday

- **Child mortality:** the probability of dying between the first and the fifth birthday
- **Under-5 mortality:** the probability of dying between birth and the fifth birthday
- **Perinatal mortality rate:** is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births.

All rates are expressed as deaths per 1,000 live births with the exception of child mortality, which is expressed as deaths per 1,000 children surviving to their first birthday.

8.1 Assessment of Data Quality

The reliability of mortality estimates depends on sampling errors and non-sampling errors. Sampling errors are discussed in detail in Appendix B. Non-sampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded and the completeness with which child deaths are reported. The omission of births and deaths affects mortality estimates, displacement of dates of births and deaths affects mortality trends, and misreporting of age at death may alter the age pattern of mortality. Typically, the most serious source of non-sampling errors in a survey that collects retrospective information on births and deaths is underreporting of both births and deaths of children who are not alive at the time of the survey. It may be that mothers are generally reluctant to talk about their dead children because of the sorrow associated with any death, or they may live in a culture that discourages discussing the dead. Underreporting of births and deaths is generally more severe the further back in time an event has occurred. Table C.3 in Appendix C shows that there is a negligible proportion of missing information on birth dates (births in the past 15 years), age at death, age at first union, and mother's education.

An unusual pattern in the distribution of births by calendar years is an indication of possible omission of children or age displacement. However, Table C.4 in Appendix C shows that the percentage of all births for which a month and year of birth were reported remains stable over time, ranging from 99 to 100 percent of births. There is little difference in reporting by whether or not the child is alive (100 percent of births) or dead (99 percent of births).

Table C.5 in Appendix C shows the distribution of reported deaths under age 1 month by age at death in days and the percentage of neonatal deaths reported to occur at age 0-6 days for five-year periods preceding the survey. Among all infant deaths reported in days during the period 0-4 years preceding the survey, 73 percent were neonatal deaths occurring in the first week of life. Among all infant deaths reported in days during the 20 years preceding the survey, 69 percent were neonatal deaths. These rates are reasonable, suggesting that early infant deaths are not severely underreported in the 2014-15 RDHS.

Another issue affecting childhood mortality estimates is the quality of reporting of age at death. If age at death is misreported, estimates may be biased, especially if the net effect of age misreporting results in the transfer of deaths from one childhood mortality category to another. To minimize this error, interviewers were instructed to record the age at death in days for deaths under age 1 month and in months for deaths under age 2. They were also asked to probe for deaths reported at one year to determine a more precise age at death in terms of months.

Table C.6 in Appendix C shows that there may have been death transfers or heaping of deaths at age 12 months because the number of deaths at this age is nearly five times the number of deaths at age 11 months. Reporting of infant deaths at 12 months is much more common for the earlier periods prior to the survey (5 years or earlier) than for the most recent periods (0-4 years). It is possible that some of these deaths occurred before

age 1 but are not included in the infant mortality rate. However, the excess deaths reported at 12 months would have no effect on estimates of under-5 mortality rates.

8.2 LEVELS AND TRENDS IN CHILDHOOD MORTALITY

Table 8.1 presents neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey to get sufficient observations because deaths are rare events. Neonatal mortality in the most recent period is 20 deaths per 1,000 live births. This rate is higher than the postneonatal mortality rate (13 deaths per 1,000 live births) during the same period; that is, the risk of dying for any child who survives the first month of life decreases during the period of the next 11 months. Thirty-two of every 1,000 babies born in Rwanda do not survive to their first birthday. The child mortality is 19 deaths per 1000 live births. Under-5 mortality in Rwanda is 50 deaths per 1,000 live births.

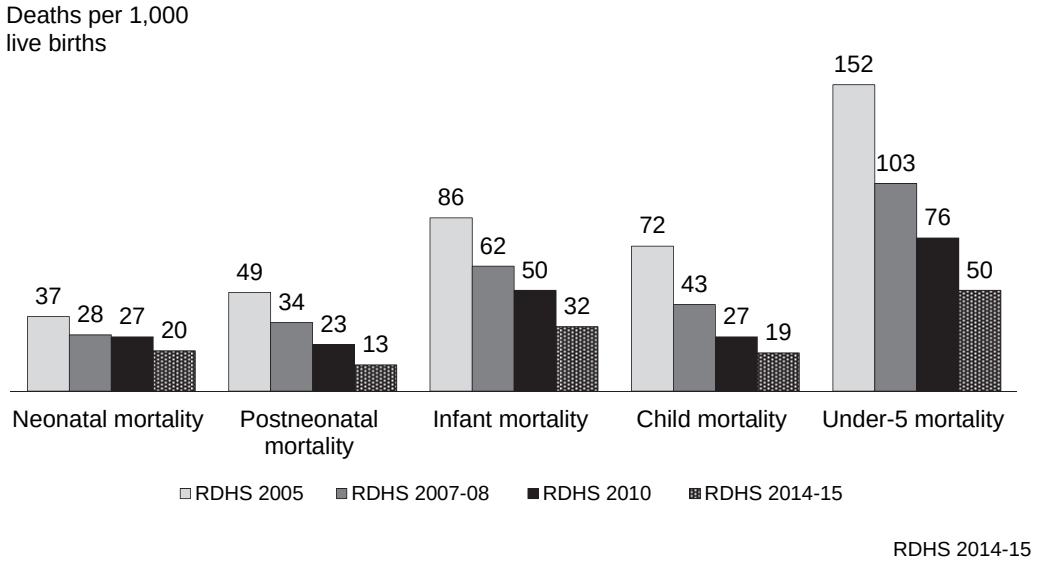
Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey, Rwanda 2014-15

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
0-4	20	13	32	19	50
5-9	25	26	51	35	84
10-14	37	46	83	73	150

[1] Computed as the difference between the infant and neonatal mortality rates

Figure 8.1 **Trends in childhood mortality rates**



RDHS 2014-15

Trends in childhood mortality rates can be established by comparing the results of the 2014-15 RDHS with the findings from the 2005 and 2010 RDHS surveys and the 2007-08 Rwanda Interim Demographic Health Survey (RIDHS), in which data were collected using the same techniques and estimates were calculated using the same methodology. Figure 8.1 shows that infant mortality has declined substantially in the past 10 years, from 86 deaths per 1,000 live births in 2005 to 62 per 1,000 live births in 2007-08, 50 per 1,000 live births in 2010, and 32 per 1,000 live births in 2014-15. Under-5 mortality also declined during this period, from 152 deaths per 1,000 live births in 2005 to 103 per 1,000 live births in 2007-08, 76 per 1,000 live births in 2010, and

50 per 1,000 live births in 2014-15. The decreases in infant and under-5 mortality are likely due to the implementation of integrated management of childhood illnesses in all health facilities and in community health services and the introduction of new vaccines among others.

8.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

The results presented in Table 8.2 and Figure 8.2 show that childhood mortality in Rwanda varies considerably by the socioeconomic characteristics of households and mothers.[1] Mortality in urban areas is generally lower than in rural areas. For example, infant mortality in urban areas is 32 deaths per 1,000 live births, as compared with 44 deaths per 1,000 live births in rural areas. The urban-rural gap is wider for neonatal mortality (15 deaths versus 24 deaths per 1,000 livebirths). Differentials in mortality by province, particularly under-5 mortality, are also substantial. The city of Kigali has the lowest rates of neonatal mortality (12 deaths per 1,000 live births) and under-5 mortality (42 deaths per 1,000 live births). The highest neonatal mortality rates are found in West and South (25 deaths per 1,000 live births), while the highest infant mortality rates are found in East and West (51 deaths and 41 deaths per 1000 live births, respectively).The East province has the highest under-5 mortality rate (86 deaths per 1,000 live births).

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
Residence					
Urban	15	17	32	19	51
Rural	24	20	44	28	70
Province					
Kigali City	12	17	29	14	42
South	25	16	40	27	66
West	25	17	41	22	62
North	23	15	38	23	60
East	22	30	51	37	86
Mother's education					
No education	24	28	52	39	89
Primary	23	19	42	24	65
Secondary and higher	16	13	29	14	43
Wealth quintile					
Lowest	23	26	50	36	84
Second	26	18	44	34	77
Middle	22	24	47	23	68
Fourth	24	15	39	20	58
Highest	13	12	25	15	40

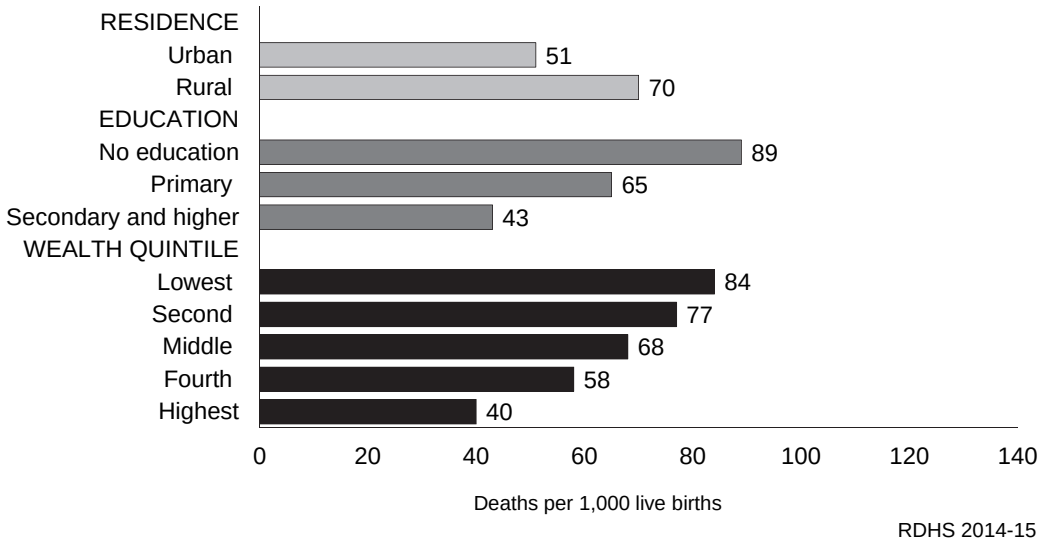
[1] Computed as the difference between the infant and neonatal mortality rates

As expected, mortality declines markedly as mother's education increases; children born to mothers with no schooling have the highest mortality rates. According to the survey results in Table 8.2, the neonatal mortality rate among children of mothers with a secondary education or higher is 16 deaths per 1,000 live births, much lower than the rate of 24 deaths per 1,000 live births among children of mothers with no education.

In addition, mortality declines markedly as the wealth of the household increases. For example, infant and under-5 mortality rates are about twice as high among children living in the poorest households than among those living in the wealthiest households.

[1] To have a sufficient number of cases to ensure statistically reliable mortality estimates by background characteristics, the rates presented in Tables 8.2 and 8.3 are calculated for a 10-year period.

Figure 8.2 **Under-5 mortality rates by socioeconomic characteristics**



8.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality rates vary substantially by the demographic characteristics of mothers and children. Table 8.3 and Figure 8.3 show childhood mortality rates by different demographic variables. Mortality rates are higher among male children than among female children during all periods of life before age 5. This excess mortality among boys is observed not only in Rwanda but also in other countries and is, in fact, a universal phenomenon.

In general, the distribution of childhood mortality by maternal age at birth is a U-shaped curve, with mortality relatively higher among children born to mothers under age 20 and over age 40 than among children born to mothers in the 20-29 and 30-39 age groups. The only exception is postneonatal mortality.

Relationships between infant mortality and specific demographic characteristics are illustrated in Figure 8.3. First-order births appear to be at a somewhat higher risk of mortality than second- to sixth-order births. Substantial increases in risk are most apparent for births of order seven and higher.

Short birth interval is one of the risk factors for childhood mortality. For example, Table 8.3 shows that children born less than two years after a preceding birth are almost twice as likely to die within the first month of life as children born after a four-year interval (33 deaths per 1,000 live births versus 17 deaths per 1,000 live births). The relationship between short birth interval and infant mortality is also evident; a child born less than two years after a preceding birth is almost twice as likely to die before his or her first birthday as a child born four or more years after a preceding birth (60 deaths per 1,000 live births versus 32 deaths per 1,000).

Studies have demonstrated that children's weight at birth is an important determinant of their chances of survival. Actual birth weights were unavailable for most children; instead, mothers were asked whether their child was very large, larger than average, average, smaller than average, or very small at birth, because this has been found to be a good proxy for a child's weight at birth. Those children reported by their mothers to be small or very small were almost four times as likely to die before age 1 month as those reported to be average or larger.

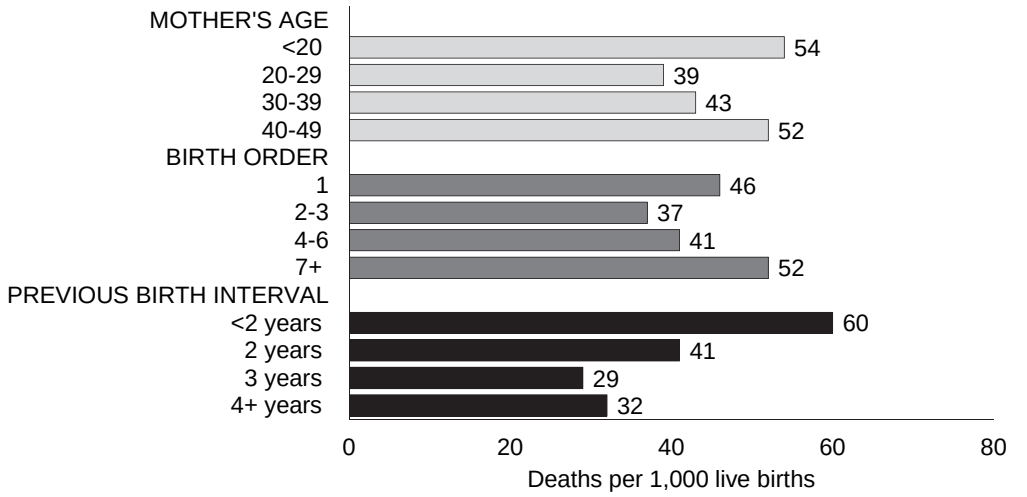
Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by demographic characteristics, Rwanda 2014-15

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
Child's sex					
Male	25	20	45	27	70
Female	20	19	39	26	64
Mother's age at birth					
<20	40	14	54	31	83
20-29	21	18	39	24	62
30-39	19	23	43	30	71
40-49	33	18	52	(31)	(80)
Birth order					
1	29	17	46	21	66
2-3	19	18	37	26	62
4-6	19	21	41	30	70
7+	26	26	52	30	80
Previous birth interval[2]					
<2 years	33	27	60	41	99
2 years	19	23	41	30	70
3 years	12	17	29	21	49
4+ years	17	15	32	18	49
Birth size[3]					
Small/very small	47	19	66	na	na
Average or larger	13	12	25	na	na

Note: Figures in parentheses are based on 250-499 unweighted person-years of exposure to the risk of death.
na = Not applicable
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

Figure 8.3 **Infant mortality rates by demographic characteristics**



RDHS 2014-15

8.5 PERINATAL MORTALITY

The 2014-15 RDHS asked women to report on any pregnancy losses that had occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of pregnancy was recorded. In this report, perinatal deaths include pregnancy losses of at least seven months' gestation (stillbirths) and

deaths to live births within the first seven days of life (early neonatal deaths). The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births. Information on stillbirths and infant deaths within the first week of life is highly susceptible to omission and misreporting. Nevertheless, retrospective surveys in most developing countries provide more representative and accurate perinatal death rates than do vital registration systems and hospital-based studies.

Table 8.4 shows that of the 8,129 reported pregnancies of at least seven months' gestation in the five years preceding the survey, 125 were stillbirths and 114 were early neonatal deaths, yielding an overall perinatal mortality rate of 29 per 1,000 pregnancies. Because the rate is subject to a high degree of sampling variation, differences by background characteristics should be interpreted with caution.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months' duration
Mother's age at birth				
<20	7	16	40	570
20-29	62	57	26	4,481
30-39	54	32	32	2,685
40-49	3	9	31	392
Previous pregnancy interval in months[4]				
First pregnancy	30	42	32	2,252
<15	27	17	42	1,036
15-26	16	18	23	1,444
27-38	12	11	19	1,212
39+	41	26	31	2,185
Residence				
Urban	22	17	28	1,368
Rural	104	97	30	6,761
Province				
Kigali City	16	9	26	960
South	29	31	32	1,866
West	26	31	29	1,945
North	15	16	28	1,123
East	39	27	30	2,235
Mother's education				
No education	30	16	38	1,227
Primary	83	89	29	5,883
Secondary and higher	12	9	25	855
Wealth quintile				
Lowest	42	29	36	1,978
Second	27	21	27	1,764
Middle	18	22	25	1,597
Fourth	17	29	33	1,401
Highest	21	13	25	1,388
Total	125	114	29	8,129

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

The perinatal mortality rate is highest among mothers less than age 20 (40 deaths per 1,000 pregnancies) and among births that occur less than 15 months after the previous birth (42 deaths per 1,000 pregnancies). It is lowest among births that occur 27-38 months after the previous birth (19 deaths per 1,000 live births). Perinatal mortality differs little by urban-rural residence or by province. By maternal educational and wealth status, perinatal mortality is highest among women with no education (38 deaths per 1,000 live births) and those in the lowest wealth quintile (36 deaths per 1,000 live births).

8.6 HIGH-RISK FERTILITY BEHAVIOR

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. Typically, the probability of dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is augmented when a child is born to a mother who has a combination of these risk characteristics.

Table 8.5 shows the percent distribution of children born to currently married women in the five years before the survey by these risk factors. Thirty percent of births were not in any high-risk category. Twenty-eight percent were first births to women between age 18 and age 34 (considered an unavoidable risk category).Slightly more than a quarter (26 percent) of births were in a single high-risk category, and 17 percent were in a multiple high-risk category. The most common single high-risk category was birth order higher than three (16 percent), and the most common multiple high-risk category was births to mothers older than age 34 and of birth order higher than three (13 percent).

Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Rwanda 2014-15

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	29.8	1.00	23.4[a]
Unavoidable risk category			
First-order births between age 18 and age 34	27.6	1.39	4.1
Single high-risk category			
Mother's age <18	1.9	2.01	0.0
Mother's age >34	2.0	0.39	3.7
Birth interval <24 months	6.3	0.94	10.8
Birth order >3	15.7	1.11	12.9
Subtotal	25.9	1.08	27.4
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.0	*	0.0
Age >34 and birth interval <24 months	0.2	*	0.4
Age >34 and birth order >3	12.9	1.65	31.8
Age >34 and birth interval <24 months and birth order >3	1.3	1.78	5.6
Birth interval <24 months and birth order >3	2.4	1.77	7.1
Subtotal	16.7	1.66	45.0
In any avoidable high-risk category	42.6	1.31	72.5
Total	100.0	na	100.0
Number of births/women	8,004	na	6,982

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilized women

The risk ratios (RRs), displayed in the second column of Table 8.5, denote the relationship between risk factors and mortality. For example, the risk of dying for a child who falls into any of the avoidable high-risk categories is 1.3 times higher than that for a child not in any high-risk category. In general, risk ratios are higher for children in a multiple high-risk category than for children in a single high-risk category. Children born to a mother younger than age 18 are most vulnerable; they are twice as likely to die as children who are not in any

high-risk category. However, only about 2 percent of births fall into this category. The risk of dying is also high among births to mothers older than age 34, with a birth interval of less than 24 months, and of a birth order higher than three (RR of 1.78); births with a birth interval of less than 24 months and of a birth order higher than three (RR of 1.77); and births to mothers older than age 34 and of a birth order higher than three (RR of 1.65).

The last column of Table 8.5 illustrates the potential for currently married women to experience a high-risk birth. A woman's status at the time of the survey with regard to her age, time elapsed since her last birth, and parity are used to classify her into a potential risk category that would apply if she were to become pregnant at the time of the survey. For example, if a respondent who is age 40, has had four births, and had her last birth 12 months ago were to become pregnant, she would fall into the multiple high-risk category of being too old, being too high in parity (four or more births), and giving birth too soon (less than 24 months) after a previous birth.

Overall, approximately three in four currently married women (73 percent) have the potential to give birth to a child at elevated risk of mortality. Twenty-seven percent of women have the potential for having a birth in a single high-risk category, and 45 percent have the potential for having a birth in a multiple high-risk category (mainly older maternal age and higher birth order).

MATERNAL HEALTH 9

Key Findings

- Ninety-nine percent of women with a live birth in the five years preceding the survey received at least one antenatal care from a skilled health provider, almost the same level found in the 2010 RDHS (98 percent).
- Forty-four percent of women make the recommended four or more antenatal care visits during their pregnancy, an increase of 9 percentage points since 2010 (35 percent).
- Ninety-one percent of live births in the five years preceding the survey were delivered in a health facility; 91 percent were assisted by a skilled health provider.
- More than 4 in 10 (43 percent) women who gave birth in the two years preceding the survey received a postnatal care checkup in the first two days after delivery.
- Only 19 percent of newborns in the two years preceding the survey had a postnatal checkup within the first two days after birth; nearly all of these children received care from skilled personnel.

The 2014-15 RDHS collected information about the health of mothers and their children born in the five years preceding the survey. This chapter covers antenatal, postnatal, and delivery care and describes problems in accessing health care. The findings outlined help to identify the most important problems in maternal and child health and reproductive health. A comparison of the results with those of previous surveys can assist in the planning, monitoring and evaluation of national health policies and programs.

9.1 ANTENATAL CARE

Monitoring of pregnant women through antenatal care visits helps to reduce risks and complications during pregnancy, delivery, and the postpartum periods. For this reason, the 2014-15 RDHS asked women who had had a live birth in the five years preceding the survey whether they had received antenatal care (ANC). Table 9.1 shows the distribution of women who had a live birth in the five years before the survey according to the category of medical personnel they consulted during the pregnancy for their most recent birth and their background characteristics. All categories of ANC providers consulted by the mother were recorded. However, if more than one provider was mentioned, only the provider with the highest qualifications was considered in the tabulation of results (e.g., if a doctor and nurse were mentioned, the doctor is considered in the tabulation).

Nearly all mothers (99 percent) received at least one antenatal care from skilled personnel for their most recent live birth in the five years preceding the survey. Universal ANC from skilled personnel has remained stable since 2010 (98 percent).

The data do not vary substantially by background characteristics; 98-99 percent of mothers received antenatal care from a skilled health provider regardless of age at birth, birth order, residence, province, level of education, or household wealth. However, the proportion of women who consulted a medical doctor during these visits is higher in urban areas (11 percent) as compared to in rural areas (3 percent), among those residing in the City of Kigali (12 percent) as compared to other provinces (2 to 8 percent), and among those with a secondary

education or higher (15 percent) as compared to those with no education (4 percent). The proportion of women who consulted with a doctor is also higher among those in the richest quintile (13 percent) as compared to other quintiles (2 to 4 percent). These results can be explained by the concentration of doctors in urban areas, particularly the City of Kigali.

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Antenatal care provider						No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ medical assistant	Midwife	Traditional birth attendant	Other	Missing				
Mother's age at birth										
<20	3.5	95.7	0.6	0.0	0.0	0.0	0.2	100.0	99.8	429
20-34	4.6	93.8	0.6	0.0	0.0	0.1	0.8	100.0	99.0	4,523
35-49	5.4	92.6	0.6	0.0	0.0	0.3	1.1	100.0	98.6	1,109
Birth order										
1	4.6	94.2	0.5	0.0	0.0	0.0	0.6	100.0	99.4	1,656
2-3	5.1	93.3	0.6	0.1	0.0	0.2	0.7	100.0	99.0	2,350
4-5	4.9	93.9	0.4	0.0	0.0	0.3	0.5	100.0	99.1	1,171
6+	3.3	93.8	1.1	0.0	0.2	0.1	1.6	100.0	98.1	884
Residence										
Urban	11.4	86.6	0.8	0.0	0.0	0.0	1.1	100.0	98.9	1,025
Rural	3.3	95.2	0.6	0.0	0.0	0.2	0.7	100.0	99.0	5,035
Province										
City of Kigali	11.7	85.7	1.1	0.0	0.0	0.1	1.4	100.0	98.5	723
South	8.0	91.0	0.1	0.0	0.0	0.1	0.7	100.0	99.1	1,406
West	1.8	95.9	1.3	0.0	0.0	0.1	0.9	100.0	99.0	1,365
North	3.4	95.3	0.6	0.0	0.0	0.4	0.3	100.0	99.3	885
East	1.8	96.9	0.3	0.1	0.1	0.2	0.7	100.0	98.9	1,682
Education										
No education	3.9	93.5	0.7	0.0	0.2	0.0	1.7	100.0	98.2	881
Primary	2.9	95.6	0.6	0.0	0.0	0.2	0.6	100.0	99.1	4,360
Secondary and higher	14.5	84.0	0.7	0.0	0.0	0.1	0.7	100.0	99.2	819
Wealth quintile										
Lowest	2.9	94.9	0.8	0.1	0.0	0.1	1.2	100.0	98.6	1,432
Second	2.7	95.9	0.3	0.0	0.1	0.3	0.6	100.0	98.9	1,306
Middle	2.2	96.4	0.5	0.0	0.0	0.1	0.8	100.0	99.1	1,195
Fourth	3.7	95.3	0.7	0.0	0.0	0.1	0.3	100.0	99.6	1,072
Highest	13.1	84.9	0.8	0.0	0.0	0.2	1.0	100.0	98.8	1,055
Total	4.6	93.7	0.6	0.0	0.0	0.2	0.8	100.0	99.0	6,060

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, medical assistant, and midwife.

It should be noted that women with sixth or higher birth order category and those with no education were most likely to have received no antenatal care (2 percent in each group).

To be effective, antenatal care must be sought early during the pregnancy, preferably in the first semester; more important, it must continue regularly through to delivery. The World Health Organization (WHO) recommends at least four ANC visits at regular intervals throughout the pregnancy, as does the Rwandan health system.

Table 9.2 shows the number of ANC visits and the timing of the first visit. Although 99 percent of Rwandan mothers received antenatal care, the number of visits was below the standard set by WHO and the Rwanda Ministry of Health. Only 44 percent of women who had a live birth in the five years preceding the survey met the standard of at least four ANC visits. Nevertheless, this proportion represents an increase from 13 percent in 2005 and 35 percent in 2010. More than half of women (52 percent) had two or three ANC visits. It

should also be noted that 3 percent of mothers had only one ANC visit, and 1 percent had no visits. Results by residence show no variation in the proportion of women who had at least four ANC visits (44 percent in both urban and rural areas).

It should be noted that most Rwandan women obtain antenatal care during their early pregnancy. Fifty-six percent of women made their first visit before the fourth month of pregnancy. This proportion was only 38 percent in 2010. There is no variation in this proportion between urban and rural women. The results also show that 31 percent of women had their first visit at the fourth or fifth month of pregnancy; 11 percent began at the sixth or seventh month, and 1 percent began at the eighth month or after. The median duration of pregnancy at the first ANC visit was 3.9 months for the country as a whole (3.8 months and 3.9 months in urban and rural areas, respectively).This represents an improvement from 2010, when the median duration was 4.5 months.

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Rwanda 2014-15

	Residence		
Number and timing of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	1.1	0.8	0.8
1	3.7	3.0	3.1
2-3	50.8	52.4	52.1
4+	44.3	43.9	43.9
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.1	0.8	0.8
<4	56.3	56.1	56.1
4-5	28.2	31.5	31.0
6-7	12.5	10.2	10.6
8+	1.8	1.4	1.4
Don't know/missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of women	1,025	5,035	6,060
Median months pregnant at first visit (for those with ANC)	3.8	3.9	3.9
Number of women with ANC	1,013	4,997	6,011

9.1.1 Components of Antenatal Care

The effectiveness of antenatal care depends not only on the types of examinations performed at the visit but also on the counseling and preventive measures administered to avoid the risk of miscarriage and other pregnancy complications. The 2014-15 RDHS collected data on these important aspects of antenatal monitoring by asking women whether, during their ANC visits for their most recent birth, they were told about the danger signs of pregnancy complications, they received specific medical examinations like blood pressure measurements, blood and urine tests. In addition, women were asked whether they had received iron supplements. The results from these questions are presented in Table 9.3 by background characteristics.

Four out of five women (80 percent) took iron tablets or syrup during the pregnancy of their last birth. About half of women (49 percent) took deworming drugs. Ninety-seven percent of women had a blood sample taken, 84 percent had their blood pressure measured, 79 percent were informed of signs of pregnancy complications, and 58 percent had a urine sample taken. Overall, these figures represent improvements from those reported in the 2010 RDHS.

The results reveal only minor differences in the use of iron tablets or syrup by pregnant mothers. Younger mothers (less than age 20) and those with their first birth were slightly less likely to take iron supplements during pregnancy than other mothers. Looking at provincial level East had the lowest proportion (73 percent) of women who took iron during their pregnancy, while North had the highest proportion (90 percent).

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Rwanda 2014-15

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:		Number of women with a live birth in the past five years	Among women who received antenatal care for their most recent birth in the past five years, the percentage with selected services				Number of women with ANC for their most recent birth
	Took iron tablets or syrup	Took intestinal parasite drugs		Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken	
Mother's age at birth								
<20	72.2	42.9	429	80.9	83.2	61.4	97.3	428
20-34	80.2	49.7	4,523	78.6	83.0	58.7	96.8	4,487
35-49	79.9	50.0	1,109	79.6	88.6	55.2	96.2	1,096
Birth order								
1	76.1	47.6	1,656	80.6	81.6	65.8	97.6	1,645
2-3	81.6	49.8	2,350	78.0	84.2	57.9	97.3	2,331
4-5	80.4	51.9	1,171	78.6	84.9	54.1	95.3	1,164
6+	79.8	47.8	884	78.9	87.1	50.6	95.4	870
Residence								
Urban	80.4	51.3	1,025	81.7	91.4	74.8	98.0	1,013
Rural	79.5	48.9	5,035	78.4	82.6	54.9	96.5	4,997
Province								
City of Kigali	79.7	51.2	723	84.1	95.5	77.1	99.1	713
South	83.8	53.1	1,406	82.0	90.5	57.2	98.5	1,396
West	77.1	51.1	1,365	68.8	83.3	65.4	93.5	1,352
North	90.0	51.2	885	86.0	83.7	70.8	95.3	882
East	72.7	42.9	1,682	78.8	74.5	38.7	97.7	1,668
Education								
No education	79.9	46.8	881	73.9	83.0	50.1	93.8	867
Primary	79.9	49.8	4,360	79.1	83.1	56.9	97.0	4,330
Secondary and higher	77.7	49.1	819	83.5	90.1	74.4	98.3	814
Wealth quintile								
Lowest	78.7	47.7	1,432	75.3	83.6	54.8	95.6	1,414
Second	79.5	49.5	1,306	77.4	81.7	53.0	95.8	1,297
Middle	81.1	47.3	1,195	80.1	80.8	55.3	97.0	1,186
Fourth	79.0	50.2	1,072	80.4	82.6	56.5	97.3	1,069
Highest	79.9	52.6	1,055	83.0	92.7	74.8	98.6	1,045
Total	79.6	49.3	6,060	79.0	84.1	58.3	96.7	6,011

Use of deworming drugs also varies little by background characteristics. Half of women age 20 or older took intestinal parasite drugs during their pregnancy, as compared with only 43 percent of those less than age 20. By province, East had the lowest proportion of women who took deworming drugs during their pregnancy (43 percent), while South had the highest proportion (53 percent).

Overall, the proportion of pregnant women informed of the signs of pregnancy complications was higher in urban areas (82 percent) than in rural areas (78 percent). It was also higher among mothers with a secondary education or more (84 percent) than among those with no education (74 percent). The West province had the lowest proportion of pregnant women informed of the signs of pregnancy complications (69 percent), while the North province had the highest (86 percent).

The older mothers were more likely to have their blood pressure measured than the younger ones (89 percent and 83 percent, respectively). Similarly, women having a child of birth order six or higher were more likely to have their blood pressure measured (87 percent) than women pregnant with their first birth (82 percent). Ninety-one percent of women in urban areas had their blood pressure measured, as compared with 83 percent in rural areas. Mothers with a secondary education or higher (90 percent) were more likely to have their blood pressure checked than those with no education or only a primary education (83 percent each). By province, the proportion varied from a low of 75 percent in East to a high of 96 percent in City of Kigali.

Younger women (61 percent), women giving their first birth (66 percent), those living in urban areas (75 percent), those living in the City of Kigali (77 percent), those with the highest level of education (74 percent), and those in the highest wealth quintile (75 percent) were most likely to have a urine test during antenatal care. Almost all women who received ANC for their most recent birth in the five years before the survey had their blood tested. Differences by background characteristics are small and follow patterns similar to those observed for urine testing.

9.1.2 Tetanus Vaccinations

Neonatal tetanus is a major cause of death among newborns in developing countries. Tetanus toxoid injections given to the mother during pregnancy protect both mother and child against this disease. To be fully protected, a woman should receive five doses of the vaccine during her life time; however, if she has already been vaccinated, for example during a previous pregnancy, one additional dose may be sufficient.

Table 9.4 shows that 34 percent of women who had a live birth in the five years preceding the survey received two or more doses of anti-tetanus vaccine during their most recent pregnancy. This figure has not changed since 2010. Taking into account mothers who had previous protection against tetanus, the proportion protected against tetanus rises to 82 percent, an increase from 79 percent in 2010. This means that 18 percent of pregnant women were not protected against tetanus.

The age of the mother seems to be an important factor in tetanus coverage: the proportion whose last birth was protected against neonatal tetanus was higher among mothers age 20-34 (83 percent) and 35-49 (88 percent) than among mothers less than age 20 (64 percent). Similarly, higher-order births were better protected than first births (87-92 percent for second-and higher-order births and 63 percent for first births). In addition, mothers in the South province (85 percent), mothers with no education (84 percent) or a primary education (83 percent), and mothers in the fourth and highest wealth quintiles (84 percent each) were slightly more likely to be protected against tetanus than their counterparts. There is no variation in vaccination coverage by residence.

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	60.6	63.5	429
20-34	36.0	82.9	4,523
35-49	13.6	87.5	1,109
Birth order			
1	61.7	63.4	1,656
2-3	31.0	89.3	2,350
4-5	17.8	92.1	1,171
6+	9.0	86.8	884
Residence			
Urban	40.5	82.5	1,025
Rural	32.2	82.4	5,035
Province			
City of Kigali	39.0	83.9	723
South	32.9	85.1	1,406
West	36.9	80.3	1,365
North	32.2	81.4	885
East	30.0	81.7	1,682
Education			
No education	27.9	84.0	881
Primary	32.4	82.8	4,360
Secondary and higher	46.5	78.8	819
Wealth quintile			
Lowest	35.3	81.7	1,432
Second	32.6	81.1	1,306
Middle	31.4	81.8	1,195
Fourth	30.1	83.7	1,072
Highest	38.6	84.4	1,055
Total	33.6	82.4	6,060

[1] Includes mothers with two injections during the pregnancy of their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth

9.2 DELIVERY CARE

9.2.1 Place of Delivery

Since every pregnancy may be subject to complications, women are advised to deliver their babies in a health facility so that they access emergency services if needed during labor, delivery, and post-delivery. For this reason, the 2014-15 RDHS asked women where they had given birth and who had assisted them during the delivery. Table 9.5 shows that 91 percent of births in the five years before the survey were delivered at a health facility, a sharp increase from the 69 percent in 2010. Among these deliveries, 90 percent took place in a public health facility, and only 1 percent took place in a private facility. It should also be noted that 8 percent of deliveries in the five years preceding the survey took place at home (compared with 29 percent in 2010).

These achievements are partly due to the government commitment to support maternal and neonatal programs; new infrastructure for delivery and neonatal services, using mobile phone for monitoring of mothers and new born by community health workers (RapidSMS system), and continuous capacity building for providers through Human Resource for Health (HRH) program.

Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Rwanda 2014-15

Background characteristic	Health facility		Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector						
Mother's age at birth								
<20	94.4	0.1	5.3	0.2	0.0	100.0	94.5	564
20-34	90.6	0.8	7.2	1.3	0.1	100.0	91.4	6,130
35-49	84.8	0.8	11.9	2.5	0.0	100.0	85.6	1,310
Birth order								
1	95.8	0.9	2.8	0.6	0.0	100.0	96.6	2,384
2-3	90.6	1.0	7.0	1.3	0.1	100.0	91.6	3,037
4-5	85.7	0.5	11.4	2.3	0.1	100.0	86.2	1,469
6+	80.9	0.2	16.3	2.6	0.0	100.0	81.1	1,114
Antenatal care visits[1]								
None	47.2	0.0	45.7	4.5	2.6	100.0	47.2	50
1-3	88.3	0.4	9.7	1.7	0.0	100.0	88.7	3,347
4+	92.9	1.2	4.5	1.4	0.0	100.0	94.1	2,663
Residence								
Urban	93.1	3.6	2.6	0.6	0.0	100.0	96.8	1,347
Rural	89.2	0.2	8.9	1.6	0.1	100.0	89.4	6,657
Province								
City of Kigali	90.9	3.3	4.9	0.8	0.0	100.0	94.2	944
South	89.6	0.3	8.3	1.8	0.0	100.0	89.9	1,837
West	90.3	0.3	8.6	0.7	0.1	100.0	90.7	1,920
North	91.9	0.5	5.5	2.1	0.0	100.0	92.4	1,108
East	88.3	0.5	9.3	1.7	0.1	100.0	88.8	2,196
Mother's education								
No education	82.1	0.0	15.8	2.0	0.1	100.0	82.1	1,196
Primary	91.2	0.1	7.2	1.4	0.0	100.0	91.3	5,800
Secondary and higher	91.8	5.3	2.2	0.7	0.0	100.0	97.0	1,007
Wealth quintile								
Lowest	84.1	0.0	13.5	2.2	0.1	100.0	84.1	1,936
Second	90.6	0.1	7.9	1.3	0.1	100.0	90.8	1,737
Middle	90.9	0.0	7.5	1.5	0.0	100.0	90.9	1,579
Fourth	92.6	0.3	5.7	1.4	0.0	100.0	92.9	1,384
Highest	93.3	3.8	2.5	0.4	0.0	100.0	97.1	1,367
Total	89.9	0.8	7.9	1.4	0.0	100.0	90.7	8,004

[1] Includes only the most recent birth in the five years preceding the survey

The proportion of home deliveries increases with mother's age (from 5 percent among mothers under age 20 to 12 percent among mothers age 35-49) and child's birth order (from 3 percent of first births to 16 percent of sixth-order births and above). Mothers who had not received ANC (46 percent) were more likely to give birth at home than mothers who had four or more ANC visits (5 percent). In addition, home deliveries were more frequent in rural areas (9 percent, as compared with 3 percent in urban areas) and among women with no education or only a primary education (16 percent and 7 percent, respectively, as compared with 2 percent among women with a secondary education or higher). By province, the proportion of home deliveries ranged from a low of 5 percent in City of Kigali to a high of 9 percent in East. Finally, the proportion of women who delivered at home decreased as household wealth increased, from 14 percent among those in the poorest households to 3 percent among those in the richest households.

The younger mothers (95 percent) were more likely to deliver in a health facility than the older mothers (86 percent). The proportion of births delivered in a health facility decreased with increasing birth order, from 97 percent for first births to 81 percent for births of order six and above. Mothers who had four or more ANC visits were more likely to deliver in a health facility than mothers with no visits (94 percent and 47 percent, respectively). Births in urban areas and in the city of Kigali were more likely to be delivered in a health facility than other births. Women with a secondary education or higher and women in the highest wealth quintile were most likely to deliver their babies in a health facility (97 percent each).

It should be noted that these results represent a substantial change over time with respect to place of delivery. The proportion of births taking place in a health facility has increased from 28 percent in 2005 and 69 percent in 2010 to 91 percent in 2014-15.

9.2.2 Assistance during Delivery

To avoid the risk of complications and maternal deaths, women should be assisted during delivery by personnel who have received training in childbirth and who are able, if needed, to diagnose, treat, and refer complications on time. Table 9.6 presents the distribution of births in the five years preceding the survey according to the person providing assistance during the delivery.

Table 9.6 Assistance during delivery

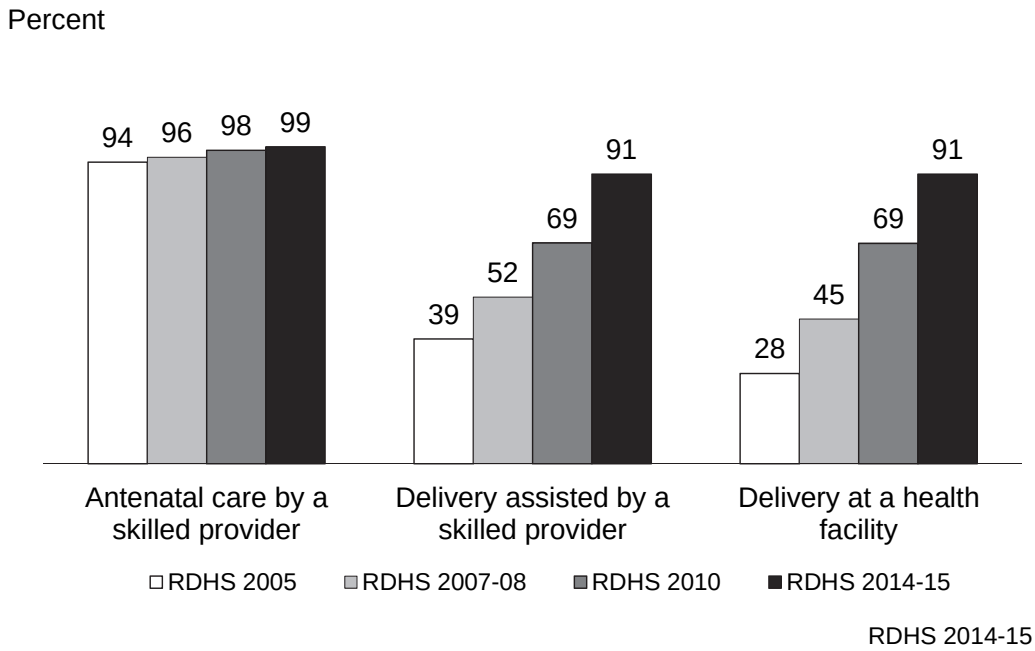
Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and percentage delivered by cesarean section, according to background characteristics, Rwanda 2014-15

	Person providing assistance during delivery											
Background characteristic	Doctor	Nurse/ medical assistant	Midwife	Other health worker	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total	Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
Mother's age at birth												
<20	18.4	73.4	2.7	0.7	0.5	2.9	1.4	0.0	100.0	94.5	13.5	564
20-34	19.0	69.6	2.8	1.7	0.2	4.6	2.1	0.1	100.0	91.4	13.5	6,130
35-49	15.1	68.2	2.5	2.6	0.2	6.1	5.3	0.1	100.0	85.7	10.4	1,310
Birth order												
1	25.8	67.7	3.1	0.6	0.2	1.7	0.8	0.0	100.0	96.7	19.0	2,384
2-3	18.0	71.1	2.5	2.1	0.2	4.0	2.0	0.2	100.0	91.6	13.6	3,037
4-5	12.5	71.4	2.4	1.9	0.3	7.6	3.7	0.2	100.0	86.3	7.1	1,469
6+	10.8	67.3	2.9	3.1	0.3	9.2	6.4	0.1	100.0	81.0	6.1	1,114
Antenatal care visits[1]												
None	8.9	38.3	0.0	4.4	0.0	26.8	19.1	2.6	100.0	47.2	7.3	50
1-3	15.6	70.4	2.7	1.9	0.4	6.2	2.7	0.1	100.0	88.7	11.0	3,347
4+	22.7	68.5	2.8	1.8	0.0	2.2	1.8	0.1	100.0	94.0	15.8	2,663
Place of delivery												
Health facility	20.2	76.7	3.0	0.1	0.0	0.0	0.0	0.0	100.0	99.9	14.3	7,255
Elsewhere	0.2	1.2	0.3	18.1	2.3	50.3	27.0	0.5	100.0	1.7	0.0	745
Residence												
Urban	28.1	63.7	5.2	0.4	0.1	1.7	0.9	0.0	100.0	96.9	22.0	1,347
Rural	16.4	70.8	2.2	2.0	0.3	5.3	2.9	0.1	100.0	89.4	11.1	6,657
Province												
City of Kigali	26.5	61.5	6.4	0.7	0.2	3.5	0.9	0.2	100.0	94.5	21.0	944
South	23.4	65.1	1.6	1.8	0.4	5.0	2.6	0.0	100.0	90.1	14.2	1,837
West	13.8	73.8	2.9	1.4	0.0	3.9	4.0	0.1	100.0	90.5	11.7	1,920
North	15.3	73.9	2.9	1.9	0.0	3.6	2.1	0.1	100.0	92.2	9.3	1,108
East	16.1	71.1	1.8	2.3	0.4	6.1	2.1	0.2	100.0	88.9	11.4	2,196
Mother's education												
No education	12.1	68.6	1.8	2.1	0.3	8.9	6.0	0.3	100.0	82.5	8.5	1,196
Primary	17.1	71.3	2.8	1.9	0.2	4.4	2.1	0.1	100.0	91.2	12.3	5,800
Secondary and higher	32.8	61.0	3.3	0.7	0.2	1.2	0.8	0.0	100.0	97.2	22.3	1,007
Wealth quintile												
Lowest	14.1	68.0	2.1	2.2	0.4	8.0	5.0	0.2	100.0	84.2	9.9	1,936
Second	14.0	74.8	2.1	2.1	0.3	4.3	2.3	0.2	100.0	90.8	9.1	1,737
Middle	15.1	74.4	1.5	1.7	0.2	5.3	1.8	0.1	100.0	91.0	10.3	1,579
Fourth	21.4	68.1	3.3	1.8	0.0	3.5	1.9	0.0	100.0	92.8	14.7	1,384
Highest	30.5	61.5	5.2	0.6	0.2	1.1	0.8	0.0	100.0	97.2	23.5	1,367
Total	18.3	69.6	2.7	1.7	0.2	4.7	2.5	0.1	100.0	90.7	13.0	8,004

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes 4 cases in which information on place of delivery is missing.
[1] Skilled provider includes doctor, nurse/medical assistant, and midwife.
[2] Includes only the most recent birth in the five years preceding the survey

The results show that 9 in 10 births (91 percent) were assisted by a skilled health provider; a substantial improvement since 2010, when only 69 percent were assisted by a skilled provider. Eighteen percent of births were assisted by doctors, 70 percent by nurses or medical assistants, and 3 percent by midwives. This is partly due to the availability of nurses in health facilities, and limited number of doctors and midwives in Rwanda. However, it should be noted that 3 percent of births received no assistance and that 7 percent were assisted by untrained persons (2 percent by nonqualified health workers, less than 1 percent by traditional birth attendants, and 5 percent by relatives or other persons). Thirteen percent of births were delivered by cesarean sections.

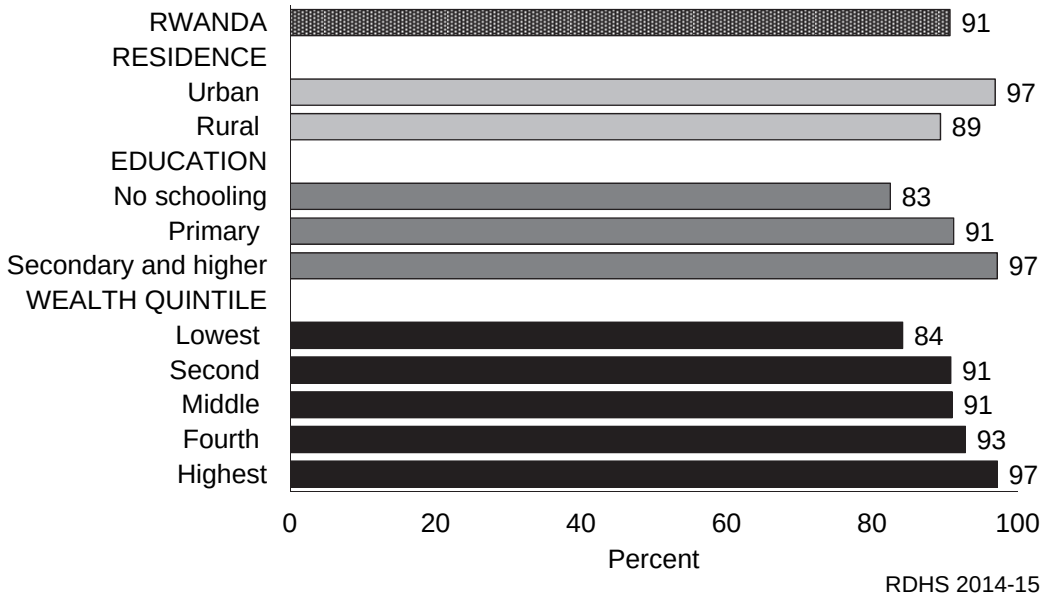
Figure 9.1 **Trends in antenatal care and delivery, Rwanda 2005 to 2014-15**



RDHS 2014-15

Deliveries assisted by skilled health personnel were more common among the youngest mothers (95 percent), first births (97 percent),births in health facilities (100 percent),and births in urban areas (97 percent), particularly the city of Kigali (95 percent) (Table 9.6 and Figure 9.2). Also, mothers with a secondary education or higher and those in the richest wealth quintile (97 percent each) were most likely to receive assistance from skilled personnel.

Figure 9.2 **Births delivered by a skilled provider**



9.3 POSTNATAL CARE

A significant proportion of maternal and newborn deaths in the neonatal period take place within the 48 hours following delivery. For this reason, safe motherhood programs have recently placed special emphasis on the importance of postnatal checkups, recommending that all women have a postnatal visit within two to seven days following the delivery. During the survey, therefore, women age 15-49 who had given birth in the two years preceding the survey were asked whether they had received a postnatal checkup and about the timing of this checkup.

9.3.1 Maternal Postnatal Care

Table 9.7 shows that 43 percent of women had a postnatal checkup in the first two days after delivery; 30 percent had a checkup within 4 hours, 8 percent within 4-23 hours, and 5 percent within 1-2 days. The proportion of women who received a postnatal checkup has increased significantly since 2010, when only 18 percent of women had a postnatal checkup in the first two days after delivery. Overall, 55 percent of women did not have a postnatal checkup, and this proportion was very high in each of the background characteristic categories.

Table 9.7 Timing of first postnatal checkup

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Time after delivery of mother's first postnatal checkup						No postnatal checkup[1]	Total	Percentage of women with a postnatal checkup in the first two days after birth	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
Mother's age at birth										
<20	29.8	6.5	7.0	2.0	2.0	0.0	52.5	100.0	43.4	229
20-34	29.9	8.7	4.6	0.7	1.3	0.1	54.7	100.0	43.3	2,432
35-49	30.9	7.7	3.2	1.1	1.7	0.3	55.1	100.0	41.8	575
Birth order										
1	32.2	10.0	5.8	1.5	1.8	0.0	48.7	100.0	48.0	914
2-3	30.4	8.4	4.2	0.5	1.0	0.3	55.2	100.0	43.0	1,262
4-5	26.6	7.1	4.2	0.9	1.8	0.2	59.3	100.0	37.9	618
6+	29.7	6.8	3.3	0.5	1.1	0.0	58.5	100.0	39.9	442
Place of delivery										
Health facility	30.7	8.7	4.8	0.9	1.4	0.1	53.3	100.0	44.2	2,966
Elsewhere	23.5	5.0	2.0	0.0	1.0	0.0	68.4	100.0	30.6	269
Residence										
Urban	33.3	9.2	5.3	1.0	1.4	0.2	49.5	100.0	47.8	561
Rural	29.4	8.2	4.4	0.8	1.4	0.1	55.7	100.0	42.0	2,675
Province										
City of Kigali	32.9	8.4	5.5	0.0	1.5	0.0	51.8	100.0	46.7	395
South	34.7	10.7	3.8	0.8	0.6	0.4	49.1	100.0	49.2	730
West	28.8	7.4	3.3	1.2	2.0	0.1	57.1	100.0	39.5	763
North	29.3	5.4	8.0	1.3	2.3	0.1	53.6	100.0	42.6	453
East	26.7	8.8	4.0	0.7	1.1	0.0	58.6	100.0	39.6	896
Education										
No education	22.5	8.2	2.4	0.8	0.7	0.2	65.2	100.0	33.1	439
Primary	30.7	7.8	4.7	0.8	1.5	0.1	54.4	100.0	43.1	2,316
Secondary and higher	34.2	11.5	5.9	1.0	1.6	0.1	45.7	100.0	51.6	481
Wealth quintile										
Lowest	28.5	6.6	4.5	0.6	1.4	0.0	58.4	100.0	39.6	792
Second	28.1	7.7	3.9	0.8	0.9	0.1	58.6	100.0	39.6	672
Middle	30.2	7.9	4.8	0.7	1.4	0.0	54.9	100.0	43.0	622
Fourth	30.4	9.7	4.4	1.7	1.6	0.5	51.8	100.0	44.4	573
Highest	34.2	10.9	5.3	0.4	1.9	0.1	47.2	100.0	50.4	576
Total	30.1	8.4	4.5	0.8	1.4	0.1	54.6	100.0	43.0	3,236

Note: Total includes 1 case in which information on place of delivery is missing.
[1] Includes women who received a checkup after 41 days

The proportion of women who had no postnatal checkup increased with birth order, from 49 percent for first births to 59 percent for fourth- and higher-order births. Lack of a postnatal checkup was more frequent in rural areas (56 percent) than in urban areas (50 percent). By province, the proportion of women who did not have a postnatal checkup ranged from 49 percent in South to 57 percent in West and 59 percent in East.

A woman's level of education was related to whether or not she had a postnatal checkup: 65 percent of women with no education did not have a postnatal checkup, as compared with 54 percent of women with a primary education and 46 percent of women with a secondary education or higher. Results by household wealth showed that the proportion of women with no postnatal checkup was higher in the lowest and second quintiles (58 percent and 59 percent, respectively) than in the highest quintile (47 percent).

It is important that postnatal checkups be performed by skilled health providers who can detect and intervene in time to counter any problems related to the delivery and the postpartum period. Table 9.8 shows the type of provider of the mother's first postnatal health checkup in the two days after the last live birth. Forty-three percent of women's first postnatal health checkups were carried out by doctors, nurses, medical assistant, midwives, or community health workers. Fifty-seven percent of women did not receive a postnatal checkup from

a skilled provider in the first two days after their last live birth. Lack of a postnatal checkup increased with increasing birth order, from 52 percent for first births to 60-62 percent for fourth- and higher-order births.

Table 9.8 Type of provider of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check in the two days after the last live birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Type of health provider of mother's first postnatal checkup			No postnatal checkup in the first two days after birth[1]	Total	Number of women
	Doctor/nurse/ medical assistant	Midwife	Community health worker			
Mother's age at birth						
<20	40.9	2.5	0.0	56.6	100.0	229
20-34	41.2	1.8	0.2	56.7	100.0	2,432
35-49	40.7	0.9	0.2	58.2	100.0	575
Birth order						
1	45.8	2.1	0.0	52.0	100.0	914
2-3	41.0	1.8	0.3	57.0	100.0	1,262
4-5	36.1	1.7	0.2	62.1	100.0	618
6+	38.7	0.7	0.5	60.1	100.0	442
Place of delivery						
Health facility	42.4	1.8	0.0	55.8	100.0	2,966
Elsewhere	27.1	0.8	2.6	69.4	100.0	269
Residence						
Urban	45.2	2.5	0.1	52.2	100.0	561
Rural	40.2	1.5	0.2	58.0	100.0	2,675
Province						
City of Kigali	42.1	4.6	0.0	53.3	100.0	395
South	48.3	0.4	0.5	50.8	100.0	730
West	37.1	2.2	0.3	60.5	100.0	763
North	41.3	1.1	0.2	57.4	100.0	453
East	38.2	1.4	0.0	60.4	100.0	896
Education						
No education	31.9	0.9	0.3	66.9	100.0	439
Primary	41.3	1.6	0.2	56.9	100.0	2,316
Secondary and higher	48.4	3.1	0.2	48.4	100.0	481
Wealth quintile						
Lowest	38.1	1.2	0.3	60.4	100.0	792
Second	37.4	1.9	0.3	60.4	100.0	672
Middle	42.1	0.6	0.4	57.0	100.0	622
Fourth	42.5	1.9	0.0	55.6	100.0	573
Highest	47.0	3.2	0.1	49.6	100.0	576
Total	41.1	1.7	0.2	57.0	100.0	3,236

Note: Total includes 1 case in which information on place of delivery is missing.
[1] Includes women who received a checkup after 41 days

Mothers who did not give birth in a health facility, those living in rural areas, those with no education, and those in the lowest wealth quintile were most likely not to have a postnatal checkup.

9.3.2 Newborn Postnatal Care

Postnatal checkup for newborns should also be carried out within two days after the birth to evaluate their health status and intervene rapidly if necessary. Table 9.9 shows the distribution of births in the two years before the survey according to the time after birth of the first postnatal checkup and the percentage of newborns with a postnatal checkup in the first two days.

Table 9.9 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Time after birth of newborn's first postnatal checkup						No postnatal checkup[1]	Total	Percentage of births with a postnatal checkup in the first two days after birth	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know/ missing				
Mother's age at birth										
<20	10.0	5.9	1.1	2.9	0.9	0.0	79.2	100.0	19.9	229
20-34	9.5	5.1	2.7	1.4	0.5	0.0	80.8	100.0	18.7	2,432
35-49	8.5	7.2	3.8	1.8	0.8	0.2	77.7	100.0	21.4	575
Birth order										
1	10.6	5.4	2.3	1.9	0.5	0.0	79.2	100.0	20.2	914
2-3	9.5	5.9	3.2	0.7	0.4	0.1	80.3	100.0	19.3	1,262
4-5	8.3	4.6	2.3	2.4	0.7	0.2	81.5	100.0	17.6	618
6+	8.1	6.1	3.2	2.0	0.9	0.0	79.7	100.0	19.4	442
Place of delivery										
Health facility	9.8	5.3	2.7	1.4	0.4	0.1	80.3	100.0	19.3	2,966
Elsewhere	5.1	7.5	3.5	2.9	2.5	0.0	78.5	100.0	19.0	269
Residence										
Urban	6.0	5.6	2.2	1.2	0.4	0.0	84.5	100.0	15.1	561
Rural	10.1	5.5	2.9	1.6	0.6	0.1	79.2	100.0	20.1	2,675
Province										
City of Kigali	2.9	4.5	1.1	1.7	0.0	0.0	89.7	100.0	10.3	395
South	17.0	6.0	3.9	1.0	0.7	0.1	71.3	100.0	27.8	730
West	3.7	6.4	2.4	1.6	0.4	0.1	85.3	100.0	14.1	763
North	6.8	3.8	1.7	2.0	0.7	0.0	85.0	100.0	14.3	453
East	12.2	5.7	3.4	1.7	0.6	0.0	76.4	100.0	23.0	896
Mother's education										
No education	6.5	5.3	4.3	1.0	0.5	0.2	82.2	100.0	17.1	439
Primary	9.7	5.5	2.4	1.5	0.6	0.0	80.2	100.0	19.2	2,316
Secondary and higher	10.6	5.8	3.0	2.1	0.3	0.0	78.1	100.0	21.6	481
Wealth quintile										
Lowest	9.1	5.6	2.8	1.3	0.7	0.0	80.5	100.0	18.8	792
Second	8.8	5.1	2.4	0.8	0.6	0.1	82.0	100.0	17.2	672
Middle	11.8	4.8	2.8	1.8	0.7	0.0	78.1	100.0	21.2	622
Fourth	9.5	6.2	3.3	2.4	0.3	0.2	78.1	100.0	21.5	573
Highest	7.8	5.9	2.6	1.6	0.3	0.0	81.8	100.0	17.9	576
Total	9.4	5.5	2.8	1.6	0.5	0.1	80.2	100.0	19.2	3,236

Note: Total includes 1 case in which information on place of delivery is missing.
[1] Includes newborns who received a checkup after the first week

Only 19 percent of newborns received postnatal care in the first two days after birth. However, this proportion was higher than that reported in the 2010 RDHS (5 percent). Nine percent of newborns received postnatal care less than 1 hour after birth, 6 percent received care in 1-3 hours, 3 percent received care in 4-23 hours, and 2 percent received care 1-2 days after birth. The proportion of newborns who received postnatal care in 3-6 days was very low (less than 1 percent).

The proportion of newborns receiving postnatal care within two days varies slightly by age of the mother, birth order, place of delivery, or wealth quintile. This proportion is lowest among births in urban areas (15 percent), births in City of Kigali (10 percent), and births to mothers with no education (17 percent).

Table 9.10 shows the proportion of newborns who received postnatal care from skilled providers. Virtually all children who received postnatal care received it from doctors, nurses, medical assistants, midwives, or community health workers.

The proportion of newborns receiving postnatal checkups from skilled health providers did not vary significantly by mother's age, birth other, place of delivery, or residence. By province, the proportion of newborns who received postnatal care varied from a low of 10 percent in the City of Kigali to a high of 28 percent in South. Newborns whose mothers had a secondary education or higher (22 percent) were more likely

than those whose mothers had only a primary education (19 percent) or no education (17 percent) to have received postnatal care from skilled providers.

Table 9.10 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by type of provider of the newborn's first postnatal health check during the two days after birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Type of health provider of newborn's first postnatal checkup				No postnatal checkup in the first two days after birth	Total	Number of births
	Doctor/nurse/ medical assistant	Midwife	Community health worker	Traditional birth attendant			
Mother's age at birth							
<20	19.4	0.4	0.0	0.0	80.1	100.0	229
20-34	17.6	0.8	0.2	0.0	81.3	100.0	2,432
35-49	20.3	0.9	0.2	0.0	78.6	100.0	575
Birth order							
1	19.1	1.1	0.0	0.0	79.8	100.0	914
2-3	18.1	0.8	0.3	0.1	80.7	100.0	1,262
4-5	17.1	0.5	0.0	0.0	82.4	100.0	618
6+	18.2	0.7	0.5	0.0	80.6	100.0	442
Place of delivery							
Health facility	18.4	0.9	0.0	0.0	80.7	100.0	2,966
Elsewhere	16.8	0.0	2.2	0.0	81.0	100.0	269
Residence							
Urban	14.8	0.1	0.1	0.0	84.9	100.0	561
Rural	18.9	0.9	0.2	0.0	79.9	100.0	2,675
Province							
City of Kigali	9.9	0.2	0.0	0.2	89.7	100.0	395
South	27.2	0.1	0.5	0.0	72.2	100.0	730
West	13.1	0.9	0.1	0.0	85.9	100.0	763
North	13.8	0.2	0.2	0.0	85.7	100.0	453
East	21.2	1.8	0.0	0.0	77.0	100.0	896
Mother's education							
No education	16.2	0.9	0.0	0.0	82.9	100.0	439
Primary	18.2	0.8	0.2	0.0	80.8	100.0	2,316
Secondary and higher	20.4	0.9	0.2	0.2	78.4	100.0	481
Wealth quintile							
Lowest	18.2	0.5	0.1	0.0	81.2	100.0	792
Second	15.9	1.0	0.3	0.0	82.8	100.0	672
Middle	20.3	0.8	0.2	0.0	78.8	100.0	622
Fourth	20.1	1.1	0.2	0.1	78.5	100.0	573
Highest	17.1	0.7	0.1	0.0	82.1	100.0	576
Total	18.2	0.8	0.2	0.0	80.8	100.0	3,236

Note: Total includes 1 case in which information on place of delivery is missing.

9.4 PROBLEMS IN ACCESSING HEALTH CARE

Access to health care is a key priority for improving a country's overall health status. It has been assessed through the power of taking decision, financial or economic accessibility, and geographical access. Therefore, women were asked about perceived barriers to accessing health care. The results are presented in Table 9.11. Fifty nine percent of women reported at least one problem in accessing health care, this figure is similar to that reported in 2010 (61 percent).

Forty-nine percent of women reported that lack of money for treatment was a serious problem. The extent of this problem increased with age; 43 percent of women age 15-19 reported difficulty in obtaining money for treatment, as compared with 57 percent of women age 35-49. Divorced, separated, and widowed women (70 percent) were more likely to report this problem than married women (49 percent) and never-married women (44 percent). Lack of money was more commonly reported as a barrier by women in rural areas (53 percent) than by women in urban areas (33 percent). By province, women in South (57 percent) and West (55 percent) were more likely to mention this problem than those in the other provinces (34-47 percent). Similarly, women with no

education mentioned lack of money more often (68 percent) than women with a secondary education or higher (29 percent), and women in the poorest wealth quintile reported this problem more frequently (77 percent) than women in the richest quintile (24 percent).

Table 9.11 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Rwanda 2014-15

	Problems in accessing health care					
Background characteristic	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Age						
15-19	3.7	43.2	17.5	20.4	54.6	2,768
20-34	2.6	47.7	22.2	17.3	57.2	6,908
35-49	2.1	56.6	23.3	16.2	64.0	3,821
Number of living children						
0	3.5	41.2	19.3	20.0	52.4	4,754
1-2	2.3	49.7	21.4	15.9	58.1	4,007
3-4	2.0	56.3	23.7	17.0	64.7	2,894
5+	2.3	58.5	24.2	16.5	66.0	1,842
Marital status						
Never married	3.5	43.7	19.6	19.6	54.3	5,100
Married or living together	2.2	49.3	22.3	15.8	58.6	6,982
Divorced/separated/widowed	2.2	69.7	25.2	19.8	74.2	1,415
Employed last 12 months						
Not employed	2.1	39.1	15.0	15.5	48.6	1,929
Employed for cash	2.4	50.7	21.8	17.8	59.6	7,562
Employed not for cash	3.5	51.6	24.2	18.4	61.4	3,995
Residence						
Urban	2.5	33.1	7.7	9.7	39.0	2,626
Rural	2.7	53.3	24.9	19.6	63.3	10,871
Province						
City of Kigali	1.7	33.6	10.2	9.2	40.9	1,799
South	2.4	57.4	23.8	17.0	66.5	3,214
West	3.7	55.4	26.3	26.2	66.3	2,965
North	4.2	46.7	18.4	16.8	56.7	2,211
East	1.5	46.4	23.4	15.8	54.8	3,308
Education						
No education	3.0	67.7	27.2	17.1	73.1	1,665
Primary	2.7	53.3	22.9	18.9	62.6	8,678
Secondary and higher	2.3	28.8	15.0	14.5	39.8	3,154
Wealth quintile						
Lowest	4.0	77.4	29.5	23.4	82.2	2,561
Second	2.7	63.0	28.3	20.7	72.1	2,631
Middle	2.4	51.0	22.9	19.3	60.9	2,597
Fourth	2.6	36.2	21.9	16.7	50.6	2,634
Highest	1.8	24.1	7.7	9.6	32.2	3,073
Total	2.7	49.3	21.6	17.6	58.6	13,497

Note: Total includes 12 cases in which information on employment is missing.

Twenty-two percent of women mentioned distance to a health facility as a serious problem in accessing health care. This problem was most frequently reported by women age 35-49 (23 percent); women with three or more children (24 percent); divorced, separated, and widowed women (25 percent); women employed but not for cash (24 percent); women in rural areas (25 percent); women with no education (27 percent); and women in the lowest wealth quintile (30 percent).

Less than one in five women (18 percent) cited not wanting to go alone as a serious problem in accessing health care. The youngest women (20 percent); those with no living children (20 percent); those who had never been married or were divorced, separated, or widowed (20 percent each); those employed for cash or employed but not for cash (18 percent each); those living in rural areas (20 percent); those with a primary education (19

percent); those in the West province (26 percent); and those in the poorest households (23 percent) were most likely to report not wanting to go alone as a barrier to accessing health care.

Only 3 percent of women reported that getting permission was a serious problem, and differentials by background characteristics are minor.

CHILD HEALTH 10

Key Findings

- Six percent of newborns were of low birth weight (less than 2.5 kg).
- Ninety-three percent of children age 12-23 months have received all basic vaccines, slightly higher than the figure of 90 percent reported in the 2010 RDHS.
- Six percent of children under age 5 had symptoms of acute respiratory infection in the two weeks before the survey; 54 percent of these children were taken to a health facility or provider for advice or treatment.
- Nineteen percent of children under age 5 had a fever in the two weeks before the survey, of whom 49 percent were taken to a health facility or provider for advice or treatment.
- Twelve percent of children under age 5 had diarrhea in the two weeks before the survey.
- The proportion of children with diarrhea taken to a health provider for advice or treatment has increased from 37 percent in 2010 to 44 percent in 2014-15.
- Forty-three percent of children with diarrhea were given oral rehydration therapy (ORT) or increased fluids.
- Eighty-nine percent of women have heard of ORS to treat diarrhea.
- The stools of 88 percent of children under age 5 are disposed of safely.

This chapter presents findings on several areas of importance relating to child health and survival, including infant birth weight and size, the vaccination status of children, and childhood illnesses and their treatment. The information on birth weight and size is intended to assist monitoring programs in their efforts to decrease neonatal and infant mortality by reducing the incidence of low birth weight.

Immunizing children against vaccine-preventable diseases can greatly reduce childhood morbidity and mortality. In the 2014-15 RDHS, data on immunizations were collected for all living children born in 2009 or later. Information on vaccination coverage was collected in two ways: from the child's vaccination card and through direct reports from the mother. If a vaccination card was presented, the interviewer copied the immunization dates directly onto the questionnaire. If the mother was not able to present a vaccination card for her child, she was asked to recall the specific vaccines given to her child and the number of times the child received each vaccine.

Ensuring that children receive prompt and appropriate treatment when they become ill is also important in improving child health. Information on treatment practices and contact with health services among children with common childhood illnesses helps in the assessment of national programs aimed at reducing child mortality. The 2014-15 RDHS collected data on the prevalence and treatment of Acute Respiratory Infection (ARI), fever, and diarrhea among children under age 5. Prevalence of ARI, fever, and diarrhea may not be appropriately used for trend analysis due the seasonal variation of these illnesses. The extent to which diarrheal disease is treated with oral rehydration therapy (including increased fluid intake) is used to assess programs that recommend such treatments. Because appropriate sanitary practices can help prevent and reduce the severity of diarrheal disease, information is provided on disposal of children's fecal matter.

10.1 CHILD'S SIZE AT BIRTH

A child's birth weight is an important determinant of infant and child health and mortality. A birth weight of less than 2.5 kilograms is considered low. For all births during the five-year period preceding the survey, mothers were asked their perception of their child's size at birth. Although such information is subjective, it can be a useful proxy for the weight of the child. Mothers were also asked to report the actual weight in kilograms (based on either a written record or their own recall) if the child had been weighed after delivery.

Table 10.1 shows that 92 percent of newborns had a birth weight reported. Among these infants, only 6 percent were classified as having a low birth weight (i.e., less than 2.5 kg). According to the mother's own assessment of her infant's size, the majority of infants (84 percent) were classified as average or larger than average. Sixteen percent of newborns were either smaller than average (13 percent) or very small (3 percent).

Table 10.1 Child's weight and size at birth

Percentage of live births in the five years preceding the survey with a reported birth weight; among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage of all births with a reported birth weight[1]	Births with a reported birth weight[1]				Percent distribution of all live births by size of child at birth					
		Less than 2.5 kg	2.5 kg or more	Total	Number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	93.9	8.4	91.6	100.0	529	4.7	14.7	79.9	0.7	100.0	564
20-34	92.4	6.1	93.9	100.0	5,664	2.9	12.5	84.0	0.6	100.0	6,130
35-49	90.7	6.4	93.6	100.0	1,188	2.8	14.0	83.0	0.2	100.0	1,310
Birth order											
1	95.7	7.9	92.1	100.0	2,283	3.8	16.5	79.2	0.5	100.0	2,384
2-3	92.4	5.8	94.2	100.0	2,807	2.7	11.7	84.9	0.7	100.0	3,037
4-5	90.0	5.9	94.1	100.0	1,322	2.6	10.5	86.6	0.3	100.0	1,469
6+	87.1	4.5	95.5	100.0	970	2.4	11.9	85.4	0.4	100.0	1,114
Mother's smoking status											
Smokes cigarettes/ tobacco	84.8	15.8	84.2	100.0	63	8.0	20.8	70.3	0.9	100.0	74
Does not smoke	92.3	6.2	93.8	100.0	7,319	2.9	12.8	83.7	0.5	100.0	7,929
Residence											
Urban	97.0	3.7	96.3	100.0	1,307	2.1	11.1	86.5	0.3	100.0	1,347
Rural	91.3	6.9	93.1	100.0	6,075	3.2	13.3	83.0	0.6	100.0	6,657
Region											
City of Kigali	95.5	4.2	95.8	100.0	901	2.2	11.1	86.1	0.6	100.0	944
South	92.8	8.3	91.7	100.0	1,705	4.3	14.9	79.9	0.8	100.0	1,837
West	89.4	5.5	94.5	100.0	1,716	2.6	13.6	83.4	0.4	100.0	1,920
North	94.7	5.4	94.6	100.0	1,049	3.4	10.9	84.8	0.9	100.0	1,108
East	91.6	6.7	93.3	100.0	2,011	2.3	12.5	85.0	0.2	100.0	2,196
Education											
No education	83.8	7.0	93.0	100.0	1,002	3.1	13.1	83.1	0.7	100.0	1,196
Primary	93.1	6.5	93.5	100.0	5,397	3.1	13.1	83.2	0.6	100.0	5,800
Secondary and higher	97.6	4.7	95.3	100.0	982	1.9	11.7	86.1	0.3	100.0	1,007
Wealth quintile											
Lowest	87.1	8.1	91.9	100.0	1,687	4.2	14.6	80.0	1.2	100.0	1,936
Second	92.3	7.2	92.8	100.0	1,603	3.2	12.8	83.4	0.7	100.0	1,737
Middle	92.3	6.7	93.3	100.0	1,457	2.4	14.0	83.5	0.1	100.0	1,579
Fourth	94.2	5.3	94.7	100.0	1,304	2.6	12.9	84.2	0.3	100.0	1,384
Highest	97.4	3.5	96.5	100.0	1,331	2.0	9.5	88.4	0.2	100.0	1,367
Total	92.2	6.3	93.7	100.0	7,382	3.0	12.9	83.6	0.5	100.0	8,004

[1] Based on either a written record or the mother's recall

Although the differences are not large, children born in rural areas are more likely to weigh less than 2.5 kg than those born in urban area, and to be described as very small or smaller than average in size. The data also show that, in general, there is a positive relationship between mother's education and wealth quintile and the weight and size of the newborn. Children whose mothers have a secondary education or higher or who are in the highest wealth quintile are less likely to weigh below 2.5 kg or to be described as very small at birth than other children (Table 10.1). Variations in weight and size at birth are also seen by province; for example, the proportion of children with a birth weight below 2.5 kg ranges from 4 percent in City of Kigali to 8 percent in South. Although the number of women who smoke tobacco is very small, there seems to be a negative association between smoking and birth weight; women who smoke are more likely to deliver low birth weight babies.

10.2 VACCINATION OF CHILDREN

To assess vaccination status in children, the 2014-15 RDHS gathered information on vaccination for all children under 5 from eligible interviewed women. In addition to traditional vaccines (BCG, OPV, DPT and measles) that have been using since the beginning of vaccination program in Rwanda; six new vaccines have been introduced in routine immunization. Hepatitis B and *Haemophilus Influenza* type B vaccines in combination with DPT (pentavalent vaccine) was introduced in 2002, pneumococcal vaccine was introduced in 2009, rotavirus vaccine was introduced in 2012 and combined measles and rubella vaccine introduced in 2013. Rwanda Vaccination program generally follows the World Health Organization (WHO, February 2015) recommended vaccines for routine immunization, and all required vaccines now are given in routine immunization. A child is considered fully immunized when he/she has received all recommended vaccines by age 12 months: one dose of BCG (against tuberculosis), three doses of combined vaccine (Pentavalent) against diphtheria, pertussis, Tetanus, hepatitis B and *Haemophilus Influenza* Type B (DPT-HepB-Hib), three doses of oral polio vaccine and one dose of measles vaccine. Each child who is vaccinated receives an immunization card on which all of the vaccines received are recorded.

As noted, information on vaccination coverage was obtained in two ways: from child health cards and from mothers' verbal reports. For all children born since January 2009, mothers were asked to show the interviewer the child health cards in which immunization dates were recorded. If a card was available, the interviewer recorded onto the questionnaire the dates of each vaccination received by the child. If a card indicated that the child was not fully vaccinated, the mother was then asked whether the child had received other vaccinations that were not recorded on the card, and they too were noted on the questionnaire. When cards were not available because the mother never had one, the card was unavailable at the time of the survey, or the mother had lost the card, mothers were asked to recall whether or not the child had received each of the vaccines covered in the survey. Questions were asked for each vaccine type. Mothers were asked to recall whether the child had received BCG, polio, pentavalent, and measles vaccinations. If the mother indicated that the child had received the polio or pentavalent vaccine, she was asked about the number of doses that the child received. The results presented here are based on both vaccination card information and, for children without a card, information provided by the mother. Information from cards was available for 94 percent of children (Table 10.3), a sizeable improvement from 2010 (82 percent).

Table 10.2 presents vaccination coverage results by source of information for children age 12 to 23 months, thereby including only children who had reached the age by which they should be fully immunized. Overall (according to both vaccination cards and mothers' reports), 93 percent of children age 12-23 months are fully immunized. Almost 9 in 10 (87 percent) children received all of their basic vaccinations before their first birthday, as recommended by WHO and the Rwanda EPI. Less than 1 percent of children had not received any vaccinations at the time of the survey. Vaccination coverage for pneumococcal and rotavirus is available in Appendix C.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by age 12 months, Rwanda 2014-15

Source of information	BCG	Pentavalent 1	Pentavalent 2	Pentavalent 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles[2]	All basic vaccinations[3]	No vaccinations	Number of children
Vaccinated at any time before survey												
Vaccination card	93.6	93.8	93.5	93.2	86.6	93.9	93.7	93.2	90.1	89.4	0.0	1,485
Mother's report	5.3	5.3	5.3	5.0	4.7	5.2	4.9	3.4	5.1	3.2	0.7	96
Either source	98.9	99.1	98.8	98.1	91.3	99.1	98.6	96.6	95.2	92.6	0.7	1,581
Vaccinated by age 12 months[4]	98.9	98.9	98.8	98.1	91.3	99.0	98.6	96.6	88.7	86.6	0.8	1,581

Note: Pentavalent includes diphtheria, pertussis, tetanus, *Haemophilus influenzae* type B, and hepatitis B.
[1] Polio 0 is the polio vaccination given at birth.
[2] Including children who received a combined measles and rubella vaccine
[3] BCG, measles, and three doses each of pentavalent and polio vaccine (excluding polio vaccine given at birth)
[4] For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

Table 10.3 shows vaccination coverage according to background characteristics of mother and child. The data show practically no variation by sex (93 percent for male children and 92 percent for female children). However, complete coverage decreases slightly as birth order increases, from 94 percent for birth orders one to three to 91 percent for birth orders four to five and 90 percent for birth orders six and above. Complete vaccination coverage is the same in urban and rural areas (93 percent). The city of Kigali has the highest vaccination coverage in the country (96 percent), while the West province has the lowest coverage (90 percent).

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Rwanda 2014-15

Background characteristic	BCG	Pentavalent 1	Pentavalent 2	Pentavalent 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles[2]	All basic vaccinations[3]	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex													
Male	99.1	99.5	99.0	98.5	90.9	99.5	98.9	97.2	95.7	93.0	0.3	93.9	814
Female	98.6	98.6	98.6	97.8	91.6	98.7	98.4	96.0	94.7	92.3	1.1	94.1	766
Birth order													
1	98.8	99.1	99.1	98.4	90.7	99.3	99.2	96.7	96.5	93.6	0.4	93.7	447
2-3	99.3	99.1	99.0	98.2	91.3	99.1	98.6	97.3	95.5	94.0	0.7	94.2	593
4-5	98.4	98.8	98.2	97.8	92.9	98.8	97.5	96.6	92.7	90.5	1.0	94.2	306
6+	98.3	99.2	98.7	97.8	90.1	99.2	99.2	94.8	95.4	90.1	0.8	93.6	234
Residence													
Urban	99.2	98.7	98.7	98.7	97.5	99.3	98.5	96.7	96.4	93.4	0.3	93.5	278
Rural	98.8	99.2	98.8	98.0	89.9	99.1	98.7	96.6	94.9	92.5	0.8	94.0	1,303
Province													
City of Kigali	99.6	99.1	99.1	99.1	97.7	99.6	99.6	98.7	97.4	96.1	0.4	93.7	204
South	98.8	98.6	98.6	98.6	87.5	98.5	98.5	98.2	94.9	94.5	1.2	95.4	331
West	98.8	99.1	98.5	96.3	88.5	99.1	98.6	95.6	93.1	89.8	0.3	94.9	372
North	100.0	100.0	100.0	100.0	98.2	100.0	99.2	97.5	97.4	94.8	0.0	94.9	220
East	98.0	98.9	98.5	98.0	90.0	98.9	98.1	95.0	95.1	91.0	1.1	91.8	453
Mother's education													
No education	97.1	98.0	97.6	95.4	89.3	98.0	97.1	93.4	89.7	85.9	2.0	91.0	233
Primary	99.0	99.3	99.0	98.5	91.1	99.2	98.7	96.8	95.7	93.0	0.5	94.4	1,124
Secondary and higher	100.0	99.1	99.1	99.1	94.3	100.0	100.0	99.0	98.7	97.9	0.0	95.0	223
Wealth quintile													
Lowest	97.2	98.1	97.0	95.7	86.0	98.1	96.7	93.5	91.3	86.7	1.5	92.6	384
Second	99.6	99.6	99.6	98.2	88.8	99.6	99.3	97.4	94.9	93.4	0.4	94.4	316
Middle	98.8	99.1	99.1	98.7	94.2	98.7	98.7	97.3	95.1	93.0	0.9	94.4	323
Fourth	100.0	100.0	100.0	100.0	92.1	99.8	99.5	97.7	99.3	97.0	0.0	95.6	273
Highest	99.3	98.9	98.9	98.9	97.0	99.7	99.5	98.2	97.0	95.2	0.3	93.2	285
Total	98.9	99.1	98.8	98.1	91.3	99.1	98.6	96.6	95.2	92.6	0.7	94.0	1,581

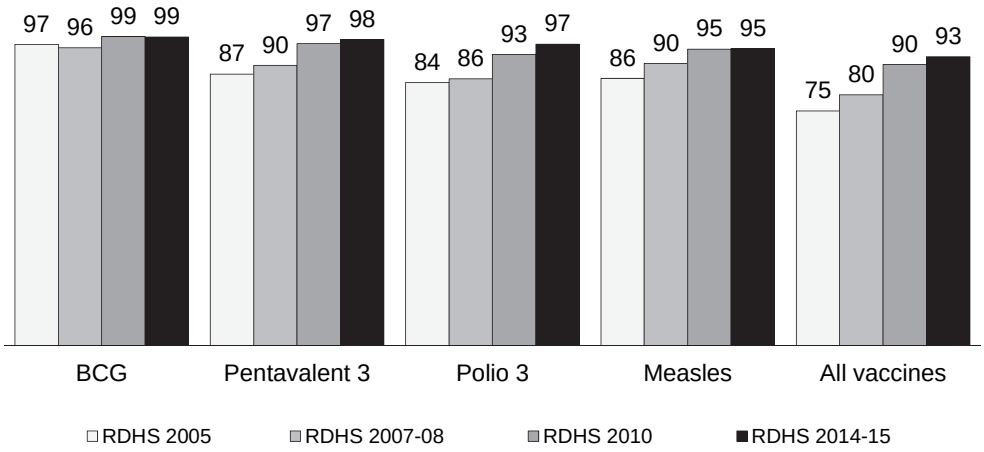
[1] Polio 0 is the polio vaccination given at birth.
[2] Including children who received a combined measles and rubella vaccine
[3] BCG, measles, and three doses each of pentavalent and polio vaccine (excluding polio vaccine given at birth)

Complete vaccination coverage increases steadily with mother's level of education, from 86 percent among children whose mothers have no education to 98 percent among children whose mothers have a secondary education or higher. The proportion of children fully vaccinated generally increases with increasing wealth but falls slightly at the highest quintile.

10.3 TRENDS IN VACCINATION COVERAGE

Figure 10.1 shows that vaccination coverage among children age 12-23 months has continued to improve steadily over the past 10 years.

Figure 10.1 **Trends in vaccination coverage among children age 12-23 months**



Note: All vaccines includes BCG, measles and three doses each of pentavalent and polio vaccine

Table 10.4 shows, by age cohort, the percentages of children age 12-59 months who received specific vaccinations during their first year of life. The data indicate that the proportion of children fully vaccinated by age 12 months has increased over the past five years, from 84 percent among those age 48-59 months to be stabilized at 87 percent among those age 12-47 months.

Table 10.4 Vaccinations in first year of life

Percentage of children age 12-59 months at the time of the survey who received specific vaccines by age 12 months, and percentage with a vaccination card, by current age of child, Rwanda 2014-15

		Pentavalent			Polio[1]								
Age in months	BCG	1	2	3	0	1	2	3	Measles[2]	All basic vaccinations[3]	No vaccinations	Percentage with a vaccination card seen	Number of children
12-23	98.9	98.9	98.8	98.1	91.3	99.0	98.6	96.6	88.7	86.6	0.8	94.0	1,581
24-35	98.6	98.5	98.4	97.6	90.1	98.6	97.9	94.5	91.6	87.3	0.9	89.2	1,555
36-47	98.3	98.7	98.3	97.3	90.4	98.6	97.8	94.2	90.7	86.6	1.3	86.5	1,602
48-59	98.1	98.0	97.7	96.5	89.7	98.0	96.6	91.0	90.1	83.7	1.6	81.7	1,314
Total	98.5	98.6	98.3	97.4	90.4	98.6	97.8	94.2	90.2	86.1	1.1	88.1	6,053

Note: Information was obtained from the vaccination card or, if there was no written record, from the mother. For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.
[1] Polio 0 is the polio vaccination given at birth.
[2] Including children who received a combined measles and rubella vaccine
[3] BCG, measles, and three doses each of pentavalent and polio vaccine (excluding polio vaccine given at birth)

10.4 CHILDHOOD ILLNESSES

10.4.1 Acute Respiratory Infections

Acute respiratory infections (ARIs), particularly pneumonia, constitute one of the main causes of child deaths in developing countries. To assess the prevalence of these infections, mothers were asked if their children under age 5 had been ill with a cough during the two weeks preceding the survey and, if so, whether the cough had been accompanied by short, rapid breathing. It should be borne in mind that these data are subjective (i.e., based on the mother's perception of illness) and not validated by a medical examination.

Table 10.5 shows that 6 percent of children under age 5 had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These respiratory infections were more frequently reported among children age 6-23 months (8 percent) than among other children. There is no difference in ARI prevalence between boys and girls and only a minimal difference by residence.

Results according to province show a slightly higher prevalence of ARIs in South (8 percent) and North (6 percent) than elsewhere. In general, there is no clear pattern in ARI prevalence by mother's education or wealth.

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age 5, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, Rwanda 2014-15

	Among children under age 5:		Among children under age 5 with symptoms of ARI:			
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a community health worker	Percentage for whom advice or treatment was sought from a health facility or provider[2]	Percentage who received antibiotics	Number of children
Age in months						
<6	4.3	725	(10.5)	(46.9)	(49.3)	31
6-11	7.8	916	14.4	50.4	51.7	72
12-23	7.6	1,581	11.2	54.2	54.0	120
24-35	5.5	1,555	19.5	61.7	49.8	85
36-47	4.4	1,602	11.8	52.6	42.2	71
48-59	3.8	1,314	17.9	51.4	43.0	50
Sex						
Male	5.6	3,857	14.4	58.6	52.8	216
Female	5.6	3,837	14.1	49.3	45.6	213
Residence						
Urban	5.0	1,303	8.1	60.0	61.1	65
Rural	5.7	6,391	15.3	52.9	47.1	364
Province						
City of Kigali	4.4	921	(0.0)	(61.4)	(62.7)	40
South	7.5	1,756	13.1	48.4	42.2	131
West	5.3	1,842	15.2	52.4	42.3	98
North	5.8	1,071	10.5	50.5	49.8	62
East	4.6	2,103	23.0	62.0	59.6	98
Mother's education						
No education	4.2	1,125	(16.0)	(53.8)	(39.4)	48
Primary	6.0	5,583	13.9	51.5	48.6	337
Secondary and higher	4.5	985	14.5	72.3	64.7	44
Wealth quintile						
Lowest	6.4	1,834	11.2	44.8	36.7	118
Second	6.6	1,670	19.6	55.1	49.4	111
Middle	5.9	1,524	12.3	57.5	56.5	90
Fourth	4.4	1,331	21.0	54.9	51.2	58
Highest	3.9	1,335	5.6	64.7	62.2	53
Total	5.6	7,694	14.2	53.9	49.2	429

Note: Figures in the parentheses are based on 25-49 unweighted cases.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related) are considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner

Table 10.5 also shows the proportion of children for whom treatment was sought. Fifty-four percent of children with ARI symptoms received treatment or advice from a health facility or health provider, including 14 percent who sought help from a community health worker. Treatment from a medical provider was sought most often for children age 12-23 months (54 percent) and 24-35 months (62 percent). Even though boys and girls were equally likely to have ARI symptoms, boys were more likely to have been taken to a health facility or provider for advice or treatment than girls (59 percent versus 49 percent).

Residence and mother's level of education are associated with whether ARI treatment is sought. In urban areas, treatment from a health facility or provider was sought for 60 percent of children with ARI symptoms, as compared with 53 percent in rural areas. Similarly, treatment or advice was sought from a health facility or provider for 52 percent of children whose mothers had a primary education, compared with 72 percent of children whose mothers had a secondary education or higher.

The results according to province show that treatment seeking is not necessarily linked to ARI prevalence. Treatment from a health facility or provider was less often sought in South (48 percent), where the prevalence of ARIs is 8 percent, than in East (62 percent), where the prevalence is 5 percent. Finally, treatment was sought for 65 percent of children in the richest households, as compared with only 45 percent in the poorest households.

Almost half of children with ARI symptoms were reported to have received antibiotics. Boys, urban children, and children whose mothers had a secondary education or higher and were in the highest wealth quintile were more likely to receive this treatment.

10.4.2 Fever

Fever is the primary symptom of many illnesses such as ARI, malaria and measles among others, which cause numerous deaths in developing countries. For this reason, mothers were asked whether their children had suffered from a fever during the two weeks preceding the survey.

Table 10.6 shows that, during this time period, 19 percent of children had a fever. As with ARIs, age seems to be the most important factor related to fever prevalence; children age 6-11 months (25 percent) and 12-23 months (24 percent) were most likely to have had a fever. Fever prevalence varies only slightly by sex of the child (18 percent for boys and 19 percent for girls) and residence (17 percent in urban areas and 19 percent in rural areas). There are variations among the provinces, with the highest prevalence in East (22 percent) and South (21 percent) and the lowest in North (14 percent). Differences in the prevalence of childhood fever by mother's education and wealth are not large.

Table 10.6 Prevalence and treatment of fever

Among children under age 5, the percentage who had a fever in the two weeks preceding the survey, and among children with a fever, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who received antibiotics as treatment, by background characteristics, Rwanda 2014-15

	Among children under age 5:		Among children under age 5 with fever:				
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a community health worker	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months							
<6	8.5	725	8.7	48.9	0.0	48.1	62
6-11	24.5	916	8.4	51.3	5.9	43.8	225
12-23	24.0	1,581	13.1	48.4	8.3	40.9	380
24-35	20.2	1,555	16.9	51.6	11.9	40.9	313
36-47	17.3	1,602	11.3	48.0	17.9	34.6	277
48-59	14.1	1,314	12.4	46.0	17.3	28.8	186
Sex							
Male	18.1	3,857	12.9	52.1	10.9	41.0	698
Female	19.4	3,837	12.3	46.4	11.7	36.9	744
Residence							
Urban	16.8	1,303	6.9	57.1	6.2	52.7	218
Rural	19.1	6,391	13.6	47.8	12.3	36.5	1,223
Province							
City of Kigali	16.4	921	4.1	59.8	6.6	57.5	151
South	21.2	1,756	13.9	41.7	12.6	30.7	372
West	17.0	1,842	13.2	45.1	6.0	35.8	314
North	14.2	1,071	7.5	48.4	0.9	43.6	152
East	21.5	2,103	15.6	54.8	19.2	40.0	453
Mother's education							
No education	16.9	1,125	12.5	44.0	11.6	30.6	190
Primary	19.6	5,583	13.3	47.6	11.9	38.7	1,095
Secondary and higher	16.0	985	8.0	66.4	7.4	50.1	157
Wealth quintile							
Lowest	20.0	1,834	11.9	38.6	11.0	29.3	366
Second	19.1	1,670	16.0	48.4	13.2	36.7	318
Middle	20.1	1,524	13.3	48.2	15.1	35.3	306
Fourth	17.8	1,331	14.2	55.9	9.2	47.5	237
Highest	16.0	1,335	5.8	62.4	6.1	54.2	214
Total	18.7	7,694	12.6	49.2	11.4	38.9	1,442

[1] Excludes pharmacy, shop, market, and traditional practitioner

Table 10.6 also shows the proportion of children for whom treatment for fever was sought. Treatment or advice was sought from a health facility or provider for 49 percent of children with a fever, including 13 percent who sought help from a community health worker. Treatment from a health facility or provider was sought most often for boys and for children in urban areas. The proportion of children with a fever for whom treatment or advice was sought increased with increasing mother's education, from 44 percent among those whose mothers had no education to 66 percent among those whose mothers had a secondary education or higher.

Treatment was sought from a health facility or provider for 62 percent of children in the richest households, as compared with only 39 percent of those in the poorest households.

The results according to province again show that treatment seeking is not necessarily linked to fever prevalence. Facility-based treatment was more often sought for children in City of Kigali (60 percent), where the prevalence of fever is 16 percent, than for children in South (42 percent), where the prevalence is 21 percent.

10.5 DIARRHEAL DISEASE

Diarrheal diseases constitute one of the main causes of death among young children in developing countries as they are associated with dehydration and malnutrition. To combat the effects of dehydration, WHO recommends the use of oral rehydration therapy (ORT), which includes a prepared solution of oral rehydration salts (ORS) made from packets or a solution prepared at home using clean water, sugar, and salt (recommended home fluids, or RHF).

To assess the prevalence of diarrheal diseases among children under age 5, mothers were asked whether their children had suffered from diarrhea during the two weeks preceding the survey (Table 10.7). Information was also gathered on the percentage of mothers who had heard of ORS packets (Table 10.8), the percentage of children with diarrhea for whom treatment or advice was sought, and the type of treatment used. Regarding treatment, mothers were asked whether they had used ORS packets, RHF, or other treatments (Table 10.9).

Table 10.7 Prevalence of diarrhea

Percentage of children under age 5 who had diarrhea in the two weeks preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Diarrhea in the two weeks preceding the survey: All diarrhea	Diarrhea in the two weeks preceding the survey: Diarrhea with blood	Number of children
Age in months			
<6	5.1	0.8	725
6-11	17.9	1.6	916
12-23	21.7	2.9	1,581
24-35	12.2	2.2	1,555
36-47	8.5	1.1	1,602
48-59	4.5	0.9	1,314
Sex			
Male	12.5	1.7	3,857
Female	11.7	1.7	3,837
Source of drinking water[1]			
Improved	11.9	1.6	5,455
Not improved	12.5	1.9	2,236
Toilet facility[2]			
Improved, not shared	10.3	1.1	4,151
Shared[3]	12.4	2.1	1,266
Non-improved	15.2	2.5	2,269
Residence			
Urban	9.8	1.4	1,303
Rural	12.6	1.7	6,391
Province			
City of Kigali	8.1	1.8	921
South	12.3	2.0	1,756
West	14.8	1.7	1,842
North	11.0	1.6	1,071
East	11.9	1.4	2,103
Mother's education			
No education	13.9	2.0	1,125
Primary	12.3	1.8	5,583
Secondary and higher	8.7	0.5	985
Wealth quintile			
Lowest	14.8	2.5	1,834
Second	14.3	2.3	1,670
Middle	11.6	1.3	1,524
Fourth	10.4	0.8	1,331
Highest	8.0	1.0	1,335
Total	12.1	1.7	7,694

Note: Total includes cases for which information on sources of drinking water (3) and toilet facility (8) is missing.
[1] See Table 2.5 for definition of categories.
[2] See Table 2.6 for definition of categories.
[3] Facilities that would be considered improved if they were not shared by two or more households

10.5.1 Prevalence of Diarrhea

Table 10.7 shows that, according to mothers' reports, 12 percent of children had diarrhea in the two weeks preceding the survey. Only 2 percent of children had diarrhea with blood, a symptom of dysentery.

The prevalence of diarrhea is especially high among children age 12-23 months and 6-11 months (22 percent and 18 percent, respectively). These high-prevalence age groups are also the ages at which children begin to be weaned and consume foods other than breast milk. Moreover, they correspond to the ages at which children begin to explore their environment, resulting in greater exposure to pathogens. Diarrhea prevalence seems to bear some association with residence: 10 percent of children in urban areas were affected by diarrhea, as compared with 13 percent in rural areas. Variations by sex of the child and source of drinking water are small.

Diarrhea prevalence varies by province, from a low of 8 percent in City of Kigali to a high of 15 percent in West. Mother's level of education is negatively associated with the prevalence of diarrhea. The prevalence is higher among children whose mothers have no education (14 percent) or a primary education (12 percent) than among those whose mothers have a secondary education or higher (9 percent). Children in households with

shared and non-improved toilet facilities are more likely to have had diarrhea than those who live in households with improved, not shared toilets.

There is an apparent association between diarrhea prevalence and household wealth. The prevalence varies from a high of 15 percent among children in the lowest quintile to a low of 8 percent among children in the highest quintile.

10.5.2 Treatment of Diarrhea

Table 10.8 shows that advice or treatment was sought from a health facility or provider for 44 percent of children with diarrhea; help from a community health worker was sought for 10 percent of children with diarrhea. Treatment from a health facility or provider was most often sought for children age 12-23 months (49 percent). Forty-four percent of children age 6-11 months a group with one of the highest diarrhea prevalence rates received treatment. Girls (46 percent) were slightly more likely than boys (42 percent) to be taken to a health facility or provider for treatment.

Differences by residence and province in the proportion of children taken to a health facility or provider for treatment are only minor. Children whose mothers have a secondary education or higher (57 percent) and those living in the richest households (53 percent) are more likely than other children to receive treatment for diarrhea from a health facility or provider.

Table 10.8 Diarrhea treatment

Among children under age 5 who had diarrhea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of children with diarrhea for whom advice or treatment was sought from a health facility or provider[1]	Percentage of children with diarrhea for whom advice or treatment was sought from a community health worker	Oral rehydration therapy (ORT)			Increased fluids	ORT or increased fluids	Other treatments					Missing	No treatment	Number of children with diarrhea
			Fluid from ORS packets	Recommen-ded home fluids (RHF)	Either ORS or RHF (ORT)			Anti-biotic drugs	Anti-motility drugs	Other (Including Zinc)	Intra-venous solution	Home remedy/ other			
Age in months															
≤6	(28.1)	(6.1)	(21.9)	(2.8)	(24.7)	(11.8)	(30.7)	(6.2)	(3.0)	(6.6)	(0.0)	15.7	(0.0)	(48.1)	37
6-11	44.3	11.4	22.6	14.0	32.5	18.1	42.5	9.9	3.3	17.0	0.4	18.4	0.0	28.5	164
12-23	49.3	11.9	30.9	6.2	35.4	12.1	40.8	13.0	2.3	15.2	0.8	16.3	0.3	26.7	343
24-35	40.9	11.1	31.5	9.9	37.2	18.5	49.0	8.2	1.6	11.9	0.5	20.1	0.0	26.4	190
36-47	40.7	6.9	21.6	7.3	25.3	22.0	41.8	6.9	1.6	16.8	0.0	31.3	0.0	18.0	137
48-59	32.9	7.1	24.8	12.0	33.6	20.6	44.6	7.3	3.4	8.2	0.0	20.3	0.0	29.5	59
Sex															
Male	41.6	10.5	26.3	6.4	30.8	16.0	39.8	10.6	2.1	14.6	0.9	21.2	0.0	28.2	484
Female	45.7	10.3	28.7	11.3	35.8	17.0	46.0	9.2	2.6	14.0	0.0	18.4	0.2	25.1	447
Type of diarrhea															
Non-bloody	41.1	10.0	25.3	8.1	30.5	16.7	40.3	9.2	1.5	14.6	0.4	20.3	0.1	28.6	770
Bloody	55.4	10.7	40.2	12.4	48.5	16.0	55.7	15.1	3.1	16.2	0.9	18.4	0.0	16.3	129
Residence															
Urban	46.6	5.3	33.4	9.6	40.2	14.3	47.1	12.0	3.5	15.4	0.1	15.2	0.0	24.7	127
Rural	43.1	11.2	26.5	8.6	32.1	16.8	42.1	9.6	2.1	14.1	0.5	20.6	0.1	27.0	804
Province															
City of Kigali	44.7	6.7	30.7	5.8	35.0	12.0	38.9	13.5	4.4	16.3	1.8	28.3	0.0	24.6	75
South	43.4	15.0	25.7	5.1	29.5	16.4	39.8	9.9	1.8	17.3	0.0	22.2	0.5	25.7	216
West	41.9	9.9	28.9	11.1	35.1	17.2	44.6	10.9	1.4	7.1	0.1	13.2	0.0	30.7	273
North	44.4	9.7	29.3	16.5	42.1	17.9	50.2	11.3	0.8	8.8	1.8	16.2	0.0	31.1	117
East	44.7	8.4	25.5	6.5	29.8	16.3	41.0	7.2	4.0	21.5	0.3	24.4	0.0	21.8	251
Mother's education															
No education	39.8	9.3	26.1	10.0	33.3	17.5	44.1	9.3	0.0	11.0	0.7	18.2	0.0	31.8	156
Primary	42.7	10.6	27.1	8.5	33.0	16.5	42.5	9.3	2.8	14.3	0.4	20.9	0.2	26.4	689
Secondary and higher	56.9	10.8	32.9	8.1	35.2	14.6	42.5	16.3	2.7	20.5	0.8	15.0	0.0	19.8	86
Wealth quintile															
Lowest	35.4	11.3	21.7	7.4	26.9	18.1	37.8	5.5	2.4	9.1	0.4	28.6	0.4	28.7	270
Second	42.8	9.3	28.9	9.2	35.4	14.5	42.7	12.3	0.0	11.5	0.6	16.0	0.0	27.7	239
Middle	50.7	15.4	26.3	11.3	35.0	15.8	44.1	11.4	3.6	21.9	0.0	16.1	0.0	25.6	176
Fourth	44.5	8.5	30.4	8.1	34.8	16.8	46.1	5.5	2.9	14.5	0.8	19.8	0.0	25.8	138
Highest	53.0	4.8	36.7	7.5	39.5	17.7	48.8	19.4	4.4	20.7	0.6	12.9	0.0	22.5	107
Total	43.6	10.4	27.5	8.7	33.2	16.5	42.8	9.9	2.3	14.3	0.5	19.9	0.1	26.7	931

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended home fluids (RHF). Figures in parentheses are based on 25-49 unweighted cases. Total includes 32 children with missing information on type of diarrhea.

[1] Excludes pharmacy, shop, and traditional practitioner

One-third of children with diarrhea received oral rehydration therapy (ORT); 28 percent received oral rehydration salts (ORS), and 9 percent received a recommended homemade fluid (RHF). Seventeen percent of children with diarrhea received increased fluids. Overall, 43 percent of children were treated with some form of ORT or increased fluids. In addition, 10 percent of children received antibiotic drugs, and a very small proportion (2 percent) received anti-motility drugs. One in five children was treated with a home remedy or other treatment (20 percent). It is notable that 27 percent of children with diarrhea received no treatment at all.

10.5.3 Feeding Practices during Diarrhea

Mothers are encouraged to continue feeding children normally when they suffer from diarrheal illnesses and to increase the fluids that children receive. These practices help to reduce the risk of dehydration among diarrheic children. They also minimize the adverse consequences of diarrhea for the child's nutritional status. Mothers were specifically asked whether they gave their child more or less fluid and food than usual when the child had diarrhea.

Table 10.9 shows that 27 percent of children who had diarrhea were offered the same amount of liquid as usual while they were sick; 27 percent were offered somewhat less than usual, and 25 percent were offered much less than usual. Only 17 percent of children were offered more liquids than usual. Five percent of children were offered no liquid at all.

Regarding food intake, 20 percent of children with diarrhea were offered the same amount of food as usual, 25 percent were offered somewhat less than usual, and 38 percent were offered much less than usual. Only 3 percent of children were offered more food than usual. Eight percent were given no food at all during the episode and 6 percent had never been given any food, presumably because they were too young to eat.

Overall, only 20 percent of children with diarrhea were given ORT or increased fluids and also given the same, more, or slightly less to eat than usual. Variations in this proportion by background characteristics are not large.

Table 10.9 Feeding practices during diarrhea

Percent distribution of children under age 5 who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhea, by background characteristics, Rwanda 2014-15

	Amount of liquids given							Amount of food given									
Background characteristic	More	Same as usual	Some-what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Total	Percentage given increased fluids and continued feeding[1]	Percentage who continued feeding and were given ORT and/or increased fluids[1]	Number of children with diarrhea
Age in months																	
<6	(11.8)	(48.5)	(11.0)	(17.4)	(11.4)	(0.0)	100.0	(3.1)	(3.3)	(5.5)	(3.9)	(2.9)	(81.3)	100.0	(3.1)	(5.8)	37
6-11	18.1	24.7	23.7	25.4	8.1	0.0	100.0	1.3	9.2	20.8	40.8	11.5	16.4	100.0	4.6	16.1	164
12-23	12.1	28.5	28.9	25.3	5.2	0.0	100.0	2.7	21.5	24.5	40.2	11.0	0.0	100.0	6.4	16.9	343
24-35	18.5	24.6	28.1	25.9	2.8	0.0	100.0	2.7	23.7	29.2	39.3	4.7	0.4	100.0	12.5	24.6	190
36-47	22.0	23.6	27.6	24.4	0.8	1.6	100.0	1.6	26.1	30.2	37.5	4.7	0.0	100.0	12.4	25.2	137
48-59	20.6	22.3	32.2	18.9	5.9	0.0	100.0	5.9	21.0	29.5	36.5	7.0	0.0	100.0	10.8	22.6	59
Sex																	
Male	16.0	28.5	26.8	23.6	4.9	0.2	100.0	3.0	20.7	24.0	36.4	8.8	7.1	100.0	7.4	19.2	484
Female	17.0	24.8	27.5	25.7	4.8	0.2	100.0	2.1	18.6	26.5	39.8	7.8	5.2	100.0	9.4	19.7	447
Type of diarrhea																	
Non-bloody	16.7	28.5	27.7	22.6	4.2	0.3	100.0	2.3	21.5	26.2	36.6	7.2	6.3	100.0	8.8	20.0	770
Bloody	16.0	13.2	26.8	35.3	8.7	0.0	100.0	4.4	10.3	20.1	44.9	15.6	4.8	100.0	6.5	15.0	129
Residence																	
Urban	14.3	24.0	29.4	25.3	7.0	0.0	100.0	0.8	19.5	31.9	32.5	9.2	6.0	100.0	7.0	22.4	127
Rural	16.8	27.2	26.8	24.5	4.5	0.3	100.0	2.8	19.7	24.1	38.9	8.2	6.2	100.0	8.6	19.0	804
Province																	
City of Kigali	12.0	22.8	40.1	21.1	4.0	0.0	100.0	2.2	15.5	38.7	22.3	16.3	4.9	100.0	4.9	17.5	75
South	16.4	24.1	29.3	25.7	4.5	0.0	100.0	1.0	18.9	23.4	39.9	12.1	4.7	100.0	6.0	17.1	216
West	17.2	30.1	17.0	25.5	9.3	0.8	100.0	3.4	20.0	21.2	37.8	11.2	6.3	100.0	9.0	18.3	273
North	17.9	23.3	27.8	28.2	2.8	0.0	100.0	5.5	13.3	26.0	43.4	3.9	7.9	100.0	11.3	21.8	117
East	16.3	28.1	32.0	22.0	1.5	0.0	100.0	1.6	24.3	26.7	38.9	1.6	6.9	100.0	9.4	22.3	251
Mother's education																	
No education	17.5	26.2	25.0	27.8	3.4	0.0	100.0	1.3	23.8	21.4	39.3	9.8	4.3	100.0	8.5	21.3	156
Primary	16.5	27.4	27.7	22.7	5.4	0.3	100.0	2.9	19.2	25.8	37.0	7.8	7.3	100.0	8.8	19.5	689
Secondary and higher	14.6	22.4	26.4	33.5	3.1	0.0	100.0	1.3	16.3	27.1	44.5	9.9	0.8	100.0	4.7	16.2	86
Wealth quintile																	
Lowest	18.1	25.2	28.5	22.1	6.2	0.0	100.0	1.6	16.3	28.7	38.9	9.2	5.3	100.0	9.4	18.5	270
Second	14.5	27.8	26.2	25.8	4.9	0.9	100.0	3.5	22.2	22.0	37.2	10.5	4.7	100.0	6.8	17.6	239
Middle	15.8	27.1	28.3	24.5	4.4	0.0	100.0	3.8	21.8	19.2	38.5	7.0	9.7	100.0	8.7	20.1	176
Fourth	16.8	33.9	20.7	24.5	4.1	0.0	100.0	0.8	24.2	26.3	39.9	3.7	5.1	100.0	9.0	23.0	138
Highest	17.7	18.6	32.1	28.6	3.1	0.0	100.0	2.9	13.7	32.0	34.7	9.3	7.4	100.0	7.7	20.3	107
Total	16.5	26.7	27.1	24.6	4.9	0.2	100.0	2.5	19.7	25.2	38.1	8.3	6.2	100.0	8.4	19.5	931

Note: It is recommended that children be given more liquids to drink during diarrhea and that food not be reduced. Figures in parentheses are based on 25-49 unweighted cases. Total includes 32 cases with missing information on type of diarrhea.

[1] Continued feeding practices includes children who were given more, the same as usual, or somewhat less food during the diarrhea episode.

10.6 KNOWLEDGE OF ORS PACKETS

A simple and effective response to dehydration caused by diarrhea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy (ORT). ORT may include the use of a solution prepared from commercially produced packets of oral rehydration salts (ORS), a homemade mixture usually prepared from sugar, salt, and water; any kind of thin, nutritious fluids such as rice water, coconut milk, or watery soup; or simply increased fluids.

Table 10.10 shows that eighty nine percent of women who gave birth in the five years before the survey know about ORS packets. The proportion of women with children under age 5 who have heard about ORS packets increases as age increases, from 79 percent among those age 15-19 to 94 percent among those age 35-49. Knowledge of ORS packets among women with recent births varies by province, from a high of 95 percent in City of Kigali to a low of 84 percent in West. According to educational level, the proportion of women who know of ORS increases from 86 percent among those with no education to 91 percent among those with a secondary education or higher. Women in the highest wealth quintile are more likely to have heard about ORS packets than other women.

Table 10.10 Knowledge of ORS packets

Percentage of women age 15-49 with a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhea, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of women who know about ORS packets	Number of women
Age		
15-19	78.7	151
20-24	80.8	1,142
25-34	89.4	3,196
35-49	93.9	1,570
Residence		
Urban	93.6	1,025
Rural	87.7	5,035
Province		
City of Kigali	94.5	723
South	89.3	1,406
West	84.2	1,365
North	86.1	885
East	90.7	1,682
Education		
No education	86.3	881
Primary	88.7	4,360
Secondary and higher	91.4	819
Wealth quintile		
Lowest	85.8	1,432
Second	85.4	1,306
Middle	89.2	1,195
Fourth	90.3	1,072
Highest	94.5	1,055
Total	88.7	6,060

ORS = Oral rehydration salts

10.7 STOOL DISPOSAL

Proper disposal of children's feces is extremely important in preventing the spread of disease. If feces are left uncontained, disease may spread by direct contact or through animal contact. Table 10.11 presents information on the disposal of fecal matter of children under age 5, by background characteristics. The stools of 88 percent of children are disposed of safely. Variations in safe disposal of children's fecal matter by background characteristics are generally small. The only exceptions are that, as expected, the stools of younger children are less likely to be disposed of safely than those of older children, and children living in households with improved, private toilet facilities are more likely to have their stools disposed of safely than children in households with non-improved or shared toilets.

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age 5 living with their mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Rwanda 2014-15

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely[1]	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Age in months											
<6	1.1	43.8	1.0	29.2	8.0	15.7	0.8	0.5	100.0	45.8	714
6-11	1.6	76.0	2.6	12.0	2.6	4.8	0.2	0.1	100.0	80.3	900
12-23	2.5	90.7	1.0	3.0	1.1	1.5	0.1	0.2	100.0	94.3	1,509
24-35	10.0	86.6	1.4	0.9	0.4	0.4	0.2	0.1	100.0	98.0	1,228
36-47	35.7	61.7	0.7	0.8	0.0	0.9	0.2	0.0	100.0	98.1	929
48-59	65.1	33.0	0.2	0.5	0.0	0.7	0.2	0.3	100.0	98.3	557
Toilet facility[2]											
Improved, not shared	16.3	73.2	0.8	5.2	1.5	2.6	0.2	0.2	100.0	90.3	3,157
Shared[2]	11.9	73.5	1.5	8.0	1.7	3.0	0.3	0.1	100.0	86.8	943
Non-improved or shared	14.3	68.2	1.9	8.2	2.2	4.8	0.4	0.1	100.0	84.4	1,729
Residence											
Urban	13.7	75.3	0.5	7.2	1.9	1.3	0.1	0.0	100.0	89.5	953
Rural	15.3	71.0	1.4	6.4	1.7	3.7	0.3	0.2	100.0	87.7	4,883
Province											
City of Kigali	15.1	72.0	0.0	9.0	1.7	2.1	0.0	0.0	100.0	87.1	674
South	15.0	72.2	0.9	7.0	1.3	3.4	0.2	0.1	100.0	88.0	1,354
West	14.6	71.3	1.5	5.5	2.9	3.5	0.6	0.1	100.0	87.4	1,339
North	13.0	70.9	3.6	5.9	1.4	4.7	0.1	0.5	100.0	87.4	855
East	16.6	72.1	0.5	6.3	1.4	2.9	0.1	0.2	100.0	89.1	1,613
Mother's education											
No education	14.3	73.2	1.4	4.8	1.4	4.4	0.5	0.1	100.0	88.9	855
Primary	15.5	70.9	1.3	6.9	1.8	3.4	0.2	0.2	100.0	87.6	4,205
Secondary and higher	13.5	74.6	0.7	6.7	2.1	2.0	0.2	0.2	100.0	88.8	776
Wealth quintile											
Lowest	12.4	71.2	2.1	5.6	2.1	6.0	0.4	0.2	100.0	85.6	1,388
Second	13.7	73.3	1.9	5.3	1.8	3.7	0.1	0.2	100.0	88.9	1,264
Middle	18.0	70.6	0.6	7.3	1.2	2.0	0.3	0.1	100.0	89.2	1,167
Fourth	16.8	70.2	0.7	7.3	1.5	3.1	0.3	0.1	100.0	87.7	1,035
Highest	15.1	73.5	0.4	7.9	2.0	0.9	0.1	0.1	100.0	89.0	983
Total	15.0	71.7	1.2	6.5	1.7	3.3	0.2	0.2	100.0	88.0	5,836

Note: Total includes 6 cases for which information on toilet facility is missing.
[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the fecal matter was put or rinsed into a toilet or latrine, or if it was buried.
[2] See Table 2.6 for definition of categories.
[3] Facilities that would be considered improved if they were not shared by two or more households

NUTRITION OF CHILDREN AND ADULTS 11

Key Findings

- Thirty eight percent of children under age 5 are short for their age or stunted; however, this represents a decline from the figure of 44 percent reported in 2010.
- Rwanda is among the leading countries globally adhere to the recommended practices regarding breastfeeding: 99 percent of children are breastfed for at least some time, the median duration of breastfeeding is 28 months, and almost 9 in 10 children under age 6 months are being exclusively breastfed.
- Sixty-four percent of children age 6-9 months started receiving complementary foods.
- Eighteen children age 6-23 months are fed in accordance with infant and young child feeding (IYCF) practices.
- Seventy-four percent of children age 6-59 months consumed food rich in vitamin A in the 24 hours before the survey.
- Thirty-seven percent of children age 6-59 months are anemic, a slight decline from 38 percent in 2010.
- Nineteen percent of women age 15-49 are anemic.
- Seven percent of women are thin, 17 percent are overweight and 4 percent are obese.
- Almost all households in Rwanda use iodized salt.

Nutritional status is the result of complex interactions between food consumption and the overall status of health and care practices. Numerous socioeconomic and cultural factors influence decisions on patterns of feeding and nutritional status. Adequate nutrition is critical to child growth, health, and development, especially during the period from conception to age 2. During this period, children who do not receive adequate nutrition can be susceptible to growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhea and acute respiratory infections (ARIs). Among women, malnutrition can result in reduced productivity, an increased susceptibility to infections, slow recovery from illness, and a heightened risk of adverse pregnancy outcomes. A woman who has poor nutritional status, as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiencies, has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing lower quality breast milk, of mortality due to postpartum hemorrhage, and of morbidity for both herself and her baby.

Nutrition continues to be a public health concern in Rwanda. However, there is a strong commitment from the government, together with its development partners and educational institutions, to find solutions. Under the leadership of the government of Rwanda, multisectoral initiatives and interventions have been put into place over the past decade aimed at improving of the nation's nutritional status. These efforts include the Presidential Initiative that inspired nationwide emergency action to find and manage all cases of acute malnutrition in children (2009). Other efforts included:

- The multisector participation and consensus around Rwanda's First National Nutrition Summit (2009), and Second National Nutrition Summit (2011),

- Completion of health facility and community level tools to more effectively promote and counsel on Maternal, Infant and Young Child Nutrition (MIYCN),
- Development of the National multisector Strategy to Eliminate Malnutrition (NmSEM) (2010),
- A national Joint Action Plan (2012) to Eliminate Malnutrition (JAPEM) and District Plans to Eliminate Malnutrition (DPEM) in every district (2011).
- Adoption of National Protocol on Management of Malnutrition at the health Facility and Community levels in 2013,
- Establishment of the 2013-2018 National Food and Nutrition Policy and National Food and Nutrition Strategic Plan;
- Promotion of the first 1000 Days Community Based Food and Nutrition program linked with the wide range of key services and practices that helped to enhance household food security;
- Protection of maternal health and fetal growth during pregnancy and prevent stunting during a child's first two years.

The 2014-15 RDHS included questions about initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding until at least age 2, time of introducing complementary foods (with increasing frequency of feeding solid and semisolid foods), and dietary diversity. The height and weight of all children under age 5 and women age 15-49 were measured. This chapter also presents findings on infant feeding practices, maternal eating patterns, household testing of salt for adequate levels of iodine, and the nutritional status of women, men, and children.

11.1 NUTRITIONAL STATUS OF CHILDREN

Nutritional status of children under age 5 is an important measure of children's health and growth. The anthropometric data on height and weight collected in the 2014-15 RDHS permit the measurement and evaluation of the nutritional status of young children in Rwanda.

11.1.1 Measurement of Nutritional Status among Young Children

In addition to questions on feeding practices of infants and young children, the 2014-15 RDHS included an anthropometric component in which children under age 5 in a subsample of 50 percent of the households were measured for height and weight. Weight measurements were taken using a lightweight electronic SECA scale designed and manufactured under the guidance of the United Nations Children's Fund (UNICEF). The scale allowed for the weighing of very young children through an automatic mother-child adjustment that eliminated the mother's weight while she was standing on the scale with her baby. Height measurements were carried out using a Shorr measuring board also produced under the guidance of UNICEF. Children younger than age 24 months were measured lying down (recumbent length) on the board, whereas standing height was measured for older children. Based on these measurements, three internationally accepted indices were constructed and are used to reflect the nutritional status of children:

- Height-for-age (stunting)
- Weight-for-height (wasting)
- Weight-for-age (underweight)

For this report, indicators of the nutritional status of children were calculated using growth standards published by the World Health Organization (WHO) in 2006. These growth standards were generated through data collected in the WHO Multicentre Growth Reference Study (WHO, 2006). The findings of that study, based on a sample of 8,440 children in six countries (Brazil, Ghana, India, Norway, Oman, and the United States), demonstrated how children should grow under optimal conditions. Therefore, the WHO child growth standards can be used to assess children all over the world, regardless of ethnicity, social and economic influences, and feeding practices. The standards replaced the previously used reference standards of the U.S. National Center for Health Statistics, accepted by the U.S. Centers for Disease Control and Prevention (NCHS/CDC/WHO) in 1977.

The use of the 2006 WHO child growth standards is based on the finding that well-nourished children in all population groups for which data exist follow very similar growth patterns before puberty. The internationally based standard population serves as a point of comparison, facilitating examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time.[1]

The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the mean of the reference population are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the mean of the reference population are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and does not vary according to recent dietary intake.

The weight-for-height index measures body mass in relation to body height and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) from the mean of the reference population are considered thin (wasted) for their height and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) from the reference population mean are considered severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below minus two standard deviations (-2 SD) from the mean of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the reference population mean are considered severely underweight.

A total of 3,884 children under age 5 were eligible to be measured for weight and height, and 3,813 (97 percent) had complete and valid anthropometric data collected.

11.1.2 Measures of Child Nutritional Status

Nationally, 38 percent of children under age 5 are stunted, and 14 percent are severely stunted (Table 11.1). Analysis by age group indicates that stunting is apparent even among children less than age 6 months (11 percent). Stunting increases with the age of the child, rising from 18 percent among children age 6-8 months to a

[1] The WHO child growth standards reference population used for the 2010 and 2014-15 RDHS surveys differed from that used in past RDHS surveys. When the WHO child growth standards are used in place of the previous reference standards, the following changes are observed: (1) the level of stunting is usually greater, but not for all age groups; (2) the level of wasting in infancy is substantially higher, particularly in the first six months of life; (3) the level of underweight is substantially higher during the first half of infancy (age 0-6 months) and decreases thereafter; and (4) the level of overweight/obesity is higher.

peak of 49 percent among children age 18-23 months before gradually declining to 37 percent among children age 48-59 months (Figure 11.1). There is a difference in level of stunting by sex (43 percent among boys and 33 percent among girls). Stunting shows only small differences by interval between births. Stunting is more prevalent among children born very small (61 percent) compared to children born with average size (35 percent). Forty-nine percent of children born to undernourished mothers (BMI below 18.5 kg/m^2) are stunted compared to 40 percent of children whose mothers have a normal BMI (18.5-24.9 kg/m^2) and 29 percent of children whose mother is overweight-obese. The disparity in stunting prevalence between rural and urban children is substantial: 41 percent of rural children are stunted, as compared with 24 percent of urban children.

Variation in children's nutritional status by province is quite evident, with stunting being highest in West (45 percent) and lowest in the City of Kigali (23 percent). Mother's level of education and wealth quintile both have a clear inverse relationship with prevalence of stunting. For example, the prevalence of stunting is higher among children living in the poorest households (49 percent) than among children in the richest households (21 percent) and higher among children whose mothers have no education (47 percent) than among those whose mothers have a secondary education or higher (19 percent). In generally, stunting among children under age 5 has declined, and this may be due to the efforts made by the government to reduce malnutrition in Rwanda.

Two percent of children under age 5 are wasted, and less than 1 percent are severely wasted. The wasting prevalence is highest among children less than age 8 months (5 percent) and begins to decline only after age 8 months. Wasting is about four times as common among children born to malnourished mothers (BMI below 18.5 kg/m^2) as among children whose mothers have a normal BMI (18.5-24.9 kg/m^2). There are no differences in wasting by province.

Two other forms of malnutrition, overweight and obesity may be on the rise among children in Rwanda. Overall, 8 percent of children below age 5 are overweight or obese (weight-for-height more than +2 SD). There are no substantial differences by sex, but differences are observed by area of residence (11 percent in urban areas and 7 percent in rural areas). In addition, the proportion of children who are overweight increases with increasing mother's BMI. Variations by province are small.

Table 11.1 shows that nine percent of children under age 5 are underweight (low weight-for-age), and 2 percent are severely underweight. Overall, 1 percent of children below age 5 have weight-for-age more than +2 SD. The percentage of children who are underweight increases steadily from 4 percent among those less than age 6 months to 9 percent among those age 6-11 months and 11 percent among those age 12-17 months, after which it decreases slightly to 9 percent among children age 18-23 months before once again increasing to 11 percent among children age 24-35 months. Being underweight is more prevalent among children born very small (22 percent) compared to children born of average size (7 percent). There is no clear relationship between the age of the children and being underweight. Rural children are almost twice as likely to be underweight as urban children (10 percent versus 6 percent). Two of the five provinces in Rwanda South and West (11 and 10 percent, respectively) have percentages of underweight children above the national average. The prevalence of underweight children is 5 percent in the city of Kigali and 9 percent in the North and East provinces. A mother's wealth status and educational level are negatively associated with the likelihood that her child is underweight. For example, children born to mothers in the lowest wealth quintile are more than three times as likely to be underweight as children born to mothers in the highest wealth quintile (13 percent versus 3 percent). Also, children born to undernourished mothers (BMI below 18.5 kg/m^2) are two and a half times more likely than children whose mothers have a normal BMI (18.5-24.9 kg/m^2) to be underweight (25 percent versus 10 percent).

Table 11.1 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Rwanda 2014-15

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	3.7	10.5	-0.5	1.7	5.4	18.3	0.7	1.4	4.3	4.2	0.1	331
6-8	8.8	18.2	-0.7	1.1	4.5	11.0	0.3	2.6	9.0	2.4	-0.3	214
9-11	7.6	21.3	-1.0	1.5	3.8	10.6	0.4	1.6	9.1	0.9	-0.3	214
12-17	16.1	41.6	-1.6	0.8	3.8	9.2	0.4	2.9	11.4	0.6	-0.5	402
18-23	15.2	49.4	-1.8	0.4	2.6	7.2	0.3	2.0	9.2	1.1	-0.7	365
24-35	18.5	47.1	-1.9	0.5	1.3	7.1	0.5	2.4	11.3	0.8	-0.7	797
36-47	13.8	42.7	-1.8	0.0	0.7	5.7	0.5	1.2	7.9	0.5	-0.7	831
48-59	12.7	37.4	-1.7	0.4	1.2	2.9	0.3	3.3	10.3	0.5	-0.8	657
Sex												
Male	15.6	42.7	-1.7	0.9	2.4	8.1	0.5	2.8	9.3	1.1	-0.6	1,924
Female	11.3	32.9	-1.4	0.3	2.0	7.3	0.4	1.6	9.3	1.0	-0.5	1,889
Birth interval in months[3]												
First birth[4]	11.7	34.7	-1.5	0.6	1.8	8.1	0.5	2.3	7.6	1.5	-0.5	986
<24	13.9	38.7	-1.6	0.3	3.1	8.5	0.4	5.6	11.6	0.6	-0.6	353
24-47	14.0	40.3	-1.6	0.6	2.0	7.5	0.4	1.5	9.7	0.5	-0.6	1,358
48+	12.7	36.8	-1.4	0.8	2.9	8.2	0.4	1.2	8.9	1.6	-0.5	853
Size at birth[3]												
Very small	20.6	60.6	-2.2	2.3	3.0	8.4	0.2	7.2	21.8	0.8	-1.2	88
Small	19.8	50.1	-2.0	0.4	4.6	4.3	0.1	6.5	19.1	0.1	-1.1	431
Average or larger	11.9	35.2	-1.5	0.6	1.9	8.4	0.5	1.3	7.3	1.2	-0.5	3,020
Mother's interview status												
Interviewed	13.1	37.8	-1.6	0.6	2.3	7.9	0.4	2.1	9.1	1.1	-0.6	3,550
Not interviewed but in household	(10.7)	(29.3)	1.6	(0.0)	(0.0)	(6.1)	-0.4	(3.6)	(6.7)	(0.0)	0.6	30
Not interviewed and not in the household[5]	20.0	40.5	-1.7	0.0	1.6	4.0	0.4	4.1	13.0	1.0	-0.7	232
Mother's nutritional status[6]												
Thin (BMI < 18.5)	21.5	48.8	-1.9	1.3	7.6	1.5	-0.2	4.9	25.1	0.0	-1.3	152
Normal (BMI 18.5-24.9)	13.9	40.2	-1.6	0.6	2.2	6.5	0.4	2.3	9.7	0.8	-0.6	2,245
Overweight/obese (BMI ≥ 25)	7.9	28.8	-1.3	0.4	0.9	12.4	0.7	0.9	4.5	1.6	-0.2	690
Residence												
Urban	7.0	23.7	-1.0	0.6	1.8	10.9	0.5	1.6	5.9	2.9	-0.2	612
Rural	14.7	40.6	-1.7	0.6	2.3	7.1	0.4	2.3	10.0	0.7	-0.7	3,200
Province												
City of Kigali	5.2	22.7	-0.9	0.7	2.3	9.9	0.5	1.9	5.3	2.8	-0.2	419
South	13.9	40.5	-1.6	0.3	2.4	6.8	0.4	2.3	10.5	0.9	-0.6	910
West	18.6	44.9	-1.8	0.7	2.3	7.6	0.4	2.7	10.1	0.9	-0.7	894
North	13.3	39.2	-1.6	0.1	1.8	9.7	0.6	1.7	9.3	0.7	-0.5	541
East	12.1	34.8	-1.5	0.9	2.2	6.7	0.4	2.1	9.2	0.8	-0.6	1,049
Mother's education[7]												
No education	17.9	47.0	-1.9	0.9	3.0	7.3	0.5	3.4	11.7	0.8	-0.8	530
Primary	13.2	39.1	-1.6	0.5	2.1	7.7	0.4	2.0	9.2	0.7	-0.6	2,589
Secondary and higher	6.4	19.3	-0.8	1.0	2.3	10.1	0.5	1.1	5.6	3.2	-0.1	462
Wealth quintile												
Lowest	19.2	48.6	-1.9	0.5	2.3	6.9	0.4	3.1	13.2	0.7	-0.8	959
Second	16.3	44.7	-1.8	0.7	2.2	7.2	0.4	2.6	12.1	0.5	-0.8	829
Middle	13.6	37.5	-1.6	0.6	2.9	6.1	0.4	2.5	8.3	0.1	-0.6	740
Fourth	8.8	30.2	-1.4	0.3	1.8	8.7	0.5	1.6	6.8	1.3	-0.4	650
Highest	5.7	20.9	-0.9	0.7	1.8	10.3	0.5	0.8	3.4	3.2	-0.1	633
Total	13.5	37.9	-1.6	0.6	2.2	7.7	0.4	2.2	9.3	1.1	-0.6	3,813

Note: Table is based on children who stayed in the household on the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO child growth standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes 12 cases in which information on size at birth is missing. Figures in parentheses are based on 25-49 unweighted cases.

[1] Recumbent length was measured for children under age 2, or in the few cases when the age of the child was unknown and the child was less than 85 cm; standing height was measured for all other children.

[2] Includes children who are below -3 standard deviations (SD) from the WHO child growth standards population median

[3] Excludes children whose mothers were not interviewed

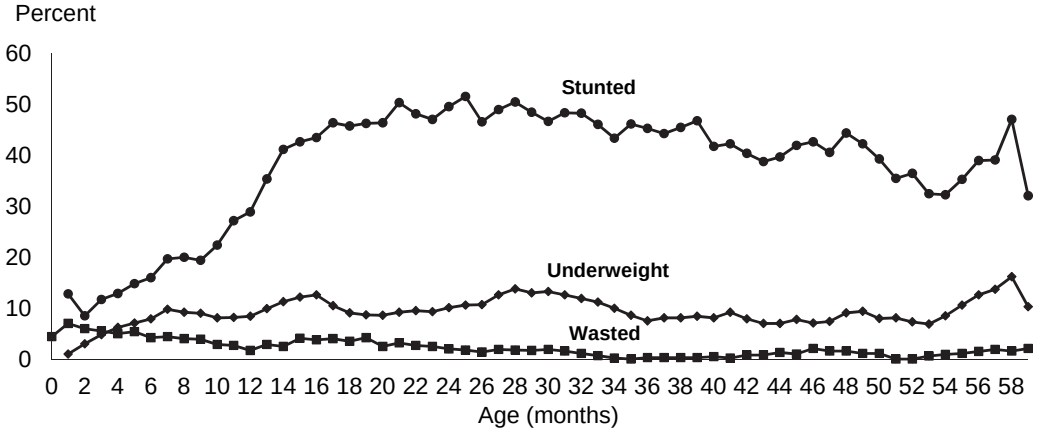
[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[5] Includes children whose mothers are deceased

[6] Excludes children whose mothers were not weighed and measured, children whose mothers were not interviewed, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (body mass index) is presented in Table 11.10.

[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 11.1 **Nutritional status of children by age**



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. Plotted values are smoothed by a 5-month moving average.

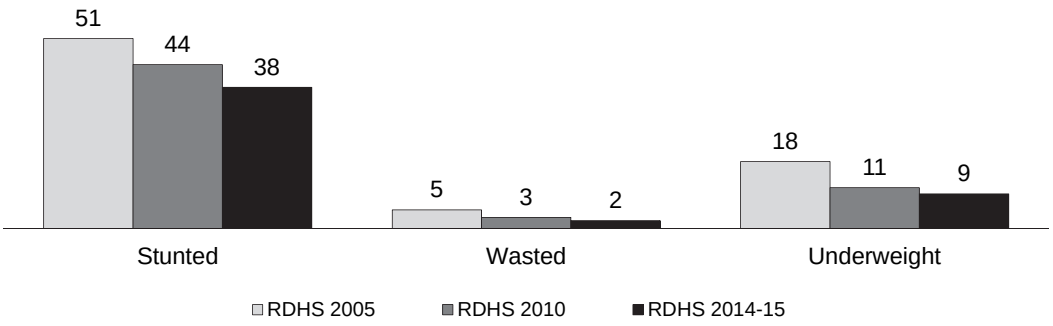
RDHS 2014-15

11.1.3 Trends in Children's Nutritional Status

Trends in the nutritional status of children under age 5 between 2005 and 2014-15 are shown in Figure 11.2. To allow assessment of trends, the data for 2005 were recalculated using the 2006 WHO child growth standards. The results indicate that there have been improvements in the nutritional status of children over the past decade. The percentage of stunted children fell from 51 percent in 2005 to 44 percent in 2010 and 38 percent in 2014-15. The percentage of children who are wasted declined from 5 percent in 2005 to 3 percent in 2010 and 2 percent in 2014-15, and the proportion of children who are underweight declined from 18 percent in 2005 to 11 percent in 2010 and 9 percent in 2014-15. These improvements may be attributable to the National Plan to Eliminate Malnutrition, which, since 2009, has included active nutrition screening of children by community health workers. Children who are determined to be at risk of malnourishment are referred to a health facility for appropriate treatment using therapeutic milks, ready-to-use therapeutic food for severe cases, and a corn-soy blend for moderate cases. Other sustainable approaches have been initiated and include infant and young child feeding, community-based nutrition programs, behavior change communication (including mass media), and home food fortification (using micronutrient powders).

Although there have been improvements in the nutritional status of Rwandan children in the past several years, the prevalence of malnutrition (stunting) is still high, and there remains a need for more intensive interventions.

Figure 11.2 **Trends in nutritional status of children under age 5**



11.2 INITIATION OF BREASTFEEDING

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the uterus contract and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.2 shows the percentage of last-born children born in the two years preceding the survey by breastfeeding status and timing of initial breastfeeding, according to background characteristics.

Practically all of the children (99 percent) born in the two years preceding the survey were breastfed at some point in time. Because breastfeeding is nearly universal, variations according to background characteristics are minimal.

Eighty-one percent of children are breastfed within one hour of birth, an increase from the figure of 71 percent reported in the 2010 RDHS. Ninety-six percent are breastfed within one day of birth. About 5 percent of children receive a prelacteal feed, that is, something other than breast milk during the first three days of life.

Table 11.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth, and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Rwanda 2014-15

	Among last-born children born in the past 2 years:				Among last-born children born in the past 2 years who were ever breastfed:	
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	98.6	80.3	95.2	1,623	4.6	1,600
Female	98.9	80.7	96.2	1,612	4.3	1,595
Assistance at delivery						
Health professional[3]	98.8	81.4	95.7	2,971	4.3	2,936
Traditional birth attendant	*	*	*	4	*	4
Other	98.3	71.9	95.0	181	6.5	178
No one	98.6	68.8	97.2	75	4.2	74
Place of delivery						
Health facility	98.8	81.4	95.7	2,966	4.3	2,931
At home	98.1	70.2	96.1	218	7.0	214
Other	(100.0)	(74.3)	(94.7)	51	(5.6)	51
Residence						
Urban	98.8	78.3	95.5	561	5.8	554
Rural	98.8	80.9	95.7	2,675	4.2	2,642
Province						
City of Kigali	99.2	74.3	95.8	395	7.8	391
South	98.7	81.6	95.7	730	2.8	720
West	98.9	78.6	95.6	763	4.2	754
North	98.0	79.3	93.4	453	3.3	444
East	99.0	84.4	96.8	896	5.1	886
Mother's education						
No education	99.3	84.2	96.8	439	4.0	436
Primary	98.7	80.4	95.6	2,316	4.3	2,285
Secondary and higher	98.8	77.3	95.0	481	5.5	475
Wealth quintile						
Lowest	98.9	79.4	96.2	792	4.6	784
Second	98.8	80.6	94.9	672	5.0	663
Middle	99.2	85.6	97.1	622	3.2	617
Fourth	98.0	78.4	94.2	573	3.7	562
Highest	98.9	78.4	95.8	576	5.7	570
Total	98.8	80.5	95.7	3,236	4.5	3,196

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children are living or dead at the time of the interview. Total includes 3 cases in which information on assistance at delivery is missing and 1 case in which place of delivery is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Includes children who started breastfeeding within one hour of birth

[2] Children given something other than breast milk during the first three days of life

[3] Doctor, nurse/medical assistant, or midwife

11.3 BREASTFEEDING STATUS BY AGE

UNICEF and WHO recommend that children be exclusively breastfed during the first six months of life and that they be given solid or semisolid complementary food in addition to continued breastfeeding from age 6 months until age 24 months or more, when the child is fully weaned. Use of bottles with nipples is not recommended at any age. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all of the nutrients necessary in the first few months of life. In addition, the mother's antibodies in breast milk provide the infant with immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and thus increases their risk of infection, especially diarrheal disease. Second, it decreases infants' intake of breast milk and therefore suckling, which in turn reduces breast milk production. Third, in low-resource settings, supplementary food often has poor or inadequate nutrients.

Interviewers obtained information on complementary feeding by asking mothers about the current breastfeeding status of the youngest child born in the five-year period before the survey and, for the youngest child born in the two-year period before the survey and living with the mother, foods and liquids given to the child the day and night before the survey.

Table 11.3 shows the percent distribution of youngest children under age 2 living with their mother by breastfeeding status and the percentage of children under age 2 using a bottle with a nipple, according to age in months. The data presented in Table 11.3 and Figure 11.3 show that exclusive breastfeeding during the first six months after birth is widely practiced in Rwanda. Currently, mothers exclusively breastfeed 87 percent of children younger than age 6 months. The percentage of young children who are exclusively breastfed decreases sharply from 94 percent among infants age 0-1 month to 90 percent among those age 2-3 months and 81 percent among those age 4-5 months.

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother by breastfeeding status and the percentage currently breastfeeding, and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Rwanda 2014-15

		Breastfeeding status									
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming complement ary foods	Total	Percent-age currently breast-feeding	Number of youngest children under age 2 living with their mother	Percent-age using a bottle with a nipple	Number of all children under age 2
0-1	0.7	93.5	0.0	5.5	0.0	0.4	100.0	99.3	202	1.1	206
2-3	0.7	89.5	0.7	6.7	2.5	0.0	100.0	99.3	238	3.4	242
4-5	0.4	80.8	1.1	5.9	6.6	5.3	100.0	99.6	274	4.9	278
6-8	1.5	23.2	0.5	10.6	8.4	55.8	100.0	98.5	474	11.3	482
9-11	1.3	2.6	0.0	3.3	1.5	91.4	100.0	98.7	425	8.8	434
12-17	5.8	0.7	0.4	0.6	0.3	92.2	100.0	94.2	793	4.2	811
18-23	12.4	0.4	0.1	0.2	0.0	87.0	100.0	87.6	716	3.0	769
0-3	0.7	91.3	0.4	6.1	1.3	0.2	100.0	99.3	440	2.3	448
0-5	0.5	87.3	0.7	6.0	3.3	2.2	100.0	99.5	714	3.3	725
6-9	1.5	18.1	0.4	9.0	6.6	64.4	100.0	98.5	651	11.4	663
12-15	4.4	1.0	0.2	0.6	0.4	93.4	100.0	95.6	519	5.5	526
12-23	8.9	0.5	0.3	0.4	0.1	89.7	100.0	91.1	1,509	3.6	1,581
20-23	12.8	0.0	0.2	0.0	0.0	86.9	100.0	87.2	456	2.6	496

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

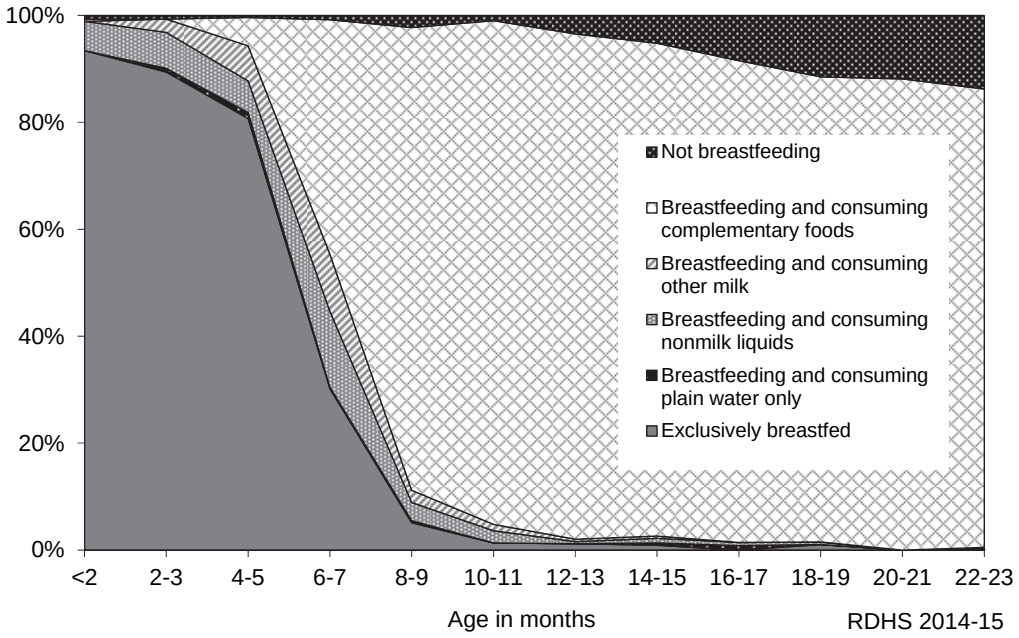
[1] Non-milk liquids include juice, juice drinks, clear broth, or other liquids.

In addition to breast milk, 2 percent of infants under age 6 months are given complementary foods, 3 percent are given other milk, 1 percent are given plain water only, and 6 percent are given non-milk liquids and juice (Figure 11.3 and Table 11.3).

Complementary feeding increases rapidly from 5 percent among children age 4-5 months to 56 percent among those age 6-8 months. Three percent of infants under age 6 months are fed using a bottle with a nipple, a practice that is discouraged because it increases the child's risk of illness and reduces the child's interest in breastfeeding, with consequent potential declines in milk production.

The duration of breastfeeding in Rwanda is long. The proportion of children who are currently breastfeeding is 99 percent for children up to age 9-11 months. This proportion subsequently declines to 94 percent among children age 12-17 months and 88 percent among those age 18-23 months.

Figure 11.3 **Infant feeding practices by age**



11.4 DURATION OF BREASTFEEDING

Table 11.4 shows the median duration of breastfeeding by selected background characteristics. Estimates of breastfeeding durations are based on current status data, that is, the proportion of children born in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration of any breastfeeding is 28.3 months, and the mean duration is 27.2 months. There is little difference in duration of breastfeeding by sex of the child (27.3 months and 29.3 months for male and female children, respectively). Rural children are breastfed for a slightly longer duration than urban children (29.0 months versus 25.1 months). Mothers with a primary education or no education breastfeed their children four months longer than highly educated mothers. Similarly, mothers from the highest wealth quintile breastfeed their children for a median duration of 25.4 months, as compared with 28.8 months among mothers in the lowest wealth quintile. Children in the East province are breastfed for 28.0 months, whereas children in City of Kigali are breastfed for 26.2 months.

The median duration of exclusive breastfeeding among Rwandan children is five months, and the mean duration is six months. The median duration of any breastfeeding has declined by one month since 2010, whereas exclusive breastfeeding has remained stable.

Table 11.4 Median duration of breastfeeding

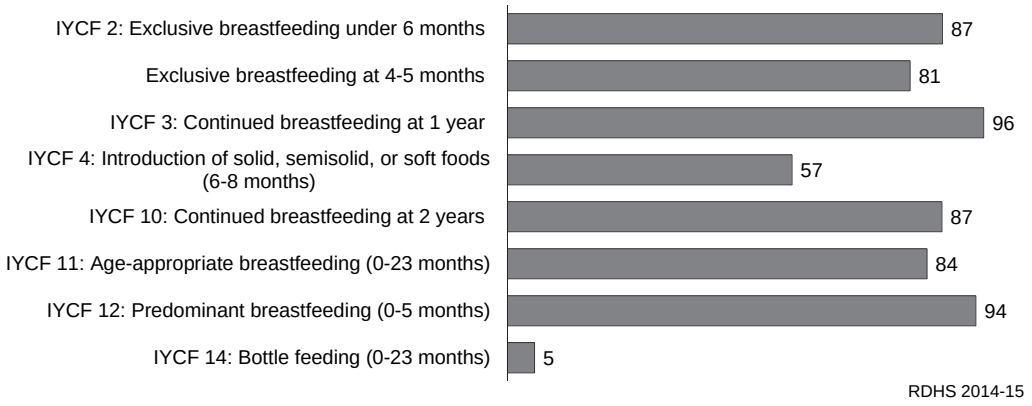
Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Median duration (months) of breastfeeding among children born in the past 3 years[1]		
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	27.3	5.5	6.1
Female	29.3	5.3	6.0
Residence			
Urban	25.1	5.1	5.6
Rural	29.0	5.4	6.1
Province			
City of Kigali	26.2	5.1	5.4
South	a	5.4	5.9
West	26.2	5.1	6.3
North	27.0	5.7	6.1
East	28.0	5.5	6.2
Mother's education			
No education	29.2	5.5	6.4
Primary	29.0	5.4	6.1
Secondary and higher	24.9	5.2	5.6
Wealth quintile			
Lowest	28.8	5.7	6.3
Second	29.4	5.3	6.3
Middle	29.5	5.7	6.5
Fourth	27.8	5.1	5.6
Highest	25.4	5.0	5.4
Total	28.3	5.4	6.0
Mean for all children	27.2	6.1	7.0

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
a = Omitted because more than 50 percent of the children continued to breastfeed after reaching 36 months
[1] It is assumed that non-last-born children and last-born children not currently living with their mother are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

Figure 11.4 shows several Infant and Young Child Feeding (IYCF) indicators of breastfeeding status. As mentioned above, 87 percent of children under age 6 months and 81 percent of children age 4-5 months are exclusively breastfed, and 94 percent of children under age 6 months are predominantly breastfed. Close to 6 in 10 children age 6-8 months (57 percent) consume solid, semisolid, or soft foods. Eighty-four percent of children under age 2 receive age-appropriate breastfeeding, while about 5 percent use a bottle with a nipple. Ninety-six percent of children continue breastfeeding at age 1 and 87 percent at age 2.

Figure 11.4 **IYCF indicators on breastfeeding status**



11.5 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid food to infants at approximately age 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. In the transition to eating the family diet, children age 6 months and older should be fed small quantities of solid and semisolid foods throughout the day. During this transition period (age 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices. The 2014-15 RDHS collected data on the types of foods given on the day and night preceding the survey to the youngest children under age 2 living with their mothers. These data are presented in Table 11.5 according to breastfeeding status.

Infant formula supplementation and consumption of fortified baby foods are uncommon in Rwanda. Among breastfeeding children under age 2, only 1 percent consume infant formula and only 2 percent are given fortified (commercial) baby food. However, a much higher proportion of children receive other milk (17 percent). For a small number of children, the introduction of other liquids, such as water, juice, and formula, takes place earlier than the recommended age of 6 months. Among the youngest breastfeeding children (0-1 month), only 6 percent consume liquids other than water and breast milk. As expected, consumption of other milk and other liquids increases substantially among children over age 6 months.

Among children age 6-23 months, foods rich in vitamin A and foods made from legumes and nuts are consumed more often than foods from other food groups. Among breastfeeding children in this age group, 70 percent ate fruits and vegetables rich in vitamin A and 65 percent ate foods made from legumes and nuts during the day or night preceding the interview. Meat, fish, poultry, and eggs have bodybuilding substances essential to good health. They are important for balanced physical and mental development. Overall, 17 percent of breastfeeding children age 6-23 months consume meat, fish, or poultry, and 4 percent consume eggs. Only 1 percent of children in this age group consumed cheese, yogurt, or other dairy products in the 24 hours preceding the survey. Overall, almost 9 in 10 breastfeeding children age 6-23 months (89 percent) consumed solid or semisolid food during the day or night preceding the survey.

Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under age 2 who are living with their mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Rwanda 2014-15

	Liquids			Solid or semisolid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk products	Any solid or semi solid food	Number of children
BREASTFEEDING CHILDREN														
0-1	0.0	0.0	5.9	0.0	0.4	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.4	201
2-3	0.3	2.3	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	236
4-5	1.4	6.8	7.5	1.8	0.0	2.8	1.5	0.8	0.8	0.4	0.4	0.4	5.4	273
6-8	1.6	24.2	51.0	4.1	14.1	40.6	22.3	20.3	23.6	7.1	2.9	2.0	56.7	467
9-11	2.1	21.5	70.1	2.3	35.8	70.9	26.6	56.8	69.6	19.3	5.2	1.6	92.5	420
12-17	0.7	19.9	74.2	1.9	33.9	79.5	24.0	65.0	74.5	20.4	4.1	0.9	97.9	748
18-23	0.6	19.4	69.5	1.9	35.5	81.4	25.1	70.3	82.4	19.0	3.8	0.9	99.2	627
6-23	1.1	20.9	67.3	2.4	30.6	70.4	24.4	55.7	65.3	17.1	4.0	1.3	88.8	2,262
Total	1.0	16.7	52.9	2.0	23.3	53.9	18.8	42.5	49.8	13.0	3.1	1.0	68.1	2,972
NONBREASTFEEDING CHILDREN														
0-11	*	*	*	*	*	*	*	*	*	*	*	*	*	16
12-17	(0.0)	(60.1)	(72.1)	(4.4)	(48.6)	(64.4)	(28.7)	(52.6)	(67.8)	(22.4)	(12.9)	(2.7)	(92.9)	46
18-23	3.8	39.4	80.6	4.8	49.0	79.6	30.3	62.6	86.5	32.5	9.6	3.2	100.0	88
6-23	2.8	45.0	76.0	5.4	47.6	73.8	29.4	58.1	74.9	27.9	9.8	2.8	97.3	147
Total	2.8	44.4	74.7	5.2	46.3	71.9	28.6	56.6	73.0	27.2	9.6	2.7	94.7	151

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Other milk includes fresh, tinned, and powdered cow or other animal milk.
[2] Does not include plain water
[3] Includes fortified baby food
[4] Includes pumpkin, squash, carrots, sweet potatoes, dark green leafy vegetables, mangoes, and papayas

A comparison of the dietary intake of children age 6-23 months by breastfeeding status shows that a higher proportion of nonbreastfeeding children (97 percent) than breastfeeding children (89 percent) are consuming solid and semisolid foods. Consumption of all groups of liquids and solid or semisolid foods is more common among nonbreastfeeding children than among those who are still breastfeeding.

11.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Appropriate infant and young child feeding (IYCF) practices include initiation of solid and semisolid foods at age 6 months and increasing the amount and variety of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding (WHO et al, 2008).

WHO has established guidelines with respect to IYCF practices for children age 6-23 months. Breastfed children in this age group should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Since first foods almost universally include a grain- or tuber-based staple, it is unlikely that young children who eat two or fewer food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, four food groups are considered the minimum acceptable number of food groups for breastfed infants (Arimond and Ruel, 2004). Breastfed infants age 6-8 months should be fed meals of complementary foods two or three times per day, with one to two snacks as desired; breastfed children age 9-23 months should be fed meals three or four times per day, with one to two snacks (WHO et al, 2008).

Nonbreastfed children age 6-23 months should receive milk products at least twice a day to ensure that their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables.

Therefore, for nonbreastfed young children, four food groups are considered the minimum acceptable number. Nonbreastfed children should be fed meals four or five times per day, with one to two snacks as desired (WHO, 2005). Meal frequency is considered a proxy for energy intake from foods other than breast milk. Therefore, feeding frequency indicators for nonbreastfed children include both milk feeds and solid or semisolid feeds (WHO et al, 2008). Table 11.6 presents summary indicators of IYCF practices.

Among all children age 6-23 months, 96 percent received breast milk or milk products during the 24-hour period before the survey, and nearly half (47 percent) were fed at least the minimum number of times. Only 30 percent were fed according to minimum standards with respect to food diversity (four or more food groups). Overall, only 18 percent of children age 6-23 months living with their mothers are fed in accordance with all three IYCF practices. Older children, children in urban areas, and those residing in City of Kigali are more likely to be fed according to the IYCF practices than younger children, rural children, and children in other provinces. Feeding practices improve as the wealth quintile and educational level of the mother increase.

Among breastfed children age 6-23 months, 29 percent receive foods from at least four food groups, while 47 percent are fed the minimum number of times or more. In total, 19 percent of breastfed children are given foods from four or more groups and also are fed at least the minimum number of times per day. Among nonbreastfed children in the same age group, 35 percent receive milk or milk products, 53 percent receive foods from at least four food groups, and 45 percent are fed the minimum number of times or more. Only 10 percent of nonbreastfed children are fed in accordance with IYCF practices.

Overall, feeding standards among children age 6-23 months have improved slightly in the last five years, with the proportion of children fed in accordance with all three IYCF practices increasing by 1 percent since 2010 (from 17 percent to 18 percent) (Figure 11.5).

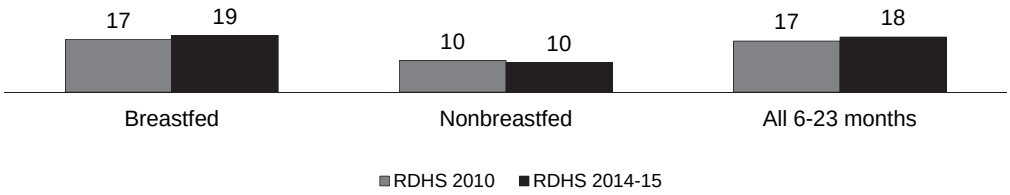
Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Rwanda 2014-15

	Among breastfed children 6-23 months, percentage fed:				Among non-breastfed children 6-23 months, percentage fed:					Among all children 6-23 months, percentage fed:				
Background characteristic	4+ food groups[1]	Minimum meal frequency[2]	Both 4+ food groups and minimum meal frequency	Number of breastfed children 6-23 months	Milk or milk products[3]	4+ food groups[1]	Minimum meal frequency[4]	With 3 IYCF practices[5]	Number of non-breastfed children 6-23 months	Breast milk, milk, or milk products[6]	4+ food groups[1]	Minimum meal frequency[7]	With 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	14.1	41.7	11.8	467	*	*	*	*	7	99.1	13.9	41.9	11.6	474
9-11	30.0	37.8	15.9	420	*	*	*	*	5	98.9	30.1	37.5	15.7	425
12-17	32.3	49.7	20.4	748	(47.2)	(51.8)	(51.7)	(14.7)	46	96.9	33.5	49.8	20.0	793
18-23	34.0	55.0	23.5	627	29.2	58.5	42.6	8.5	88	91.2	37.0	53.5	21.6	716
Sex														
Male	27.3	49.8	18.2	1,122	38.3	50.5	51.9	12.3	75	96.2	28.7	50.0	17.9	1,196
Female	29.8	44.8	19.0	1,140	31.2	55.3	37.7	7.0	72	95.9	31.4	44.4	18.3	1,212
Residence														
Urban	45.6	53.3	31.7	355	34.4	63.6	46.9	14.8	45	92.6	47.7	52.5	29.8	400
Rural	25.4	46.2	16.2	1,907	35.0	48.1	44.0	7.4	102	96.7	26.6	46.1	15.7	2,009
Province														
City of Kigali	45.7	54.4	32.0	246	(34.2)	(66.2)	(42.6)	(13.1)	35	91.9	48.3	53.0	29.7	281
South	27.1	48.2	18.0	510	(53.8)	(46.9)	(65.2)	(16.6)	22	98.1	27.9	48.9	17.9	532
West	21.0	39.0	11.1	559	(15.9)	(32.2)	(20.3)	(8.7)	24	96.5	21.4	38.2	11.0	583
North	32.6	53.9	22.7	323	*	*	*	*	20	96.3	34.0	53.5	21.8	344
East	27.7	47.9	18.4	624	(34.7)	(55.6)	(48.4)	(5.1)	45	95.6	29.6	47.9	17.5	669
Mother's education														
No education	18.6	36.3	10.1	328	*	*	*	*	12	97.5	19.4	36.5	9.8	340
Primary	26.9	47.1	17.0	1,630	31.2	46.9	41.9	9.2	101	96.0	28.1	46.8	16.5	1,731
Secondary and higher	48.4	60.1	36.5	304	(47.0)	(75.4)	(55.8)	(15.1)	33	94.9	51.0	59.7	34.4	337
Wealth quintile														
Lowest	15.4	37.0	7.8	575	(40.4)	(33.0)	(48.2)	(4.0)	26	97.5	16.1	37.5	7.6	601
Second	21.6	45.7	13.9	485	*	*	*	*	20	97.1	22.6	45.4	13.7	505
Middle	25.2	45.3	16.5	440	(19.4)	(48.7)	(37.3)	(3.4)	29	95.1	26.6	44.8	15.7	469
Fourth	41.7	56.4	28.6	400	*	*	*	*	20	96.6	42.2	55.3	28.1	420
Highest	48.5	58.3	33.7	362	45.4	67.1	53.7	12.7	53	93.1	50.9	57.7	31.0	414
Total	28.6	47.3	18.6	2,262	34.8	52.9	44.9	9.7	147	96.0	30.1	47.2	18.1	2,409

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables and red palm oil; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, shellfish and organ meats; g. legumes and nuts.
[2] For breastfed children, minimum meal frequency is receiving solid or semisolid food at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months.
[3] Includes two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt
[4] For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.
[5] Nonbreastfed children age 6-23 months are considered to be fed with a minimum standard of three infant and young child feeding practices if they receive other milk or milk products at least twice a day, receive the minimum meal frequency, and receive solid or semisolid foods from at least four food groups not including the milk or milk products food group.
[6] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt
[7] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 4.

Figure 11.5 **Trends in the percentage of children age 6-23 months fed according to all three infant and young child feeding (IYCF) practices**



11.7 PREVALENCE OF ANEMIA IN CHILDREN

Anemia is a condition characterized by a reduction in red blood cell volume and a decrease in the concentration of hemoglobin in the blood. Hemoglobin is necessary for transporting oxygen to tissues and organs in the body. About half of the global burden of anemia is due to iron deficiency. Iron deficiency, in turn, is largely due to an inadequate dietary intake of bio-available iron, increased iron requirements during rapid growth periods (such as pregnancy and infancy), and increased blood loss due to hookworm or schistosomiasis infestation. Nutritional anemia includes the anemia burden due to deficiency in iron along with deficiencies in folate, vitamins B and B12, and certain trace elements involved in red blood cell production. Anemia in children is associated with impaired mental and physical development and with increased morbidity and mortality. Anemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight.

The most common causes of anemia in Rwanda are inadequate dietary intake of iron, malaria, and intestinal worm infection. Iron and folic acid supplementation and anti-malarial prophylaxis for pregnant women, promotion of the use of insecticide-treated bed nets by pregnant women and children under age 5, and six-month deworming for children age 2 to 5 are some of the important measures to reduce the anemia burden among vulnerable groups. Hemoglobin levels were successfully measured for 96 percent of the children eligible for testing, along with 98 percent of eligible women. Hemoglobin levels for children and women were adjusted for altitude and, among women only, smoking status.

Table 11.7 presents anemia prevalence for children age 6-59 months. The results are based on tests of 3,524 (de facto) children living in the one-half of households selected for the men's survey who were present at the time of testing, whose parents consented to their being tested, and whose hemoglobin results were plausible. Children with hemoglobin level of 11.0 g/dl are not anemic. Children are classified into three groups according to the level of hemoglobin (after adjustment) in their blood[2]:

- Mild: hemoglobin concentration of 10.0-10.9 g/dl
- Moderate: hemoglobin concentration of 7.0-9.9 g/dl
- Severe: hemoglobin concentration below 7.0 g/dl

[2] The classification is based on criteria developed by WHO (DeMaeyer et al., 1989). Because hemoglobin levels vary by altitude, each child's result should be adjusted based on altitude measurements taken in the sample cluster where the testing was conducted. However, in the 2014-15 RDHS, adjustments for altitude were not made because none of the children were living above 1,000 meters.

Overall, 37 percent of children age 6-59 months in Rwanda have some level of anemia, including 21 percent who are mildly anemic, 15 percent who are moderately anemic, and 1 percent with severe anemia. The prevalence of any anemia decreases as the age of the child increases, from 72 percent among children age 6-8 months to 21 percent among children age 48-59 months. Children in rural areas (38 percent) are more likely than children in urban areas (30 percent) to be anemic. By province, children in East and South (40 percent and 39 percent, respectively) are most likely to be anemic, while children in the city of Kigali are least likely to be anemic (31 percent). Children of mothers with no education are more likely than children of mothers with either a primary or a secondary education to be anemic (40 percent versus 36 percent). Similarly, the prevalence of anemia decreases with increasing wealth, from 41 percent among children in the lowest wealth quintile to 29 percent among those in the highest quintile.

Table 11.7 Prevalence of anemia in children

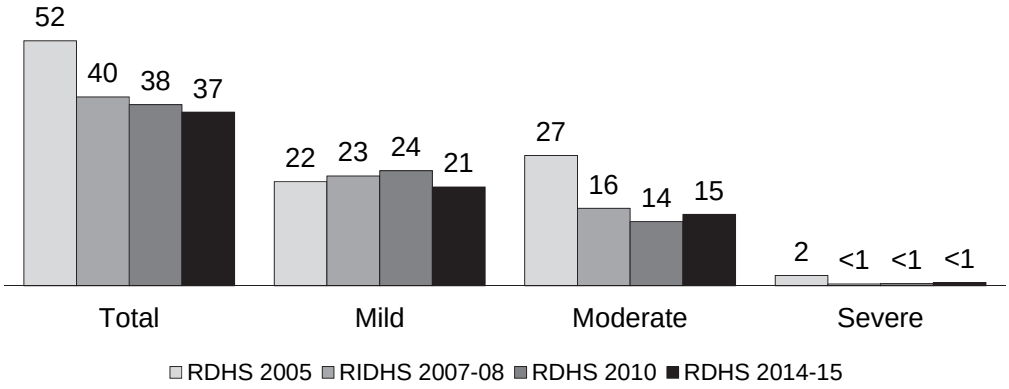
Percentage of children age 6-59 months classified as having anemia, by background characteristics, Rwanda 2014-15

	Anemia status by hemoglobin level				
Background characteristic	Any anemia (<11.0 g/dl)	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (<7.0 g/dl)	Number of children
Age in months					
6-8	71.7	33.4	34.2	4.1	204
9-11	61.3	24.9	36.2	0.2	212
12-17	53.3	31.1	21.3	0.9	415
18-23	35.7	20.3	14.8	0.7	371
24-35	35.2	21.6	12.9	0.7	809
36-47	27.2	16.8	9.9	0.4	840
48-59	21.4	13.4	7.7	0.4	673
Sex					
Male	37.3	20.7	15.7	0.9	1,779
Female	35.8	20.9	14.3	0.6	1,745
Mother's interview status					
Interviewed	36.7	20.6	15.4	0.7	3,242
Not interviewed but in household	(36.8)	(27.7)	(4.9)	(4.1)	29
Not interviewed and not in the household	33.8	21.8	11.5	0.5	253
Residence					
Urban	30.2	20.6	9.3	0.3	552
Rural	37.7	20.8	16.1	0.8	2,972
Province					
City of Kigali	30.6	21.0	9.3	0.4	381
South	39.3	20.3	18.0	1.0	842
West	34.5	22.0	11.5	1.0	829
North	33.6	20.9	12.4	0.2	502
East	39.7	19.9	19.0	0.8	970
Mother's education[2]					
No education	40.2	21.8	17.3	1.1	495
Primary	36.1	19.8	15.6	0.7	2,379
Secondary and higher	36.2	24.4	11.0	0.8	396
Wealth quintile					
Lowest	40.8	20.9	18.5	1.3	885
Second	39.1	21.5	16.5	1.1	783
Middle	37.2	20.0	16.8	0.4	696
Fourth	32.9	20.5	12.0	0.4	596
Highest	29.4	20.8	8.5	0.1	565
Total	36.5	20.8	15.0	0.7	3,524

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anemia. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Hemoglobin is in grams per deciliter (g/dl). Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

A comparison with the 2005 RDHS shows that the prevalence of anemia has dropped by 15 percentage points in the last decade, from 52 percent to 37 percent, but the decrease between 2010 RDHS and 2014-15 RDHS was minimal (Figure 11.6 and Appendix C). The most noticeable drop has been in the prevalence of moderate anemia, with a decrease of 12 percentage points (27 percent in 2005 versus 15 percent in 2014-15). This figure was 14 percent in 2010. There have been only minimal changes in the prevalence of mild and severe anemia.

Figure 11.6 **Trends in anemia status among children age 6-59 months**



11.8 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is an important contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 11.8 looks at measures relating to intake of several key micronutrients among children.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause blindness. VAD can also increase the severity of infections such as measles and diarrheal diseases in children and slows recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of vitamin A for four to six months. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD. In Rwanda, the provision of vitamin A supplementation and deworming tablets to children age 6-59 months and iron/folic acid tablets to mothers has been organized though campaigns; twice-yearly Mother and Child Health Week events. There is not yet an iron supplementation program targeting children.

Table 11.8 shows that 74 percent of the youngest children age 6-23 months living with their mothers consumed foods rich in vitamin A the day or night preceding the interview. The proportion of children consuming vitamin A-rich foods increases with age (from 42 percent at 6-8 months to 85 percent at 18-23 months). Nonbreastfeeding children are more likely than breastfeeding children to consume foods rich in vitamin A (80 percent versus 73 percent). Consumption of foods rich in vitamin A increases with increasing mother's age at birth, from 69 percent among children whose mothers were age 15-19 at the time they gave birth

to 78 percent among those whose mothers were age 40-49. There are also differences by area of residence; urban children are more likely to consume food rich in vitamin A (79 percent) than children living in rural areas (73 percent). With regard to provinces, children living in City of Kigali and North are most likely to consume foods rich in vitamin A (80 percent each), while those in West are least likely to do so (68 percent). As mothers' educational level and wealth quintile increase, consumption of food rich in vitamin A among their children age 6-23 months also increases.

As noted, low iron intake can contribute to anemia. Also, iron is essential for cognitive development. Iron requirements are greatest at age 6-11 months, when growth is extremely rapid. As Table 11.8 shows, 20 percent of children age 6-23 months consumed iron-rich foods in the 24 hours preceding the survey. Consumption of foods rich in iron increases from 9 percent at age 6-8 months to 24 percent at age 18-23 months. Nonbreastfeeding children are more likely than breastfeeding children to consume iron-rich foods (33 percent versus 19 percent). Furthermore, consumption of iron-rich foods is more common in urban areas (33 percent) than in rural areas (18 percent). Children in the North province are least likely to consume iron-rich foods (13 percent), while those living in City of Kigali are most likely to consume such foods (37 percent). Children whose mothers have a secondary education or higher are more likely to consume iron-rich foods (33 percent) than those whose mothers have no education (13 percent). Similarly, wealth status is directly related to consumption of foods rich in iron, with 13 percent of children in the lowest wealth quintile and 37 percent of children in the highest quintile consuming foods rich in iron in the 24 hours before the survey.

The 2014-15 RDHS also collected data on vitamin A supplementation among children age 6-59 months. Table 11.8 shows that 86 percent of children age 6-59 months received vitamin A supplements in the six months preceding the survey. Infants under age 11 months are less likely than older children to have received a vitamin A supplement in the previous six months. Vitamin A supplementation does not show a clear pattern by gender, urban-rural residence, mother's education, or wealth. Vitamin A supplementation is higher among nonbreastfeeding than breastfeeding children (89 percent versus 84 percent). At the provincial level, the proportion of children receiving vitamin A supplements is lowest in East (83 percent) and highest in North (90 percent).

Infection with helminths or intestinal worms has an adverse impact on the physical development of children and is associated with high levels of iron deficiency anemia and other nutritional deficiencies. Regular treatment with deworming medication is a simple, cost-effective measure to address these infections. As Table 11.8 shows, 8 in 10 children age 6-59 months (80 percent) received deworming medication during the six months preceding the survey. The likelihood of receiving deworming medication increases with the child's age, from 19 percent among children age 6-8 months to 90 percent or more among those age 18-59 months. It is lower among breastfeeding children (69 percent) and children whose mothers were age 15-19 at childbirth (60 percent) than among other children, and it is the same in urban and rural areas (80 percent). The proportion of children receiving deworming medication shows little variation by province, mother's education, or household wealth.

Table 11.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children age 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey and who were given deworming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Rwanda 2014-15

	Among youngest children age 6-23 months living with the mother:			Among all children age 6-59 months:			Among children age 6-59 months living in households tested for iodized salt	
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given vitamin A supplements in last 6 months	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households with iodized salt[4]	Number of children
Age in months								
6-8	42.0	9.1	474	50.1	18.5	482	99.3	440
9-11	75.1	21.9	425	75.2	38.5	434	99.7	398
12-17	81.6	23.0	793	90.3	73.3	811	99.9	721
18-23	84.6	23.7	716	92.1	90.1	769	100.0	728
24-35	na	na	na	90.3	90.5	1,555	99.6	1,422
36-47	na	na	na	89.2	90.1	1,602	99.8	1,486
48-59	na	na	na	89.7	90.0	1,314	99.8	1,207
Sex								
Male	73.4	20.7	1,196	86.5	80.5	3,487	99.7	3,204
Female	73.6	19.8	1,212	86.4	79.6	3,481	99.8	3,196
Breastfeeding status								
Breastfeeding	73.1	19.4	2,262	83.6	69.1	3,235	99.8	2,963
Not breastfeeding	79.5	33.3	147	88.9	89.6	3,713	99.8	3,418
Mother's age at birth								
15-19	68.5	17.8	88	73.6	60.0	112	100.0	105
20-29	72.1	21.5	1,192	84.8	78.0	3,227	99.8	2,963
30-39	74.9	19.5	949	87.9	81.4	2,943	99.7	2,711
40-49	77.6	17.0	180	89.7	87.2	686	99.7	621
Residence								
Urban	78.7	33.4	400	83.9	80.0	1,162	99.8	1,081
Rural	72.5	17.7	2,009	86.9	80.1	5,807	99.7	5,319
Province								
City of Kigali	80.4	36.9	281	85.1	81.9	820	99.8	770
South	73.9	15.5	532	87.0	80.5	1,583	99.8	1,462
West	68.3	18.7	583	88.6	81.3	1,680	99.5	1,489
North	79.7	12.9	344	89.8	79.5	978	99.7	907
East	71.7	22.2	669	82.8	78.1	1,907	100.0	1,773
Mother's education								
No education	67.9	13.0	340	86.0	80.7	1,049	99.8	921
Primary	73.4	19.2	1,731	87.0	80.0	5,064	99.7	4,649
Secondary and higher	79.5	33.0	337	83.2	79.4	856	99.9	830
Wealth quintile								
Lowest	65.6	12.7	601	86.4	79.4	1,674	99.6	1,423
Second	70.8	16.0	505	85.8	78.3	1,518	99.6	1,385
Middle	74.8	18.1	469	87.8	82.1	1,390	99.9	1,287
Fourth	80.9	22.4	420	88.2	79.8	1,196	99.7	1,153
Highest	79.3	36.8	414	83.7	81.0	1,190	99.8	1,153
Total	73.5	20.3	2,409	86.4	80.1	6,969	99.7	6,400

Note: Information on vitamin A supplementation is based on both mother's recall and the immunization card (where available). Information on deworming medication is based on the mother's recall. Total includes 20 cases in which information on breastfeeding status is missing.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil
[2] Includes meat (and organ meat), fish, poultry, and eggs
[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.
[4] Excludes children in households in which salt was not tested

Iodine deficiency has serious effects on body growth and mental development. The principal cause of iodine deficiency is inadequate iodine in foods. Fortification of salt with iodine is the most common method of preventing iodine deficiency. According to WHO, a country's salt iodization program is considered to be on a

good track (poised to attain the goal of eliminating iodine deficiency) when 90 percent of households are using iodized salt. To assess the use of iodized salt in Rwanda, interviewers in the 2014-15 RDHS asked households to provide a teaspoon of salt used for cooking. The salt was tested for iodine using a rapid test kit. As Table 11.8 shows, nearly all children live in households that use iodized salt.

11.9 IODIZATION OF HOUSEHOLD SALT

Table 11.9 shows the percentage of households with salt tested for iodine content, the percentage of households without salt, and, among households with tested salt, the percentage with iodine present in the salt. Ninety percent of households had salt tested for iodine at the time of the interview. Of these households, almost all were using iodized salt. Because the presence of iodized salt in households is almost universal, there is no major variation by background characteristics.

Table 11.9 Presence of iodized salt in household

Among all households, the percentage with salt tested for iodine content and the percentage with no salt in the household, and among households with salt tested, the percentage with iodized salt, according to background characteristics, Rwanda 2014-15

	Among all households, the percentage			Among households with tested salt:	
Background characteristic	With salt tested	With no salt in the household	Number of households	Percentage with iodized salt	Number of households
Residence					
Urban	90.4	9.6	2,188	99.8	1,977
Rural	90.4	9.6	10,511	99.7	9,501
Province					
City of Kigali	91.4	8.6	1,496	99.7	1,368
South	91.3	8.7	3,103	99.8	2,832
West	87.4	12.6	2,789	99.5	2,438
North	91.2	8.8	2,090	99.4	1,905
East	91.1	8.9	3,221	99.9	2,935
Wealth quintile					
Lowest	84.0	16.0	2,920	99.6	2,453
Second	90.6	9.4	2,636	99.6	2,389
Middle	92.4	7.6	2,441	99.8	2,254
Fourth	93.7	6.3	2,290	99.8	2,145
Highest	92.7	7.3	2,412	99.8	2,236
Total	90.4	9.6	12,699	99.7	11,478

11.10 NUTRITIONAL STATUS OF WOMEN

Anthropometric data on height and weight were collected for interviewed women age 15-49 living in the households not selected for the men's survey. Two indicators of nutritional status based on these data are presented in this report: body mass index (BMI) and the percentage of women of very short stature (less than 145 cm). BMI, also referred to as the Quetelet index, is used to measure thinness or obesity. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A cutoff point of 18.5 is used to define thinness or acute undernutrition, and a BMI of 25.0 or above usually indicates overweight or obesity. The height of a woman is associated with past socioeconomic status and nutrition during childhood and adolescence. Low pre-pregnancy BMI and short stature are risk factors for poor birth outcomes and obstetric complications. In developing countries, maternal underweight is a leading risk factor for preventable death and diseases. A total of 6,858 women were eligible for anthropometric measurements.

Table 11.10 presents the mean values for the two indicators of nutritional status and the proportions of women falling into high-risk categories, according to background characteristics. Respondents for whom there was no information on height and/or weight and for whom a BMI could not be estimated are excluded from this analysis. The analysis of height is based on 6,682 women, and the analysis of BMI is based on 6,088 women.

The data show that only 3 percent of women age 15-49 in Rwanda are less than 145 cm in height. There are variations by background characteristics. Younger women are slightly more likely to be short than older women. Mothers' educational level and wealth quintile are related to their height. Less educated women are slightly more likely to be short than educated women, and short stature decreases with increasing wealth.

The mean BMI among women in Rwanda is 22.8. Analysis by background characteristics shows that the mean BMI falls in the normal range (18.5-24.9) in all background categories. At the national level, 7 percent of women are considered to be thin (BMI below 18.5); however, only 1 percent of women are considered to be moderately or severely thin (BMI below 17). The highest proportions of women with a BMI below 18.5 are observed among those age 15-19 (11 percent), those living in rural areas (7 percent), and those residing in the South (9 percent) and East (7 percent) provinces. The percentage of thin women tends to decrease with increasing education and wealth.

Table 11.10 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Rwanda 2014-15

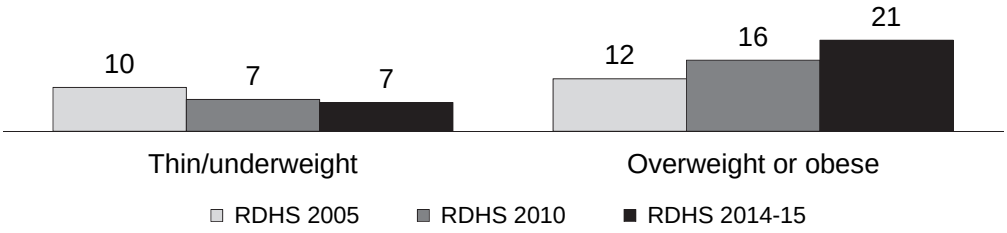
	Height		Body mass index[1]								
Background characteristic	Percentage below 145 cm	Number of women	Mean body mass index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Age											
15-19	4.7	1,388	21.9	75.6	10.9	7.9	3.0	13.5	12.8	0.7	1,350
20-29	2.7	2,382	22.9	75.4	4.0	3.1	0.9	20.6	18.1	2.5	2,079
30-39	2.3	1,818	23.3	68.6	5.7	4.7	1.0	25.7	19.3	6.5	1,597
40-49	1.8	1,093	22.9	69.4	7.5	6.5	1.0	23.1	17.2	5.9	1,061
Residence											
Urban	1.8	1,325	24.2	57.7	5.5	4.2	1.3	36.8	26.4	10.4	1,218
Rural	3.2	5,357	22.4	76.3	6.8	5.4	1.4	16.8	14.8	2.1	4,870
Province											
City of Kigali	1.4	899	24.0	60.6	5.4	4.0	1.4	34.0	24.1	9.9	819
South	3.8	1,602	22.2	74.8	9.3	7.1	2.2	15.9	13.1	2.7	1,462
West	3.0	1,445	22.8	75.7	4.9	4.2	0.7	19.4	17.2	2.2	1,316
North	2.1	1,089	22.9	74.8	4.5	4.2	0.3	20.7	18.2	2.5	1,016
East	3.1	1,646	22.6	72.8	7.4	5.5	1.9	19.8	16.2	3.6	1,474
Education											
No education	3.9	800	22.5	76.1	7.8	6.9	0.8	16.1	13.6	2.6	726
Primary	3.2	4,315	22.6	74.0	6.4	5.0	1.4	19.6	16.7	2.9	3,909
Secondary and higher	1.5	1,567	23.3	67.1	6.4	4.7	1.7	26.5	20.0	6.5	1,453
Wealth quintile											
Lowest	5.5	1,307	21.8	79.1	10.2	7.9	2.3	10.7	10.4	0.3	1,177
Second	2.8	1,315	22.3	78.4	6.7	5.4	1.3	14.9	12.8	2.1	1,194
Middle	2.8	1,253	22.4	77.2	6.8	5.6	1.1	16.0	14.6	1.4	1,141
Fourth	2.1	1,253	22.8	72.8	4.6	3.7	0.9	22.7	20.7	2.0	1,140
Highest	1.5	1,554	24.2	58.7	5.0	3.6	1.3	36.4	25.3	11.1	1,435
Total	2.9	6,682	22.8	72.6	6.6	5.2	1.4	20.8	17.1	3.7	6,088

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

The proportion of overweight women stands at 17 percent, and 4 percent of women are considered to be obese (BMI of 30.0 or above). The proportion of overweight or obese women is somewhat positively correlated with women's age, increasing from 14 percent among women age 15-19 to 26 percent among women age 30-39 before declining to 23 percent among women age 40-49. Urban women are twice as likely to be overweight or obese (37 percent) as rural women (17 percent). A provincial comparison shows that the South province has the lowest proportion of overweight or obese women (16 percent), while City of Kigali has the highest proportion (34 percent).The proportion of women who are overweight or obese increases with increasing education and wealth.

In terms of trends in women's nutritional status over the past 10 years, the proportion of thin women decreased from 10 percent in 2005 to 7 percent in 2010 and 2014-15, while the proportion of overweight or obese women increased from 12 percent in 2005 to 16 percent in 2010 and 21 percent in 2014-15 (Figure 11.7).

Figure 11.7 Trends in nutritional status among women age 15-49



11.11 Prevalence of Anemia in Women

The same equipment and procedures used to measure anemia in children were used to measure anemia among women in the same subsample of households. Three levels of anemia severity are distinguished: mild anemia (10.0-10.9 g/dl for pregnant women and 10.0-11.9 g/dl for non-pregnant women), moderate anemia (7.0-9.9 g/dl), and severe anemia (less than 7.0 g/dl). Table 11.11 presents anemia prevalence among women age 15-49 based on hemoglobin levels, according to selected background characteristics. Raw measured values of hemoglobin were obtained using the HemoCue instrument and adjusted for altitude and smoking status.

The data show that anemia is less prevalent among women than children; 19 percent of women in Rwanda have some level of anemia, as compared with 37 percent of children. The great majority of women with anemia are mildly anemic (16 percent); 3 percent are moderately anemic, and almost none are severely anemic.

As expected, the prevalence of anemia is higher among pregnant women (23 percent) than among those who are breastfeeding or neither pregnant nor breastfeeding (19 percent each). Anemia is much more prevalent among women using an IUD than among women not using this method (29 percent and 19 percent, respectively). It is also more common among the small group of women who smoke (28 percent) than among nonsmokers (19 percent). The prevalence of any anemia is slightly higher among women in rural areas (20 percent) than women in urban areas (16 percent). By province, the prevalence of anemia among women ranges from 15 percent in the city of Kigali to 23 percent in South. Anemia declines as education and wealth increase.

Overall, the prevalence of anemia among women age 15-49 in Rwanda has decreased over the last decade, dropping from 26 percent in 2005 to 17 percent in 2010 before increasing slightly to 19 percent in 2014-15. This trend is observed for all three anemia severity levels (Figure 11.8 and Appendix C).

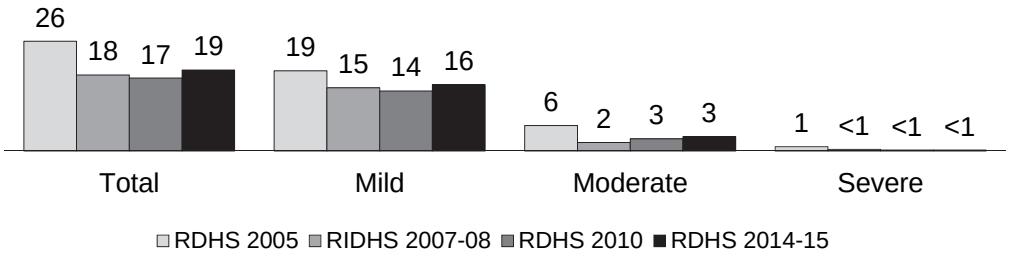
Table 11.11 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Rwanda 2014-15

Background characteristic	Anemia status by hemoglobin level				
	Any anemia	Mild anemia	Moderate anemia	Severe anemia	Number of women
Age					
15-19	18.8	16.4	2.2	0.1	1,386
20-29	18.9	15.1	3.5	0.2	2,378
30-39	18.6	14.9	3.6	0.2	1,820
40-49	21.6	17.2	4.0	0.4	1,097
Number of children ever born					
0	19.6	16.5	3.0	0.1	2,327
1	17.9	14.5	3.3	0.1	948
2-3	19.1	15.6	3.3	0.2	1,584
4-5	19.4	15.0	4.3	0.1	1,032
6+	19.9	15.9	3.4	0.6	789
Maternity status					
Pregnant	23.4	14.6	8.8	0.0	491
Breastfeeding	19.3	16.0	3.1	0.2	1,858
Neither	18.7	15.7	2.9	0.2	4,331
Using IUD					
Yes	29.1	24.9	4.2	0.0	52
No	19.2	15.6	3.3	0.2	6,628
Smoking status					
Smokes cigarettes/tobacco	28.4	21.6	6.2	0.7	144
Does not smoke	19.0	15.6	3.3	0.2	6,535
Residence					
Urban	16.3	13.2	3.0	0.2	1,325
Rural	19.9	16.3	3.5	0.2	5,355
Province					
City of Kigali	14.8	11.9	2.7	0.2	900
South	22.9	17.7	5.0	0.2	1,605
West	17.9	15.7	1.9	0.3	1,442
North	15.4	13.5	1.9	0.0	1,088
East	21.8	17.2	4.3	0.2	1,646
Education					
No education	22.5	16.4	5.6	0.5	798
Primary	19.1	15.8	3.1	0.2	4,315
Secondary and higher	17.9	15.0	2.9	0.1	1,567
Wealth quintile					
Lowest	24.8	18.9	5.7	0.2	1,306
Second	20.1	16.4	3.3	0.4	1,316
Middle	18.8	16.1	2.7	0.1	1,249
Fourth	16.1	14.0	2.1	0.0	1,253
Highest	16.6	13.4	3.0	0.2	1,556
Total	19.2	15.7	3.4	0.2	6,680

Note: Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC, 1998. Women with a hemoglobin level below 7.0 g/dl have severe anemia, women with a level of 7.0-9.9 g/dl have moderate anemia, and pregnant women with a level of 10.0-10.9 g/dl and nonpregnant women with a level of 10.0-11.9 g/dl have mild anemia.

Figure 11.8 **Trends in anemia status among women age 15-49**



11.12 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects the mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia results in an increased risk of premature delivery and low birth weight. Finally, iodine deficiency is also related to a number of adverse pregnancy outcomes.

Table 11.12 includes a number of measures that are useful in assessing the extent to which women are receiving adequate intake of vitamin A and iron and the proportion of women who take deworming medication during pregnancy. Around one in two mothers (49 percent) who gave birth in the five years preceding the survey received postpartum vitamin A supplements. The proportion of mothers who received vitamin A supplements increases with age. Vitamin A supplements are slightly less common in urban areas than in rural areas (46 percent and 50 percent, respectively). More than 6 in 10 women (64 percent) residing in the North province received vitamin A supplements, as compared with about 4 in 10 women (43 and 44 percent, respectively) in the West and East provinces. Vitamin A supplementation is not related to women's level of education or wealth.

With regard to iron supplementation during pregnancy, 20 percent of women did not take iron tablets or syrup during pregnancy. Although about 8 in 10 women said they took iron tablets, 68 percent of women took iron for fewer than 60 days, Seven percent of women took iron for a period between 60-89 days and only 3 percent took iron tablets or syrup for the recommended 90 or more days. Iron intake does not vary substantially by background characteristics, although women in the East province appear to be less likely to have taken iron supplements during pregnancy than other women.

Table 11.12 also shows that 49 percent of women took deworming medication during the pregnancy for their last birth. Variations by background characteristics are minor.

Finally, virtually all women live in households with iodized salt, with variations by background characteristics almost nonexistent.

Table 11.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, the percent distribution by number of days they took iron tablets or syrup during the pregnancy of the last child, and the percentage who took deworming medication during the pregnancy of the last child, and among women age 15-49 with a child born in the past five years and who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Rwanda 2014-15

		Number of days women took iron tablets or syrup during pregnancy of last birth						Percentage of women who took deworming medication during pregnancy of last birth		Among women with a child born in the last five years who live in households that were tested for iodized salt	
Background characteristic	Percentage who received vitamin A dose postpartum[1]	None	<60	60-89	90+	Don't know/ missing	Total		Number of women	Percentage living in households with iodized salt[2]	Number of women
Age											
15-19	38.2	30.0	61.1	6.6	2.3	0.0	100.0	40.3	151	100.0	143
20-29	45.6	21.7	66.4	7.1	3.7	1.1	100.0	48.5	2,812	99.8	2,597
30-39	52.2	18.1	70.4	7.1	3.4	1.0	100.0	51.2	2,464	99.6	2,274
40-49	58.2	20.3	67.5	8.3	2.6	1.3	100.0	47.4	633	99.7	571
Residence											
Urban	46.4	19.6	70.8	5.9	2.5	1.2	100.0	51.3	1,025	99.8	959
Rural	50.0	20.5	67.4	7.5	3.6	1.0	100.0	48.9	5,035	99.7	4,627
Province											
City of Kigali	48.9	20.3	69.3	7.4	2.1	0.9	100.0	51.2	723	99.7	683
South	53.4	16.1	70.5	8.1	4.5	0.8	100.0	53.1	1,406	99.8	1,297
West	43.4	22.9	68.3	4.6	2.6	1.7	100.0	51.1	1,365	99.5	1,214
North	63.7	9.9	70.8	11.7	6.6	0.9	100.0	51.2	885	99.5	823
East	43.6	27.2	63.5	6.2	2.2	0.9	100.0	42.9	1,682	99.9	1,569
Education											
No education	49.2	20.1	68.9	7.2	3.1	0.6	100.0	46.8	881	99.5	782
Primary	49.9	20.0	68.0	7.5	3.4	1.1	100.0	49.8	4,360	99.7	4,013
Secondary and higher	47.0	22.3	67.0	5.5	3.9	1.3	100.0	49.1	819	99.9	791
Wealth quintile											
Lowest	49.0	21.3	68.0	6.6	3.1	1.0	100.0	47.7	1,432	99.5	1,227
Second	48.1	20.3	67.0	7.9	3.6	1.2	100.0	49.5	1,306	99.7	1,196
Middle	51.2	18.9	70.9	6.1	3.1	1.0	100.0	47.3	1,195	99.9	1,115
Fourth	50.8	20.8	64.9	9.0	4.2	1.1	100.0	50.2	1,072	99.8	1,029
Highest	48.2	20.1	69.0	6.7	3.3	0.9	100.0	52.6	1,055	99.8	1,019
Total	49.4	20.3	68.0	7.2	3.4	1.0	100.0	49.3	6,060	99.7	5,586

[1] In the first two months after delivery of last birth
[2] Excludes women in households where salt was not tested

11.13 NUTRITIONAL STATUS OF MEN

Table 11.13 presents the nutritional status of men according to background characteristics. Men for whom there was no information on height and/or weight and for whom a BMI could not be estimated are excluded from this analysis. The analysis of BMI is based on 6,180 men age 15-59.

Overall, 13 percent of men 15-49 are underweight or thin (BMI less than 18.5 kg/m^2), about twice the percentage of underweight women (7 percent). Six percent of men are overweight (BMI 25.0 kg/m^2 or higher) and less than one percent are obese (BMI $\geq$ 30.0). Obesity in women is more than 9 times higher than in men .

The highest proportions of men with a BMI below 18.5 are observed among those age 15-19 (30 percent), those living in rural areas (14 percent), and those residing in the South province (20 percent) and those with secondary and higher education (15 percent). The percentage of thin men tends to decrease with increasing wealth.

As would be expected, the percentage of overweight is higher among men in urban areas (10 percent) than among those in rural areas (5 percent). Comparisons across provinces show that the City of Kigali has the highest percentage of overweight men (10 percent), whereas the South has the lowest (3 percent). The

percentage of overweight increases progressively with wealth quintile from 2 percent in the lowest quintile to 5 percent in the fourth quintile and peaks to 12 percent in the highest wealth quintile.

Table 11.13 Nutritional status of men

Among men age 15-49, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Rwanda 2014-15

	Body Mass Index								
Background characteristic	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderately and severely thin)	≥25.0 (Total overweight or obese)	25.0-29.9 (Overweight)	≥30.0 (Obese)	Number of men
Age									
15-19	19.7	68.9	30.1	20.7	9.4	1.0	1.0	0.0	1,277
20-29	21.5	89.2	5.6	4.9	0.7	5.2	5.0	0.2	1,928
30-39	21.6	81.7	8.4	7.4	1.1	9.8	8.9	0.9	1,481
40-49	21.3	78.6	11.6	9.1	2.5	9.8	9.2	0.7	856
Residence									
Urban	21.7	77.8	10.8	7.8	3.0	11.4	10.1	1.4	1,157
Rural	20.9	81.7	13.5	10.4	3.1	4.8	4.6	0.1	4,385
Province									
City of Kigali	21.5	76.6	12.4	9.1	3.3	11.0	9.6	1.4	794
South	20.4	77.3	19.7	14.7	5.0	3.0	2.9	0.1	1,321
West	21.6	84.3	8.2	6.2	2.0	7.5	7.3	0.3	1,171
North	21.4	83.8	9.6	7.8	1.7	6.6	6.2	0.4	848
East	20.8	82.0	12.9	10.0	2.9	5.1	4.8	0.3	1,408
Education									
No education	21.2	86.6	8.7	6.2	2.4	4.7	4.7	0.0	492
Primary	21.0	81.9	12.8	9.7	3.1	5.3	4.9	0.4	3,618
Secondary and higher	21.2	76.2	14.8	11.4	3.4	9.0	8.3	0.7	1,431
Wealth quintile									
Lowest	20.7	83.6	14.2	11.2	3.0	2.2	2.1	0.1	812
Second	20.8	82.4	13.8	10.2	3.6	3.8	3.6	0.2	989
Middle	20.8	82.5	13.6	10.5	3.1	3.9	3.9	0.0	1,092
Fourth	20.9	81.3	13.7	9.8	3.9	5.0	4.8	0.2	1,228
Highest	21.8	76.7	10.4	8.4	2.1	12.9	11.7	1.2	1,421
Total 15-49	21.1	80.9	12.9	9.8	3.1	6.2	5.8	0.4	5,542
50-59	20.8	74.8	18.3	13.2	5.1	6.9	6.2	0.7	638
Total 15-59	21.1	80.3	13.5	10.2	3.3	6.3	5.8	0.4	6,180

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m2).

MALARIA 12

Key Findings

- Eighty-one percent of households own at least one insecticide-treated mosquito net (ITN).
- Forty-three percent of households have at least one ITN for every two people staying in the same house in the night preceding the survey.
- Sixty-two percent of the household population slept under ITN the night before the survey.
- Sixty-eight percent of children under age 5 slept under ITN the night before the survey; while 73 percent of pregnant women slept under ITN the night before the survey.
- Nineteen percent of children who had fever in the two weeks preceding the survey; among them 57 percent sought for advice or treatment.
- Thirty-six percent of children with a fever had blood taken for testing
- Ninety nine percent of children who received antimalarial drugs for fever were given ACT.
- Among children with a fever and took antimalarial drugs, two-thirds took antimalarial drugs the same day or the day after the fever started.
- Malaria prevalence is 2 percent among children age 6-59 months and 0.6 percent among women age 15-49.
- Two percent of children age 6-59 months has hemoglobin lower than 8.0 g/dl.

Malaria has been a major cause of morbidity and mortality in Rwanda for several years, with periodic epidemics in high-altitude areas. Rwanda has achieved significant reductions in the burden of malaria over the past decade (Otten M. et al. 2009 and Karema C. et al. 2012). Evidence of progress in malaria control provided by Rwanda Health Information Management System (HMIS) include an 86 percent decline in malaria incidence between 2005 and 2011; 87 percent decline in outpatient malaria cases between 2005 and 2011; 74 percent decline in inpatient malaria deaths between 2005 and 2011; and 71 percent decline in malaria test positivity rate (TPR) between 2005 and 2011 (Rwanda HMIS, 2012). According to the 2010 RDHS, malaria prevalence has decreased from 2.6 percent in 2008 to 1.4 percent in 2010 in children < 5 years and a decline from 1.4 percent in 2008 to 0.7 percent in 2010 of malaria prevalence in pregnant women.

The success of malaria control in Rwanda has been acknowledged internationally as a result of the country's strong leadership and vision, evidence-based implementation of malaria control interventions, and coordinated partnerships through the government's malaria control strategy.

For the past years, Rwanda has continued to implement key malaria control interventions based on evidence, which included:

- Early diagnosis and prompt and effective treatment reaching universal malaria parasitological diagnosis and treatment coverage both at health facility level and community level using 30,000 CHWs. As a result in 2015, 99 percent of all suspected malaria cases were tested before treatment as compared to 56

percent in 2009 and 96 percent of children under with malaria were tested using RDTs and treated with ACTs within 24 hours while only 62 percent were treated in 2008 (Ministry of Health, 2016).

- Prevention using LLINs distribution: The mainstay of vector control in Rwanda is universal coverage with long-lasting insecticidal nets (LLINs) targeting the entire population in the country Rwanda has achieved universal coverage of LLINs in 2010 resulting with over 75 percent decline in malaria cases, inpatients and deaths. Thus since 2012 more than 10 million LLINs were distributed. The 2014-2015 DHS shows 83 percent of household ownership of at least one LLIN while the RMIS 2013 showed an ownership of 84 percent. Sixty-eight percent of children under 5 and 70 percent and pregnant women slept under a mosquito net the night before the survey. Only, 61.5 percent of household population slept under a mosquito net.

- Prevention using IRS: Indoor residual spraying (IRS) was initiated in 2007 in high transmission areas located in 3 districts: Gisagara, Bugesera and Nyagatare. The latest IRS campaign conducted in 2015 and resulted with an estimated coverage of 97.8 percent (243,952 structures targeted). Rwanda is also implementing integrated vector management (IVM) and insecticide resistance mitigation strategy that will improve ecological soundness and cost-effectiveness of interventions for rational decision.

- Behavior Change communication (BCC): several interventions have been implemented in Rwanda including radio, TV shows and several community mobilizations. This has resulted in a significant increase of the knowledge and practice of malaria related behavior.

This strategy contributed to the achievement of the Millennium Development Goals as set forth in the Vision 2020 strategic plan for the national health sector.

However, since 2012 Rwanda is facing an increase of malaria cases reaching more than 2 million with a malaria morbidity of 18.3 percent in 2015 (Ministry of Health, 2016). Although malaria cases has been increasing, malaria mortality trends have not been at the same path given mortality remained constant with 5 percent in 2015 (Ministry of Health, 2016). which may be attributed to efficacious antimalarial drug in use in Rwanda malaria treatment guidelines as well as increased access to health care including prompt malaria testing and treatment.

The increase of malaria burden is attributable to several factors such as vectors densities, parasites, climate (temperature, rainfall), environmental modification, human behavior and health system and effective interventions coverage. It also important to note that malaria has been increasing in the eastern region, thus it will be challenging for Rwanda to control malaria while trans-border exchanges are intense. While it is difficult to nail down specifics causes of malaria increase, analysis are showing that main contributing factors to malaria increase in Rwanda may be:

Significant drop of effective LLINs coverage at community level given that since 2010-2011 Rwanda has not been able to maintain that level of population coverage of effective LLINs because there has not been a countrywide LLINs distribution given that replacement were only done in targeted districts located in high malaria burden districts based on LLINs availability. LLINs replacement were not done based on LLINs needs and LLINs efficacy duration of 2 years as seen in the monitoring of LLINs durability and efficacy due to significant delay in procurement and gap in malaria funding (Hakizimana et al. 2014).

Mosquitos resistance to pyrethroids (insecticide): Vector control in Rwanda is highly dependent on the use of pyrethroids, which are the only class of insecticides currently recommended for ITNs or LLINs. In most of the sentinel site monitoring insecticide resistance, resistance to insecticides of pyrethroid family used for public health has been detected. The Malaria & OPD Division in RBC-Ministry of Health has made the monitoring and

prevention of the spread of insecticide resistance as a priority. The level pyrethroid resistance in 14 sites that have been tracked for the past 5 years and shown 77 percent resistance to pyrethroid insecticide (Ministry of Health 2015).

Climatic anomalies: The most important climatic factors that directly affect malaria transmission are temperature, rainfall. Trends of temperature increase and rainfall anomalies in Rwanda have indicated similar patterns with increase of malaria cases showing that there may be a correlation.

In order to overcome this malaria increase, the government of Rwanda is currently implementing the Rwanda Malaria Contingency Strategy containing key malaria control intervention and multisectorial approach to fight against malaria.

12.1 MOSQUITO NETS

Use of Long Lasting Insectsidal treated Nets (LLINs) is the primary prevention strategy for reducing malaria transmission in Rwanda. Since 2006, the insecticide-treated mosquito net policy has included free distribution of treated nets to all children under age 5 every three years during vaccination campaigns or maternal and child health weeks, to pregnant women at their first visit to an antenatal care (ANC) clinic, and to children during their final visit under the Expanded Program of Immunization for measles immunization. In addition, there has been universal coverage of LLINs since 2010, with free distribution of one LLIN per two persons through household campaigns. To increase coverage, timely mass net distribution campaigns are conducted. Since 2005, Rwanda has been moving to the use of LLINs, which are heavy duty and pretreated and are longer lasting than the older insecticide-treated nets (ITNs).

This section presents the 2014-15 RDHS household-level findings on ownership and use of mosquito nets, particularly among children under age 5 and pregnant women.

12.1.1 Ownership of Mosquito Nets

All household respondents in the 2014-15 RDHS were asked whether their household owned any mosquito nets and, if so, how many and what type. Interviewers were instructed to look at the nets whenever possible.

Table 12.1 shows that 8 in 10 households (81 percent) owned at least one mosquito net, at least one ITN, or at least one LLIN (81 percent each). More than 4 in 10 households (43 percent) had at least one LLIN for every two household members. Overall, the average number of ITNs and LLINs per household was 1.6, as was the average number of any type of mosquito net. This indicates that practically all of the mosquito nets owned by households in Rwanda are LLINs.

The proportion of households owning at least one ITN varied only slightly by area of residence (82 percent in urban areas versus 80 percent in rural areas). By province, household ownership of ITNs was highest in City of Kigali (86 percent) and lowest in West (69 percent). Wealthier households are slightly more likely to own mosquito nets. Eighty-nine percent of households in the two highest wealth quintiles owned an ITN, as compared with 66 percent of households in the lowest quintile.

A comparison of the data from the 2010 and 2014-15 RDHS surveys shows no real change in ITN ownership (82 percent in 2010 and 81 percent in 2014-15). Although there have been some changes by province, ownership of mosquito nets continues to be highest in City of Kigali, East, and South, given that for the past LLIN have been prioritized high malaria burden district located in East and South province.

Table 12.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), insecticide-treated net (ITN), and long-lasting insecticidal net (LLIN); average number of nets, ITNs, and LLINs per household; and percentage of households with at least one net, ITN, and LLIN per two persons who stayed in the household last night, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of households with at least one mosquito net			Average number of nets per household			Number of households	Percentage of households with at least one net for every two persons who stayed in the household last night[1]			Number of households with at least one person who stayed in the household last night
	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)		Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	
Residence											
Urban	82.3	81.9	81.8	1.9	1.9	1.9	2,188	53.8	53.4	53.3	2,184
Rural	80.5	80.3	80.3	1.6	1.6	1.5	10,511	40.5	40.3	40.3	10,494
Province											
City of Kigali	86.4	86.0	85.9	1.9	1.9	1.9	1,496	55.4	55.0	54.8	1,495
South	85.2	85.2	85.2	1.7	1.7	1.7	3,103	45.4	45.1	45.1	3,097
West	69.0	68.8	68.6	1.3	1.3	1.3	2,789	33.0	32.8	32.8	2,787
North	79.3	78.9	78.8	1.6	1.6	1.6	2,090	43.6	43.2	43.2	2,081
East	85.1	85.1	85.1	1.6	1.6	1.6	3,221	42.4	42.4	42.4	3,219
Wealth quintile											
Lowest	65.6	65.5	65.4	1.0	1.0	1.0	2,920	30.7	30.7	30.6	2,911
Second	78.4	78.2	78.2	1.4	1.4	1.4	2,636	37.4	37.1	37.1	2,635
Middle	85.3	85.2	85.1	1.7	1.7	1.7	2,441	43.1	42.9	42.9	2,440
Fourth	89.4	89.2	89.2	1.9	1.9	1.9	2,290	45.5	45.3	45.3	2,287
Highest	89.1	88.8	88.6	2.2	2.2	2.2	2,412	60.4	60.1	59.9	2,405
Total	80.8	80.6	80.6	1.6	1.6	1.6	12,699	42.8	42.6	42.5	12,678

[1] De facto household members
[2] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

Figure 12.1 shows the percentage of the de facto population with access to an ITN in the household. Overall, 64 percent of the population could sleep under an ITN if each ITN were used by up to two people. Access to a mosquito net is higher in urban areas (71 percent) than in rural areas (62 percent). By province, those in City of Kigali are most likely to have access to an ITN. Access to an ITN increases with increasing wealth quintiles.

Figure 12.1 **Percentage of de facto population with access to an ITN in the household**

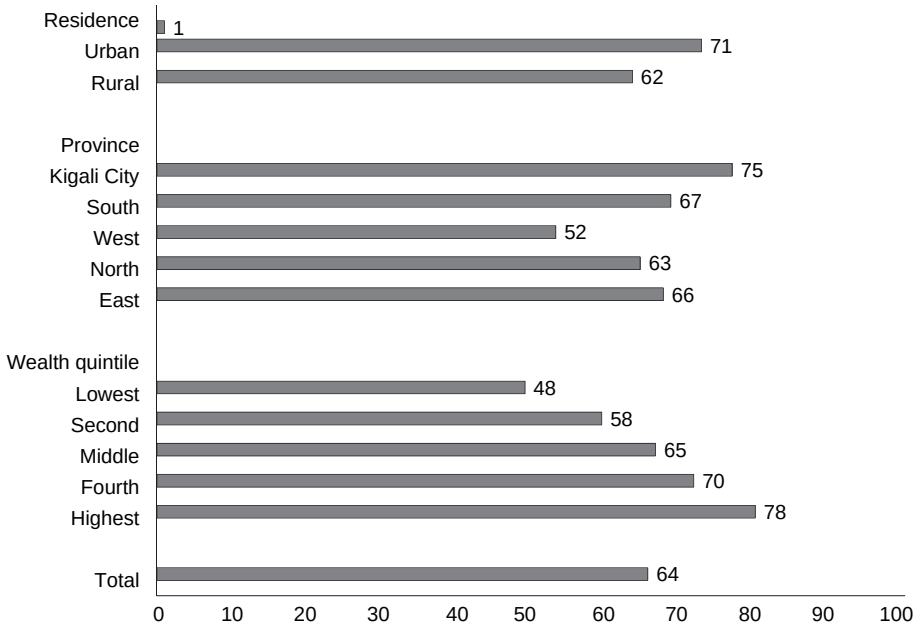


Table 12.2 presents the distribution of the de facto household population by the number of ITNs the household owns. Seventeen percent of households did not have a mosquito net. Almost one third of households had two mosquito nets (32 percent), 23 percent had one net and 20 percent had 3 mosquito nets. In total, 64 percent of the de facto population has access to an ITN.

Table 12.2 Access to an insecticide-treated net (ITN)

Percent distribution of the de facto household population by number of ITNs the household owns, according to number of persons who stayed in the household the night before the survey, Rwanda 2014-15

	Number of persons who stayed in the household the night before the survey								
Number of ITNs	1	2	3	4	5	6	7	8+	Total
0	35.8	26.1	18.4	17.3	16.7	15.9	14.2	12.8	17.0
1	49.2	41.9	39.3	27.1	19.6	15.9	17.2	10.8	23.3
2	12.7	26.9	31.2	38.5	40.3	34.4	26.6	20.7	32.1
3	1.6	4.0	9.5	13.7	17.5	24.7	29.8	33.6	19.6
4	0.6	0.8	1.2	2.7	4.8	6.3	8.3	13.7	5.5
5	0.2	0.2	0.2	0.5	1.0	1.9	2.8	5.9	1.8
6	0.0	0.0	0.1	0.2	0.1	0.8	1.0	2.2	0.6
7+	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,043	3,188	7,069	9,719	9,855	8,971	6,565	7,432	53,844
Percent with access to an ITN[1]	64.2	73.9	68.5	69.1	63.5	62.0	57.9	56.0	63.8

[1] Percentage of the de facto household population who could sleep under an ITN if each ITN in the household were used by up to two people

12.1.2 Use of Mosquito Nets by Persons in the Household

Table 12.3 shows that 62 percent of the household population slept under any net the night before the survey, while 61 percent slept under an ITN. Seventy-four percent of members of households with at least one ITN slept under an ITN the night before the survey. Children age 5-14, rural residents, and those in the lower wealth quintiles were somewhat less likely than their counterparts to sleep under a mosquito net. Also, the proportion of the population that slept under an ITN the night before the survey is relatively low in the West province (50 percent).

Table 12.3 Use of mosquito nets by persons in the household

Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), in the past 12 months, and among the de facto household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Rwanda 2014-15

	Household population				Household population in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Number	Percentage who slept under an ITN[1] last night	Number
Age (in years)						
<5	67.9	67.7	67.7	7,932	80.3	6,692
5-14	51.5	51.3	51.2	15,338	62.1	12,672
15-34	61.5	61.4	61.3	18,093	74.1	14,979
35-49	72.4	72.1	72.0	6,683	85.9	5,607
50+	67.8	67.5	67.5	5,795	82.5	4,745
Sex						
Male	59.5	59.3	59.3	25,415	72.0	20,951
Female	63.5	63.3	63.2	28,427	75.8	23,744
Residence						
Urban	69.5	69.2	69.1	9,064	80.7	7,773
Rural	60.0	59.8	59.8	44,780	72.6	36,923
Province						
City of Kigali	75.0	74.6	74.5	6,038	82.1	5,489
South	66.3	66.2	66.2	13,075	76.3	11,343
West	50.2	50.1	50.0	12,316	70.5	8,755
North	56.0	55.8	55.7	8,724	68.4	7,114
East	64.9	64.8	64.8	13,690	74.0	11,995
Wealth quintile						
Lowest	47.3	47.2	47.2	10,737	70.0	7,250
Second	55.8	55.7	55.7	10,758	70.7	8,472
Middle	62.7	62.5	62.5	10,743	72.6	9,248
Fourth	68.1	68.0	68.0	10,757	74.9	9,765
Highest	73.9	73.6	73.5	10,849	80.1	9,960
Total	61.6	61.4	61.4	53,844	74.0	44,696

Note: Total includes cases where information on age (4 cases) and on sex (1 case) of the household member is missing.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

Table 12.4 presents data on the use of existing ITNs. The results show that 77 percent of the ITNs owned by households were used the night before the survey. This proportion was higher in urban areas (81 percent) than in rural areas (76 percent). By province, City of Kigali has the highest level of ITN use (82 percent), while North has the lowest (71 percent). ITN use increases slightly with increasing wealth.

Table 12.4 Use of existing ITNs

Percentage of insecticide-treated nets (ITNs) that were used by anyone the night before the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of existing ITNs[1] used last night	Number of ITNs[1]
Residence		
Urban	81.4	4,097
Rural	76.4	16,292
Province		
City of Kigali	82.3	2,852
South	78.7	5,209
West	75.6	3,746
North	70.9	3,355
East	78.9	5,227
Wealth quintile		
Lowest	74.7	2,979
Second	75.2	3,576
Middle	76.9	4,055
Fourth	78.6	4,400
Highest	79.7	5,380
Total	77.4	20,389

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

12.1.3 Use of Mosquito Nets by Children under Age 5

Children under age 5 are most vulnerable to severe complications of malarial infection due to their low immunity.

Table 12.5 shows the use of mosquito nets by children under age 5. Sixty-eight percent of children under age 5 slept under a mosquito net the night before the survey. However, in households with at least one ITN, 80 percent of children slept under an ITN the night before the survey. The percentage of children

who slept under any net, an ITN, or an LLIN decreases with age, from 72 percent among those less than age 1 to 60 percent among those age 4.

Table 12.5 Use of mosquito nets by children

Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), and under a long-lasting insecticidal net (LLIN), and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Rwanda 2014-15

	Children under age 5 in all households				Children under age 5 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children
Age (in years)						
<1	72.2	72.0	72.0	1,647	84.7	1,401
1	71.6	71.5	71.5	1,602	83.8	1,367
2	69.1	69.0	69.0	1,596	82.7	1,331
3	65.5	65.4	65.4	1,668	77.3	1,411
4	59.9	59.8	59.8	1,418	71.8	1,181
Sex						
Male	67.7	67.5	67.5	3,977	80.1	3,351
Female	68.0	67.9	67.9	3,954	80.4	3,339
Residence						
Urban	77.9	77.9	77.9	1,283	87.3	1,145
Rural	65.9	65.8	65.8	6,648	78.8	5,547
Province						
City of Kigali	81.4	81.4	81.4	906	86.7	851
South	72.0	71.8	71.8	1,821	82.2	1,590
West	57.2	57.2	57.1	1,903	77.6	1,403
North	62.2	61.8	61.8	1,123	74.9	926
East	71.0	71.0	71.0	2,177	80.4	1,921
Wealth quintile						
Lowest	53.5	53.4	53.4	1,907	75.9	1,341
Second	62.6	62.5	62.5	1,733	77.2	1,403
Middle	70.6	70.5	70.5	1,578	80.0	1,392
Fourth	76.4	76.2	76.2	1,389	81.8	1,294
Highest	83.1	83.0	83.0	1,325	87.2	1,262
Total	67.9	67.7	67.7	7,932	80.3	6,692

Note: Table is based on children who stayed in the household the night before the interview. Total includes 1 case where information on sex is missing.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

There is no variation by sex in use of mosquito nets among children. Children in urban areas are more likely to use ITNs (78 percent) than those in rural areas (66 percent). Additionally, mosquito net use among children increases strongly with increasing wealth from 53 percent in the lowest quintile to 83 percent in the highest wealth quintile.

Mosquito net usage among children under age 5 was slightly higher in the 2010 RDHS (70 percent) than in the 2014-15 RDHS (68 percent).

12.1.4 Use of Mosquito Nets by Pregnant Women

To prevent complications from malaria during pregnancy, such as anemia, low birth weight, and transplacental parasitemia, all pregnant women are encouraged to sleep under ITNs.

Table 12.6 shows that 73 percent of pregnant women age 15 to 49 slept under any net the night before the survey; there is no change as compared with 2010 RDHS. Since practically all of the mosquito nets in Rwanda are LLINs, the percentages of pregnant women who slept under ITNs and LLINs were similar to the percentage who slept under any net. Use of any net was higher among pregnant women in urban (78 percent) than rural (72 percent) areas. Among pregnant women in households with at least one ITN, 88 percent slept

under an ITN the night preceding the survey; in these households, more urban (92 percent) than rural (87 percent) women slept under an ITN.

Pregnant women with no education were less likely to have slept under a mosquito net the night before the survey (62 percent) than those with a primary education (72 percent) or a secondary education or higher (85 percent). Women in the highest three wealth quintiles were more likely to have slept under an ITN (81 to 87 percent) than those in the lowest two quintiles (52 to 62 percent).

Table 12.6 Use of mosquito nets by pregnant women

Percentages of pregnant women age 15-49 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN and among pregnant women age 15-49 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Rwanda 2014-15

	Among pregnant women age 15-49 in all households				Among pregnant women age 15-49 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Number of women	Percentage who slept under an ITN[1] last night	Number of women
Residence						
Urban	78.3	77.5	77.5	172	91.7	145
Rural	71.9	71.9	71.9	806	86.8	667
Province						
City of Kigali	84.1	82.9	82.9	123	91.8	112
South	74.4	74.4	74.4	222	86.6	190
West	67.2	67.2	67.2	219	86.8	169
North	64.6	64.6	64.6	138	83.2	107
East	75.8	75.8	75.8	276	89.5	234
Education						
No education	62.4	62.4	62.4	109	85.7	79
Primary	71.7	71.7	71.7	687	86.9	567
Secondary and higher	84.6	83.8	83.8	181	91.4	166
Wealth quintile						
Lowest	52.2	52.2	52.2	197	77.5	133
Second	62.0	62.0	62.0	202	81.2	154
Middle	80.6	80.6	80.6	206	92.0	181
Fourth	87.0	87.0	87.0	185	92.6	174
Highest	84.7	83.9	83.9	188	92.0	171
Total	73.0	72.9	72.9	977	87.7	812

Note: Table is based on women who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

12.2 PREVALENCE AND PROMPT TREATMENT OF FEVER

Malaria case management, including detection, diagnosis, and rapid treatment of all malaria cases with appropriate and effective antimalarial drugs, is one of the key strategic areas for malaria control in Rwanda. Since 2006, ACT (commonly known as Coartem) has been widely available in public health and faith-based facilities, as well as in the community (Primo) via community health workers and private pharmacies. In December 2009, the National Malaria Control Program (currently Malaria and OPD Division-RBC) revised its malaria treatment guidelines, requiring that laboratory diagnostic results be confirmed via either microscopy or rapid diagnostic test before any treatment is initiated. In 2010, Rwanda achieved one of the highest parasitological diagnosis rates in Africa, with an estimated 94 percent of suspected malaria cases being parasitologically diagnosed (Malaria Program Review, 2011) and have reached 99 percent in 2014 (Rwanda HMIS, 2014).

Table 12.7 shows that 19 percent of children under age 5 had a fever during the two weeks preceding the survey; the proportion was higher among children age 12-23 months (24 percent) than among other children.

Children in the North province were slightly less likely to have experienced fever (14 percent) than those in the other provinces (16 percent or higher).

Table 12.7 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with a fever in the two weeks preceding the survey, and among children under age 5 with a fever, the percentage for whom advice or treatment was sought, the percentage who had blood taken from a finger or heel, the percentage who took any artemisinin-based combination therapy (ACT), the percentage who took ACT the same or next day following the onset of fever, the percentage who took antimalarial drugs, and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, Rwanda 2014-15

	Among children under age 5:		Among children under age 5 with fever:						
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage who had blood taken from a finger or heel for testing	Percentage who took any ACT	Percentage who took any ACT same or next day	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)									
<12	17.4	1,641	57.6	32.5	4.6	3.6	4.6	3.6	286
12-23	24.0	1,581	55.8	36.6	8.3	5.0	8.3	5.0	380
24-35	20.2	1,555	59.7	35.9	11.6	7.6	11.9	7.6	313
36-47	17.3	1,602	55.4	37.9	17.9	12.5	17.9	12.7	277
48-59	14.1	1,314	54.3	37.9	16.7	10.4	17.3	10.4	186
Sex									
Male	18.1	3,857	58.8	36.9	10.6	6.6	10.9	6.8	698
Female	19.4	3,837	54.7	35.2	11.7	8.1	11.7	8.1	744
Residence									
Urban	16.8	1,303	66.3	43.2	6.2	5.4	6.2	5.4	218
Rural	19.1	6,391	55.0	34.8	12.1	7.8	12.3	7.8	1,223
Province									
City of Kigali	16.4	921	70.3	48.7	6.6	5.6	6.6	5.6	151
South	21.2	1,756	49.3	34.7	12.0	6.9	12.6	7.1	372
West	17.0	1,842	47.8	28.6	6.0	3.3	6.0	3.3	314
North	14.2	1,071	57.8	22.5	0.9	0.9	0.9	0.9	152
East	21.5	2,103	64.1	42.7	19.2	13.4	19.2	13.4	453
Mother's education									
No education	16.9	1,125	48.8	34.6	11.6	6.1	11.6	6.1	190
Primary	19.6	5,583	55.9	35.2	11.7	8.0	11.9	8.1	1,095
Secondary and higher	16.0	985	72.1	43.7	7.4	5.0	7.4	5.0	157
Wealth quintile									
Lowest	20.0	1,834	45.6	27.8	11.0	5.2	11.0	5.2	366
Second	19.1	1,670	54.4	34.3	13.2	8.9	13.2	9.2	318
Middle	20.1	1,524	58.1	38.1	14.4	10.6	15.1	10.6	306
Fourth	17.8	1,331	63.1	38.9	9.2	7.6	9.2	7.6	237
Highest	16.0	1,335	70.2	46.7	6.1	4.1	6.1	4.1	214
Total	18.7	7,694	56.7	36.1	11.2	7.4	11.4	7.5	1,442

[1] Excludes market and traditional practitioner

Among children under age 5 with a fever, 57 percent were taken for advice or treatment. Treatment seeking was more common for urban children, especially those in the City of Kigali. The proportion of children with a fever for whom advice or treatment is sought increases with increasing mother's education and wealth.

Thirty-six percent of children with a fever had blood taken from a finger or heel for testing. The percentage of children who had blood taken from a finger or heel for testing was highest among those in urban areas (43 percent) and the City of Kigali, and those in the highest wealth quintile (49 percent each) , and those whose mothers had a secondary education or higher (44 percent).

Eleven percent of children under age 5 with a fever took antimalarial drugs, while 8 percent of children with fever took antimalarial drugs the same day or the day after the fever started. Among children who took antimalarial drugs, almost all of them took ACT. Children under age 12 months were less likely than older children to take antimalarial drugs or to take them the same day or the day after the fever started. There are large differences in fever treatment by province; children in North are far less likely to take antimalarial drugs than children in East (1 percent and 19 percent, respectively).

Table 12.8 shows the source of advice or treatment for children with fever. Children with a fever are most likely to be taken to public health facility sources for advice or treatment (46 percent), followed by private health facility (10 percent) and other (4 percent) sources. Health centers serve almost one-third of children with a fever (31 percent), while community health workers receive 13 percent of cases. In the private sector, 7 percent of children with a fever are treated in a pharmacy (presumably to buy medicine). Looking only at children who received treatment for their fever, the distribution is similar, with a majority receiving help from a health center.

Table 12.8 Source of advice or treatment for children with fever

Percentage of children under age 5 with a fever in the two weeks preceding the survey for whom advice or treatment was sought from specific sources, and among children under age 5 with a fever in the two weeks preceding the survey for whom advice or treatment was sought, the percentage for whom advice or treatment was sought from specific sources, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage for whom advice or treatment was sought from each source: Among children with fever	Among children with fever for whom advice or treatment was sought
Any public sector source	46.0	79.3
Referral hospital	0.0	0.1
Provincial/district hospital	1.4	2.4
Health center	30.7	52.8
Health post	3.3	5.8
Community health worker	12.6	21.7
Any private sector source	10.0	17.3
Clinic	0.8	1.4
Pharmacy	6.8	11.8
Polyclinic	0.4	0.7
Dispensary	2.0	3.5
Any other source	3.5	6.1
Kiosk/shop	0.2	0.4
Traditional practitioner	1.6	2.8
Church	0.1	0.1
Friend/relative	1.3	2.2
Other	0.4	0.7
Number of children	1,442	837

In line with the malaria treatment policy of the National Malaria Control Program, antimalarial medicines are given to children only after the presence of malaria parasites is confirmed by microscopy or a rapid diagnostic test. As shown in Table 12.9, Coartem is the most common antimalarial drug taken by children under age 5 with a fever (50 percent). It is closely followed by Primo, taken by 48 percent of children who were given an antimalarial drug. Quinine was taken by only 1 percent of children given an antimalarial drug. Thus, 99 percent of children who received antimalarial drugs for fever were given ACT.

Table 12.9 Type of antimalarial drugs taken by children who took antimalarial drugs

Among children under age 5 with a fever in the two weeks preceding the survey who took any antimalarial medication, the percentage who took specific antimalarial drugs, Rwanda 2014-15

Antimalarial drug	Percent
Quinine	1.2
Coartem[1]	50.4
Primo[1]	48.3
Other	1.8
Number of children who took any antimalarial drug	164

[1] Artemisinin combination therapy (ACT)

12.3 Prevalence of Anemia and Malaria in Children and Women

One of the objectives of the 2014-15 RDHS was to assess anemia prevalence in children age 6-59 months and women age 15-49. Table 11.7 in Chapter 11 presents the percentage of children with anemia according to the cutoffs of 11.0 g/dl for any anemia and 7.0 g/dl for severe anemia. In addition to poor dietary intake of iron, malaria infection can result in anemia. According to the national guidelines for the management of malaria in Rwanda, a hemoglobin concentration of less than 8.0 g/dl is considered an indication that an individual may have malaria.

Table 12.10 shows that only 2 percent of children age 6-59 months have a hemoglobin level lower than 8.0 g/dl. Children under age 18 months have higher levels of anemia, ranging from 4 percent among those age 9-17 months to 8 percent among those age 6-8 months. The proportion of children with a hemoglobin level below 8 g/dl decreases with increasing wealth.

Table 12.10 Hemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with hemoglobin lower than 8.0 g/dl, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage with Hemoglobin <8.0 g/dl	Number of children
Age (in months)		
6-8	7.7	204
9-11	3.8	212
12-17	4.0	415
18-23	1.6	371
24-35	1.7	809
36-47	1.8	840
48-59	1.1	673
Sex		
Male	2.9	1,779
Female	1.7	1,745
Mother's interview status		
Interviewed	2.3	3,242
Not interviewed but in household	(4.1)	29
Not interviewed and not in the household[1]	2.0	253
Residence		
Urban	0.6	552
Rural	2.7	2,972
Province		
City of Kigali	0.7	381
South	4.0	842
West	2.0	829
North	0.8	502
East	2.6	970
Mother's education[2]		
No education	3.4	495
Primary	2.1	2,379
Secondary and higher	2.9	330
Wealth quintile		
Lowest	4.4	885
Second	2.4	783
Middle	1.7	696
Fourth	1.1	596
Highest	1.1	565
Total	2.3	3,524

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anemia is based on hemoglobin levels and is adjusted for altitude using CDC formulas (CDC, 1998). Hemoglobin is measured in grams per deciliter (g/dl). Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

As part of the survey, a malaria microscopy test was performed among children age 6-59 months whose parent or guardian provided consent, with the aim of estimating the prevalence of malaria in this age group. A rapid diagnostic test (First Response Malaria Ag pLDH/HRP2) was also conducted among the same children. For the Rapid Diagnostic Test (RDT), a drop of blood was obtained by a prick at the end of the finger (except for infants, for whom the sample was taken from under the heel). The test was done according to manufacturer recommendations. Because the Ministry of Health has instituted a policy expanding the use of malaria rapid diagnostic tests in conjunction with the use of ACT (a fixed-dose combination antimalarial treatment) for

primary treatment of uncomplicated malaria, the results from the RDTs were used to diagnose malaria and guide treatment of parasitemic children during the survey. Parents or guardians of children with a positive RDT were told the results and asked about current treatment; they were also asked to provide their consent for malaria treatment. If consent was provided, the children were immediately given artemisinin-based combination antimalarial treatment (Coartem or Primo) according to the malaria treatment guidelines.

Table 12.11 shows that 99 percent of children eligible for malaria testing were tested using a thick blood smear that was examined in the parasitology and entomology laboratory (microscopy). Only children age 6-8 months had relatively low coverage rates, presumably because parents are reluctant to allow a blood sample to be taken from such young children.

Table 12.11 Coverage of malaria testing among children

Percentage of children age 6-59 months eligible for microscopic tests, according to background characteristics (unweighted), Rwanda 2014-15

Background characteristic	Blood smear tested	Number of children
Age (in months)		
6-8	92.9	212
9-11	100.0	215
12-17	99.8	409
18-23	99.7	370
24-35	99.9	806
36-47	99.3	842
48-59	100.0	675
Sex		
Male	99.5	1,795
Female	99.1	1,734
Mother's interview status		
Interviewed	99.7	3,102
Not interviewed but in household	96.5	426
Not interviewed and not in the household[1]	100.0	1
Residence		
Urban	98.8	737
Rural	99.5	2,792
Province		
City of Kigali	98.7	397
South	99.2	906
West	99.5	858
North	98.8	500
East	99.8	868
Mother's education[2]		
No education	100.0	481
Primary	99.4	2,360
Secondary and higher	98.1	431
Missing	99.6	256
Wealth quintile		
Lowest	99.3	879
Second	99.9	742
Middle	99.3	668
Fourth	99.5	587
Highest	98.6	653
Total	99.3	3,529

Note: Table is based on children who stayed in the household the night before the interview.
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 12.12 shows the results of the microscopic diagnostic test (blood smear) among children who were tested. Nationally, 2 percent of children age 6-59 months are infected with at least one form of malarial parasites. Children age 48-59 months are most likely to have malaria (3 percent), while those age 9-11 months are least likely. The proportion of children with malaria is higher in rural areas than in urban areas (3 percent versus less than 1 percent). In addition, children in South and East (4 percent each) are more likely to have malaria than those in other provinces. No children who live in the sampled households in City of Kigali or North

were tested positive for malaria. Children of mothers with no education are more likely to be infected than children of mothers with at least primary education. The proportion of children who test positive for malaria decreases with increasing wealth.

Table 12.12 Prevalence of malaria in children

Percentage of children age 6-59 months classified as having malaria by microscopic tests, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage positive	Number
Age (in months)		
6-8	1.0	205
9-11	0.4	214
12-17	1.7	416
18-23	0.9	371
24-35	2.9	812
36-47	2.3	840
48-59	3.4	676
Sex		
Male	2.5	1,786
Female	1.9	1,748
Mother's interview status		
Interviewed	2.4	3,115
Not interviewed but in household	0.7	418
Residence		
Urban	0.3	554
Rural	2.6	2,980
Province		
City of Kigali	0.0	382
South	4.4	844
West	0.5	830
North	0.0	506
East	3.9	972
Mother's education[1]		
No education	3.0	499
Primary	2.2	2,385
Secondary and higher	1.0	395
Wealth quintile		
Lowest	4.7	890
Second	2.4	785
Middle	1.5	693
Fourth	1.1	596
Highest	0.2	570
Total	2.2	3,534

Note: Total includes 1 case in which information on mother's interview status was missing.
[1] For women who are not interviewed, information is taken from the Household Questionnaire. Excluding children whose mothers are not listed in the Household Questionnaire.

Women age 15-49 were also offered malaria testing as part of the 2014-15 RDHS. Among all women who were eligible for testing, 99 percent of them were tested (Table 12.13). Also, RDTs were done to provide women with immediate results and, among those with a positive test were provided treatment, severe cases of malaria were referred to the health facility for treatment.

The distribution by background characteristics shows no differences among women in testing coverage.

Table 12.13 Coverage of malaria testing among women

Percentage of women age 15-49 eligible for microscopic tests, according to background characteristics (unweighted), Rwanda 2014-15

Background characteristic	Blood smear tested	Number of women
Age		
15-19	98.9	1,410
20-24	98.9	1,249
25-29	99.3	1,181
30-34	99.1	1,041
35-39	99.2	797
40-44	98.9	613
45-49	99.8	475
Currently pregnant		
Pregnant	100.0	481
Not pregnant or not sure	99.5	6,255
Residence		
Urban	98.6	1,752
Rural	99.3	5,014
Province		
City of Kigali	98.1	960
South	99.3	1,722
West	99.2	1,499
North	99.4	1,084
East	99.2	1,501
Education		
No education	97.4	793
Primary	99.5	4,279
Secondary and higher	99.0	1,694
Wealth quintile		
Lowest	99.2	1,299
Second	99.4	1,255
Middle	99.3	1,209
Fourth	99.6	1,203
Highest	98.4	1,800
Total	99.1	6,766

Note: Total includes 30 women with missing information on current pregnancy.

Women are less likely to be infected with malaria than children. In the country as a whole, less than one percent of women have malaria (Table 12.14). There are no meaningful differences in malaria prevalence by women's background characteristics.

Table 12.14 Prevalence of malaria in women

Percentage of women age 15-49 classified as having malaria by microscopic tests, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage positive	Number
Age		
15-19	0.5	1,382
20-24	1.3	1,220
25-29	0.5	1,146
30-34	0.0	1,018
35-39	0.3	790
40-44	0.7	612
45-49	0.4	479
Currently pregnant		
Pregnant	0.7	488
Not pregnant or not sure	0.5	6,158
Residence		
Urban	0.1	1,314
Rural	0.7	5,331
Province		
City of Kigali	0.1	891
South	0.9	1,595
West	0.4	1,438
North	0.1	1,088
East	0.9	1,634
Education		
No education	1.0	795
Primary	0.5	4,293
Secondary and higher	0.4	1,558
Wealth quintile		
Lowest	1.0	1,302
Second	0.4	1,308
Middle	0.7	1,246
Fourth	0.4	1,247
Highest	0.2	1,542
Total	0.6	6,646

Since the 2010 RDHS, the prevalence of malaria among children age 6-59 months has increased slightly, from 1 percent to 2 percent, while the prevalence among women has remained the same at about 1 percent.

HIV- AND AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR 13

Key Findings

- Virtually all Rwandan adults have heard of HIV/AIDS,
- Sixty-seven percent of women and 69 percent of men have comprehensive knowledge of HIV/AIDS prevention and transmission
- Nine in 10 adult respondents (90 percent of women and 92 percent of men) agreed that young people age 12-14 should be taught about using condoms to avoid getting AIDS.
- Among those who had more than one sexual partner in the past 12 months, 48 percent of women and 31 percent of men reported using a condom during their last sexual intercourse.
- HIV testing has risen since 2010. The proportion of women who have ever been tested and received their results has increased from 76 percent in 2010 to 84 percent in 2014-15, and the proportion among men has increased from 69 percent to 78 percent during the same period.
- Seventy-five percent of never-married young women age 15-24 and 67 percent of their male counterparts reported that they had never had sex.
- Overall, 10 percent of young women age 15-19 who had sexual intercourse in the 12 months before the survey had sex with someone 10 or more years older than they were.
- Half of women (50 percent) and two-thirds of men (63 percent) express accepting attitudes in four situations related to stigmatization toward people with HIV.

HIV infection is a major public health concern in Rwanda, where it is among cause of mortality with negative social and economic consequences that affect people and the country. Since the initiation of the 2005-2009 National Multi-sector Strategic Plan (NMSP), Rwanda has made significant progress toward the goal of creating universal access to HIV and AIDS services. To continue this progress, Rwanda developed and implemented the 2009-2012 followed by 2013-2018 National Strategic Plan (NSP) against HIV and AIDS. The NSP sets out the overarching goals for the country's response to HIV and AIDS and affirms Rwanda's commitment to a multi-sector response. It is based on the most up-to-date understanding of the epidemic and the strengths and weaknesses of the systems and mechanisms that are used to respond.

To assess the impact of Rwanda's anti-AIDS program, the 2014-15 RDHS devoted considerable effort to gather data on HIV/AIDS and other sexually transmitted infections (STIs). The aim of this chapter is to present data concerning HIV-related knowledge, attitudes, and behaviors at the national and provincial levels and among certain subgroups of the population. The chapter also provides information on male circumcision in Rwanda. Survey data were collected on beliefs regarding how HIV infection is prevented and transmitted, on stigmatization of those who have the disease, and on risk factors, particularly those relating to sexual behavior. The information gathered is essential for adjusting current programs and setting up new AIDS information, education, and communication campaigns.

In addition, the 2014-15 RDHS included an HIV testing component to determine the prevalence of HIV infection and factors associated with infection (see Chapter 14).

13.1 KNOWLEDGE OF HIV AND AIDS AND OF TRANSMISSION AND PREVENTION METHODS

13.1.1 Awareness of AIDS

Table 13.1 shows that almost all women and men age 15-49 have heard of AIDS. Because of the universal awareness of AIDS, variations by background characteristics, such as marital status, residence, province, education, and wealth, are negligible.

Table 13.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Rwanda 2014-15

	Women		Men	
Background characteristic	Has heard of AIDS	Number of respondents	Has heard of AIDS	Number of respondents
Age				
15-24	99.9	5,225	99.9	2,276
15-19	99.8	2,768	99.8	1,282
20-24	99.9	2,457	100.0	994
25-29	99.9	2,300	100.0	946
30-39	99.9	3,726	99.9	1,497
40-49	100.0	2,246	100.0	858
Marital status				
Never married	99.8	5,100	99.9	2,691
Ever had sex	99.9	1,562	100.0	1,110
Never had sex	99.8	3,539	99.9	1,581
Married/living together	100.0	6,982	100.0	2,792
Divorced/separated/widowed	99.9	1,415	100.0	94
Residence				
Urban	100.0	2,626	100.0	1,169
Rural	99.9	10,871	99.9	4,408
Province				
City of Kigali	100.0	1,799	100.0	804
South	99.9	3,214	99.9	1,327
West	99.8	2,965	99.9	1,182
North	99.9	2,211	99.9	851
East	100.0	3,308	100.0	1,413
Education				
No education	99.8	1,665	100.0	496
Primary	99.9	8,678	99.9	3,636
Secondary and higher	100.0	3,154	100.0	1,445
Wealth quintile				
Lowest	99.9	2,561	99.9	819
Second	99.9	2,631	99.9	991
Middle	99.9	2,597	99.9	1,097
Fourth	99.9	2,634	100.0	1,234
Highest	100.0	3,073	100.0	1,436
Total 15-49	99.9	13,497	99.9	5,577
50-59	na	na	100.0	640
Total 15-59	na	na	100.0	6,217

na = Not applicable

13.1.2 HIV Prevention Methods

The 2014-15 RDHS asked respondents specific questions about HIV and AIDS prevention methods, including limiting sexual intercourse to one uninfected, faithful sexual partner and using condoms.

Table 13.2 presents knowledge of these HIV and AIDS prevention methods among women and men age 15-49, by background characteristics. Eighty-nine percent of women and 92 percent of men are aware that the risk of contracting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners. 91 percent of women and 95 percent of men know that using condoms also can prevent transmission of

the AIDS virus. Eighty-three percent of women and 88 percent of men have knowledge of both HIV prevention methods.

Table 13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, by background characteristics, Rwanda 2014-15

	Women				Men			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
15-24	90.9	87.7	81.6	5,225	94.7	89.4	85.7	2,276
15-19	89.3	86.5	79.6	2,768	93.5	87.4	82.8	1,282
20-24	92.7	89.1	83.9	2,457	96.1	92.1	89.4	994
25-29	90.9	90.1	83.4	2,300	95.0	92.6	88.8	946
30-39	92.0	90.4	84.4	3,726	95.7	93.6	90.0	1,497
40-49	91.9	88.8	82.9	2,246	96.5	93.7	90.8	858
Marital status								
Never married	90.9	86.9	81.0	5,100	94.6	89.2	85.4	2,691
Ever had sex	92.1	89.5	83.4	1,562	96.4	92.3	89.2	1,110
Never had sex	90.3	85.8	80.0	3,539	93.3	87.0	82.8	1,581
Married/living together	91.6	90.7	84.2	6,982	96.0	94.2	90.8	2,792
Divorced/separated/widowed	92.0	88.6	83.3	1,415	92.6	94.9	89.2	94
Residence								
Urban	94.7	89.7	85.8	2,626	96.7	93.3	90.7	1,169
Rural	90.6	88.9	82.2	10,871	94.9	91.3	87.5	4,408
Province								
City of Kigali	95.3	93.8	89.9	1,799	98.3	95.0	93.6	804
South	91.7	92.5	86.5	3,214	96.2	92.0	89.2	1,327
West	85.8	80.8	71.9	2,965	93.4	91.6	87.1	1,182
North	94.9	89.3	85.7	2,211	89.6	88.1	79.0	851
East	91.6	90.3	83.7	3,308	97.6	92.0	90.4	1,413
Education								
No education	89.7	88.2	81.1	1,665	94.4	91.3	86.1	496
Primary	90.7	89.5	82.7	8,678	94.8	92.1	88.2	3,636
Secondary and higher	94.2	88.2	84.4	3,154	96.8	91.0	88.6	1,445
Wealth quintile								
Lowest	87.9	88.3	80.0	2,561	93.9	91.6	86.9	819
Second	90.7	88.1	81.4	2,631	94.5	91.5	87.5	991
Middle	91.5	90.2	84.1	2,597	95.7	92.2	88.8	1,097
Fourth	91.9	88.9	83.1	2,634	95.1	90.1	86.8	1,234
Highest	94.3	89.7	85.5	3,073	96.4	93.1	89.9	1,436
Total 15-49	91.4	89.0	82.9	13,497	95.3	91.8	88.1	5,577
50-59	na	na	na	na	93.8	92.2	86.7	640
Total 15-59	na	na	na	na	95.1	91.8	88.0	6,217

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Knowledge of both prevention methods is slightly lower among women and men age 15-19 than among older women and men. Women and men who have never been married, particularly those who have never had sex, are slightly less likely to know of these two HIV prevention methods than those who have ever been married or who have ever had sex.

Knowledge of HIV prevention methods is slightly higher among women and men in urban areas than among those in rural areas. There is considerable variability across provinces in knowledge of prevention methods. Among women, knowledge of the two HIV prevention methods is highest in City of Kigali (90

percent) and lowest in the West province (72 percent). Among men, knowledge is highest in the City of Kigali (94 percent) and lowest in North (79 percent).

Level of educational attainment is positively related to a respondent's knowledge of HIV prevention methods. Women and men with higher levels of education are more likely to be aware of these two preventive methods than those with no education. Eighty-four percent of women with secondary or higher versus 81 with no education and 89 percent of men with secondary or higher education versus 86 percent are aware of HIV prevention method. The data also show that women and men in the higher wealth quintiles are more likely to be aware of ways to prevent the transmission of HIV than those in the lower quintiles (85 percent in the highest quintile versus 80 percent in lowest quintile among women, and 90 percent in the highest quintile versus to 87 percent in the lowest quintile among men).

13.1.3 Knowledge about Transmission

The 2014-15 RDHS included questions on common misconceptions about transmission of AIDS and HIV. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can contract the AIDS virus from mosquito bites, by supernatural means, or by sharing food with a person who has AIDS.

The results in Tables 13.3.1 and 13.3.2 indicate that some Rwandan adults lack accurate knowledge about the ways in which HIV can and cannot be transmitted. Nevertheless, more than 90 percent of respondents know that a healthy-looking person can have the AIDS virus (91 percent of women and 92 percent of men) and are aware that the virus cannot be transmitted by supernatural means (96 percent of women and 95 percent of men) or by sharing food with a person who has AIDS (94 percent of women and 93 percent of men). Eighty-nine percent of women and 86 percent of men know that the AIDS virus cannot be transmitted by mosquito bites. Overall, 78 percent of women and 77 percent of men are able to reject the two most common misconceptions about AIDS—that the AIDS virus can be transmitted by mosquito bites and that a person can become infected with the virus by sharing food with someone who has AIDS—and also know that a healthy-looking person can have the AIDS virus.

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Rwanda 2014-15

	Percentage of respondents who say that:						
Background characteristic	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local mis-conceptions[1]	Percentage with compre-hensive knowledge about AIDS[2]	Number of women
Age							
15-24	86.6	90.2	95.4	93.6	75.8	64.6	5,225
15-19	83.1	90.7	94.7	92.7	73.1	61.6	2,768
20-24	90.5	89.6	96.3	94.6	78.9	68.1	2,457
25-29	93.4	88.9	96.4	95.1	80.6	68.5	2,300
30-39	93.4	87.8	95.5	94.4	80.4	68.9	3,726
40-49	93.5	86.9	95.4	93.8	78.8	67.5	2,246
Marital status							
Never married	86.3	90.4	95.8	93.7	75.8	64.1	5,100
Ever had sex	88.5	89.5	96.0	94.3	77.6	66.9	1,562
Never had sex	85.3	90.8	95.7	93.4	75.0	62.8	3,539
Married/living together	93.7	88.1	95.7	94.6	80.4	69.2	6,982
Divorced/separated/widowed	92.6	86.1	94.6	93.0	77.8	66.2	1,415
Residence							
Urban	94.3	93.7	97.6	96.7	86.7	75.7	2,626
Rural	89.9	87.5	95.1	93.5	76.4	64.8	10,871
Province							
City of Kigali	95.2	95.1	97.8	97.2	89.1	81.8	1,799
South	92.7	89.9	96.4	94.4	81.0	71.8	3,214
West	85.6	84.1	93.0	91.3	68.8	50.9	2,965
North	92.9	88.6	96.2	94.5	80.1	69.4	2,211
East	89.7	88.4	95.6	94.3	77.5	66.9	3,308
Education							
No education	91.2	82.0	92.1	89.7	72.1	60.5	1,665
Primary	90.6	88.0	95.2	93.6	77.3	66.0	8,678
Secondary and higher	91.1	94.3	98.6	97.8	84.8	73.0	3,154
Wealth quintile							
Lowest	88.1	85.3	93.0	91.0	71.9	59.4	2,561
Second	90.0	86.4	95.0	92.9	75.2	63.1	2,631
Middle	90.5	88.3	95.7	94.7	78.1	67.8	2,597
Fourth	90.7	89.6	96.5	95.2	79.4	67.7	2,634
Highest	93.9	93.3	97.4	96.3	85.9	75.1	3,073
Total 15-49	90.8	88.7	95.6	94.1	78.4	66.9	13,497

[1] Two most common local misconceptions: the AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has the AIDS virus.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of respondents who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with comprehensive knowledge about AIDS[2]	Number of men
Age							
15-24	86.2	87.1	94.1	92.0	72.7	64.3	2,276
15-19	82.6	86.6	93.1	91.1	69.5	59.5	1,282
20-24	90.9	87.8	95.5	93.3	76.8	70.6	994
25-29	93.9	85.4	96.4	94.9	78.1	71.2	946
30-39	95.4	84.3	96.3	94.2	78.5	70.8	1,497
40-49	96.2	87.2	96.2	94.2	82.1	74.8	858
Marital status							
Never married	87.4	87.8	94.6	92.9	74.5	65.7	2,691
Ever had sex	90.9	86.1	94.9	93.4	74.8	67.7	1,110
Never had sex	85.0	88.9	94.4	92.6	74.2	64.2	1,581
Married/living together	95.5	84.8	96.2	94.0	79.0	72.2	2,792
Divorced/separated/widowed	91.1	76.8	95.5	91.6	67.8	61.6	94
Residence							
Urban	94.8	91.0	96.9	95.9	84.6	77.3	1,169
Rural	90.7	84.8	95.0	92.8	74.5	66.6	4,408
Province							
City of Kigali	97.8	94.6	97.2	97.0	90.9	85.1	804
South	93.4	89.3	96.5	95.5	81.1	73.2	1,327
West	86.8	80.7	93.3	90.2	66.2	59.6	1,182
North	85.2	82.2	93.8	92.4	68.6	56.1	851
East	93.9	85.0	96.1	92.8	77.9	70.8	1,413
Education							
No education	92.4	73.9	91.1	89.4	65.6	56.7	496
Primary	91.3	84.3	94.9	92.3	74.6	67.3	3,636
Secondary and higher	91.9	94.7	98.2	97.6	85.5	76.9	1,445
Wealth quintile							
Lowest	90.2	78.1	92.3	87.9	67.5	60.2	819
Second	88.9	83.5	95.6	93.4	72.1	65.0	991
Middle	90.5	83.9	95.0	93.1	73.7	67.3	1,097
Fourth	92.1	88.8	95.9	94.3	79.5	69.3	1,234
Highest	94.4	91.8	97.0	96.1	84.8	77.2	1,436
Total 15-49	91.5	86.1	95.4	93.4	76.6	68.8	5,577
50-59	95.4	83.2	94.6	90.4	75.6	68.3	640
Total 15-59	91.9	85.8	95.3	93.1	76.5	68.8	6,217

[1] Two most common local misconceptions: the AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has the AIDS virus.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Tables 13.3.1 and 13.3.2 also provide an assessment of the level of comprehensive knowledge of HIV and AIDS prevention and transmission. People are considered to have comprehensive knowledge about AIDS when they know that both condom use and limiting sex to one uninfected partner are HIV and AIDS prevention methods, they are also aware that a healthy-looking person can have HIV, and they reject the two most common local misconceptions (that HIV can be transmitted by mosquito bites and by sharing food). The data show that 67 percent of women and 69 percent of men age 15-49 have comprehensive knowledge of HIV and AIDS prevention and transmission.

There is considerable variation in comprehensive HIV and AIDS knowledge by background characteristics. Comprehensive knowledge increases with age; for women from 62 percent for those age 15-19 to

69 percent for those age 30-39, and for men from 60 percent for those age 15-19 to 75 percent for those age 40-49. Married women and men and sexually active never-married men tend to be more knowledgeable than women and men in other marital status categories. The proportion of women and men with correct knowledge about HIV and AIDS prevention and transmission is higher in urban (76 percent for women and 77 percent for men) than in rural areas (65 percent for women and 74 percent for men). This figure is higher among women and men with secondary or higher education represent (73 percent and 77 percent) than those with primary or less education. Similarly, men and women in the higher wealth quintiles (77 percent and 75 percent, respectively) are more likely to have comprehensive knowledge about HIV and AIDS than those in the lower quintiles (59 percent and 60 percent, respectively). Variations in comprehensive knowledge by province are marked, with the highest levels of knowledge observed among women and men in the City of Kigali (82 percent and 85 percent, respectively) and the lowest levels observed among women in West (51 percent) and men in North (56 percent).

Comprehensive knowledge about AIDS has increased since the 2010 RDHS, from 56 percent in 2010 to 67 percent in 2014-15 among women and from 52 percent to 69 percent among men during the same period.

13.1.4 Knowledge of Prevention of Mother-to-Child Transmission of HIV

Educating people about the ways in which HIV can be transmitted from mother to child during pregnancy, delivery, and breastfeeding is critical to reducing mother-to-child transmission (MTCT) of HIV. To obtain information on these issues, respondents were asked whether the virus that causes AIDS can be transmitted from a mother to a child during pregnancy, delivery, or breastfeeding and whether a mother who is infected with HIV can reduce the risk of transmission of the virus to the baby by taking certain drugs (antiretrovirals) during pregnancy.

Table 13.4 shows that Rwandan women are more knowledgeable than Rwandan men about MTCT. Ninety-four percent of women and 89 percent of men age 15-49 know that HIV can be transmitted to a baby through breastfeeding, while 95 percent of women and 93 percent of men are aware that the risk of transmission can be reduced if the mother takes special drugs during pregnancy. Overall, 90 percent of women and 84 percent of men are aware that HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by taking special drugs during pregnancy. MTCT knowledge has not changed over the past five years.

There are no marked differences in MTCT knowledge among women and men by background characteristics.

Table 13.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Rwanda 2014-15

	Women				Men			
Background characteristic	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breast-feeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breast-feeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	93.5	92.4	88.2	5,225	88.3	89.3	81.3	2,276
15-19	92.2	89.8	85.3	2,768	87.3	87.1	78.5	1,282
20-24	94.9	95.3	91.3	2,457	89.6	92.1	85.0	994
25-29	95.0	96.2	92.3	2,300	90.4	94.8	87.0	946
30-39	93.8	96.9	91.7	3,726	89.6	94.1	85.6	1,497
40-49	92.1	95.3	89.5	2,246	88.4	96.2	85.9	858
Marital status								
Never married	92.6	91.9	87.1	5,100	88.8	90.1	82.2	2,691
Ever had sex	92.9	94.3	89.3	1,562	90.6	92.1	85.0	1,110
Never had sex	92.5	90.8	86.1	3,539	87.5	88.6	80.3	1,581
Married/living together	94.3	96.7	92.0	6,982	89.2	94.9	85.8	2,792
Divorced/separated/widowed	93.6	95.7	91.3	1,415	90.9	94.5	86.5	94
Currently pregnant								
Pregnant	94.6	96.2	91.8	984	na	na	na	na
Not pregnant or not sure	93.5	94.6	89.9	12,513	na	na	na	na
Residence								
Urban	95.1	96.0	92.4	2,626	90.8	94.7	86.8	1,169
Rural	93.2	94.5	89.5	10,871	88.6	92.0	83.4	4,408
Province								
City of Kigali	95.6	96.1	92.9	1,799	93.0	96.0	90.2	804
South	94.3	95.9	91.2	3,214	90.4	96.0	88.0	1,327
West	92.8	92.5	87.5	2,965	90.6	89.1	83.3	1,182
North	92.9	96.4	91.0	2,211	81.6	90.2	75.5	851
East	93.1	93.9	89.0	3,308	88.6	91.7	82.8	1,413
Education								
No education	93.3	94.7	90.3	1,665	88.8	92.0	83.3	496
Primary	93.2	94.6	89.6	8,678	88.1	92.4	83.5	3,636
Secondary and higher	94.9	95.3	91.0	3,154	91.4	93.2	86.0	1,445
Wealth quintile								
Lowest	92.7	93.9	88.8	2,561	89.5	92.5	85.2	819
Second	93.8	94.9	90.4	2,631	87.1	92.2	82.1	991
Middle	93.3	94.2	89.2	2,597	89.5	91.0	83.3	1,097
Fourth	93.6	95.2	90.3	2,634	87.6	92.5	82.8	1,234
Highest	94.5	95.5	91.2	3,073	90.9	94.2	86.7	1,436
Total 15-49	93.6	94.8	90.0	13,497	89.0	92.6	84.1	5,577
50-59	na	na	na	na	87.1	93.5	82.6	640
Total 15-59	na	na	na	na	88.8	92.7	84.0	6,217

na = Not applicable

13.2 Stigma Associated with AIDS and Attitudes Related to HIV and AIDS

Widespread stigma and discrimination toward those living with HIV can adversely affect both people's willingness to be tested for HIV and their adherence to antiretroviral therapy. Thus, reduction of stigma and discrimination against people living with AIDS is an important indicator of the success of programs aimed at preventing and controlling infection.

In the 2014-15 RDHS, respondents were asked a number of questions to measure their attitudes toward HIV-positive people. These questions concerned their willingness to buy fresh vegetables from an infected shopkeeper, to let others know of an infected family member, and to take care of relatives who have AIDS in their own household. They were also asked whether an HIV-positive female teacher who is not sick should be allowed to continue teaching. Tables 13.5.1 and 13.5.2 show the percentages of women and men who express positive attitudes toward people with HIV, by background characteristics.

Table 13.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Rwanda 2014-15

	Percentage of respondents who:					
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	95.3	85.5	86.3	58.2	44.0	5,218
15-19	93.6	82.0	82.9	56.3	39.0	2,763
20-24	97.2	89.5	90.2	60.4	49.7	2,455
25-29	97.2	92.0	91.2	62.9	52.3	2,298
30-39	97.0	92.4	92.0	64.1	55.2	3,723
40-49	98.0	89.2	90.7	65.4	54.4	2,246
Marital status						
Never married	95.3	86.7	87.0	59.4	45.8	5,092
Ever had sex	96.6	89.0	89.7	60.4	49.0	1,560
Never had sex	94.7	85.6	85.8	59.0	44.4	3,532
Married/living together	97.3	91.0	91.4	63.3	53.5	6,981
Divorced/separated/widowed	97.4	88.9	88.5	63.2	50.6	1,413
Residence						
Urban	97.8	94.9	94.9	53.4	48.6	2,625
Rural	96.2	87.8	88.1	63.9	50.7	10,861
Province						
City of Kigali	98.4	95.8	95.8	50.9	47.0	1,799
South	96.8	89.5	90.6	70.3	58.1	3,211
West	94.8	84.6	85.5	61.9	45.6	2,960
North	95.9	87.9	89.1	50.6	40.2	2,208
East	97.2	90.1	88.6	66.9	55.4	3,308
Education						
No education	94.8	82.7	84.6	61.4	43.9	1,662
Primary	96.1	88.0	88.3	63.2	50.4	8,670
Secondary and higher	98.7	95.7	95.1	58.2	53.2	3,154
Wealth quintile						
Lowest	93.9	83.1	83.7	64.6	45.9	2,558
Second	95.9	87.6	87.9	62.7	49.4	2,630
Middle	97.2	88.3	88.9	63.4	51.5	2,594
Fourth	97.4	91.2	90.9	64.4	54.3	2,632
Highest	98.1	94.5	94.7	55.3	50.2	3,073
Total 15-49	96.5	89.2	89.4	61.8	50.3	13,486

Almost all women and men say that they would be willing to take care of a family member with AIDS at home (97 percent and 98 percent, respectively). Women are less likely to say that they would buy fresh vegetables from a shopkeeper who has HIV than men (89 percent versus 92 percent). Approximately 9 in 10 respondents feel that a female teacher with HIV who is not sick should be allowed to continue teaching (89 percent of women and 90 percent of men). Sixty-two percent of women and 74 percent of men say that they would not want to keep secret that a family member is infected with the AIDS virus.

Accepting attitudes on all four indicators are more common among men (63 percent) than women (50 percent). Among both women and men, acceptance tends to increase with age, from 39 percent among women age 15-19 years to 55 percent among women age 40-49, and from 49 percent among men 15-19 to 71 percent

among men at 40-49. Urban and rural women are more or less equally likely to express accepting attitudes, whereas urban men are somewhat more accepting than rural men. The proportion of women who report accepting attitudes on all four indicators increases with increasing education from 44 percent among those with no education to 53 percent among those with secondary education or higher; the relationship is less clear among men, although those with a secondary education or higher (69 percent) are most likely to have accepting attitudes on all four indicators. Women and men in the North province are less likely to express accepting attitudes toward people living with HIV or AIDS (40 percent and 45 percent, respectively) than residents of the other provinces. Men in City of Kigali have a particularly high level of acceptance (74 percent).

Table 13.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Rwanda 2014-15

	Percentage of respondents who:					
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	96.4	86.9	85.7	70.4	54.3	2,274
15-19	95.1	82.6	81.6	69.4	48.8	1,280
20-24	98.1	92.4	90.8	71.6	61.3	994
25-29	99.0	95.3	91.3	75.2	66.4	946
30-39	98.5	95.9	93.6	77.9	71.1	1,496
40-49	98.8	95.9	95.7	77.2	71.1	858
Marital status						
Never married	96.9	88.5	87.2	71.8	57.5	2,689
Ever had sex	97.9	92.1	90.2	73.6	62.8	1,110
Never had sex	96.2	86.0	85.1	70.5	53.7	1,579
Married/living together	98.7	95.8	93.4	76.5	69.2	2,791
Divorced/separated/widowed	95.0	87.4	88.1	78.7	61.8	94
Residence						
Urban	98.3	95.6	95.6	74.8	68.9	1,169
Rural	97.6	91.2	88.9	74.1	62.0	4,405
Province						
City of Kigali	98.6	97.8	98.1	77.3	73.8	804
South	98.4	93.2	89.1	79.4	68.7	1,327
West	96.9	89.4	88.4	74.5	61.6	1,181
North	97.2	89.7	88.4	57.2	44.5	850
East	97.7	91.6	89.8	77.8	65.5	1,413
Education						
No education	95.1	90.3	88.1	77.2	62.3	496
Primary	97.6	90.5	88.1	74.3	61.4	3,633
Secondary and higher	99.0	96.9	96.7	73.3	68.9	1,445
Wealth quintile						
Lowest	95.8	89.4	83.6	75.8	59.3	818
Second	98.1	90.9	88.0	76.3	63.1	990
Middle	98.0	91.7	89.1	73.0	61.3	1,096
Fourth	98.0	92.6	91.5	74.6	64.8	1,234
Highest	98.2	94.5	95.6	72.7	66.4	1,436
Total 15-49	97.8	92.1	90.3	74.3	63.4	5,574
50-59	98.4	90.8	93.8	76.0	66.6	640
Total 15-59	97.8	92.0	90.7	74.4	63.8	6,214

13.3 ATTITUDES TOWARD NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent transmission is not useful if people are not able to negotiate safer sex practices with their partners. To gauge attitudes toward safer sex, respondents in the 2014-15 RDHS were asked whether they think a woman is justified in refusing to have sex with her husband if she knows he has sex with other women. They were also asked whether they think that a woman is justified in

asking her husband to use a condom if she knows that he has a sexually transmitted infection (STI). The results are shown in Table 13.6.

Table 13.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Rwanda 2014-15

	Women			Men		
Background characteristic	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	76.1	96.6	5,225	80.5	97.8	2,276
15-19	74.2	95.2	2,768	76.6	96.6	1,282
20-24	78.4	98.1	2,457	85.5	99.5	994
25-29	80.9	98.2	2,300	89.1	99.5	946
30-39	81.7	98.0	3,726	90.7	98.5	1,497
40-49	82.2	97.1	2,246	90.8	99.0	858
Marital status						
Never married	76.1	96.2	5,100	81.9	97.8	2,691
Ever had sex	77.5	97.9	1,562	85.0	98.8	1,110
Never had sex	75.5	95.4	3,539	79.8	97.2	1,581
Married/living together	81.5	98.0	6,982	90.5	99.1	2,792
Divorced/separated/widowed	81.9	98.1	1,415	84.6	97.7	94
Residence						
Urban	83.8	99.1	2,626	89.2	99.2	1,169
Rural	78.4	96.9	10,871	85.5	98.3	4,408
Province						
City of Kigali	87.0	99.3	1,799	92.1	99.5	804
South	81.4	97.3	3,214	88.4	98.4	1,327
West	80.4	96.4	2,965	86.8	98.5	1,182
North	74.3	96.3	2,211	81.2	96.5	851
East	76.2	97.8	3,308	83.6	99.1	1,413
Education						
No education	79.9	96.5	1,665	90.3	97.9	496
Primary	79.0	97.0	8,678	86.4	98.3	3,636
Secondary and higher	80.5	98.7	3,154	84.5	99.1	1,445
Wealth quintile						
Lowest	79.6	96.2	2,561	88.0	97.6	819
Second	78.8	97.3	2,631	87.2	97.8	991
Middle	79.2	97.3	2,597	85.2	98.4	1,097
Fourth	77.6	97.4	2,634	84.9	98.9	1,234
Highest	81.8	98.3	3,073	86.7	99.1	1,436
Total 15-49	79.5	97.3	13,497	86.3	98.5	5,577
50-59	na	na	na	90.4	98.4	640
Total 15-59	na	na	na	86.7	98.5	6,217

na = Not applicable

Eighty percent of women and 86 percent of men believe that a woman is justified in refusing to have sex with her husband if she knows he has sex with other women, and 97 percent of women and 99 percent of men believe that a woman is justified in asking her husband to use a condom if he has an STI.

There are small differences by background characteristics in the percentages of respondents who support a woman's right to refuse to have sex with her husband if she knows he had sex with other women or to propose using a condom if he has an STI. Both indicators tend to increase slightly with the age of the respondent. For example; the percentage of respondent who think that it is justified for a wife refusing to have sex with her husband if she knows he has sex with other women increases from 74 percent among women age 15-19 to 82 percent among those age 40-49 and from 77 percent among men 15-19 to 91 among men age 40-49. Urban

women and men, especially those in City of Kigali, are more likely to agree with both indicators than rural respondents.

13.4 ATTITUDES TOWARD CONDOM EDUCATION FOR YOUTH

Condom use is one of the most effective strategies for combating the spread of HIV. However, educating youth about condoms is sometimes controversial because some people believe it promotes early sexual initiation. To evaluate attitudes toward condom education, the 2014-15 RDHS asked respondents if they thought that young people age 12-14 should be taught about using a condom to avoid AIDS. Because the data focus on adult opinions, results are tabulated for respondents age 18-49.

Table 13.7 shows that about 9 in 10 respondents (90 percent of women and 92 percent of men) agree that young people age 12-14 should be taught about using condoms for AIDS prevention. There is minimal variation in support for condom education by background characteristics.

Table 13.7 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 should be taught about using a condom to avoid AIDS, by background characteristics, Rwanda 2014-15

	Women		Men	
Background characteristic	Percentage who agree	Number	Percentage who agree	Number
Age				
18-24	91.6	3,482	90.3	1,468
18-19	89.8	1,025	89.1	474
20-24	92.3	2,457	90.9	994
25-29	91.8	2,300	93.4	946
30-39	90.0	3,726	92.2	1,497
40-49	87.6	2,246	91.0	858
Marital status				
Never married	90.3	3,369	90.4	1,883
Married/living together	90.4	6,973	92.5	2,792
Divorced/separated/widowed	90.3	1,412	93.1	94
Residence				
Urban	92.9	2,281	90.4	1,063
Rural	89.7	9,473	92.0	3,707
Province				
City of Kigali	94.3	1,583	93.0	743
South	90.4	2,782	90.6	1,100
West	88.3	2,615	92.7	1,005
North	88.0	1,871	88.3	717
East	91.5	2,903	92.9	1,204
Education				
No education	85.9	1,652	93.4	480
Primary	90.5	7,592	91.4	3,092
Secondary and higher	92.9	2,511	91.5	1,197
Wealth quintile				
Lowest	88.2	2,287	92.7	712
Second	89.9	2,308	93.7	856
Middle	90.8	2,288	91.6	928
Fourth	90.1	2,256	90.0	1,006
Highest	92.5	2,616	91.1	1,267
Total 18-49	90.4	11,754	91.7	4,769
50-59	na	na	87.0	640
Total 18-59	na	na	91.1	5,409

na = Not applicable

13.5 MULTIPLE AND CONCURRENT PARTNERSHIPS AND PAYING FOR SEX

13.5.1 Multiple Sexual Partnerships

Given that most HIV infections are contracted through heterosexual contact, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of the disease. In the context of HIV and AIDS prevention, limiting the number of sexual partners, encouraging protected sex and delaying first sexual intercourse for youth are crucial to combating the epidemic,. The 2014-15 RDHS included questions on respondents' sexual partners during their lifetime as well as in the 12 months preceding the survey. Male respondents were also asked whether they had paid for sex in the 12 months preceding the interview. In addition, information was collected on women's and men's use of condoms during their last sexual encounter with each type of partner. Given that questions about sexual activity are sensitive, it is important to remember when interpreting the results in this section that respondents' answers are likely subject to at least some reporting bias.

Tables 13.8.1 and 13.8.2 show the percentages of women and men age 15-49 who had sexual intercourse with more than one partner in the 12 months before the survey. They also show mean numbers of lifetime sexual partners and condom use during most recent intercourse.

Less than 1 percent of women had two or more sexual partners during the 12 months preceding the survey. There is little variation by background characteristics in the percentage of women with two or more sexual partners in the past 12 months. Forty-eight percent of women who had two or more sexual partners in the 12 months before the survey used a condom during their last sex. Because the number of respondents reporting more than one partner in the past 12 months is very small, differences in condom use by background characteristics are not noteworthy.

Table 13.8.2 shows that 5 percent of men had two or more sexual partners during the 12 months preceding the survey. Men age 25 and older; those who are divorced, separated, or widowed; those in polygynous unions; and those living in urban areas and the City of Kigali are more likely to have had multiple partners over the past 12 months than other respondents.

Among men with two or more partners in the past 12 months, 31 percent report having used a condom during their last encounter. Condom use is more pronounced among urban than rural men (58 percent and 18 percent, respectively). It is also higher among men who have never been married or are not currently married. Because the total number of men who have had multiple sexual partners in the past 12 months is small, variations in condom use by other background characteristics are not meaningful.

On average, men age 15-49 report having 2.6 lifetime sexual partners, almost twice the average reported by women (1.5 partners). Among women, variation according to background characteristics is minimal. Women who live in urban areas and City of Kigali have had slightly more lifetime partners than other women, and women who have never been married or who are widowed, divorced, or separated have had more lifetime partners than women who are currently married. Mean number of lifetime sexual partners among men increases with age, from 1.8 among those age 15-19 to 3.3 among those age 40-49. It also varies according to marital status. Men who are divorced, separated, or widowed report a mean of 4.6 lifetime partners, as compared with 2.6 among other category of men. Mean number of lifetime sexual partners is higher among urban men than among rural men (3.4 versus 2.4). More educated and well-off men are more likely to report a higher number of sexual partners. The average number of partners among men with no level of education is 2.0, as compared with 3.2 among men with a secondary education or higher. Average number of partners ranges from 2.1 to 2.3 among men in the lowest three wealth quintiles to 3.5 among those in the highest quintile.

Table 13.8.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, Rwanda 2014-15

	All women		Among women who had 2+ partners in the past 12 months:		Among women who ever had sexual intercourse[1]:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Mean number of sexual partners in lifetime	Number of women
Age						
15-24	0.7	5,225	(61.2)	38	1.5	2,140
15-19	0.5	2,768	*	15	1.5	556
20-24	0.9	2,457	*	23	1.5	1,584
25-29	0.9	2,300	*	20	1.4	2,026
30-39	0.7	3,726	(38.5)	27	1.5	3,583
40-49	0.5	2,246	*	10	1.6	2,202
Marital status						
Never married	0.8	5,100	(74.3)	40	1.9	1,560
Married/living together	0.3	6,982	(7.1)	23	1.3	6,977
Divorced/separated/widowed	2.3	1,415	(46.1)	33	2.0	1,415
Residence						
Urban	1.4	2,626	(64.4)	37	1.8	1,930
Rural	0.5	10,871	38.1	58	1.4	8,022
Province						
City of Kigali	1.7	1,799	(69.9)	31	1.9	1,344
South	0.7	3,214	(35.6)	22	1.5	2,334
West	0.5	2,965	*	15	1.4	2,137
North	0.4	2,211	*	9	1.3	1,541
East	0.6	3,308	*	19	1.5	2,596
Education						
No education	0.6	1,665	*	10	1.5	1,591
Primary	0.8	8,678	49.3	68	1.5	6,802
Secondary and higher	0.5	3,154	*	17	1.6	1,558
Wealth quintile						
Lowest	1.0	2,561	(37.7)	25	1.5	2,095
Second	0.5	2,631	*	12	1.4	1,994
Middle	0.5	2,597	*	14	1.4	1,931
Fourth	0.6	2,634	*	15	1.4	1,811
Highest	1.0	3,073	(64.1)	29	1.7	2,120
Total 15-49	0.7	13,497	48.4	95	1.5	9,951

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 13.8.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Rwanda 2014-15

	All men		Among men who had 2+ partners in the past 12 months:		Among men who ever had sexual intercourse[1]:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	1.9	2,276	(75.0)	43	2.1	875
15-19	0.7	1,282	*	9	1.8	301
20-24	3.5	994	(71.5)	34	2.2	574
25-29	6.2	946	33.2	59	2.4	822
30-39	6.4	1,497	19.0	97	2.6	1,447
40-49	6.5	858	14.9	56	3.3	846
Marital status						
Never married	2.7	2,691	80.9	72	2.6	1,110
Married/living together	6.2	2,792	9.3	172	2.6	2,787
Divorced/separated/widowed	10.6	94	*	10	4.6	93
Type of union						
In polygynous union	75.7	62	(8.4)	47	3.9	62
In non-polygynous union	4.6	2,730	9.7	125	2.5	2,725
Not currently in union	3.0	2,785	75.8	82	2.7	1,203
Residence						
Urban	7.1	1,169	57.7	83	3.4	877
Rural	3.9	4,408	17.9	171	2.4	3,113
Province						
City of Kigali	6.8	804	59.5	55	3.7	596
South	2.9	1,327	(36.7)	39	2.3	921
West	5.8	1,182	18.3	69	2.5	827
North	3.0	851	(19.1)	25	2.2	615
East	4.7	1,413	21.4	67	2.6	1,030
Education						
No education	5.0	496	*	25	2.0	446
Primary	4.9	3,636	22.2	177	2.5	2,714
Secondary and higher	3.7	1,445	69.2	53	3.2	829
Wealth quintile						
Lowest	5.0	819	(13.9)	41	2.2	618
Second	4.8	991	(10.7)	47	2.3	726
Middle	3.1	1,097	(21.1)	34	2.1	807
Fourth	2.8	1,234	(18.2)	34	2.5	809
Highest	6.8	1,436	55.5	98	3.5	1,031
Total 15-49	4.6	5,577	30.9	254	2.6	3,990
50-59	6.5	640	(10.8)	42	3.5	633
Total 15-59	4.8	6,217	28.0	296	2.7	4,623

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

13.5.2 Concurrent Sexual Partners

Concurrent sexual partnerships are defined as "overlapping sexual partnerships where intercourse with one partner occurs between two acts of intercourse with another partner" (UNAIDS, 2009). If an individual has multiple sexual partners in the same year, it is important to know whether those partnerships are serial or concurrent. Concurrent sexual partnerships are theoretically more risky than serial partnerships because they can create large interconnected sexual networks whose members are at heightened risk of HIV infection.

The 2014-15 RDHS collected information on the time since the first and most recent sexual intercourse with each sexual partner in the past 12 months. This information was used to determine if sexual intercourse with one partner occurred between two acts of intercourse with another partner (i.e., whether two partnerships were concurrent). Two indicators are used to measure concurrent sexual partnerships. The *point prevalence of concurrent sexual partnerships* is defined as the proportion of women and men age 15-49 with more than one ongoing sexual partnership at the point in time six months before the survey. The *cumulative prevalence of concurrent sexual partnerships* is defined as the proportion of women and men age 15-49 who have had any overlapping sexual partnerships in the past 12 months (UNAIDS, 2009). A partnership that consists of a single sexual encounter is considered overlapping if it occurs during another ongoing partnership. The point prevalence is generally lower than the cumulative prevalence because the point prevalence includes only relationships ongoing on a particular day rather than over an entire year. In the case of men, overlapping polygynous unions are considered concurrent partnerships in both the point prevalence and cumulative prevalence concurrency indicators.

Table 13.9 shows the point prevalence of current sexual partners among all respondents during the 12 months before the survey. It also shows, among respondents who had multiple sexual partners during the 12 months preceding the survey, the percentage who had concurrent sexual partners.

Among women, both the point prevalence and the cumulative prevalence of concurrent sexual partners are less than 1 percent. The point prevalence among men is 2 percent, and the cumulative prevalence is 4 percent.

Table 13.9 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all women and men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence[1]), percentage of all women and all men age 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence[2]), and among women and men age 15-49 who had multiple sexual partners during the 12 months before the survey, percentage who had concurrent sexual partners, by background characteristics, Rwanda 2014-15

	Among all respondents:			Among all respondents who had multiple partners during the 12 months before the survey:	
Background characteristic	Point prevalence of concurrent sexual partners[1]	Cumulative prevalence of concurrent sexual partners[2]	Number of respondents	Percentage who had concurrent sexual partners[2]	Number of respondents
		WOMEN			
Age					
15-24	0.0	0.4	5,225	(57.3)	38
15-19	0.0	0.3	2,768	*	15
20-24	0.1	0.5	2,457	*	23
25-29	0.2	0.6	2,300	*	20
30-39	0.2	0.5	3,726	(63.7)	27
40-49	0.1	0.3	2,246	*	10
Marital status					
Never married	0.1	0.5	5,100	(61.5)	40
Married/living together	0.1	0.3	6,982	(80.4)	23
Divorced/separated/widowed	0.4	1.2	1,415	(52.5)	33
Residence					
Urban	0.3	1.0	2,626	(73.2)	37
Rural	0.1	0.3	10,871	56.4	58
Total 15-49	0.1	0.4	13,497	63.0	95
		MEN			
Age					
15-24	0.3	0.8	2,276	(43.3)	43
15-19	0.1	0.3	1,282	*	9
20-24	0.5	1.6	994	(44.9)	34
25-29	0.9	4.3	946	69.2	59
30-39	2.7	5.8	1,497	89.7	97
40-49	3.8	6.4	858	98.0	56
Marital status					
Never married	0.2	1.2	2,691	44.1	72
Married/living together	2.9	5.9	2,792	95.2	172
Divorced/separated/widowed	1.1	5.5	94	*	10
Type of union					
In polygynous union	63.4	75.7	62	(100.0)	47
In non-polygynous union	1.5	4.3	2,730	93.4	125
Not currently in union	0.3	1.3	2,785	45.0	82
Residence					
Urban	1.3	4.9	1,169	68.6	83
Rural	1.6	3.3	4,408	83.9	171
Total 15-49	1.6	3.6	5,577	78.9	254
50-59	4.7	6.2	640	(94.9)	42
Total 15-59	1.9	3.9	6,217	81.2	296

Note: Two sexual partners are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] The percentage of respondents who had two (or more) sexual partners that were concurrent at the point in time six months before the survey
[2] The percentage of respondents who had two (or more) sexual partners that were concurrent anytime during the 12 months preceding the survey

There are few variations according to background characteristics. The percentage of men with concurrent sexual partnerships (according to the cumulative prevalence indicator) increases with age, from less than 1 percent among those age 15-19 to 6 percent among those age 40-49. Men who are married or who are divorced, widowed, or separated (6 percent each) are more likely to report concurrent sexual partnerships in the

past 12 months than men who have never been married (1 percent). It is probable that men who are in polygynous unions are more likely than those who are not to have concurrent sexual partnerships.

13.5.3 Payment for Sex

Male respondents in the 2014-15 RDHS who had had sex in the 12 months before the survey were asked whether they had ever paid anyone in exchange for sex and whether they had done so in the past 12 months or if any of their last three partners in the past 12 months was a commercial sex worker. They were also asked whether they used a condom the last time they paid for sex.

The results in Table 13.10 show that only 7 percent of men age 15-49 have ever paid for sexual intercourse, and only 2 percent had done so in the 12 months before the survey. Among those men who paid for sexual intercourse in the last 12 months, 65 percent reported that they used a condom the last time they paid for sex. Men who are divorced, separated, or widowed (24 percent); men living in urban areas (12 percent) and in the City of Kigali (13 percent); and men in the highest wealth quintile (12 percent) are most likely to have ever paid for sexual intercourse.

Table 13.10 Payment for sexual intercourse and condom use at last paid sexual intercourse

Among men age 15-49 who had sexual intercourse in the 12 months before the survey, the percentage who ever paid for sexual intercourse and the percentage reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Rwanda 2014-15

	Among men who had sex in the past 12 months:			Among men who paid for sex in the past 12 months:	
Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men	Percentage reporting condom use at last paid sexual intercourse	Number of men
Age					
15-24	7.7	4.4	453	*	20
15-19	4.5	3.3	102	*	3
20-24	8.6	4.7	352	*	17
25-29	7.2	3.2	665	*	21
30-39	6.3	1.5	1370	*	21
40-49	8.4	1.5	823	*	12
Marital status					
Never married	13.2	8.4	468	(66.4)	39
Married/living together	5.9	1.0	2785	(63.0)	28
Divorced/separated/widowed	24.1	11.0	58	*	6
Residence					
Urban	12.1	4.6	692	(80.4)	32
Rural	5.9	1.6	2619	(53.8)	42
Province					
City of Kigali	12.5	4.9	486	*	24
South	5.8	1.6	714	*	11
West	6.3	2.4	712	*	17
North	5.2	1.7	527	*	9
East	7.4	1.5	872	*	13
Education					
No education	2.2	0.3	415	*	1
Primary	7.5	2.4	2333	69.9	57
Secondary and higher	9.6	2.8	562	*	16
Wealth quintile					
Lowest	5.2	2.6	540	*	14
Second	5.5	1.4	639	*	9
Middle	4.6	1.2	668	*	8
Fourth	7.8	0.8	655	*	5
Highest	11.6	4.7	808	(73.9)	38
Total 15-49	7.2	2.2	3,310	65.2	74
50-59	7.4	0.0	591	*	0
Total 15-59	7.2	1.9	3,901	65.2	74

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

13.6 PRIOR TESTING FOR HIV

People's knowledge of their HIV status is considered a key motivating factor for behavior change and a critical linkage to care, treatment, and support services for infected individuals. Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain free of disease. For those who are infected with HIV, knowledge of their status allows them to take action to protect their sexual partners, to seek treatment, and to plan for the future. The HIV/AIDS program in Rwanda has been engaged in increasing coverage of HIV counseling and testing services based on a multiple-intervention approach. In the 2014-15 RDHS, respondents were asked if they knew a place where they could go to be tested and, furthermore, if they had ever undergone an HIV test and received the results of the test.

Tables 13.11.1 and 13.11.2 show that knowledge of a place to get an HIV test is universal among both women and men (99 percent each). Among the adult population age 15-49, 86 percent of women and 81 percent of men have ever been tested for HIV. The majority of women (82 percent) and men (78 percent) who were ever tested indicated that they had received the results of their test. However, a small proportion of women (3 percent) and men (3 percent) who were tested did not receive the results. Thirty-eight percent of women and 37 percent of men said that they had been tested during the 12 months prior to the survey and had received the results.

Respondents age 20 and above are more likely to have received the results than younger respondents to have ever had an HIV test and. Among both women and men, urban residents are more likely than rural residents to have ever had an HIV test and received the results. Married respondents (95 percent of women and 96 percent of men) are more likely to have taken the test and received the results than never-married respondents. By province, the percentage of women who have ever been tested for HIV and received the results ranges from a low of 80 percent among those in South and North to a high of 87 percent among those in City of Kigali. Among men, the percentage ranges from 74 percent in South to 82 percent in City of Kigali. The proportion of women and men who have ever been tested for HIV and received the results is highest among those with no education. There is no consistent relationship with wealth quintile.

HIV testing has increased since 2010. The proportion of women who have ever been tested for HIV and received their results has risen from 76 percent in 2010 to 82 percent in 2014-15, while the proportion among men has increased from 69 percent to 78 percent during the same period.

Table 13.11.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	98.6	68.0	4.0	28.0	100.0	72.0	36.8	5,225
15-19	97.9	52.5	5.3	42.2	100.0	57.8	27.4	2,768
20-24	99.3	85.5	2.6	11.9	100.0	88.1	47.4	2,457
25-29	99.3	92.5	2.5	5.0	100.0	95.0	46.0	2,300
30-39	99.7	94.0	2.4	3.7	100.0	96.3	41.4	3,726
40-49	99.4	86.3	3.1	10.6	100.0	89.4	29.3	2,246
Marital status								
Never married	98.4	64.0	4.4	31.6	100.0	68.4	32.2	5,100
Ever had sex	99.6	83.7	3.0	13.4	100.0	86.6	46.5	1,562
Never had sex	97.9	55.3	5.1	39.7	100.0	60.3	25.9	3,539
Married/living together	99.7	94.8	2.2	2.9	100.0	97.1	43.2	6,982
Divorced/separated/widowed	99.5	87.4	3.2	9.4	100.0	90.6	36.6	1,415
Residence								
Urban	99.5	86.5	2.2	11.3	100.0	88.7	42.8	2,626
Rural	99.1	81.4	3.4	15.2	100.0	84.8	37.3	10,871
Province								
City of Kigali	99.8	86.8	1.8	11.5	100.0	88.5	42.2	1,799
South	99.4	80.4	3.4	16.2	100.0	83.8	37.0	3,214
West	98.4	82.0	3.2	14.7	100.0	85.3	38.4	2,965
North	98.8	80.3	4.1	15.6	100.0	84.4	39.0	2,211
East	99.5	83.6	3.0	13.4	100.0	86.6	37.2	3,308
Education								
No education	99.4	86.5	3.3	10.2	100.0	89.8	33.5	1,665
Primary	98.9	81.7	2.7	15.6	100.0	84.4	37.4	8,678
Secondary and higher	99.7	82.1	4.4	13.5	100.0	86.5	43.5	3,154
Wealth quintile								
Lowest	98.5	81.8	3.3	14.9	100.0	85.1	37.7	2,561
Second	99.1	80.8	3.4	15.8	100.0	84.2	37.4	2,631
Middle	99.1	82.9	3.0	14.1	100.0	85.9	38.0	2,597
Fourth	99.3	81.7	3.1	15.2	100.0	84.8	37.5	2,634
Highest	99.6	84.4	3.0	12.7	100.0	87.3	40.8	3,073
Total 15-49	99.2	82.4	3.2	14.5	100.0	85.5	38.4	13,497

[1] Includes “don’t know/missing”

Table 13.11.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test: Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Age								
15-24	96.9	55.9	5.2	38.8	100.0	61.2	30.3	2,276
15-19	95.1	41.5	6.9	51.7	100.0	48.3	21.9	1,282
20-24	99.3	74.6	3.2	22.2	100.0	77.8	41.1	994
25-29	100.0	90.0	1.7	8.2	100.0	91.8	46.9	946
30-39	99.9	93.9	2.1	4.0	100.0	96.0	41.9	1,497
40-49	99.8	92.3	1.8	5.9	100.0	94.1	33.6	858
Marital status								
Never married	97.3	58.3	4.5	37.2	100.0	62.8	30.2	2,691
Ever had sex	98.6	69.5	3.6	27.0	100.0	73.0	36.7	1,110
Never had sex	96.5	50.4	5.2	44.4	100.0	55.6	25.7	1,581
Married/living together	100.0	95.6	2.1	2.3	100.0	97.7	42.8	2,792
Divorced/separated/widowed	100.0	89.6	3.4	7.0	100.0	93.0	43.4	94
Residence								
Urban	99.1	82.6	1.5	16.0	100.0	84.0	40.9	1,169
Rural	98.6	76.2	3.8	20.1	100.0	79.9	35.6	4,408
Province								
City of Kigali	99.2	81.5	1.8	16.7	100.0	83.3	38.5	804
South	99.0	73.9	3.9	22.2	100.0	77.8	33.8	1,327
West	97.8	78.4	3.1	18.6	100.0	81.4	41.1	1,182
North	98.6	78.2	3.8	18.1	100.0	81.9	35.9	851
East	98.9	77.5	3.4	19.1	100.0	80.9	35.2	1,413
Education								
No education	99.0	85.8	1.9	12.3	100.0	87.7	35.7	496
Primary	98.3	75.9	3.2	20.9	100.0	79.1	35.4	3,636
Secondary and higher	99.5	78.8	3.9	17.3	100.0	82.7	40.4	1,445
Wealth quintile								
Lowest	97.9	78.3	2.5	19.2	100.0	80.8	39.2	819
Second	98.8	78.1	3.7	18.2	100.0	81.8	37.3	991
Middle	98.9	77.3	4.3	18.4	100.0	81.6	35.1	1,097
Fourth	98.3	74.3	4.1	21.6	100.0	78.4	35.0	1,234
Highest	99.3	79.5	1.9	18.6	100.0	81.4	37.7	1,436
Total 15-49	98.7	77.5	3.3	19.2	100.0	80.8	36.7	5,577
50-59	98.8	78.8	3.1	18.1	100.0	81.9	24.6	640
Total 15-59	98.7	77.6	3.3	19.1	100.0	80.9	35.5	6,217

[1] Includes “don’t know/missing”

13.7 HIV TESTING DURING ANTENATAL CARE

Table 13.12 presents information on HIV screening of pregnant women age 15-49 who gave birth in the two years preceding the survey. The screening process is a key tool in reducing mother-to-child transmission of HIV. Ninety-three percent of women who gave birth in the two years before the survey received HIV counseling during antenatal care (ANC). More than 9 in 10 women (92 percent) were tested for HIV during antenatal care and received the test results and post-test counseling, while only 6 percent received results but did not receive post-test counseling. Less than 1 percent of women were tested for HIV during an ANC visit but did not receive the test results.

Overall, 92 percent of women received HIV counseling, an HIV test, and the results during ANC for their most recent birth in the two years preceding the survey. Women's likelihood of receiving HIV counseling and testing during ANC is similar across all background characteristics.

Table 13.12 Pregnant women counseled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV pretest counseling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counseling, and the percentage who received an HIV test at the time of ANC or labor for their most recent birth by whether they received their test results, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage who received counseling on HIV during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who: Received results and received post-test counseling	Received results and did not receive post-test counseling	Did not receive results	Percentage who received counseling on HIV and an HIV test during ANC, and the results	Percentage who had an HIV test during ANC or labor and who:[2] Received results	Did not receive results	Number of women who gave birth in the past 2 years[3]
Age								
15-24	91.7	90.1	7.5	0.7	90.6	97.8	0.7	871
15-19	91.0	87.5	10.4	0.9	89.3	97.9	0.9	133
20-24	91.8	90.6	7.0	0.7	90.9	97.8	0.7	738
25-29	92.7	91.3	6.1	0.2	92.0	97.5	0.3	899
30-39	94.4	93.0	5.3	0.1	93.9	98.5	0.1	1,228
40-49	92.1	92.0	3.5	1.0	89.7	96.1	1.0	237
Marital status								
Never married	89.9	88.8	8.1	0.9	89.0	96.9	0.9	349
Married/living together	93.4	92.2	5.7	0.4	92.6	98.1	0.4	2,643
Divorced/separated/widowed	93.1	90.2	5.7	0.0	92.0	96.4	0.0	244
Residence								
Urban	92.9	91.5	7.0	0.1	92.8	98.8	0.2	561
Rural	93.0	91.7	5.8	0.4	92.0	97.7	0.4	2,675
Province								
City of Kigali	94.7	90.7	7.5	0.0	94.5	98.6	0.0	395
South	94.2	94.6	3.6	0.6	93.4	98.2	0.6	730
West	91.0	89.5	7.4	0.5	89.7	97.0	0.6	763
North	92.2	90.8	7.9	0.0	91.9	99.0	0.0	453
East	93.4	92.1	5.1	0.4	92.3	97.4	0.4	896
Education								
No education	93.2	90.3	4.4	0.6	91.3	94.9	0.6	439
Primary	93.2	91.9	6.2	0.3	92.4	98.3	0.3	2,316
Secondary and higher	92.1	91.9	6.5	0.5	91.6	98.5	0.5	481
Wealth quintile								
Lowest	91.2	89.1	7.1	0.5	90.3	96.5	0.5	792
Second	93.9	91.5	6.1	0.3	92.5	97.8	0.3	672
Middle	92.8	92.7	5.4	0.7	91.9	98.4	0.7	622
Fourth	93.5	93.7	4.8	0.3	92.7	98.5	0.3	573
Highest	94.3	92.3	6.1	0.2	94.1	98.7	0.3	576
Total 15-49	93.0	91.7	6.0	0.4	92.2	97.9	0.4	3,236

[1] In this context, "pretest counseling" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Women are asked whether they received an HIV test during labor only if they were not tested for HIV during ANC.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

Table 13.13 shows that 43 percent of women and 45 percent of men have ever had an HIV test as part of a prenuptial arrangement. The table also indicates that the large majority of ever-married women (86 percent) and men (93 percent) have been tested as a couple at some point. Older women and men (age 40-49) are least likely to have ever been tested as a couple (68 percent of women and 87 percent of men). Formerly married respondents and those with no education are less likely to have been tested as a couple than those who are currently in a union and those with at least a primary education. Variations in testing as a couple by other background characteristics are small.

Table 13.13 HIV testing for prenuptial purposes and as a couple

Percentage of all women and men age 15-49 who were ever tested for the HIV virus for prenuptial purposes and percentage of ever-married women and men age 15-49 who were ever tested for the HIV virus as a couple, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of all women and men age 15-49 who were ever tested for prenuptial purposes				Percentage of ever-married women and men age 15-49 who were ever tested for the HIV virus as a couple			
	Percentage of women	Number of women	Percentage of men	Number of men	Percentage of women	Number of women	Percentage of men	Number of men
Age								
15-24	34.8	5,225	24.4	2,276	92.4	1,118	90.7	181
15-19	20.6	2,768	15.5	1,282	81.9	106	*	3
20-24	50.9	2,457	36.0	994	93.5	1012	90.6	178
25-29	66.6	2,300	62.2	946	95.1	1,749	96.6	554
30-39	54.6	3,726	67.2	1,497	89.7	3,369	94.5	1,319
40-49	19.7	2,246	40.0	858	67.6	2,160	87.0	832
Marital status								
Never married	24.8	5,100	22.3	2,691	na	na	na	na
Ever had sex	22.9	3,539	17.6	1,580	na	na	na	na
Never had sex	29.0	1,562	29.1	1,111	na	na	na	na
Married/living together	57.7	6,982	65.8	2,792	90.8	6,982	93.1	2,792
Divorced/separated/widowed	37.8	1,415	60.4	94	59.4	1,415	74.2	94
Residence								
Urban	45.3	2,626	50.6	1,169	89.0	1,456	93.1	517
Rural	42.7	10,871	43.2	4,408	84.8	6,940	92.3	2369
Province								
City of Kigali	40.3	1,799	48.6	804	90.0	1,013	94.6	369
South	46.7	3,214	41.1	1,327	82.1	1,972	93.2	624
West	42.2	2,965	51.8	1,182	86.2	1,817	94.8	646
North	47.8	2,211	46.6	851	85.6	1,332	87.5	484
East	39.0	3,308	38.8	1,413	85.9	2,263	92.1	764
Education								
No education	32.8	1,665	45.4	496	76.5	1,501	90.5	412
Primary	44.7	8,678	46.2	3,636	86.7	5,873	92.7	2116
Secondary and higher	44.5	3,154	40.8	1,445	92.0	1,023	93.6	358
Wealth quintile								
Lowest	41.0	2,561	48.3	819	81.6	1,809	90.7	516
Second	43.8	2,631	48.9	991	83.3	1,762	93.3	614
Middle	42.1	2,597	43.7	1,097	86.2	1,684	93.0	606
Fourth	44.5	2,634	39.8	1,234	87.7	1,553	92.7	571
Highest	44.1	3,073	44.8	1,436	89.4	1,588	92.5	580
Total 15-49	43.2	13,497	44.7	5,577	85.5	8,397	92.5	2,886
50-59	na	na	12.6	640	na	na	66.3	628
Total 15-59	na	na	41.4	6,217	na	na	87.8	3,514

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

13.8 REPORTS OF RECENT SEXUALLY TRANSMITTED INFECTIONS

Information about the incidence of sexually transmitted infections is useful not only as a marker of unprotected sexual intercourse but also as a cofactor for HIV transmission. The 2014-15 RDHS asked respondents who had ever had sex whether they had had an STI in the past 12 months. They were also asked whether, in the past year, they had experienced a genital sore or ulcer and whether they had any genital discharge. These symptoms have been shown to be useful in identifying STIs in men. They are less easily interpreted in women, however, because women are likely to experience non-STI conditions of the reproductive tract that produce a discharge.

Table 13.14 shows the self-reported prevalence of STIs and STI symptoms among women and men age 15-49 who have ever had sexual intercourse. Three percent of women and 2 percent of men who have ever had sex reported having had an STI in the 12 months before the survey. Nine percent of women and 2 percent of men reported having had an abnormal genital discharge in the past 12 months, and 11 percent of women and 4 percent

of men reported having had a genital sore or ulcer. Overall, 15 percent of women and 5 percent of men had either an STI or symptoms of an STI in the 12 months preceding the survey.

Table 13.14 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Rwanda 2014-15

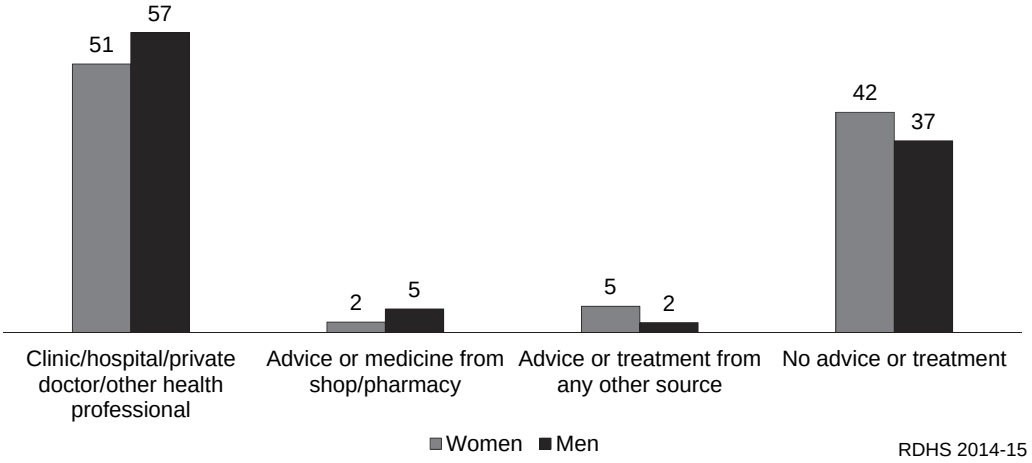
	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling/ abnormal discharge from penis	Genital sore/ulcer	STI/ abnormal discharge from penis/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	2.7	8.0	8.4	12.5	2,141	1.3	2.4	2.6	3.9	874
15-19	1.3	9.8	8.4	14.2	557	0.9	2.7	2.5	4.3	301
20-24	3.1	7.4	8.4	11.9	1,584	1.5	2.2	2.7	3.8	573
25-29	3.0	8.2	9.1	12.8	2,027	2.0	2.2	4.1	4.8	823
30-39	4.1	9.5	12.4	16.3	3,583	2.3	1.5	4.1	4.8	1,449
40-49	3.4	9.1	12.3	15.2	2,204	2.1	0.5	4.9	5.6	848
Marital status										
Never married	2.7	9.0	8.9	12.9	1,562	1.8	2.6	2.5	3.9	1,110
Ever had sex	2.7	9.0	8.9	12.9	1,562	1.8	2.6	2.5	3.9	1,110
Married/living together	3.6	8.2	11.1	14.6	6,980	1.9	1.1	4.3	4.9	2,789
Divorced/separated/widowed	3.3	11.4	11.6	15.8	1,413	4.7	4.2	10.1	11.5	94
Male circumcision										
Circumcised	na	na	na	na	na	1.8	1.3	3.6	4.5	1,153
Not circumcised	na	na	na	na	na	2.0	1.7	4.1	4.9	2,839
Residence										
Urban	3.4	8.6	10.7	14.5	1,931	2.4	2.1	3.6	5.1	877
Rural	3.4	8.9	10.9	14.6	8,024	1.8	1.5	4.1	4.7	3,117
Province										
City of Kigali	3.1	8.3	9.5	13.2	1,345	1.9	1.4	3.2	4.0	596
South	3.0	6.5	9.9	12.5	2,334	1.1	1.5	3.9	4.3	921
West	2.5	10.8	11.6	16.3	2,137	1.8	1.3	3.5	4.4	828
North	3.8	11.0	10.9	16.8	1,539	2.1	2.1	2.2	3.6	614
East	4.4	8.2	11.7	14.2	2,600	2.9	1.9	5.9	6.7	1,034
Education										
No education	4.2	8.1	10.7	13.7	1,593	3.0	2.0	5.5	6.7	447
Primary	3.4	9.5	11.4	15.5	6,802	2.0	1.7	4.4	5.1	2,718
Secondary and higher	2.7	6.6	8.5	11.4	1,560	1.1	1.0	1.9	2.7	829
Wealth quintile										
Lowest	3.2	9.9	10.4	14.9	2,095	2.8	2.8	6.9	7.3	619
Second	3.2	8.7	11.0	14.7	1,995	2.4	1.4	4.0	4.9	726
Middle	3.7	8.9	10.9	14.8	1,931	1.6	1.2	3.3	4.1	807
Fourth	3.4	8.7	11.1	14.2	1,813	1.7	1.0	3.6	4.2	812
Highest	3.4	7.8	10.8	14.1	2,120	1.7	1.9	3.0	4.1	1,030
Total 15-49	3.4	8.8	10.8	14.5	9,955	2.0	1.6	4.0	4.8	3,994
50-59	na	na	na	na	na	1.2	0.7	2.8	3.7	634
Total 15-59	na	na	na	na	na	1.9	1.5	3.8	4.6	4,628

Note: Total includes 1 case in which information on male circumcision is missing.
na = Not applicable

The proportion of respondents who reported having had an STI or STI symptoms varied minimally across background characteristics. An exception is that men who are divorced, separated, or widowed (12 percent) were more likely to have had an STI or STI symptoms than men in other marital status categories (4-5 percent).

Figure 13.1 shows that, among those reporting a sexually transmitted infection or symptom thereof in the 12 months before the survey, men were more likely to seek treatment from various sources than women (64 percent versus 58 percent).

Figure 13.1 **Women and men seeking treatment for STIs**



13.9 NEEDLE AND SYRINGE INJECTION

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effects of unsafe practices such as reuse of injection equipment. As a consequence, the proportion of injections given with reused injection equipment is an important prevention indicator in initiatives designed to control the spread of HIV and AIDS.

Respondents were asked whether they had had any injections given by a health worker in the 12 months preceding the survey and, if so, the number of injections they had received and whether their last injection was given with a syringe from a new, unopened package. Table 13.15 presents data on the prevalence of injections.

Women were more likely than men to report having received at least one injection from a health provider in the past 12 months (60 percent and 47 percent, respectively). On average, women had received 1.7 injections, and men had received 0.8 injections.

The proportion of respondents who received a medical injection in the 12 months before the survey peaks at age 25-29 among both women and men. Currently married women and men are most likely to have received at least one injection from a health provider, followed closely by women and men who have never been married but have had sex. Variations in injection prevalence across provinces are not large. The percentage of women and men reporting that they received at least one injection from a health worker during the 12 months prior to the survey is lowest in North (57 percent and 43 percent, respectively). The prevalence of medical injections among women is highest in the City of Kigali and in East (63 percent and 62 percent, respectively), while the prevalence among men is highest in West (51 percent). Urban-rural differences in receipt of at least one injection from a health provider are small. The proportion of women and men receiving at least one injection increases with increasing education.

Table 13.15 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Rwanda 2014-15

	Women					Men				
Background characteristic	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of respondents	For last injection, syringe and needle taken from a new, unopened package	Number of respondents receiving medical injections in the last 12 months	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of respondents	For last injection, syringe and needle taken from a new, unopened package	Number of respondents receiving medical injections in the last 12 months
Age										
15-24	58.4	1.4	5,225	99.0	3,053	44.3	0.8	2,276	99.0	1,008
15-19	52.2	1.1	2,768	98.8	1,445	40.4	0.8	1,282	98.4	518
20-24	65.4	1.7	2,457	99.2	1,608	49.3	0.9	994	99.8	490
25-29	70.1	2.1	2,300	99.5	1,614	55.2	0.8	946	98.8	522
30-39	64.2	2.0	3,726	99.2	2,392	48.4	0.8	1,497	99.6	724
40-49	48.9	1.5	2,246	99.1	1,098	41.2	0.9	858	99.4	353
Marital status										
Never married	52.8	1.2	5,100	98.9	2,694	43.2	0.8	2,691	99.1	1,164
Ever had sex	61.9	1.6	1,562	98.7	966	49.0	0.9	1,110	99.5	544
Never had sex	48.8	1.0	3,539	99.1	1,727	39.2	0.8	1,581	98.7	620
Married/living together	67.6	2.1	6,982	99.3	4,721	50.1	0.8	2,792	99.3	1,400
Divorced/separated/widowed	52.5	1.4	1,415	98.9	742	46.8	1.5	94	(100.0)	44
Residence										
Urban	62.5	1.7	2,626	99.3	1,640	48.4	0.9	1,169	99.3	566
Rural	59.9	1.7	10,871	99.1	6,516	46.3	0.8	4,408	99.2	2,041
Province										
City of Kigali	63.3	1.6	1,799	99.4	1,139	45.7	0.9	804	100.0	368
South	61.5	1.8	3,214	99.2	1,978	44.1	0.6	1,327	98.2	585
West	57.8	1.7	2,965	99.2	1,714	51.4	1.0	1,182	99.4	607
North	57.4	1.6	2,211	99.0	1,269	42.5	0.7	851	99.4	361
East	62.2	1.8	3,308	99.0	2,057	48.6	1.0	1,413	99.4	686
Education										
No education	54.5	1.6	1,665	98.9	908	42.9	0.6	496	98.6	212
Primary	60.6	1.8	8,678	99.2	5,256	45.4	0.8	3,636	99.0	1,651
Secondary and higher	63.2	1.6	3,154	99.2	1,992	51.5	1.0	1,445	99.7	744
Wealth quintile										
Lowest	59.3	1.7	2,561	99.0	1,519	44.4	0.9	819	99.2	363
Second	60.1	1.7	2,631	99.1	1,582	49.1	0.7	991	99.8	487
Middle	59.4	1.8	2,597	98.9	1,543	47.5	0.7	1,097	98.8	521
Fourth	60.7	1.7	2,634	99.2	1,600	46.2	0.9	1,234	98.9	570
Highest	62.2	1.7	3,073	99.5	1,913	46.4	1.0	1,436	99.4	667
Total 15-49	60.4	1.7	13,497	99.2	8,157	46.8	0.8	5,577	99.2	2,607
50-59	na	na	na	na	na	33.3	1.0	640	98.4	213
Total 15-59	na	na	na	na	na	45.4	0.9	6,217	99.1	2,820

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Practically all injections (99 percent among both women and men) were reported to have been administered with a needle and syringe taken from a newly opened package.

13.10 HIV- AND AIDS-RELATED KNOWLEDGE AND BEHAVIOR AMONG YOUTH

Knowledge of HIV and AIDS issues and related sexual behavior among youth age 15-24 is of particular interest because the period between sexual initiation and marriage is, for many young people, a time of sexual experimentation that may involve high-risk behaviors. This section considers a number of issues that relate to both transmission and prevention of HIV and AIDS among youth, including the extent to which youth have comprehensive knowledge of HIV and AIDS transmission and prevention modes and knowledge of a source

where they can obtain condoms. Issues such as abstinence, age at sexual debut, and condom use are also addressed.

13.10.1 Knowledge about HIV and AIDS and Sources for Condoms

Knowledge of how HIV is transmitted is crucial to help young people avoid HIV/AIDS. Young people are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviors. As discussed earlier, comprehensive knowledge of HIV and AIDS is defined as knowing that people can reduce their risk of getting the AIDS virus by having sex with only one uninfected faithful partner and by using condoms consistently, that a healthy-looking person can have the AIDS virus, and that HIV cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS.

Table 13.16 shows that 65 percent of young women and 64 percent of young men age 15-24 have comprehensive knowledge of HIV and AIDS. Young people's level of comprehensive knowledge about HIV and AIDS increases slightly with age and much more so by education. As expected, comprehensive HIV and AIDS knowledge is much more common among young women and men in urban areas (74 percent and 75 percent, respectively) than among those in rural areas (62 percent each).

Table 13.16 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Rwanda 2014-15

	Women			Men		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[1]	Number of respondents	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[1]	Number of respondents
Age						
15-19	61.6	84.6	2,768	59.5	93.6	1,282
15-17	59.7	81.5	1,743	55.7	91.0	808
18-19	64.7	89.8	1,025	65.9	97.9	474
20-24	68.1	91.4	2,457	70.6	98.3	994
20-22	68.5	91.1	1,545	68.4	97.8	624
23-24	67.4	92.1	913	74.3	99.0	370
Marital status						
Never married	63.2	86.7	4,107	64.2	95.3	2,095
Ever had sex	65.0	91.4	1,023	65.6	98.3	693
Never had sex	62.6	85.1	3,084	63.6	93.8	1,401
Ever married	69.8	92.0	1,118	65.2	99.5	181
Residence						
Urban	73.6	94.3	1,115	74.7	98.6	451
Rural	62.2	86.1	4,110	61.8	94.9	1,825
Education						
No education	45.9	79.7	138	36.2	91.2	55
Primary	61.6	83.7	3,033	58.9	94.2	1,356
Secondary and higher	70.3	94.5	2,054	74.7	98.1	864
Total	64.6	87.8	5,225	64.3	95.6	2,276

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.
[2] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Because condoms play an important role in fighting the transmission of HIV, young women and men were asked whether they knew of a source for condoms. Only "formal" sources of condoms were considered; friends and family and other similar sources were not included.

Table 13.16 shows that, 88 percent of young women and 96 percent of young men know where to obtain a condom. Knowledge of a condom source tends to increase slightly with age. Ever-married youth and those who

have never been married but have had sex are more likely to know about a source for condoms than those who have never been married and never had sex. Young women (94 percent) and men (97 percent) in urban areas are more likely to know a source of condom than those in rural areas (62 percent of young women compared to 62 percent of young men). Consistent with the patterns observed for other indicators, youth who are better educated (95 percent of women and 98 percent of men) are more likely than their counterparts to know a source of condoms (80 percent and 91 percent among women and men, respectively, with no education).

13.10.2 Age at First Sex and Condom Use at First Sexual Intercourse

Information from the 2014-15 RDHS can be used to look at several important issues related to the initiation of sexual activity among youth, such as age at first sex and condom use at first sexual intercourse.

Table 13.17 shows the proportion of young women and men age 15-24 who had sex before age 15 and before age 18. Five percent of young women and 11 percent of young men had sex before age 15, whereas 20 percent of young women and 23 percent of young men had sex by age 18.

Young adults women age 15-19 (7 percent) are more likely to have had sexual intercourse before age 15 than those age 20-24 (3 percent). Similarly, youth men age 18-19 (28 percent) are more likely than those age 20-24 (21 percent) to have had sex before age 18.

Table 13.17 Age at first sexual intercourse among young people

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Rwanda 2014-15

	Women				Men			
Background characteristic	Percentage who had sexual intercourse before age 15	Number of respondents 15-24	Percentage who had sexual intercourse before age 18	Number of respondents 18-24	Percentage who had sexual intercourse before age 15	Number of respondents 15-24	Percentage who had sexual intercourse before age 18	Number of respondents 18-24
Age								
15-19	6.8	2,768	na	na	13.4	1,282	na	na
15-17	7.5	1,743	na	na	12.9	808	na	na
18-19	5.5	1,025	23.6	1,025	14.2	474	28.1	474
20-24	3.0	2,457	18.1	2,457	7.0	994	20.5	994
20-22	3.1	1,545	19.8	1,545	7.6	624	21.3	624
23-24	2.9	913	15.3	913	6.0	370	19.0	370
Marital status								
Never married	5.6	4,107	15.8	2,375	11.5	2,095	23.7	1,287
Ever married	3.0	1,118	28.2	1,107	0.6	181	17.5	181
Knows condom source[1]								
Yes	4.8	4,588	19.8	3,168	10.7	2,176	23.2	1,441
No	6.5	637	19.3	315	9.1	100	(8.3)	27
Residence								
Urban	5.2	1,115	23.7	770	8.1	451	23.3	345
Rural	5.0	4,110	18.6	2,712	11.2	1,825	22.8	1,123
Education								
No education	10.1	138	26.4	125	9.5	55	(31.3)	40
Primary	5.7	3,033	24.3	1,947	11.0	1,356	23.3	812
Secondary and higher	3.7	2,054	12.9	1,411	10.1	864	21.9	616
Total	5.0	5,225	19.7	3,482	10.6	2,276	22.9	1,468

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not available
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Among young women, there is a negative association between level of education and early initiation of sexual activity: the proportion of women reporting sex before age 15 or age 18 decreases as education increases. This association is not observed among young men. Ever-married women are more likely than never-married

women to have had sex before age 18 (28 percent versus 16 percent). The opposite pattern is observed among men, however, with those who have ever been married being less likely to have had sex before age 18 than those who have never been married.

13.10.3 Premarital Sexual Activity

Table 13.18 presents data on the percentage of never-married young women and men age 15-24 who have never had sexual intercourse, the percentage who had sex in the 12 months preceding the survey, and, among those who had sex in the past 12 months, the percentage who used condoms during their most recent sexual intercourse.

Table 13.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Rwanda 2014-15

	Women					Men				
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married respondents	Percentage who used a condom at last sexual intercourse	Number of respondents	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married respondents	Percentage who used a condom at last sexual intercourse	Number of respondents
Age										
15-19	83.1	7.2	2,661	52.3	193	76.7	7.7	1,279	66.7	99
15-17	87.7	4.3	1,731	52.6	75	83.2	3.3	808	(47.7)	27
18-19	74.4	12.6	930	52.0	117	65.5	15.3	472	73.7	72
20-24	60.4	18.8	1,445	50.3	272	51.6	21.6	816	72.2	176
20-22	62.7	17.8	1,043	50.6	186	54.5	19.8	554	69.5	110
23-24	54.4	21.3	403	49.5	86	45.3	25.2	262	76.7	66
Knows condom source[1]										
Yes	73.8	12.1	3,560	54.4	432	65.9	13.6	1,996	70.8	272
No	83.8	6.0	547	(8.0)	33	87.8	2.4	99	*	2
Residence										
Urban	65.8	17.2	913	66.9	157	57.1	21.3	431	83.5	92
Rural	77.8	9.6	3,193	43.0	307	69.5	11.0	1,664	63.6	183
Education										
No education	54.4	19.1	60	*	12	(75.9)	(12.8)	39	*	5
Primary	72.7	11.9	2,208	45.1	264	68.3	12.4	1,214	71.3	150
Secondary and higher	78.6	10.3	1,838	60.6	189	64.5	14.2	842	69.5	119
Total	75.1	11.3	4,107	51.1	464	66.9	13.1	2,095	70.2	275

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Seventy-five percent of never-married young women and 67 percent of never-married men reported that they had never had sex. Consequently, the proportions of young adults reporting recent sexual activity (i.e., within the 12-month period before the survey) are low (11 percent among young women and 13 percent among young men). Among never-married, sexually active young women, 51 percent used a condom during their most recent sexual intercourse. Condom use among women is higher in urban than rural areas (67 percent versus 43 percent) and higher among those with a secondary education or more than among those with only a primary education. Seventy percent of never-married, sexually active young men reported using a condom during their last sexual intercourse. Similar to women, condom use among men is higher in urban areas (84 percent) than in rural areas (64 percent); however, it is not associated with educational level.

13.10.4 Multiple Sexual Partnerships

The most common mode of HIV transmission is through unprotected sex with an infected partner. To prevent HIV and AIDS transmission, it is important for young people to be faithful to one uninfected partner. Table 13.19 shows the percentage of young women and men age 15-24 who had sexual intercourse with more than one partner in the 12 months before the survey, by background characteristics.

Table 13.19 Multiple sexual partners in the past 12 months among young people

Among all women and men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, by background characteristics, Rwanda 2014-15

	Women age 15-24		Men age 15-24	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who had 2+ partners in the past 12 months	Number of men
Age				
15-19	0.5	2,768	0.7	1,282
15-17	0.0	1,743	0.2	808
18-19	1.4	1,025	1.5	474
20-24	0.9	2,457	3.5	994
20-22	1.0	1,545	2.2	624
23-24	0.8	913	5.6	370
Marital status				
Never married	0.6	4,107	1.6	2,095
Ever married	1.3	1,118	4.9	181
Knows condom source[1]				
Yes	0.8	4,588	2.0	2,176
No	0.1	637	0.0	100
Residence				
Urban	2.1	1,115	4.8	451
Rural	0.4	4,110	1.2	1,825
Education				
No education	0.6	138	3.1	55
Primary	0.8	3,033	2.0	1,356
Secondary and higher	0.6	2,054	1.7	864
Total 15-24	0.7	5,225	1.9	2,276

[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Overall, one percent of young women and only 2 percent of young men reported having had two or more sexual partners in the past 12 months. Differences by background characteristics among women are very slight. Among men, those age 23-24 (6 percent), those who have ever been married (5 percent), and those who live in urban areas (5 percent) are more likely to have had two or more sexual partners in the past 12 months than their counterparts.

13.10.5 Age-mixing in Sexual Relationships

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because older men are more likely to have been exposed to these diseases. Also, using preventive strategies such as negotiating safer sex is more difficult when a woman's partner is much older. To examine age-mixing, the 2014-15 RDHS asked respondents who had had sex in the 12 months preceding the survey to provide the age of their partner(s). The results are presented in Table 13.20 for young women and men age 15-19.

Table 13.20 Age-mixing in sexual relationships among women and men age 15-19

Among women and men age 15-19 who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with a partner who was 10 or more years older than themselves, by background characteristics, Rwanda 2014-15

	Women age 15-19 who had sexual intercourse in the past 12 months		Men age 15-19 who had sexual intercourse in the past 12 months	
Background characteristic	Percentage who had sexual intercourse with a partner 10+ years older	Number of women	Percentage who had sexual intercourse with a partner 10+ years older	Number of men
Age				
15-17	13.5	87	(2.8)	27
18-19	8.4	212	1.5	75
Residence				
Urban	8.7	87	(3.3)	23
Rural	10.4	212	1.4	79
Education				
No education	*	9	*	2
Primary	9.3	200	2.0	57
Secondary and higher	10.7	89	(1.8)	43
Total	9.9	298	1.9	102

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Overall, 10 percent of young women and 2 percent of young men age 15-19 who had sexual intercourse in the 12 months before the survey, had sex with a partner who was 10 or more years older than they were. Women age 15-17 are more likely to have had sex with someone 10 or more years older than they are, than those age 18-19.

13.10.6 Recent HIV Testing among Youth

People's knowledge of their HIV serostatus can motivate them to practice safer sexual behavior to avoid transmitting the virus to others. It is particularly important to measure coverage of HIV testing among youth, not only because of their vulnerability but also because they may encounter obstacles to counseling and testing. The 2014-15 RDHS asked respondents age 15-24 who had had sexual intercourse in the 12 months before the survey whether they had been tested for HIV in the past 12 months and received their test results. The results are shown in Table 13.21.

Table 13.21 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who were tested for HIV in the past 12 months and received the results of the last test, by background characteristics, Rwanda 2014-15

Background characteristic	Women age 15-24 who have had sexual intercourse in the past 12 months: Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women	Men age 15-24 who have had sexual intercourse in the past 12 months: Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Age				
15-19	61.3	298	29.4	102
15-17	43.4	87	(29.6)	27
18-19	68.6	212	29.3	75
20-24	59.0	1,235	54.5	352
20-22	62.8	662	52.5	179
23-24	54.7	572	56.6	173
Marital status				
Never married	56.2	464	38.3	275
Ever married	60.9	1,069	65.2	179
Knows condom source[1]				
Yes	60.1	1,417	49.0	450
No	52.2	116	*	3
Residence				
Urban	61.2	350	46.1	111
Rural	58.9	1,183	49.8	343
Education				
No education	49.3	86	*	22
Primary	59.3	1,049	49.2	290
Secondary and higher	62.1	398	47.1	142
Total	59.5	1,533	48.9	453

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Sixty percent of young women and 49 percent of young men who had had sexual intercourse in the year before the survey had been tested for HIV in the past 12 months and received the results of the test. Among women, those age 18-19 (69 percent), those who know a source for condoms (60 percent), and those with a secondary education or higher (62 percent) are more likely to have been tested for HIV and received the results in the past 12 months than their counterparts. The percentage of young women and men who were tested for HIV in the last 12 months and received the results is higher among those who have ever been married (61 percent for men and 65 percent for men) than among those who have never been married (56 percent for women and 38 percent for men).

13.11 MALE CIRCUMCISION

Studies have shown that male circumcision, which involves the removal of the foreskin of the penis, is associated with lower susceptibility to transmission of STIs, including HIV. Consequently, WHO recommends male circumcision as an HIV prevention method. Since 2009, the Ministry of Health of Rwanda has included male circumcision in the National Strategic Plans against HIV and AIDS.

The 2014-15 RDHS collected data on the prevalence of circumcision among male respondents, including age at circumcision and type of practitioner who performed the procedure.

In Rwanda, 30 percent of men age 15-49 have been circumcised (Table 13.22). The rate varies according to background characteristics. Results by age group show that the prevalence of circumcision is

highest at age 20-24 (44 percent), after which it drops gradually to a low of 18 percent at age 45-49. There are large geographic differentials, with the practice occurring more frequently in urban areas (58 percent) than in rural areas (22 percent). By province, the proportion of men who are circumcised is highest in City of Kigali (50 percent) and West (40 percent) and lowest in South (17 percent). There are also socioeconomic differences in the prevalence of circumcision, with the highest proportions among men who have a secondary education or higher (59 percent) and those in the richest wealth quintile (55 percent). Finally, differentials by religion show that Muslim men are much more likely to be circumcised (85 percent) than men of other religions (32 percent or less).

Men who were circumcised were asked who had performed the procedure. The majority of men (86 percent) said they were circumcised by a health professional. This proportion remains high irrespective of background characteristics but is highest among circumcised men in the city of Kigali (93 percent), those in the South province (94 percent), those with a secondary education or higher (90 percent), and those in the highest wealth quintile (89 percent). Eight percent of circumcisions were performed by a traditional practitioner or family friend.

Table 13.22 Practice of circumcision

Percentage of men age 15-49 who are circumcised, and percent distribution of circumcised men by type of practitioner who performed the circumcision, according to background characteristics, Rwanda 2014-15

			Who performed the circumcision						
Background characteristic	Percentage circumcised	Number of men	Traditional practitioner/ family friend	Health professional	Other	Don't know	Missing	Total	Number of circumcised men
Age									
15-19	26.5	1,282	6.3	87.0	3.7	2.8	0.3	100.0	340
20-24	44.2	994	7.0	88.6	2.9	1.3	0.3	100.0	439
25-29	35.3	946	7.2	86.0	4.1	2.8	0.0	100.0	334
30-34	27.7	930	8.7	84.6	1.6	4.7	0.5	100.0	257
35-39	22.0	567	7.4	81.8	7.8	2.5	0.6	100.0	125
40-44	18.9	473	13.1	79.2	3.8	2.8	1.1	100.0	89
45-49	17.5	385	12.6	82.7	2.6	2.0	0.2	100.0	67
Residence									
Urban	58.2	1,169	4.5	89.5	1.8	3.9	0.3	100.0	680
Rural	22.0	4,408	10.0	83.3	4.7	1.7	0.3	100.0	972
Province									
City of Kigali	50.2	804	2.7	92.9	0.8	3.3	0.4	100.0	403
South	17.3	1,327	2.0	94.1	1.6	1.9	0.4	100.0	230
West	40.3	1,182	16.3	78.2	2.7	2.5	0.3	100.0	476
North	19.1	851	2.3	77.1	19.6	1.0	0.0	100.0	162
East	26.9	1,413	8.2	86.7	1.6	3.2	0.3	100.0	380
Education									
No education	11.9	496	15.6	73.8	7.0	3.6	0.0	100.0	59
Primary	20.4	3,636	10.3	82.2	4.6	2.4	0.5	100.0	742
Secondary and higher	58.8	1,445	5.0	89.8	2.3	2.7	0.2	100.0	850
Religion									
Catholic	24.7	2,488	8.3	87.3	2.0	2.3	0.2	100.0	615
Protestant	31.5	2,135	8.4	85.2	3.2	2.9	0.3	100.0	673
Adventist	28.7	641	2.5	89.4	6.5	0.6	1.0	100.0	184
Muslim	84.7	168	9.8	78.1	7.5	4.6	0.0	100.0	142
Traditional/other/no religion	26.7	140	5.3	85.8	3.0	5.9	0.0	100.0	37
Wealth quintile									
Lowest	12.6	819	7.9	80.7	8.9	2.5	0.0	100.0	104
Second	17.6	991	11.3	82.6	5.3	0.8	0.0	100.0	174
Middle	23.0	1,097	9.2	82.0	4.9	3.0	0.8	100.0	253
Fourth	27.0	1,234	9.1	85.4	4.2	0.9	0.4	100.0	333
Highest	54.9	1,436	5.9	88.6	1.6	3.6	0.2	100.0	788
Total 15-49	29.6	5,577	7.7	85.8	3.5	2.6	0.3	100.0	1,652
50-59	11.8	640	26.1	69.0	4.9	0.0	0.0	100.0	75
Total 15-59	27.8	6,217	8.5	85.1	3.6	2.5	0.3	100.0	1,727

Note: Total includes 5 cases in which information on religion is missing.

Table 13.23 shows that 80 percent of circumcisions were performed at a health facility, whereas 6 percent were carried out at the home of a health care provider and 3 percent at the respondent's home. Four percent of men were circumcised at a ritual site.

The proportion of men who were circumcised at a health facility increases with increasing education; 50 percent for those with no education level represent and 84 percent for those with secondary or higher education. Muslim men are most likely to have been circumcised at a ritual site or at home compared to other religions.

Table 13.23 Place of circumcision

Percent distribution of circumcised men age 15-49 by place of circumcision, according to background characteristics, Rwanda 2014-15

Background characteristic	Place of circumcision							
	Health facility	Home of a health worker/ professional	Circumcision done at home	Ritual site	Other home/ place	Don't know/ missing	Total	Number of circumcised men
Age								
15-19	80.9	6.2	4.3	3.2	3.5	1.9	100.0	340
20-24	82.3	5.4	3.5	2.5	5.4	0.9	100.0	439
25-29	80.1	6.7	2.0	5.0	4.5	1.7	100.0	334
30-34	81.2	4.3	1.8	2.7	4.9	5.2	100.0	257
35-39	77.0	4.8	1.8	6.5	7.6	2.2	100.0	125
40-44	70.9	5.9	8.6	4.3	7.5	2.8	100.0	89
45-49	66.6	7.4	2.9	4.5	16.5	2.1	100.0	67
Residence								
Urban	79.7	6.2	4.2	3.5	2.9	3.3	100.0	680
Rural	79.7	5.4	2.5	3.7	7.3	1.3	100.0	972
Province								
City of Kigali	85.1	5.0	2.9	3.1	0.8	3.0	100.0	403
South	85.8	3.9	2.7	4.6	1.9	1.0	100.0	230
West	71.0	10.1	4.5	0.3	11.5	2.6	100.0	476
North	85.7	2.2	2.2	5.0	3.8	1.0	100.0	162
East	78.7	3.5	2.8	7.3	5.8	1.9	100.0	380
Education								
No education	57.2	18.2	1.2	10.7	10.3	2.4	100.0	59
Primary	76.7	5.6	3.1	4.6	8.0	2.0	100.0	742
Secondary and higher	84.0	4.9	3.5	2.3	2.9	2.3	100.0	850
Religion								
Catholic	82.9	5.0	2.1	2.0	6.0	1.9	100.0	615
Protestant	79.5	6.9	3.3	2.5	5.3	2.5	100.0	673
Adventist	86.9	4.3	0.9	2.4	3.9	1.6	100.0	184
Muslim	56.6	6.4	10.6	18.9	5.9	1.5	100.0	142
Traditional/other/no religion	85.6	0.0	3.1	0.0	5.4	5.9	100.0	37
Wealth quintile								
Lowest	72.6	7.6	2.9	7.0	9.1	0.9	100.0	104
Second	77.3	7.3	2.9	2.2	9.8	0.4	100.0	174
Middle	81.4	4.4	1.4	2.7	8.5	1.6	100.0	253
Fourth	81.6	5.5	2.6	3.6	5.5	1.2	100.0	333
Highest	79.9	5.7	4.2	3.8	3.1	3.3	100.0	788
Total 15-49	79.7	5.7	3.2	3.7	5.5	2.2	100.0	1,652
50-59	63.0	6.4	6.5	8.7	14.4	0.9	100.0	75
Total 15-59	79.0	5.8	3.4	3.9	5.9	2.1	100.0	1,727

Men who said they had been circumcised were asked how old they were at the time of circumcision. The results are presented in Table 13.24. One-quarter of circumcisions took place before age 13, and over one-third (35 percent) were performed between age 13 and age 19. However, the largest proportion of circumcised men (39 percent) said that the procedure took place when they were age 20 or older. Only 2 percent of men were not certain when they were circumcised, perhaps because they were circumcised at a very young age and do not remember the event.

There are no specific patterns in age at circumcision with respect to current age group. However, the proportion of men who were circumcised before age 13 is highest among those living in urban areas (33 percent), those in the West province and City of Kigali (31 percent and 30 percent, respectively), those with no education (40 percent), and those in the wealthiest households (32 percent). Also, about half of Muslim men (51 percent) were circumcised before age 13.

Table 13.24 Age at circumcision

Percent distribution of circumcised men age 15-49 by age at circumcision, according to background characteristics, Rwanda 2014-15

Background characteristic	Age at circumcision					Number of circumcised men
	<13	13-19	≥20	Don't know/ missing	Total	
Age						
15-19	34.2	64.1	0.2	1.4	100.0	340
20-24	20.5	39.5	38.2	1.8	100.0	439
25-29	21.0	21.9	56.4	0.7	100.0	334
30-34	23.8	17.7	56.9	1.6	100.0	257
35-39	27.1	21.8	48.5	2.6	100.0	125
40-44	33.0	19.9	45.9	1.2	100.0	89
45-49	18.0	27.4	53.8	0.9	100.0	67
Residence						
Urban	33.4	27.2	37.7	1.6	100.0	680
Rural	19.1	40.0	39.5	1.3	100.0	972
Province						
City of Kigali	29.8	24.7	43.0	2.5	100.0	403
South	19.2	30.6	49.3	0.9	100.0	230
West	30.5	43.4	25.1	1.0	100.0	476
North	14.6	45.2	40.2	0.0	100.0	162
East	21.0	32.6	44.5	1.9	100.0	380
Education						
No education	40.4	28.7	29.9	1.0	100.0	59
Primary	21.0	33.7	44.0	1.3	100.0	742
Secondary and higher	27.4	36.1	34.9	1.6	100.0	850
Religion						
Catholic	20.5	35.6	42.3	1.6	100.0	615
Protestant	24.2	35.3	39.1	1.4	100.0	673
Adventist	22.3	37.3	40.4	0.0	100.0	184
Muslim	50.8	23.6	22.3	3.2	100.0	142
Traditional/other/no religion	29.2	40.4	30.4	0.0	100.0	37
Wealth quintile						
Lowest	25.2	43.7	29.1	1.9	100.0	104
Second	20.3	43.2	35.9	0.6	100.0	174
Middle	18.0	40.5	40.3	1.2	100.0	253
Fourth	16.3	38.8	43.8	1.1	100.0	333
Highest	31.9	28.2	38.1	1.8	100.0	788
Total 15-49	25.0	34.7	38.8	1.5	100.0	1,652
50-59	35.6	35.8	27.0	1.6	100.0	75
Total 15-59	25.5	34.8	38.3	1.5	100.0	1,727

HIV PREVALENCE 14

Key Findings

- HIV prevalence has been stable since 2005 and remains at 3 percent among adults age 15-49 (4 percent among women and 2 percent among men).
- HIV prevalence is higher in urban areas than in rural areas (6 percent and 2 percent, respectively).
- HIV prevalence increases with age and is highest among women age 40-44 (8 percent) and men age 45-49 (9 percent).
- HIV prevalence is highest in the City of Kigali (6 percent) and is relatively uniform throughout the other provinces (2 percent to 3 percent).
- HIV prevalence is particularly high among widows and those who are divorced or separated; 14 percent of widows are HIV positive.
- Only a very small proportion of children age 0-14 are living with HIV (less than 1 percent).

In Rwanda, much of the information on national HIV prevalence is derived from the antenatal care (ANC) sentinel surveillance system. Although surveillance data do not provide estimates of HIV prevalence for the general population, they do provide results specific to women attending antenatal clinics.

The inclusion of HIV testing in the 2005, 2010, and 2014-15 RDHS surveys offers the opportunity to better understand the magnitude and patterns of infection in the general population of reproductive age, including men age 15-59 who are not tested as part of antenatal sentinel surveillance. The 2014-15 RDHS is the third RDHS survey to anonymously link HIV testing results with key behavioral and sociodemographic characteristics of both male and female respondents, the first being the 2005 RDHS. These surveys provide national, population-based trend data on HIV prevalence among women age 15-49 and men age 15-59. In addition, for the first time, the 2014-15 RDHS included HIV testing of children age 0-14.

This chapter presents information on HIV testing coverage rates among eligible survey respondents, the prevalence of HIV infection among those tested, and the factors associated with HIV infection in the population. Blood samples were collected from all eligible respondents who provided informed consent. Drops of blood were drawn and dried on filter paper. Dried blood spot (DBS) specimens on filter paper and transfer forms for the samples from each cluster were returned to the National Institute of Statistics of Rwanda (NISR), where they were verified, resolved for any discrepancies, and registered. Samples were then transferred by lot to the National Reference Laboratory (NRL). The NRL registered each lot of samples it received and indicated the date and number of samples received for each cluster. Any discrepancies between the samples received by the laboratory and the number of samples recorded at the central NISR office were resolved immediately. Each blood sample provided to the NRL is identified only via a barcode.

For respondents between the age of 2 and 59, specimens were tested according to the following protocol. DBS specimens were first tested via Vironostika® Ag/Ab, fourth generation, and MUREX® Ag/Ab combination. Specimens that were reactive to the EIA were confirmed through the Pepti-LAV HIV-1 western blot (WB). Each round of testing included positive and negative control specimens to aid in the interpretation of results.

The NRL processed the samples according to the following algorithm:

Screening: The Vironostika Ag/Ab is used in this step. If the test is negative, the result is recorded as negative.

Confirmation: Positive samples are tested with the highly specific Murex HIV Ag/Ab combination.

- If a sample is positive (concordance), the result is recorded as positive.
- If a sample is negative (discordance), it is confirmed with the WB. The final result is recorded as positive if the WB result is positive and negative if the WB result is negative. If the WB result is indeterminate, the final result is recorded as indeterminate.

Polymerase chain reaction (PCR) was used in testing the specimens of children age 0-23 months.

14.1 Coverage Rates for HIV Testing among Adults

Table 14.1 shows the distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status. Ninety-nine percent of RDHS respondents who were eligible for testing were interviewed and consented to HIV testing. The percentages of respondents who refused to be tested for HIV or were absent at the time of blood collection and therefore did not provide a blood sample was very small (less than 1 percent). The coverage rate was the same for women and men (99 percent each).

Table 14.1 Coverage of HIV testing by residence and province

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and province (unweighted), Rwanda 2014-15

	Testing status									
	DBS tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/missing[2]			
Residence/province	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-iewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Total	Number
					WOMEN					
Residence										
Urban	98.6	0.0	1.0	0.1	0.0	0.0	0.1	0.2	100.0	1,695
Rural	99.5	0.0	0.2	0.1	0.0	0.0	0.0	0.2	100.0	5,105
Province										
City of Kigali	98.6	0.0	1.1	0.0	0.0	0.0	0.1	0.2	100.0	929
South	99.0	0.1	0.5	0.2	0.0	0.0	0.1	0.2	100.0	1,732
West	99.6	0.0	0.2	0.1	0.0	0.0	0.0	0.2	100.0	1,573
North	99.6	0.0	0.3	0.0	0.0	0.0	0.0	0.1	100.0	1,092
East	99.4	0.0	0.1	0.2	0.0	0.0	0.0	0.3	100.0	1,474
Total	99.3	0.0	0.4	0.1	0.0	0.0	0.0	0.2	100.0	6,800
					MEN					
Residence										
Urban	98.3	0.1	0.9	0.2	0.0	0.2	0.0	0.2	100.0	1,619
Rural	99.3	0.0	0.2	0.1	0.0	0.0	0.0	0.3	100.0	4,630
Province										
City of Kigali	98.5	0.0	1.0	0.2	0.0	0.0	0.0	0.2	100.0	886
South	99.2	0.1	0.1	0.2	0.0	0.1	0.1	0.3	100.0	1,658
West	99.2	0.1	0.4	0.1	0.0	0.0	0.0	0.2	100.0	1,358
North	99.0	0.1	0.2	0.0	0.0	0.2	0.0	0.4	100.0	932
East	99.2	0.0	0.3	0.0	0.1	0.0	0.1	0.4	100.0	1,415
Total 15-49	99.0	0.1	0.4	0.1	0.0	0.1	0.0	0.3	100.0	5,917
Total	99.1	0.0	0.4	0.1	0.0	0.0	0.0	0.3	100.0	6,249
					TOTAL					
Residence										
Urban	98.5	0.0	1.0	0.2	0.0	0.1	0.0	0.2	100.0	3,314
Rural	99.4	0.0	0.2	0.1	0.0	0.0	0.0	0.3	100.0	9,735
Province										
City of Kigali	98.6	0.0	1.0	0.1	0.0	0.0	0.1	0.2	100.0	1,815
South	99.1	0.1	0.3	0.2	0.0	0.0	0.1	0.3	100.0	3,390
West	99.4	0.0	0.3	0.1	0.0	0.0	0.0	0.2	100.0	2,931
North	99.4	0.0	0.2	0.0	0.0	0.1	0.0	0.2	100.0	2,024
East	99.3	0.0	0.2	0.1	0.0	0.0	0.0	0.3	100.0	2,889
Total	99.2	0.0	0.4	0.1	0.0	0.0	0.0	0.3	100.0	13,049

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table 14.2 shows HIV testing coverage rates for women age 15-49 and men age 15-59 by age, level of education, and wealth quintile. Because coverage rates were nearly 100 percent among both women and men, variation by background characteristics was negligible. Additional tables describing the relationship between participation in HIV testing and characteristics related to HIV risk are presented in Appendix A.

Table 14.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Rwanda 2014-15

	Testing status									
	DBS tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/missing[2]			
Background characteristic	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Total	Number
WOMEN										
Age										
15-19	99.2	0.1	0.4	0.0	0.0	0.0	0.0	0.4	100.0	1,386
20-24	99.3	0.0	0.3	0.2	0.0	0.0	0.0	0.2	100.0	1,237
25-29	99.1	0.0	0.3	0.1	0.0	0.0	0.1	0.3	100.0	1,148
30-34	99.2	0.0	0.4	0.2	0.0	0.0	0.1	0.2	100.0	1,127
35-39	99.0	0.0	0.8	0.0	0.0	0.0	0.0	0.3	100.0	780
40-44	99.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	100.0	640
45-49	99.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	100.0	479
Education										
No education	97.6	0.1	0.2	0.6	0.0	0.0	0.0	1.4	100.0	843
Primary	99.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0	100.0	4,249
Secondary and higher	98.8	0.0	0.9	0.1	0.0	0.0	0.1	0.1	100.0	1,708
Wealth quintile										
Lowest	99.4	0.0	0.0	0.1	0.0	0.0	0.1	0.5	100.0	1,240
Second	99.5	0.1	0.3	0.1	0.0	0.0	0.0	0.0	100.0	1,270
Middle	99.3	0.0	0.3	0.3	0.0	0.0	0.0	0.1	100.0	1,264
Fourth	99.8	0.0	0.1	0.0	0.0	0.0	0.0	0.2	100.0	1,327
Highest	98.5	0.0	1.0	0.1	0.0	0.0	0.1	0.4	100.0	1,699
Total	99.3	0.0	0.4	0.1	0.0	0.0	0.0	0.2	100.0	6,800
MEN										
Age										
15-19	99.5	0.0	0.0	0.1	0.0	0.0	0.0	0.4	100.0	1,290
20-24	99.1	0.0	0.3	0.2	0.1	0.1	0.0	0.2	100.0	1,001
25-29	99.0	0.0	0.6	0.1	0.0	0.0	0.0	0.3	100.0	968
30-34	98.6	0.0	0.7	0.0	0.0	0.2	0.1	0.3	100.0	938
35-39	98.9	0.0	0.5	0.2	0.0	0.0	0.2	0.2	100.0	560
40-44	98.7	0.4	0.2	0.2	0.0	0.0	0.0	0.4	100.0	474
45-49	99.2	0.3	0.5	0.0	0.0	0.0	0.0	0.0	100.0	382
50-59	99.2	0.0	0.2	0.2	0.0	0.0	0.0	0.5	100.0	636
Education										
No education	98.1	0.3	0.1	0.3	0.0	0.0	0.0	1.2	100.0	671
Primary	99.3	0.0	0.2	0.1	0.0	0.1	0.1	0.3	100.0	3,987
Secondary and higher	98.9	0.1	0.8	0.1	0.1	0.1	0.0	0.1	100.0	1,591
Wealth quintile										
Lowest	98.7	0.1	0.1	0.2	0.0	0.0	0.0	0.9	100.0	909
Second	99.3	0.1	0.0	0.2	0.0	0.0	0.0	0.4	100.0	1,076
Middle	99.7	0.0	0.1	0.0	0.1	0.1	0.0	0.1	100.0	1,181
Fourth	99.3	0.0	0.3	0.1	0.0	0.0	0.1	0.2	100.0	1,362
Highest	98.5	0.1	1.0	0.1	0.0	0.1	0.1	0.2	100.0	1,721
Total	99.1	0.0	0.4	0.1	0.0	0.0	0.0	0.3	100.0	6,249

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

14.2 HIV PREVALENCE AMONG ADULTS

14.2.1 HIV Prevalence by Age and Sex

Table 14.3 shows that 3 percent of adults age 15-49 in Rwanda are living with HIV. The HIV prevalence rate is 4 percent among women and 2 percent among men. Figure 14.1 illustrates age patterns in HIV prevalence among women and men. In general, HIV prevalence rises with age. Among women, the HIV prevalence increases from 1 percent at age 15-19 to 8 percent at age 40-44 before decreasing rapidly to 6 percent at age

45-49. Among men, the prevalence increases from less than 1 percent at age 15-19 to 4 percent at age 40-44 and 9 percent at age 45-49.

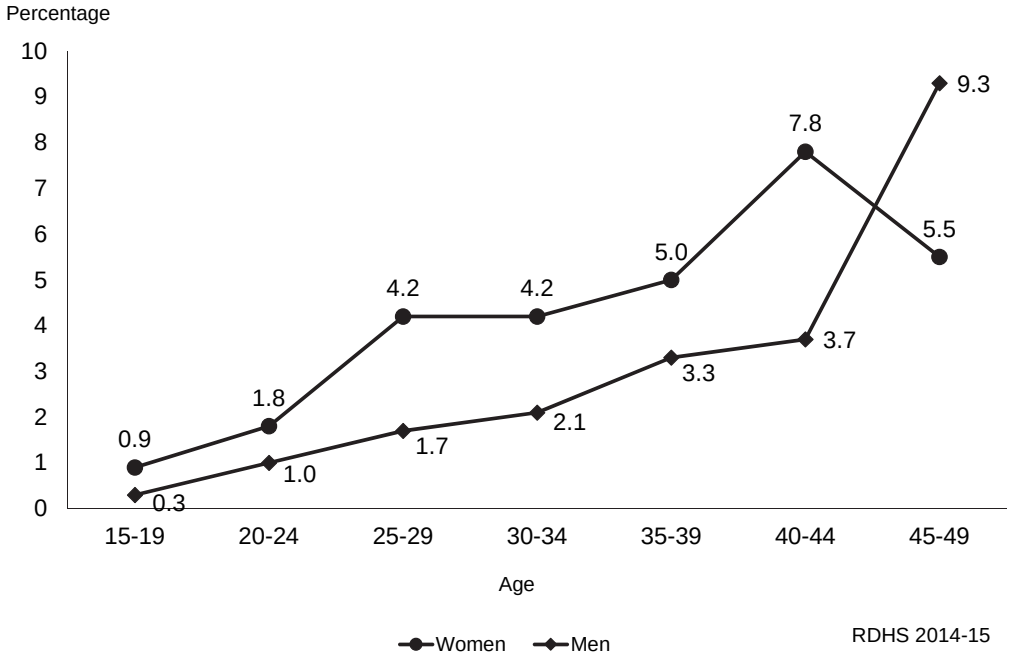
Table 14.3 HIV prevalence among adults

Among de facto women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV positive, by age, Rwanda 2014-15

	Women		Men		Total	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	0.9	1,366	0.3	1,280	0.6	2,646
20-24	1.8	1,218	1.0	989	1.5	2,207
25-29	4.2	1,139	1.7	941	3.1	2,080
30-34	4.2	1,119	2.1	920	3.2	2,039
35-39	5.0	772	3.3	564	4.3	1,335
40-44	7.8	646	3.7	473	6.1	1,119
45-49	5.5	494	9.3	383	7.1	877
50-54	na	na	5.6	349	na	na
55-59	na	na	4.3	289	na	na
Total 15-49	3.6	6,752	2.2	5,551	3.0	12,302
50-59	na	na	5.0	638	na	na
Total 15-59	na	na	2.5	6,188	na	na

na = Not applicable

Figure 14.1 **HIV prevalence by sex and age**



14.2.2 Trends in HIV Prevalence

Table 14.4 shows trends in HIV prevalence over the last 5 years, by age. In Rwanda, the overall HIV prevalence among adults did not change between the 2010 and 2014-15 RDHS surveys (3 percent). HIV prevalence among women held steady at 4 percent over the five-year period, while the prevalence among men remained at 2 percent.

Table 14.4 Trends in HIV prevalence by age

Among de facto women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV positive, by age, Rwanda 2010 and 2014-15

	Women				Men				Total			
	2010 RDHS		2014-15 RDHS		2010 RDHS		2014-15 RDHS		2010 RDHS		2014-15 RDHS	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	0.8	1,532	0.9	1,366	0.3	1,450	0.3	1,280	0.5	2,982	0.6	2,646
20-24	2.4	1,372	1.8	1,218	0.5	1,158	1.0	989	1.5	2,531	1.5	2,207
25-29	3.9	1,270	4.2	1,139	1.7	1,037	1.7	941	2.9	2,307	3.1	2,080
30-34	4.2	880	4.2	1,119	3.5	710	2.1	920	3.9	1,590	3.2	2,039
35-39	7.9	715	5.0	772	3.9	493	3.3	564	6.3	1,208	4.3	1,335
40-44	6.1	612	7.8	646	7.3	430	3.7	473	6.6	1,042	6.1	1,119
45-49	5.8	534	5.5	494	5.6	413	9.3	383	5.7	947	7.1	877
Total 15-49	3.7	6,917	3.6	6,752	2.2	5,690	2.2	5,551	3.0	12,607	3.0	12,302
Total men 15-59	na	na	na	na	2.4	6,331	2.5	6,188	na	na	na	na

na = Not applicable

14.2.3 HIV Prevalence by Socioeconomic Characteristics

Table 14.5 shows variations in HIV prevalence by various socioeconomic characteristics, including residence, province, religion, education, employment, and wealth quintile.

HIV prevalence is slightly higher among respondents who are employed (3 percent) than among those who are not employed (2 percent).

HIV prevalence in urban areas (6 percent) is three times that in rural areas (2 percent). By sex, 8 percent of women and 5 percent of men in urban areas are infected with HIV, as compared with 3 percent of women and 2 percent of men in rural areas. The City of Kigali has a higher HIV prevalence (6 percent) than the other provinces (3 percent in South and 2 percent each of the remaining Provinces).

Overall, HIV prevalence in Rwanda is higher among respondents with no education (4 percent) than among those with a primary education (3 percent) and those with a secondary education or higher (2 percent). Five percent of women with no education, 4 percent of women with a primary education, and 3 percent of women with a secondary education or higher are living with HIV. The pattern differs among men, with the HIV prevalence rate being the same at all levels of education (2 percent).

Table 14.5 HIV prevalence by socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Rwanda 2014-15

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Religion						
Catholic	3.1	2,724	2.1	2,478	2.6	5,202
Protestant	3.6	2,996	2.0	2,125	3.0	5,121
Adventist	4.8	809	2.8	637	3.9	1,446
Muslim	6.2	130	1.9	167	3.8	297
Jehovah's Witness	5.7	53	(0.0)	46	3.1	99
Traditional	*	3	*	0	*	3
Other	(9.8)	24	4.2	92	5.4	116
Employment (last 12 months)						
Not employed	2.0	953	0.7	737	1.5	1,690
Employed	3.9	5,795	2.4	4,806	3.2	10,600
Residence						
Urban	7.8	1,277	4.6	1,164	6.2	2,440
Rural	2.7	5,475	1.5	4,387	2.2	9,862
Province						
City of Kigali	8.0	881	4.4	800	6.3	1,681
South	3.2	1,601	2.0	1,321	2.6	2,922
West	3.2	1,508	1.3	1,177	2.4	2,684
North	2.5	1,109	2.1	847	2.3	1,956
East	2.9	1,653	1.9	1,406	2.4	3,058
Education						
No education	5.3	860	2.0	494	4.1	1,354
Primary	3.6	4,329	2.3	3,621	3.0	7,950
Secondary and higher	2.8	1,394	2.0	1,191	2.4	2,585
Wealth quintile						
Lowest	4.0	1,246	2.2	816	3.3	2,062
Second	2.6	1,309	1.5	990	2.1	2,299
Middle	3.7	1,334	2.1	1,092	3.0	2,426
Fourth	1.8	1,375	1.3	1,227	1.6	2,602
Highest	5.8	1,488	3.5	1,425	4.7	2,913
Total 15-49	3.6	6,752	2.2	5,551	3.0	12,302
50-59	na	na	5.0	638	5.0	638
Total 15-59	na	na	2.5	6,188	2.5	6,188

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 8 women and 5 men with missing information on religion and 4 women and 8 men with missing information on employment.
na = Not applicable

HIV prevalence is highest among women and men in the highest wealth quintile. However, the relationship between HIV prevalence and wealth is not linear. Among both women and men, those in the fourth wealth quintile have the lowest HIV prevalence.

14.2.4 HIV Prevalence by Demographic Characteristics

Table 14.6 shows HIV prevalence among women and men by various demographic characteristics. HIV prevalence is closely related to marital status among both women and men. Fifteen percent of widowed respondents and 8 percent of divorced or separated respondents are HIV positive, as compared with only 3 percent of respondents who are currently married.

Among respondents who have never been married, the HIV prevalence is 3 percent for those who have had sex and less than 1 percent for those who have never had sex. The latter statistics suggest that some women and men incorrectly reported that they were not sexually active or that some degree of nonsexual HIV transmission is occurring (e.g., through blood transfusions, non-sterile injections, or mother-to-child transmission).

Currently married women or living together with a partner, are slightly more likely to be infected with HIV than their men counterparts (4 percent and 3 percent, respectively). The same pattern is observed among women and men who are divorced or separated (8 percent and 7 percent, respectively). Unmarried adult who ever had sex are more likely to be infected with HIV than those who never had sex. HIV prevalence among unmarried women who have ever had sex is much higher than the prevalence among their male counterparts (5 percent versus 2 percent).

HIV prevalence is higher (7 percent) among respondents who are in a polygynous union, than among respondents who are in a non-polygynous union or are not currently in a union (3 percent). The pattern is similar when the data are disaggregated by sex.

The 2014-15 RDHS measured time away from home in two different ways: (1) the number of times the respondent slept away from home in the past 12 months and (2) whether or not the respondent was away for more than one month at a time. In terms of the number of times respondents slept away from home, there is no relationship in HIV prevalence among either women or men. Similarly, there are no meaningful differences in HIV prevalence with respect to the duration of time away from home over the past year.

Table 14.6 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, Rwanda 2014-15

	Women		Men		Total	
Demographic characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	1.8	2,521	0.9	2,681	1.3	5,202
Ever had sexual intercourse	4.7	779	1.5	1,105	2.8	1,884
Never had sexual intercourse	0.5	1,741	0.5	1,576	0.5	3,318
Married/living together	3.6	3,524	3.1	2,776	3.4	6,300
Divorced or separated	8.1	415	6.6	78	7.9	492
Widowed	13.7	292	*	16	14.8	308
Type of union						
In polygynous union	6.5	258	6.7	61	6.5	318
In non-polygynous union	3.4	3,226	3.0	2,716	3.2	5,941
Not currently in union	3.7	3,228	1.3	2,774	2.6	6,002
Times slept away from home in past 12 months						
None	3.9	3,560	2.2	3,391	3.1	6,951
1-2	3.4	2,309	2.2	1,280	3.0	3,589
3-4	2.9	559	2.3	427	2.6	986
5+	3.6	313	1.9	448	2.6	761
Time away in past 12 months						
Away for more than 1 month	3.3	547	2.0	576	2.7	1,123
Away for less than 1 month	3.3	2,642	2.2	1,577	2.9	4,219
Not away	3.9	3,562	2.2	3,391	3.1	6,953
Currently pregnant						
Pregnant	2.5	492	na	na	na	na
Not pregnant or not sure	3.7	6,260	na	na	na	na
ANC for last birth in the last 3 years						
ANC provided by the public sector	3.3	2,243	na	na	na	na
ANC provided by other than the public sector	*	19	na	na	na	na
No ANC/no birth in last 3 years	3.8	4,487	na	na	na	na
Male circumcision						
Circumcised	na	na	1.9	1,639	na	na
Not circumcised	na	na	2.3	3,907	na	na
Total 15-49	3.6	6,752	2.2	5,551	3.0	12,302
50-59	na	na	5.0	638	na	na
Total 15-59	na	na	2.5	6,188	na	na

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 40 women with missing information on type of union, 11 women and 5 men with missing information on times slept away from home, 7 men with missing information on time away, 2 women with missing information on ANC, and 4 men with missing information on circumcision status.
na = Not applicable

Women who were pregnant at the time of the survey are slightly less likely to be HIV positive than women who were not pregnant or who were unsure of their pregnancy status (3 percent and 4 percent, respectively). Male circumcision has been shown to somewhat reduce transmission of HIV (see Table 14.7).

14.2.5 HIV Prevalence by Sexual Risk Behavior

Table 14.7 presents HIV prevalence rates among respondents who have ever had sexual intercourse by sexual behavior indicators. In reviewing these results, it is important to note that responses to questions about sexual risk behaviors may be subject to reporting bias. Also, sexual behavior in the 12 months preceding the survey may not adequately reflect lifetime sexual risk, nor is it possible to know the sequence of events (e.g., whether any reported condom use occurred before or after HIV infection). The results show that 4 percent of respondents age 15-49 who had ever had sex and were tested for HIV are HIV positive (5 percent of women and 3 percent of men).

Table 14.7 HIV prevalence by sexual behavior

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behavior characteristics, Rwanda 2014-15

	Women		Men		Total	
Sexual behavior characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	6.7	457	0.9	538	3.6	995
16-17	7.8	742	3.3	387	6.2	1,129
18-19	5.1	1,146	3.6	708	4.5	1,854
20+	3.4	2,578	3.0	2,256	3.2	4,833
Missing	4.7	86	3.1	83	3.9	169
Multiple sexual partners and partner concurrency in past 12 months						
0	6.5	970	2.7	678	4.9	1,648
1	4.2	3,981	2.7	3,041	3.5	7,022
2+	14.9	55	4.5	253	6.3	308
Had concurrent partners[1]	*	10	3.9	86	8.4	96
None of the partners were concurrent	(7.7)	45	4.8	167	5.4	212
Condom use at last sexual intercourse in past 12 months						
Used condom	12.8	442	8.8	543	10.6	986
Did not use condom	3.3	3,592	1.7	2,750	2.6	6,342
No sexual intercourse in last 12 months	6.5	972	2.7	678	4.9	1,649
Number of lifetime partners						
1	2.5	3,520	1.1	1,661	2.0	5,181
2	8.7	1,038	2.7	1,167	5.5	2,206
3-4	12.8	404	4.1	764	7.1	1,168
5-9	(16.7)	34	6.7	269	7.8	303
10+	*	9	12.7	105	14.1	114
Paid for sexual intercourse in past 12 months						
Yes	na	na	4.7	74	na	na
Used condom	na	na	(6.6)	48	na	na
Did not use condom	na	na	(1.2)	26	na	na
No (No paid sexual intercourse/no sexual intercourse in last 12 months)	na	na	2.8	3,898	na	na
Total 15-49	4.7	5,008	2.8	3,972	3.9	8,980
50-59	na	na	5.0	632	na	na
Total 15-59	na	na	3.1	4,604	na	na

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 2 women with missing information on number of partners, 2 women and 1 man with missing information on condom use at last sexual intercourse, and 3 women and 5 men with missing information on number of lifetime partners.
na = Not applicable
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives.)

Among women whose age at sexual debut was 17 and younger, 7 percent to 8 percent are HIV positive, a figure that decreases to 3 percent among women whose sexual debut was at age 20 or older. By contrast, HIV prevalence is highest among men whose sexual debut was at age 18-19 (4 percent) and lowest among those whose sexual debut was before age 16 (less than 1 percent).

HIV prevalence is higher among respondents with multiple sexual partners; 6 percent of respondents who had two or more partners in the 12 months before the survey and 8 percent who had concurrent partners in the past 12 months are living with HIV. The pattern is similar when the data are disaggregated by sex, especially for the small number of women who reported having more than one partner (15 percent of these women tested HIV positive).

Thirteen percent of women who used a condom during their most recent sexual intercourse in the 12 months preceding the survey were tested HIV positive. Three percent of those who did not use a condom during their most recent sexual intercourse in the 12 months preceding the survey were tested HIV positive. Nine percent of men who used a condom during their most recent sexual intercourse and 2 percent of those who did not use a condom are infected with HIV. However this cross-sectional study did not determine the cause and effect. HIV prevalence rates among women and men who did not have sexual intercourse in the 12 months before the survey are 7 percent and 3 percent, respectively.

HIV prevalence increases with increasing number of lifetime sexual partners among both women and men. The prevalence among women increases from 3 percent among those with one lifetime partner to 13 percent among those with three to four lifetime partners. Among men, the prevalence ranges from 1 percent among those with one lifetime partner to 13 percent among those with 10 or more partners.

HIV prevalence is slightly higher among men who paid for sexual intercourse in the 12 months before the survey than among men who did not report paying for sex or who did not have sexual intercourse in the past 12 months (5 percent versus 3 percent).

14.3 HIV Prevalence among Youth

14.3.1 Overall HIV Prevalence among Youth

Table 14.8 shows HIV prevalence among young women and men age 15-24. Overall, 1 percent of youth in this age group tested positive for HIV, with the prevalence being marginally higher among young women (1 percent) than among young men (less than 1 percent). HIV prevalence among young people increases very slightly but steadily with age.

Young respondents who have never been married are less likely to be living with HIV (1 percent) than those who are married or living together with a partner (2 percent) and much less likely than those who are separated, divorced, or widowed (6 percent). Among youth who have never been married, HIV prevalence is higher among those who have had sex (2 percent) than among those who have never had sex (less than 1 percent).

Among young women, HIV prevalence is 1 percent among both those who are pregnant and those who are not pregnant or not sure.

As observed for adults age 15-49, HIV prevalence among youth age 15-24 is higher in urban areas than in rural areas. By province, HIV prevalence is higher in the City of Kigali (3 percent) than in other provinces.

HIV prevalence among youth varies by educational attainment. Five percent of young women with no education are living with HIV, as compared with 2 percent of young women with a primary education and

1 percent with a secondary education or higher. Among young men, HIV prevalence is higher among those with any education than among those with none.

By wealth, HIV prevalence is highest among both young women and young men in the highest wealth quintile. However, the relationship between HIV prevalence and household wealth quintile is not linear.

Table 14.8 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, Rwanda 2014-15

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	0.9	1,366	0.3	1,280	0.6	2,646
15-17	0.5	876	0.2	806	0.4	1,682
18-19	1.6	490	0.3	474	0.9	964
20-24	1.8	1,218	1.0	989	1.5	2,207
20-22	1.7	763	0.8	620	1.3	1,383
23-24	2.1	454	1.5	369	1.8	823
Marital status						
Never married	0.8	2,036	0.5	2,089	0.7	4,126
Ever had sex	2.3	513	0.8	691	1.5	1,204
Never had sex	0.3	1,523	0.4	1,399	0.4	2,922
Married/living together	2.6	479	1.7	171	2.4	650
Divorced/separated/widowed	7.0	68	*	9	6.2	77
Currently pregnant						
Pregnant	1.0	140	na	na	na	na
Not pregnant or not sure	1.4	2,443	na	na	na	na
Residence						
Urban	2.7	521	1.3	452	2.1	973
Rural	1.0	2,062	0.4	1,817	0.7	3,880
Province						
City of Kigali	3.5	348	1.7	300	2.6	647
South	1.4	592	0.4	554	0.9	1,146
West	0.4	607	0.0	515	0.2	1,122
North	0.8	430	0.7	342	0.7	772
East	1.4	607	0.8	559	1.1	1,165
Education						
No education	4.8	65	0.0	55	2.6	121
Primary	1.5	1,483	0.6	1,354	1.1	2,837
Secondary and higher	0.9	1,006	0.6	808	0.7	1,814
Wealth quintile						
Lowest	1.3	411	0.3	292	0.9	702
Second	0.8	483	0.3	371	0.6	853
Middle	1.0	479	0.4	445	0.7	924
Fourth	0.9	562	0.7	564	0.8	1,125
Highest	2.3	649	1.0	599	1.7	1,247
Total	1.3	2,583	0.6	2,269	1.0	4,853

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

14.3.2 HIV Prevalence among Youth by Condom Use at Last Sex

The 2014-15 RDHS collected data on behaviors that correlate with HIV infection rates. Information on sexual behaviors is important in designing and monitoring HIV prevention interventions aimed at the young adult population. This section examines data on HIV prevalence by number of sexual partners in the 12 months before the survey and condom use during last sexual intercourse in the past 12 months among young respondents who have ever had sexual intercourse.

Table 14.9 shows that, overall, 2 percent of respondents age 15-24 who have ever had sex and were tested for HIV in the 2014-15 RDHS are HIV positive (3 percent of young women and 1 percent of young men).

HIV prevalence among youth increases with increasing number of partners, from 1 percent among those who did not have any sexual partners in the 12 months before the survey to 5 percent among those with two or more sexual partners.

Table 14.9 HIV prevalence among young people by sexual behavior

Percentage HIV positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behavior, Rwanda 2014-15

	Women		Men		Total	
Sexual behavior characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Multiple sexual partners in past 12 months						
0	1.8	319	0.9	418	1.3	737
1	2.9	721	1.2	410	2.3	1,130
2+	*	20	(0.0)	43	4.6	63
Condom use at last sexual intercourse in past 12 months						
Used condom	6.2	139	1.5	209	3.4	348
Did not use condom	2.5	601	0.8	244	2.0	845
No sexual intercourse in last 12 months	1.8	320	0.9	418	1.3	738
Total	2.8	1,060	1.0	870	2.0	1,931

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 1 case for which information on multiple sexual partners in past 12 months is missing.

Three percent of youth who used a condom during their most recent sexual intercourse in the 12 months preceding the survey were tested positive for HIV. Two percent of those who did not use a condom during their most recent sexual intercourse were HIV positive. Six percent of young women who used a condom during their most recent sexual intercourse were HIV positive, and 3 percent of those who did not use a condom were tested positive. The corresponding figures among young men are 2 percent and 1 percent respectively.

14.4 HIV Prevalence by Other Characteristics

14.4.1 HIV Prevalence and STIs

A strong link exists between HIV infection and sexually transmitted infections (STIs). Many studies have demonstrated that sexually transmitted infections are a co-factor for HIV transmission. Management and treatment of STIs can play an important role in the reduction of HIV transmission. Respondents in the 2014-15 RDHS who had ever had sex were asked if they had contracted a disease through sexual contact in the past 12 months or if they had had any symptoms associated with STIs (a bad-smelling, abnormal discharge from the vagina or penis or a genital sore or ulcer).

Table 14.10 shows HIV prevalence among women and men age 15-49 who have ever had sex by whether they reported an STI in the 12 months preceding the survey. The data show that HIV prevalence is higher among respondents with a recent history of STIs or STI symptoms than among those with no recent STIs or STI symptoms (7 percent versus 4 percent).

Four percent of respondent who ever had sex reported that they have been tested for HIV and received the results were HIV positive. Two percent of those who have been tested for HIV and did not receive results were HIV positive. One percent who reported that they have never been tested in twelve months preceding the survey were HIV positive.

Table 14.10 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by whether they had an STI in the past 12 months and by prior testing for HIV, Rwanda 2014-15

	Women		Men		Total	
Characteristic	Percentage HIV positive[1]	Number	Percentage HIV positive[1]	Number	Percentage HIV positive[1]	Number
Sexually transmitted infection (STI) in past 12 months						
Had STI or STI symptoms	7.1	729	8.4	190	7.3	919
No STI, no symptoms	4.3	4,264	2.6	3,767	3.5	8,031
Don't know/missing	*	14	*	14	(4.3)	29
Prior HIV testing						
Ever tested	4.9	4,791	3.0	3,604	4.1	8,394
Received results	4.9	4,700	3.0	3,504	4.1	8,204
Did not receive results	2.4	91	2.2	100	2.2	191
Never tested	1.6	216	1.3	368	1.4	585
Total 15-49	4.7	5,008	2.8	3,972	3.9	8,980

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 1 case for which information on prior HIV testing is missing.
na = Not applicable

14.4.2 HIV Prevalence by Male Circumcision

In the recent past, several studies in sub-Saharan Africa—including clinical trials conducted in South Africa, Kenya, and Uganda (Auvert et al., 2005; Gray et al., 2007)—have documented that male circumcision is associated with a lower risk of acquiring HIV. Although the research supporting circumcision's protective effects is compelling, it is important to emphasize that circumcised men can still become infected with HIV and can infect their sexual partners.

To investigate the relationship between male circumcision and HIV status in the 2014-15 RDHS, men were asked whether they were circumcised. Table 14.11 shows that, overall, there is no meaningful difference in HIV prevalence by circumcision status (2 percent among both circumcised and uncircumcised men).

In some subgroups (age, residence, province, wealth), circumcised men are less likely to be living with HIV than uncircumcised men. However, the pattern is reversed in other groups with HIV prevalence being higher among circumcised men.

Table 14.11 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether circumcised, according to background characteristics, Rwanda 2014-15

Background characteristic	Circumcised		Not circumcised	
	Percentage HIV positive	Number	Percentage HIV positive	Number
Age				
15-19	0.3	340	0.2	938
20-24	1.0	435	1.1	554
25-29	1.7	333	1.7	608
30-34	0.6	253	2.7	666
35-39	4.7	121	2.9	442
40-44	5.7	89	3.2	384
45-49	12.5	67	8.6	316
Religion				
Catholic	2.1	611	2.1	1,863
Protestant	1.8	667	2.2	1,457
Adventist	1.8	182	3.2	456
Muslim	1.3	141	(4.8)	26
Jehovah's Witness	*	24	*	22
Other	*	13	2.7	79
Missing	*	0	*	5
Residence				
Urban	3.0	676	6.8	488
Rural	1.2	963	1.6	3,420
Province				
City of Kigali	3.4	400	5.4	400
South	2.6	229	1.8	1,088
West	0.4	475	2.0	702
North	2.0	160	2.1	687
East	1.9	375	1.9	1,031
Education				
No education	1.5	59	2.1	435
Primary	2.0	739	2.4	2,879
Secondary and higher	2.1	655	1.8	535
Wealth quintile				
Lowest	0.7	103	2.4	712
Second	0.0	174	1.8	815
Middle	1.8	251	2.2	841
Fourth	1.8	331	1.1	897
Highest	2.6	780	4.5	643
Total 15-49	1.9	1,639	2.3	3,907
50-59	10.3	74	4.3	564
Total 15-59	2.3	1,713	2.5	4,471

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

14.4.3 Prior HIV Testing by Current HIV Status

Knowing their HIV status through testing helps individuals make decisions to reduce infection risks and increase safer sex practices. Additionally, knowledge of HIV status provides an important link to HIV/AIDS treatment and care and other support services, including clinical management of related illness, access to antiretroviral therapy (ART), and psychological support. To assess coverage of HIV testing services, 2014-15 RDHS respondents were asked whether they had ever been tested for HIV. Respondents who had been tested were further asked whether they had received the results of their last HIV test and where they had been tested.

Table 14.12 shows that respondents who are HIV positive are more likely to have ever had an HIV test and received the results than those who are negative (95 percent versus 80 percent). HIV-positive women are somewhat more likely to have been tested and to have received the results than HIV-positive men.

Table 14.12 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative by HIV testing status prior to the survey, Rwanda 2014-15

	Women		Men		Total	
HIV testing prior to the survey	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested						
Received result of last test	95.9	82.2	91.8	77.2	94.6	79.9
Did not receive result of last test	1.3	3.5	2.3	3.3	1.6	3.4
Not previously tested	2.8	14.2	5.9	19.5	3.8	16.6
Missing	0.0	0.1	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	244	6,507	121	5,430	365	11,937

14.5 HIV PREVALENCE AMONG COHABITING COUPLES

In the 2014-15 RDHS, 2,947 cohabiting couples were interviewed and tested for HIV. Table 14.13 shows that, in 95 percent of couples in union, both partners are HIV negative; in 2 percent of couples, both partners are HIV positive. About 3 percent of couples in union are discordant (i.e., one partner is infected and the other is not). Discordant couples are almost evenly divided between those in which the male partner is infected and the female partner is not and those in which the female partner is infected and the male partner is not.

Table 14.13 shows HIV prevalence among couples by background characteristics. The percentage of couples in which both partners are HIV positive is higher in couples in which women age 30-39 (3 percent) and men age 50-59 (4 percent). The percentage of couples in which both partners are HIV positive is also higher (7 percent) when men is 10-14 years older than women as compared to 1 percent when couples are for the same age/man older 0-4 years. This is true when the male partner is infected and female partner is not. The percentage of couples in which both partners are HIV positive is high in urban (6 percent) areas, especially in the City of Kigali (5 percent) and in the highest wealth quintile (5 percent).

Table 14.13 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, Rwanda 2014-15

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	(4.3)	(0.0)	(8.0)	(87.7)	100.0	33
20-29	1.2	0.8	1.2	96.8	100.0	1,055
30-39	2.7	1.9	0.9	94.5	100.0	1,241
40-49	2.2	1.7	2.1	94.1	100.0	619
Man's age						
15-19	*	*	*	*	100.0	3
20-29	0.6	0.8	1.6	97.0	100.0	666
30-39	1.9	0.6	1.0	96.5	100.0	1,208
40-49	3.0	2.8	1.5	92.6	100.0	750
50-59	3.5	3.0	1.6	91.9	100.0	321
Age difference between partners						
Woman older	1.7	0.3	1.5	96.6	100.0	446
Same age/man older by 0-4 years	0.8	0.8	1.3	97.0	100.0	1,378
Man older by 5-9 years	2.4	1.8	1.1	94.7	100.0	744
Man older by 10-14 years	6.9	3.5	2.1	87.5	100.0	259
Man older by 15+ years	4.9	6.4	1.5	87.3	100.0	121
Type of union						
Non-polygynous	1.9	1.4	1.2	95.5	100.0	2,763
Polygynous	5.0	2.1	3.4	89.5	100.0	165
Don't know/missing	*	*	*	*	100.0	20
Multiple partners in past 12 months[1]						
Both no	1.8	1.4	1.1	95.7	100.0	2,749
Man yes, woman no	5.2	2.2	4.5	88.2	100.0	182
Woman yes, man no	*	*	*	*	100.0	11
Both yes	*	*	*	*	100.0	1
Either missing	*	*	*	*	100.0	5
Concurrent sexual partners in past 12 months[2]						
Both no	1.9	1.5	1.3	95.3	100.0	2,850
Man yes, woman no	4.4	1.5	3.6	90.4	100.0	94
Woman yes, man no	*	*	*	*	100.0	3
Residence						
Urban	5.9	3.0	3.5	87.7	100.0	478
Rural	1.3	1.2	0.9	96.6	100.0	2,469
Province						
City of Kigali	4.6	3.2	5.1	87.0	100.0	352
South	1.5	1.2	0.9	96.4	100.0	664
West	2.0	1.3	0.8	95.9	100.0	657
North	1.8	1.4	0.7	96.2	100.0	504
East	1.6	1.1	0.9	96.4	100.0	770
Woman's education						
No education	2.4	2.2	2.2	93.1	100.0	488
Primary	1.8	1.3	1.2	95.7	100.0	2,129
Secondary	2.9	1.4	1.0	94.7	100.0	330
Man's education						
No education	1.9	1.5	1.0	95.7	100.0	473
Primary	1.9	1.2	1.3	95.5	100.0	2,142
Secondary	3.0	3.1	1.9	92.0	100.0	333
Wealth quintile						
Lowest	2.6	0.9	1.3	95.2	100.0	519
Second	0.9	1.3	1.2	96.6	100.0	622
Middle	1.5	2.0	0.8	95.8	100.0	657
Fourth	0.9	1.0	1.0	97.1	100.0	610
Highest	4.9	2.1	2.6	90.4	100.0	539
Total	2.1	1.5	1.3	95.1	100.0	2,947

Note: Table is based on couples for which a valid test result (positive or negative) is available for both partners. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] A respondent is considered to have had multiple sexual partners in the past 12 months if he or she had sexual intercourse with 2 or more people during this time period. (Respondents with multiple partners include polygynous men who had sexual intercourse with 2 or more wives.)
[2] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives.)

14.6 HIV PREVALENCE AMONG CHILDREN

Nearly all parents or guardians of children age 0-14 eligible for HIV testing provided informed consent for testing. Table 14.14 shows HIV prevalence among children age 0-14. Overall, only 0.2 percent of children tested positive for HIV. HIV prevalence in children does not show any linear pattern with age.

Table 14.14 HIV prevalence among children age 0-14

Among de facto children age 0-14, the percentage HIV positive, by age, Rwanda 2014-15

	Female		Male		Total	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
<2	0.7	273	0.0	259	0.4	532
2-4	0.0	347	0.0	348	0.0	695
5-9	0.2	644	0.0	610	0.1	1,254
10-14	0.2	623	0.8	533	0.4	1,156
Total	0.2	1,887	0.2	1,750	0.2	3,637

WOMEN'S STATUS AND DEMOGRAPHIC AND HEALTH OUTCOMES

15

Key Findings

- Twenty percent of currently married employed women who earn cash make independent decisions about how to spend their earnings, while 68 percent make joint decisions with their husbands.
- Sixty-five percent of currently married women participate in household decisions pertaining to their own health care, major household purchases, and visits to their family or relatives.
- Eighty-three percent of married women participate in decisions about their own health care.
- Forty-one percent of all women believe that wife beating is justified for at least one of five specified reasons, as compared with only 18 percent of men.

The status of women is an important factor in development, poverty reduction, and improvements in the standard of living. This chapter presents information on factors that affect the status of women in society: employment, type of earnings, control over cash earnings, earnings relative to those of their husband, and participation in decision-making.

This chapter also defines two summary indices of women's empowerment derived from women's responses. The indices are based on the number of household decisions in which the respondent participates and her agreement with reasons for which wife beating is justified. The ranking of women on these indices is then related to select demographic and health outcomes, including contraceptive use and the receipt of health care services during pregnancy, childbirth, and the postpartum period.

15.1 WOMEN'S AND MEN'S EMPLOYMENT

The 2014-15 RDHS collected information related to women's and men's employment. Employment includes formal employment as well as work in the home, on family farms, in family businesses, and in other informal sectors. It is important that caution be exercised in collecting data on women's employment because some activities are not perceived by women themselves as employment and hence may not be reported as such. To avoid underestimating women's employment, the 2014-15 RDHS asked female respondents several questions to ascertain their employment status. First, they were asked whether they had done any work in the past seven days aside from their own housework. Women who answered no to this question were asked the following: "As you know, some women take up jobs for which they are paid in cash or in kind. Others sell things, have a small business, or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?"

Table 15.1 shows the percent distribution of currently married women and men age 15-49, by employment and cash earnings. Overall, 94 percent of currently married women and almost all currently married men were employed in the 12 months preceding the survey.

The proportion of employed women increases with age, from 84 percent among those age 15-19 to 96 percent among those age 35-49. Working women are half as likely to be paid in cash only as working men (25 percent versus 49 percent, respectively); 19 percent of women and 8 percent of men are not paid for their work.

Women are almost three times as likely as men to receive only in-kind payment (13 percent and 5 percent, respectively).

Table 15.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Rwanda 2014-15

	Among currently married respondents:		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings						
Age	Percentage employed in past 12 months	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Missing/ don't know	Total	Number of women
				WOMEN					
15-19	84.3	85	29.0	38.6	21.3	11.1	0.0	100.0	72
20-24	90.2	883	22.2	41.7	15.4	20.7	0.0	100.0	797
25-29	93.8	1,577	28.7	40.8	9.9	20.5	0.1	100.0	1,479
30-34	94.4	1,693	26.5	41.4	13.0	19.0	0.1	100.0	1,598
35-39	96.2	1,240	25.4	43.2	12.5	18.7	0.2	100.0	1,193
40-44	95.6	896	23.3	46.3	11.9	18.4	0.0	100.0	857
45-49	96.1	607	17.5	49.1	13.3	19.9	0.2	100.0	584
Total 15-49	**94.2**	**6,982**	**25.1**	**42.9**	**12.5**	**19.4**	**0.1**	**100.0**	**6,579**
				MEN					
15-19	100.0	3	*	*	*	*	*	*	3
20-24	100.0	169	54.7	34.2	4.0	7.1	0.0	100.0	169
25-29	99.5	530	51.7	38.0	3.0	7.3	0.0	100.0	528
30-34	99.2	775	50.7	37.0	5.0	7.1	0.3	100.0	768
35-39	99.8	512	46.4	40.9	3.5	9.3	0.0	100.0	511
40-44	100.0	445	45.1	42.1	5.7	7.0	0.0	100.0	445
45-49	99.8	359	43.4	40.6	5.8	10.2	0.0	100.0	358
Total 15-49	**99.6**	**2,792**	**48.5**	**39.0**	**4.5**	**7.9**	**0.1**	**100.0**	**2,781**
50-59	97.9	579	31.1	50.1	6.1	12.7	0.0	100.0	567
Total 15-59	**99.3**	**3,371**	**45.6**	**40.9**	**4.8**	**8.7**	**0.1**	**100.0**	**3,348**

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

15.2 WOMEN'S CONTROL OVER THEIR OWN EARNINGS AND RELATIVE MAGNITUDE OF WOMEN'S EARNINGS

To assess women's autonomy, currently married women who earned cash for their work in the 12 months preceding the survey were asked who usually decides how their earnings are spent. Women who earned cash for their work were also asked the relative magnitude of their earnings compared with those of their husband. This information is an indicator of women's control over their own earnings, as it is expected that employment and earnings are more likely to empower women if women themselves control their own earnings and perceive them as significant relative to those of their husband.

Table 15.2.1 shows the percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey, by the person who decides how the cash earnings are used and by the relative magnitude of women's earnings compared with those of their husbands, according to background characteristics.

Only 20 percent of women mainly decide for themselves how their earnings are used, whereas 68 percent of women say they make joint decisions with their husbands. Twelve percent of women reported that decisions regarding how their earnings are spent are made mainly by their husbands. The percentage of women who mainly decide themselves how their earnings are spent generally increases with age. Women in urban areas are more likely to make decisions themselves on how their cash earnings are used than their counterparts

in rural areas (23 percent versus 19 percent). Fourteen percent of women in rural areas report that their husbands mainly decide how to spend their earnings, as compared with 8 percent of women in urban areas. Decision-making on earnings also varies by province. Twenty-six percent of women in North mainly decide themselves how to spend their earnings, as compared with 15 percent in West and 18 percent in South. The West province has the highest proportion of women (74 percent) who report joint decision-making with their husbands regarding their earnings. Women in East and South are more likely to report that their husbands mainly decide how to spend their earnings than women in the other provinces (14 percent).

Table 15.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Rwanda 2014-15

	Person who decides how the wife's cash earnings are used:					Wife's cash earnings compared with husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Missing	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of women
Age												
15-19	(17.1)	(64.5)	(18.4)	(0.0)	(100.0)	(6.4)	(79.6)	(14.0)	(0.0)	(0.0)	100.0	48
20-24	15.9	67.2	16.6	0.4	100.0	4.9	74.0	19.9	0.5	0.7	100.0	509
25-29	15.5	71.6	12.5	0.3	100.0	7.2	70.0	21.4	0.9	0.5	100.0	1,028
30-34	18.6	69.6	11.4	0.4	100.0	9.3	65.5	23.4	1.2	0.5	100.0	1,085
35-39	21.9	64.7	12.1	1.3	100.0	11.2	60.9	23.6	2.9	1.5	100.0	818
40-44	24.8	63.7	10.7	0.7	100.0	13.0	55.9	25.6	4.1	1.3	100.0	597
45-49	24.4	62.6	11.6	1.4	100.0	13.7	53.0	26.8	4.3	2.2	100.0	389
Number of living children												
0	16.2	74.4	9.4	0.0	100.0	8.1	69.6	21.3	0.5	0.5	100.0	220
1-2	16.3	69.9	13.2	0.6	100.0	8.2	67.9	22.1	1.2	0.7	100.0	1,750
3-4	20.8	66.2	12.2	0.8	100.0	9.9	63.8	22.6	2.6	1.0	100.0	1,529
5+	23.9	63.5	11.7	0.9	100.0	11.5	58.1	26.0	2.9	1.4	100.0	975
Residence												
Urban	23.3	68.7	7.7	0.3	100.0	12.9	68.0	16.2	1.4	1.4	100.0	852
Rural	18.6	67.2	13.5	0.7	100.0	8.7	63.6	24.7	2.1	0.8	100.0	3,622
Province												
Kigali City	19.4	73.0	7.3	0.2	100.0	12.5	69.5	16.0	1.3	0.8	100.0	634
South	18.4	66.5	14.3	0.8	100.0	13.9	59.0	24.4	1.6	1.1	100.0	994
West	15.1	74.3	10.1	0.6	100.0	6.9	68.5	20.9	2.7	1.0	100.0	938
North	25.5	59.6	13.8	1.1	100.0	7.8	64.9	22.8	3.2	1.3	100.0	716
East	20.4	64.7	14.4	0.6	100.0	7.3	62.8	27.6	1.5	0.7	100.0	1,192
Education												
No education	25.0	61.1	13.4	0.4	100.0	8.1	59.9	27.8	3.5	0.7	100.0	714
Primary	19.4	66.5	13.2	0.8	100.0	8.1	66.1	22.9	1.9	1.0	100.0	3,095
Secondary and higher	13.9	78.7	7.2	0.2	100.0	17.5	61.6	18.8	1.1	1.0	100.0	665
Wealth quintile												
Lowest	27.0	58.6	13.1	1.3	100.0	8.8	60.3	25.9	3.5	1.5	100.0	881
Second	21.4	64.2	13.9	0.5	100.0	8.3	63.8	24.9	2.4	0.6	100.0	893
Middle	17.5	69.6	12.2	0.6	100.0	7.4	65.6	24.2	2.0	0.8	100.0	873
Fourth	13.7	72.0	13.7	0.7	100.0	9.7	66.3	21.7	1.3	0.9	100.0	846
Highest	17.8	72.6	9.4	0.2	100.0	13.0	66.2	19.0	1.0	0.9	100.0	980
Total	19.5	67.5	12.4	0.7	100.0	9.5	64.5	23.1	2.0	0.9	100.0	4,474

Note: Figures in parentheses are based on 25-49 unweighted cases.

There are wide variations by level of education in who makes decisions about how women's earnings are spent. The proportion of women who say they mainly decide themselves on how to spend their earnings decreases as education increases, whereas the proportion who make joint decisions with their husbands increases with increasing education. There is a negative association between educational level and decision-making mainly by the husband. Thirteen percent of women with no education or a primary education report that their husband mainly decides how their earnings are spent, as compared with only 7 percent of women with a secondary education or higher.

Wealth is also related to decision-making on how women's cash earnings are used. Joint decision-making between spouses increases with increasing wealth: 59 percent of women in the lowest quintile report that they make decisions jointly with their husband about how to spend their earnings, as compared with 73 percent of women in the highest quintile. Only 9 percent of women in the highest wealth quintile report that their husband mainly decides on how their cash earnings are used, compared with 12-14 percent of women in the other wealth quintiles.

Table 15.2.1 also shows women's earnings relative to their husbands' earnings during the 12 months preceding the survey. Almost two-thirds (65 percent) of women report that they earn less than their husband, 10 percent report that they earn more than their husband, and 23 percent earn about the same as their husband. The proportion of women who earn more than their husband increases with age, from 5 percent among those age 20-24 to 14 percent among those age 45-49. Thirteen percent of urban women and 9 percent of rural women earn more than their husband, while 16 percent of women in urban areas and 25 percent of women in rural areas earn the same as their husband. Women in the East province (28 percent) are most likely to report that they earn the same as their husband. Women with a secondary education or higher (18 percent) are more likely than women with no education or a primary education (8 percent each) to report that they earn more than their husband.

Table 15.2.2 shows the percent distributions of currently married men age 15-49 who receive cash earnings and currently married women age 15-49 whose husbands receive cash earnings by the person who decides how men's cash earnings are used, according to background characteristics.

Nineteen percent of men report that they mainly decide on how their cash earnings are used. Seventy-eight percent state that they make these decisions jointly with their wife, and 2 percent state that these decisions are made mainly by their wives. There is little variation by age, number of living children, or residence in the percentage of men who are the main decision-makers regarding how to spend their cash earnings. Men in North (25 percent) and East (24 percent) are more likely to be the main decision-makers regarding their own earnings than men in other provinces. Men with a secondary education or higher are less likely to be the main decision-maker than other men regarding how to spend their earnings (14 percent) and more likely to make decisions jointly with their wives (85 percent).

In general, women's reports on who makes decisions about how their husband's earnings are spent are comparable to men's reports. Twenty-five percent of women whose husbands have cash earnings report that their husband mainly decides how his cash earnings are used, a figure slightly higher than the 19 percent reported by men themselves. Seventy percent of women report that decisions are made jointly, as compared with 78 percent of men, and 4 percent of women report that they mainly decide how to use their husband's earnings. Joint decision-making is more commonly reported by women with a secondary education or higher and those in the higher wealth quintiles. In contrast, women with no education and those in the lower wealth quintiles are more likely to report that their husband is the main decision-maker.

Table 15.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, Rwanda 2014-15

	Men						Women					
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Number
Age												
15-19	*	*	*	*	100.0	3	4.3	68.4	27.3	0.0	100.0	85
20-24	3.1	72.0	24.9	0.0	100.0	151	3.4	72.3	23.9	0.5	100.0	881
25-29	2.5	79.2	18.0	0.3	100.0	473	3.0	71.9	24.6	0.5	100.0	1,568
30-34	2.4	77.3	20.2	0.1	100.0	673	4.0	69.9	25.3	0.8	100.0	1,680
35-39	1.5	80.0	18.0	0.5	100.0	446	5.7	69.4	24.4	0.5	100.0	1,217
40-44	2.1	78.1	19.8	0.0	100.0	388	6.7	68.0	24.5	0.7	100.0	871
45-49	1.8	81.1	17.0	0.0	100.0	300	5.1	66.3	27.0	1.6	100.0	589
Number of living children												
0	3.3	80.1	16.6	0.0	100.0	146	2.2	81.4	16.2	0.2	100.0	357
1-2	2.2	79.6	18.1	0.1	100.0	1,000	3.8	71.3	24.3	0.6	100.0	2,737
3-4	1.9	75.4	22.7	0.1	100.0	766	4.5	68.0	26.8	0.7	100.0	2,263
5+	2.1	80.4	17.0	0.4	100.0	522	5.9	68.1	25.0	0.9	100.0	1,535
Residence												
Urban	1.7	79.7	18.4	0.1	100.0	482	5.4	73.1	21.2	0.3	100.0	1,182
Rural	2.3	78.1	19.4	0.2	100.0	1,952	4.2	69.4	25.6	0.8	100.0	5,709
Province												
Kigali City	1.0	79.9	19.1	0.0	100.0	349	4.1	73.7	21.8	0.4	100.0	834
South	1.3	81.6	17.1	0.0	100.0	509	6.1	65.8	27.4	0.7	100.0	1,590
West	3.8	83.8	12.0	0.4	100.0	558	2.9	74.6	21.8	0.7	100.0	1,517
North	3.1	72.2	24.7	0.0	100.0	373	4.3	68.5	26.5	0.6	100.0	1,106
East	1.5	74.2	24.0	0.3	100.0	646	4.5	69.2	25.5	0.8	100.0	1,845
Education												
No education	3.4	74.3	22.2	0.0	100.0	328	5.2	66.9	27.5	0.4	100.0	1,129
Primary	2.1	78.0	19.6	0.3	100.0	1,776	4.3	69.2	25.6	0.8	100.0	4,862
Secondary and higher	1.2	84.7	14.1	0.0	100.0	330	4.1	78.1	17.3	0.5	100.0	900
Wealth quintile												
Lowest	2.8	76.0	21.2	0.0	100.0	424	6.0	61.5	31.2	1.3	100.0	1,282
Second	3.5	77.2	19.1	0.2	100.0	503	5.4	64.9	29.1	0.6	100.0	1,451
Middle	2.1	76.5	21.1	0.2	100.0	478	3.6	72.6	23.2	0.6	100.0	1,434
Fourth	1.7	79.5	18.7	0.1	100.0	488	3.1	74.8	21.4	0.7	100.0	1,369
Highest	0.9	82.3	16.5	0.3	100.0	541	4.1	75.9	19.6	0.4	100.0	1,355
Total 15-49	2.2	78.4	19.2	0.2	100.0	2,434	4.4	70.0	24.9	0.7	100.0	6,891
50-59	3.2	76.8	20.0	0.0	100.0	460	na	na	na	na	na	na
Total 15-59	2.3	78.2	19.3	0.2	100.0	2,894	na	na	na	na	na	na

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 15.3 shows who controls the wife's and husband's earnings by the amount of the wife's earnings relative to her husband's. Currently married women who earn more than their husbands, especially those whose husbands have no cash earnings, are more likely to decide mainly by themselves on how their earnings are spent than women who earn the same as or less than their husbands. Interestingly, women who earn more than their husband are also more likely than other women to be the main decision-maker as to how the husband's earnings are used. Women who earn the same as their husband are more likely to jointly decide with their husband how to use both their own earnings and their husband's earnings than other women (82 percent).

Table 15.3 Women's control over their own earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, Rwanda 2014-15

	Person who decides how the wife's cash earnings are used:						Person who decides how husband's cash earnings are used:					
Women's earnings relative to husband's earnings	Mainly wife	Wife and husband jointly	Mainly husband	Missing	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Missing	Total	Number of women
More than husband	31.4	59.9	8.7	0.0	100.0	425	11.7	62.0	25.7	0.6	100.0	425
Less than husband	19.7	65.5	14.8	0.0	100.0	2,884	3.9	68.6	27.4	0.1	100.0	2,884
Same as husband	9.7	82.1	8.2	0.0	100.0	1,033	2.1	82.4	15.3	0.1	100.0	1,033
Husband has no cash earnings or did not work	66.4	25.7	6.6	1.2	100.0	90	na	na	na	na	na	0
Woman worked but has no cash earnings	na	na	na	na	na	0	5.1	66.6	27.3	1.0	100.0	2,104
Woman did not work	na	na	na	na	na	0	2.4	79.4	17.9	0.3	100.0	403
Don't know/missing	(28.2)	(6.1)	(0.0)	(65.7)	100.0	42	(11.4)	(25.1)	(19.3)	(44.2)	100.0	42
Total	19.5	67.5	12.4	0.7	100.0	4,474	4.4	70.0	24.9	0.7	100.0	6,891

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

15.3 WOMEN'S AND MEN'S OWNERSHIP OF SELECTED ASSETS

Ownership of assets, particularly high-value assets, has many beneficial effects for households, including protection against financial ruin. Women's individual ownership of assets enables their economic empowerment and provides protection in the case of marital dissolution or abandonment. The 2014-15 RDHS collected information on women's and men's ownership (alone, jointly, and both alone and jointly) of two high-value assets, namely land and a house.

Table 15.4.1 shows that 51 percent of women age 15-49 do not own a house and 54 percent do not own any land. Eight percent of women own a house alone, and 10 percent own land alone. Notably, women who own either of these assets appear to own them mostly jointly, as opposed to other types of ownership. Women's ownership of a house or land increases with age but decreases with education. Rural women are more likely to own a house and land than urban women. More women in the North province own a house (13 percent) and land (14 percent) by themselves than women from the other provinces. Women in the highest wealth quintile are least likely to own either a house or land.

Table 15.4.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Rwanda 2014-15

	Percentage who own a house:						Percentage who own land:						
Background characteristic	Alone	Jointly	Alone and jointly	Percentage who do not own a house	Missing	Total	Alone	Jointly	Alone and jointly	Percentage who do not own land	Missing	Total	Number
Age													
15-19	0.5	3.2	0.0	96.3	0.0	100.0	4.0	3.9	0.1	91.9	0.0	100.0	2,768
20-24	2.0	23.4	0.2	74.4	0.0	100.0	6.5	21.1	0.3	72.2	0.0	100.0	2,457
25-29	4.2	49.0	0.1	46.7	0.0	100.0	7.2	41.4	0.2	51.2	0.0	100.0	2,300
30-34	8.2	61.8	0.6	29.5	0.0	100.0	10.0	53.2	0.1	36.6	0.1	100.0	2,151
35-39	12.0	66.0	0.4	21.6	0.0	100.0	12.6	58.0	0.6	28.7	0.0	100.0	1,575
40-44	21.3	63.3	0.1	15.3	0.0	100.0	18.6	55.8	0.1	25.4	0.1	100.0	1,269
45-49	28.9	58.7	0.3	12.1	0.0	100.0	25.5	54.4	0.6	19.5	0.0	100.0	977
Residence													
Urban	4.8	25.1	0.3	69.8	0.0	100.0	7.0	19.2	0.1	73.7	0.0	100.0	2,626
Rural	8.8	44.9	0.2	46.2	0.0	100.0	10.6	40.2	0.3	48.9	0.0	100.0	10,871
Province													
Kigali City	5.8	23.9	0.2	70.1	0.0	100.0	8.1	19.0	0.1	72.8	0.0	100.0	1,799
South	6.0	43.9	0.2	50.0	0.0	100.0	9.1	41.8	0.3	48.7	0.0	100.0	3,214
West	9.6	40.3	0.1	49.9	0.0	100.0	9.0	33.6	0.2	57.2	0.0	100.0	2,965
North	12.8	42.3	0.3	44.5	0.1	100.0	14.3	38.9	0.3	46.4	0.1	100.0	2,211
East	6.4	47.3	0.2	46.0	0.0	100.0	9.4	40.3	0.3	49.9	0.0	100.0	3,308
Education													
No education	16.5	59.2	0.2	24.1	0.0	100.0	15.8	50.5	0.4	33.2	0.0	100.0	1,665
Primary	8.3	45.4	0.3	46.1	0.0	100.0	10.2	40.0	0.2	49.5	0.0	100.0	8,678
Secondary and higher	2.7	19.4	0.1	77.7	0.0	100.0	6.1	17.7	0.3	76.0	0.0	100.0	3,154
Wealth quintile													
Lowest	14.1	38.8	0.2	47.0	0.0	100.0	13.5	31.9	0.3	54.3	0.0	100.0	2,561
Second	10.3	45.4	0.0	44.2	0.0	100.0	12.4	39.6	0.2	47.7	0.1	100.0	2,631
Middle	7.6	48.9	0.4	43.1	0.0	100.0	9.4	44.8	0.4	45.4	0.0	100.0	2,597
Fourth	4.7	45.2	0.3	49.8	0.1	100.0	7.6	41.8	0.3	50.2	0.1	100.0	2,634
Highest	4.0	28.9	0.2	66.9	0.0	100.0	7.1	24.4	0.2	68.3	0.0	100.0	3,073
Total	8.0	41.0	0.2	50.8	0.0	100.0	9.9	36.1	0.3	53.7	0.0	100.0	13,497

Table 15.4.2 shows that 52 percent of men age 15-49 do not own a house and 53 percent do not own land. Twenty-two percent of men own a house alone, and the same proportion own land alone, as compared with 8 percent and 10 percent of women, respectively. As with women, men's ownership of land and a house increases with age. Men's sole ownership of a house declines sharply with increasing education, from 32 percent among those with no education to 11 percent among those with a secondary education or higher. Sole ownership of land is also highest among men with no education (29 percent). Men in the highest quintile are least likely to own either a house or land. Men in the South province are more likely than men in other provinces to own a house or land alone (30 percent and 28 percent, respectively).

Women's disadvantage relative to men in terms of sole ownership of a house and land is evident across demographic and socioeconomic categories. A higher proportion of men own a house or land alone (22 percent, each) than their female counterparts (8 percent for house and 10 percent for land), while a higher proportion of women than men own a house or land jointly (41 percent and 36 percent, for house and land respectively among women, as compared to 26 percent and 25 percent for house and land, among men).

Table 15.4.2 Ownership of assets: Men

Percent distribution of men age 15-49 by ownership of housing and land, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Missing	Total	Number
Age												
15-19	1.6	1.4	0.0	97.0	100.0	6.9	0.9	0.2	92.0	0.0	100.0	1,282
20-24	12.5	7.7	0.3	79.5	100.0	18.1	7.8	0.3	73.6	0.1	100.0	994
25-29	29.4	24.8	0.1	45.7	100.0	28.2	25.5	0.2	46.0	0.0	100.0	946
30-34	34.5	39.7	0.2	25.6	100.0	32.4	37.4	0.8	29.4	0.0	100.0	930
35-39	31.0	47.2	1.0	20.8	100.0	26.5	48.4	1.3	23.9	0.0	100.0	567
40-44	34.7	52.2	0.3	12.8	100.0	27.0	50.3	0.4	22.3	0.0	100.0	473
45-49	34.0	55.6	0.2	10.2	100.0	26.6	55.5	0.4	17.4	0.0	100.0	385
Residence												
Urban	15.1	14.4	0.1	70.3	100.0	18.3	13.3	0.1	68.3	0.0	100.0	1,169
Rural	23.5	28.5	0.3	47.6	100.0	22.7	28.3	0.6	48.3	0.0	100.0	4,408
Province												
Kigali City	18.0	11.9	0.2	69.9	100.0	20.9	12.4	0.1	66.6	0.0	100.0	804
South	30.4	15.8	0.0	53.8	100.0	27.7	19.7	0.2	52.4	0.0	100.0	1,327
West	18.1	32.6	0.2	49.1	100.0	17.1	28.4	0.3	54.1	0.1	100.0	1,182
North	28.3	28.7	0.9	42.1	100.0	27.3	29.9	0.9	41.9	0.0	100.0	851
East	15.0	34.9	0.2	49.8	100.0	17.4	32.1	0.9	49.7	0.0	100.0	1,413
Education												
No education	32.2	39.9	0.8	27.1	100.0	28.9	37.6	0.2	33.3	0.0	100.0	496
Primary	24.8	29.2	0.2	45.7	100.0	23.1	28.9	0.6	47.3	0.0	100.0	3,636
Secondary and higher	10.5	11.5	0.2	77.7	100.0	16.1	11.6	0.2	72.1	0.0	100.0	1,445
Wealth quintile												
Lowest	29.0	25.4	0.1	45.5	100.0	23.3	23.6	0.1	52.9	0.1	100.0	819
Second	25.5	31.3	0.4	42.8	100.0	23.2	29.8	0.6	46.4	0.0	100.0	991
Middle	23.8	31.2	0.3	44.7	100.0	23.4	31.6	0.7	44.3	0.0	100.0	1,097
Fourth	20.4	26.0	0.1	53.5	100.0	21.0	27.0	0.5	51.5	0.0	100.0	1,234
Highest	14.8	17.2	0.3	67.7	100.0	19.6	16.5	0.4	63.6	0.0	100.0	1,436
Total 15-49	21.8	25.6	0.3	52.4	100.0	21.8	25.2	0.5	52.5	0.0	100.0	5,577
50-59	39.0	53.5	0.2	7.3	100.0	30.7	55.4	0.9	13.0	0.0	100.0	640
Total 15-59	23.6	28.5	0.2	47.7	100.0	22.7	28.3	0.5	48.4	0.0	100.0	6,217

15.4 WOMEN'S PARTICIPATION IN DECISION-MAKING

The ability of women to make decisions that affect their personal circumstances is essential for their empowerment and serves as an important factor in national development. To assess women's decision-making autonomy, the 2014-15 RDHS collected information on married women's participation in three types of decisions: their own health care, major household purchases, and visits to family, relatives, or friends. Also, to provide an understanding of gender differences in household decision-making, currently married men were asked about their participation in decisions about their own health care and major household purchases.

Table 15.5 shows the percent distribution of currently married women and men according to the person in the household who usually makes decisions concerning these matters. Women are considered to participate in decision-making if they make decisions alone or jointly with their husbands. The results show that although 83 percent of women participate in making decisions about their own health care, only 23 percent of them decide solely about their health care, and 60 percent decide jointly with their husband. A higher proportion of men (97 percent) are involved in decisions about their own health care: 43 percent usually make decisions on their own while 54 percent decide jointly with their wives. Married men are also more likely than women to be involved in decisions regarding major household purchases (96 percent and 73 percent, respectively); over one-quarter of women (26 percent) and men (29 percent) say that such decisions are usually made by the husband alone. Seventeen percent of women decide themselves on visits to their family or relatives, while over two-thirds say they decide jointly with their husbands.

Table 15.5 Participation in decision-making

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, Rwanda 2014-15

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Missing	Total	Number of women/ men
WOMEN							
Own health care	23.2	60.1	16.0	0.1	0.5	100.0	6,982
Major household purchases	12.4	60.8	26.2	0.1	0.5	100.0	6,982
Visits to her family or relatives	16.9	68.4	14.2	0.0	0.4	100.0	6,982
MEN							
Own health care	3.1	53.7	43.0	0.0	0.1	100.0	2,792
Major household purchases	3.9	67.4	28.5	0.0	0.1	100.0	2,792

Table 15.6.1 shows how women's participation in decision-making varies by background characteristics such as age and residence. Sixty-five percent of married women report taking part in all three decisions, while 7 percent have no say in any of the three decisions. In general, the percentage of women participating in all three decisions increases with age, education, and wealth; for example, 78 percent of women with a secondary education or higher participate in all three decisions, as compared with 65 percent of women with no education. Sixty-eight percent of women who are employed for cash take part in all three decisions, compared with 66 percent of women who are not employed and 59 percent who are employed but are not paid in cash. Women in urban areas (70 percent) are more likely than women in rural areas (64 percent) to participate in all three decisions. Women's participation in all three decisions ranges from a low of 61 percent in the South province to a high of 71 percent in the City of Kigali.

Table 15.6.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either alone or jointly with their husband, by background characteristics, Rwanda 2014-15

Background characteristic	Specific decisions			All three decisions	None of the three decisions	Number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives			
Age						
15-19	73.6	61.9	76.9	51.3	11.6	85
20-24	82.7	69.5	83.6	61.2	8.3	883
25-29	82.4	73.2	84.7	63.7	6.2	1,577
30-34	82.9	72.2	84.5	64.9	7.4	1,693
35-39	85.1	74.8	87.0	67.5	5.5	1,240
40-44	84.4	74.5	87.0	68.1	6.8	896
45-49	84.4	77.8	86.9	70.5	7.5	607
Employment (last 12 months)						
Not employed	86.4	71.7	88.1	65.8	5.2	403
Employed for cash	84.9	75.9	86.6	68.1	6.0	4,474
Employed not for cash	79.5	67.8	82.1	59.4	9.1	2,099
Number of living children						
0	79.8	77.4	87.6	65.9	6.5	358
1-2	83.8	72.5	84.3	64.9	7.3	2,757
3-4	83.4	72.2	85.5	64.4	6.4	2,302
5+	83.4	75.0	86.3	67.4	7.0	1,564
Residence						
Urban	87.9	77.8	89.2	70.3	3.8	1,194
Rural	82.5	72.2	84.5	64.3	7.5	5,788
Province						
Kigali City	89.3	79.0	88.7	71.4	3.2	842
South	81.0	68.9	82.8	61.0	8.5	1,606
West	78.9	72.3	86.0	62.9	7.9	1,542
North	83.6	73.1	85.3	67.1	8.2	1,130
East	86.3	75.1	85.4	67.4	5.5	1,863
Education						
No education	80.9	73.7	84.9	64.8	7.8	1,154
Primary	82.5	71.2	84.3	63.2	7.3	4,921
Secondary and higher	91.5	83.2	91.2	78.0	3.6	907
Wealth quintile						
Lowest	79.4	67.6	80.3	58.5	10.0	1,313
Second	80.1	71.4	83.3	62.6	8.6	1,472
Middle	84.3	75.1	86.6	66.7	5.9	1,453
Fourth	84.2	72.8	86.2	65.5	5.8	1,380
Highest	89.0	78.9	90.1	73.2	4.1	1,365
Total	83.4	73.2	85.3	65.4	6.9	6,982

Note: Total includes 6 cases with missing information on employment.

Table 15.6.2 presents data on currently married men's participation (alone or jointly) in decision-making by background characteristics. The table shows that 97 percent of men age 15-49 participate in decisions about their own health care, and 96 percent participate in decisions about major household purchases. Overall, 93 percent of currently married men participate in both of these decisions, and only 1 percent do not participate in either. The proportion of men participating in both decisions varies only slightly by background characteristics.

Table 15.6.2 Men's participation in decision-making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, by background characteristics, Rwanda 2014-15

Background characteristic	Specific decisions: Man's own health	Specific decisions: Making major household purchases	Both decisions	Neither of the two decisions	Number of men
Age					
15-19	*	*	*	*	3
20-24	95.5	92.4	89.8	2.0	169
25-29	95.1	96.4	92.3	0.9	530
30-34	98.9	96.0	95.1	0.2	775
35-39	96.2	95.8	92.8	0.8	512
40-44	95.9	97.0	93.3	0.4	445
45-49	96.7	96.1	93.1	0.3	359
Employment (last 12 months)					
Not employed	*	*	*	*	11
Employed for cash	96.5	95.9	93.0	0.5	2,434
Employed not for cash	98.2	97.1	95.8	0.6	345
Number of living children					
0	96.7	94.6	92.0	0.8	158
1-2	96.4	96.1	93.3	0.7	1,141
3-4	97.6	96.5	94.2	0.2	881
5+	96.0	95.4	92.2	0.8	612
Residence					
Urban	97.9	95.6	94.1	0.6	494
Rural	96.5	96.1	93.1	0.6	2,298
Province					
Kigali City	98.7	96.5	95.6	0.4	361
South	97.3	96.8	94.6	0.5	605
West	96.7	94.3	92.0	1.0	627
North	98.0	95.6	93.8	0.2	472
East	94.4	96.8	91.8	0.6	727
Education					
No education	95.4	93.9	90.1	0.8	392
Primary	96.9	96.4	93.9	0.6	2,050
Secondary and higher	96.9	96.1	93.4	0.5	350
Wealth quintile					
Lowest	96.7	93.6	91.0	0.6	492
Second	95.5	95.8	91.8	0.5	601
Middle	96.9	96.7	94.5	0.9	585
Fourth	96.6	97.5	94.5	0.3	554
Highest	97.8	96.1	94.5	0.5	560
Total 15-49	96.7	96.0	93.3	0.6	2,792
50-59	95.2	95.4	92.2	1.6	579
Total 15-59	96.5	95.9	93.1	0.7	3,371

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 2 cases with missing information on employment.

15.5 ATTITUDES TOWARD WIFE BEATING

The 2014-15 RDHS collected information on the degree of acceptance of wife beating by asking all women and men whether they believe that a husband is justified in beating his wife in five situations: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual intercourse with him.

Tables 15.7.1 and 15.7.2 show the percentages of women and men who agree that a husband is justified in hitting or beating his wife for these specific reasons. The tables also show the summary percentages of women and men who feel that wife beating is justified for at least one of the specified reasons. Agreement of a high proportion of respondents that wife beating is acceptable is an indication that they generally accept the right of a man to control his wife's behavior even by means of violence.

Table 15.7.1 shows that 41 percent of women believe that wife beating is justified for at least one of the specified reasons. Women are least likely to agree that a man is justified in beating his wife for burning the food (9 percent). They are most likely to agree that a man is justified in beating his wife if she neglects the children (29 percent), refuses to have sexual intercourse with him (24 percent), or goes out without telling him (22 percent). One in five women (20 percent) believes that wife beating is justified if the woman argues with her husband.

Table 15.7.1 Attitudes toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Rwanda 2014-15

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Age							
15-19	10.6	22.0	24.5	33.2	24.8	45.1	2,768
20-24	9.0	20.8	23.6	30.8	24.5	42.6	2,457
25-29	8.1	19.6	20.8	28.9	23.4	40.1	2,300
30-34	8.2	19.6	21.6	27.4	24.2	39.8	2,151
35-39	8.0	18.2	19.7	26.0	23.5	38.1	1,575
40-44	7.8	20.2	20.7	27.1	25.1	39.6	1,269
45-49	9.5	22.7	24.0	29.4	26.5	42.1	977
Employment (last 12 months)							
Not employed	6.6	16.9	17.4	24.8	20.1	35.6	1,922
Employed for cash	8.5	19.8	21.6	27.7	24.6	40.4	7,562
Employed not for cash	10.7	23.3	26.0	35.0	26.1	46.1	3,995
Number of living children							
0	9.5	20.3	23.7	30.9	23.5	42.5	4,754
1-2	8.5	20.6	22.1	29.5	24.7	41.3	4,007
3-4	9.2	20.1	21.0	27.9	25.0	40.2	2,894
5+	7.6	20.8	21.1	27.7	25.1	40.6	1,842
Marital status							
Never married	10.0	20.9	23.6	31.0	24.3	42.9	5,100
Married or living together	7.2	19.4	20.5	27.8	23.4	39.8	6,982
Divorced/separated/widowed	13.1	23.6	26.4	31.8	29.7	43.8	1,415
Residence							
Urban	3.9	12.0	12.7	15.8	13.1	23.1	2,626
Rural	10.1	22.5	24.6	32.7	27.1	45.8	10,871
Province							
Kigali City	0.7	4.2	5.9	7.6	5.1	11.7	1,799
South	12.0	26.3	32.2	37.8	29.1	50.6	3,214
West	13.8	30.0	28.4	37.3	35.3	51.7	2,965
North	10.9	25.8	28.9	37.8	29.4	52.8	2,211
East	4.5	11.4	11.8	20.4	17.3	31.8	3,308
Education							
No education	11.0	24.9	25.0	31.3	31.4	46.1	1,665
Primary	9.7	21.8	23.7	30.9	26.0	43.8	8,678
Secondary and higher	5.5	14.3	17.0	24.4	16.3	32.3	3,154
Wealth quintile							
Lowest	13.8	27.3	28.1	36.5	32.6	50.5	2,561
Second	10.2	23.9	25.6	34.1	29.4	48.4	2,631
Middle	9.8	21.7	23.9	31.2	26.8	45.1	2,597
Fourth	8.2	20.1	22.8	30.7	23.4	42.3	2,634
Highest	3.4	11.0	12.9	16.9	12.2	24.0	3,073
Total	8.9	20.4	22.3	29.4	24.4	41.4	13,497

Note: Total includes 18 cases with missing information on employment.

Women in rural areas are twice as likely to agree with at least one of the specified reasons as women in urban areas (46 percent and 23 percent, respectively). Differences by province are large. More than half of women in North, West, and South provinces believe that wife beating is justified for at least one of the reasons, as compared with only 12 percent of women in the city of Kigali and about one-third of those in East (32 percent). Women with no education (46 percent) or a primary education (44 percent) are more likely to agree that wife beating is justified for at least one reason than women with a secondary education or higher (32

percent). Agreement with at least one reason justifying wife beating decreases with increasing wealth, from 51 percent of women in the lowest quintile to 24 percent of those in the highest quintile.

Table 15.7.2 shows that the proportion of men age 15-49 who agree with at least one of the reasons justifying wife beating is far lower than that observed among women (18 percent versus 41 percent). However, as with women, men are most likely to agree that a husband is justified in beating his wife if she neglects the children (12 percent) and least likely to agree that a husband is justified in beating his wife if she burns the food (2 percent). Men age 15-19 (24 percent), men who are not employed (20 percent), and men with no children and never-married men (21 percent, each) are most likely to agree with at least one reason justifying wife beating. Rural men are more likely than urban men to agree that wife beating is justified for at least one of the specified reasons (19 percent and 13 percent, respectively). By province, Kigali City has the lowest proportion of men who agree with at least one reason justifying wife beating (6 percent). As with women, the proportion of men who agree with at least one reason justifying wife beating decreases with increasing education and wealth.

Table 15.7.2 Attitudes toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Rwanda 2014-15

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
15-19	2.4	7.7	8.6	16.8	9.7	24.4	1,282
20-24	2.9	5.9	8.6	14.7	8.8	20.9	994
25-29	1.4	5.3	7.7	11.5	7.0	17.2	946
30-34	0.6	4.6	5.6	9.3	4.9	13.8	930
35-39	1.1	4.5	5.3	9.2	3.6	14.8	567
40-44	0.8	3.7	5.8	9.0	4.3	12.7	473
45-49	1.5	2.3	2.9	7.2	2.3	10.4	385
Employment (last 12 months)							
Not employed	2.1	6.3	7.6	13.7	8.8	20.1	740
Employed for cash	1.6	5.3	6.8	11.8	6.4	17.2	4,042
Employed not for cash	1.8	5.3	7.1	12.8	6.1	19.1	783
Number of living children							
0	2.4	6.4	7.8	14.3	8.7	20.7	2,760
1-2	0.9	4.5	6.9	11.0	4.7	15.4	1,288
3-4	1.3	3.8	4.6	7.7	4.9	13.2	912
5+	0.7	5.2	6.8	12.0	4.5	17.0	617
Marital status							
Never married	2.3	6.3	7.9	14.4	8.6	21.0	2,691
Married or living together	1.0	4.4	6.0	10.0	4.7	14.8	2,792
Divorced/separated/widowed	3.2	9.1	8.4	14.3	10.3	19.1	94
Residence							
Urban	1.4	3.8	5.4	10.2	3.5	13.0	1,169
Rural	1.7	5.8	7.4	12.7	7.5	19.1	4,408
Province							
Kigali City	0.2	1.3	3.0	4.8	0.5	6.2	804
South	1.4	5.7	9.0	12.7	5.5	17.2	1,327
West	3.0	6.9	9.2	17.7	7.6	23.4	1,182
North	3.3	10.8	9.0	15.3	13.6	27.2	851
East	0.7	3.0	4.2	9.4	6.4	14.8	1,413
Education							
No education	1.2	7.5	8.6	14.9	8.0	21.1	496
Primary	1.7	5.6	7.1	12.3	7.0	18.4	3,636
Secondary and higher	1.9	4.2	6.0	10.9	5.4	15.4	1,445
Wealth quintile							
Lowest	2.1	8.2	9.7	16.7	8.9	23.9	819
Second	2.3	5.6	6.3	13.6	7.1	18.9	991
Middle	1.7	5.3	8.1	12.4	7.3	18.7	1,097
Fourth	1.6	6.3	7.1	12.2	7.1	18.6	1,234
Highest	1.1	3.0	4.9	8.4	4.3	12.5	1,436
Total 15-49	1.7	5.4	7.0	12.2	6.7	17.9	5,577
50-59	1.3	2.8	3.0	5.8	4.4	10.8	640
Total 15-59	1.6	5.1	6.6	11.5	6.5	17.1	6,217

Note: Total includes 12 cases with missing information on employment.

15.6 WOMEN'S EMPOWERMENT INDICATORS

The two sets of empowerment indicators—women's participation in making household decisions and their attitudes toward wife beating—can be summarized in two indices.

The first index is the number of decisions (see Table 15.6.1 for the list of decisions) in which women participate either alone or jointly with their husband or partner. This index ranges from 0 to 3 and reflects the degree of decision-making control that women are able to exercise in areas that affect their own lives and the level of women's empowerment in a society. A higher score on this indicator is interpreted as reflecting a higher degree of empowerment of women.

The second index ranges from 0 to 5 and corresponds with the number of reasons (see Table 15.7.1 for the list of reasons) for which a woman thinks that a husband is justified in beating his wife. A lower score on this indicator is interpreted as reflecting a higher status of women in the household and society.

Table 15.8 shows how these indices relate to each other among currently married women. There are clear relationships between the two indices. The percentage of women who disagree with all reasons justifying wife beating increases when the number of decisions in which they participate increases, from 48 percent among those who participate in none of the decisions to 64 percent among those who participate in all three decisions. The percentage of women who participate in all three decisions decreases as the number of reasons for which wife beating is justified increases, from 70 percent among those who agree with none of the reasons justifying wife beating to 53 percent among those who agree with all five reasons.

Table 15.8 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decision-making and the percentage who disagree with all of the reasons justifying wife beating, by value on each of the indicators of women's empowerment, Rwanda 2014-15

Empowerment indicator	Percentage who participate in all decision-making	Percentage who disagree with all reasons justifying wife beating	Number of women
Number of decisions in which women participate[1]			
0	na	48.0	480
1-2	na	53.9	1,939
3	na	64.1	4,563
Number of reasons for which wife beating is justified[2]			
0	69.6	na	4,200
1-2	60.8	na	1,572
3-4	57.7	na	894
5	52.5	na	316

[1] See Table 15.6.1 for the list of decisions.
[2] See Table 15.7.1 for the list of reasons.
na = Not applicable

15.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S EMPOWERMENT STATUS

A woman's desire and ability to control her fertility and her choice of contraceptive methods are affected by her status in the household and her own sense of empowerment. A woman who is unable to control other aspects of her life may be less able to make decisions regarding her fertility. She may also feel the need to choose contraceptive methods that are less obvious or do not need the approval or knowledge of her husband. Table 15.9 shows the relationship of each of the empowerment indicators with current use of contraceptive methods by currently married women.

As expected, contraceptive use is positively associated with participation in household decisions, although the relationship is not linear. Use of any contraceptive method is lower among women who do not participate in any household decisions (45 percent) than among women who participate in one or more decisions (53-56 percent). The pattern is similar for use of modern methods.

Surprisingly, use of any contraceptive method and use of any modern method are slightly higher among women who agree with all five reasons justifying wife beating (59 percent and 53 percent, respectively) than among women who agree with none of the reasons (54 percent and 48 percent, respectively).

Table 15.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Rwanda 2014-15

			Modern methods							
Empowerment indicator	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Temporary modern female methods[1]	Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]										
0	45.0	42.1	1.3	0.0	37.2	3.5	2.9	55.0	100.0	480
1-2	55.7	49.4	1.1	0.0	44.9	3.3	6.3	44.3	100.0	1,939
3	53.1	47.2	1.3	0.3	41.6	4.1	5.8	46.9	100.0	4,563
Number of reasons for which wife beating is justified[3]										
0	53.7	47.9	1.5	0.2	42.0	4.2	5.8	46.3	100.0	4,200
1-2	50.9	45.5	1.0	0.3	40.3	3.9	5.4	49.1	100.0	1,572
3-4	53.1	47.2	0.5	0.2	44.8	1.7	5.9	46.9	100.0	894
5	59.2	53.1	1.0	0.0	47.9	4.2	6.1	40.8	100.0	316
Total	53.2	47.5	1.2	0.2	42.2	3.8	5.8	46.8	100.0	6,982

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method
[2] See Table 15.6.1 for the list of decisions.
[3] See Table 15.7.1 for the list of reasons.

15.8 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

Women's ideal number of children is typically lower than that of their husband. As a woman becomes more empowered to negotiate fertility decision-making, she has more control over her ability to access and use contraceptives to space and limit her family size. Women who have a desire to space or limit their births but are not using family planning are defined as having an unmet need for family planning. Table 15.10 shows how women's ideal family size and their unmet need for family planning vary by the two indicators of women's status.

Women who participate in none of the household decisions have almost the same desired family size as women who participate in one or more decisions (3.7 children versus 3.6 children). Women who participate in any of the three decisions have a lower total unmet need for family planning (19 percent) than women who do not participate in any decisions (24 percent).

In general, there is no strong association between number of reasons justifying wife beating and either mean ideal number of children or unmet need for family planning.

Table 15.10 Ideal number of children and unmet need for family planning by women's empowerment

Mean ideal number of children for women age 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Rwanda 2014-15

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	3.7	477	14.8	9.6	24.4	480
1-2	3.6	1,916	11.2	7.4	18.6	1,939
3	3.6	4,497	10.0	8.5	18.5	4,563
Number of reasons for which wife beating is justified[4]						
0	3.3	7,835	9.8	8.6	18.4	4,200
1-2	3.4	3,004	12.6	8.2	20.8	1,572
3-4	3.5	1,787	11.7	7.2	18.9	894
5	3.4	746	9.7	7.4	17.1	316
Total	3.4	13,372	10.7	8.3	18.9	6,982

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 7.12.1 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 15.6.1 for the list of decisions.
[4] See Table 15.7.1 for the list of reasons.

15.9 WOMEN'S STATUS AND REPRODUCTIVE HEALTH CARE

Women's empowerment affects their ability to access reproductive health services. Higher levels of empowerment are likely to increase women's ability to seek out and use health services to better meet their reproductive health goals, including safe motherhood. Table 15.11 shows women's use of antenatal, delivery, and postnatal care services from health care workers by level of empowerment, as measured by the two indicators of women's status.

The results show that, overall, there is minimal variation in use of maternal health care services by indicators of women's empowerment. Antenatal care and delivery assistance from a health skilled provider are not different substantially by participation in household decisions and by the reason of beating wife is justified. Women who participate in none of the decisions are less likely to receive postnatal care from a skilled health provider within the first two days after delivery than those who participate at least in one or more decision.

Women who agree with all five reasons justifying wife beating (38 percent) were less likely to receive postnatal care from a skilled provider within the first two days following delivery than women who agree with four or fewer reasons (39-43 percent).

Table 15.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Rwanda 2014-15

Empowerment indicator	Percentage receiving antenatal care from a skilled provider[1]	Percentage receiving delivery care from a skilled provider[1]	Received postnatal care from health personnel within the first two days since delivery[2]	Number of women with a child born in the last five years
Number of decisions in which women participate[3]				
0	98.8	87.9	34.1	351
1-2	99.3	90.8	37.3	1,395
3	99.1	91.4	44.6	3,099
Number of reasons for which wife beating is justified[4]				
0	99.1	91.3	43.2	3,596
1-2	99.2	90.9	40.9	1,351
3-4	98.1	88.4	38.8	790
5	98.7	89.4	37.5	323
Total	99.0	90.7	41.8	6,060

[1] "Skilled provider" includes doctor, nurse, medical assistant, midwife, and community health worker.
[2] Includes women who received a postnatal checkup from a doctor, nurse, medical assistant, midwife, or community health worker in the first two days after the birth and who gave birth either in a health facility or elsewhere.
[3] Restricted to currently married women. See Table 15.6.1 for the list of decisions.
[4] See Table 15.7.1 for the list of reasons.

ADULT AND MATERNAL MORTALITY 16

Key Findings

- The maternal mortality ratio was 210 maternal deaths per 100,000 live births for the five-year period preceding the survey.
- A comparison of the maternal mortality ratios from the 2000, 2005, 2010, and 2014-15 RDHS surveys indicates that there has been a steady decline in maternal mortality over the past 15 years (1071, 750, 476 and 210 deaths per 100,000 live births, respectively).
- Maternal deaths account for 15 percent of all deaths to women age 15-49 in the past five years preceding the survey.

Estimates of maternal mortality require a comprehensive and accurate reporting of maternal deaths. Such reporting can be obtained through vital registration, longitudinal studies of pregnant women, or repeated household surveys. The 2014-15 RDHS is the fourth population-based national survey, following the 2000, 2005, and 2010 RDHSs, to incorporate questions on maternal mortality. The RDHS asked female respondents a series of questions designed to elicit the information needed to make direct estimates of maternal mortality.

To avoid serious misinterpreting of the results of the survey, users of the information must understand the problems inherent in measuring maternal mortality. Direct estimates of maternal mortality rely on data such as the ages of surviving sisters of survey respondents, the ages at death of sisters who have died, and the number of years that have passed since the death of the sisters. RDHS interviewers had to list all brothers and sisters born to the natural mother of female respondents in chronological order, starting with the first born. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or older, the respondent was asked additional questions to determine whether the death was maternity-related. The interviewers asked whether the sister was pregnant when she died, and if so, whether she died during childbirth, and if not, whether she died within two months of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth may improve the completeness of reporting. Collecting data on both male and female siblings also allows direct estimation of adult male and female mortality.

16.1 DATA QUALITY ISSUES

Estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers of the respondent, the number of those who have died, and the number of sisters who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 16.1 shows the number of siblings reported by female respondents and the completeness of the reported data on current age, age at death, and years since death.

Table 16.1 Completeness of information on siblings

Completeness of data on survival status of sisters and brothers reported by interviewed women, age of living siblings, and age at death (AD) and years since death (YSD) of dead siblings (unweighted), Rwanda 2014-15

	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	39,230	100.0	40,076	100.0	79,306	100.0
Living	30,626	78.1	28,962	72.3	59,588	75.1
Dead	8,539	21.8	10,985	27.4	19,524	24.6
Survival status unknown	65	0.2	129	0.3	194	0.2
Living siblings	30,626	100.0	28,962	100.0	59,588	100.0
Age reported	30,617	100.0	28,952	100.0	59,569	100.0
Age missing	9	0.0	10	0.0	19	0.0
Dead siblings	8,539	100.0	10,985	100.0	19,524	100.0
AD and YSD reported	8,526	99.8	10,966	99.8	19,492	99.8
Missing only AD	10	0.1	13	0.1	23	0.1
Missing only YSD	1	0.0	1	0.0	2	0.0
Missing AD and YSD	2	0.0	5	0.0	7	0.0

As a group, 2014-15 RDHS female respondents were able to report the survival status of almost 100 percent of their siblings; whether or not a brother or sister was alive or dead was unknown for less than 1 percent of siblings. Sex ratio is defined as the number of males per 100 females. The sex ratio of siblings who have died is calculated as the number of brothers per 100 sisters (10,985 brothers who died compared with 8,539 sisters who died). The sex ratio of siblings who have died is 129, which is very high and may be a consequence of the high male mortality during the genocide of 1994. Overall, the data on siblings are almost complete, with age reported for all living siblings and age at death and years since death reported for nearly all siblings who have died, with no difference between brothers and sisters. Rather than excluding siblings with missing information from the analysis, information on the birth order of siblings, in conjunction with other information, is used to impute the missing data.[1]

Another crude measure of data quality is the mean number of siblings, or the mean sibship size (Table 16.2). The sibship size is expected to increase as the age increases. The monotonic increase in sibship size shown in Table 16.2 is supportive of more complete reporting of older siblings. Sex ratios at birth are near the internationally accepted range of 102 to 105, suggesting that there is no serious underreporting or over reporting of brothers or sisters. However, it should be borne in mind that any information that relies on recall will suffer from some degree of misreporting, especially if it pertains to deceased persons and involves events that occurred a long period of time before the survey.

Table 16.2 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings at birth, Rwanda 2014-15

Age of respondents	Mean sibship size[1]	Sex ratio of siblings at birth[2]
15-19	6.2	100.2
20-24	6.5	104.4
25-29	6.9	99.9
30-34	7.2	103.0
35-39	7.4	98.4
40-44	7.5	101.5
45-49	7.6	109.6
Total	6.9	101.9

[1] Includes the respondent
[2] Excludes the respondent

[1] The imputation procedure is based on the assumption that the reported birth ordering of the siblings in the birth history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and for each dead sibling with complete information on both age at death and year of death, the birth date is calculated. For a sibling missing these data, a birth date is imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age is calculated from the imputed birth date. In the case of dead siblings, if either age at death or year of death is reported, that information is combined with the birth date to provide missing information. If both pieces of information are missing, the age at death is imputed. This imputation is based on the distribution of the ages at death for those whose year of death is unreported but age at death is reported.

16.2 ADULT MORTALITY

Because maternal mortality is a subset of adult mortality, estimates of overall adult mortality are calculated before estimates of maternal mortality. If overall adult mortality estimates display a general, stable, and plausible pattern, then credence is given to the maternal mortality estimates derived thereafter.

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-years of exposure in that age group during a specified reference period. In total, female respondents reported 79,306 siblings, of whom 39,230 were sisters and 40,076 were brothers (Table 16.1). Direct estimates of age-specific mortality rates for women and men are shown in Table 16.3 for the five-year period before the survey, which roughly corresponds[2] to the period from November 2009 to April 2015. There were more male than female deaths in the five years preceding the survey (320 versus 234). The male mortality rate is 2.96 deaths per 1,000 population, higher than the female mortality rate of 2.04 deaths per 1,000 population.

Table 16.3 Adult mortality rates

Direct estimates of female and male mortality rates for the five years preceding the survey, by five-year age groups, Rwanda 2014-15

Age	Deaths	Exposure years	Mortality rates[1]
FEMALE			
15-19	22	18,347	1.21
20-24	40	23,625	1.68
25-29	27	24,795	1.10
30-34	41	21,009	1.94
35-39	42	14,680	2.88
40-44	37	9,758	3.75
45-49	25	6,068	4.17
15-49	234	118,281	2.04[a]
MALE			
15-19	24	18,317	1.33
20-24	53	22,515	2.36
25-29	65	23,393	2.77
30-34	51	19,041	2.67
35-39	46	13,301	3.43
40-44	47	8,641	5.38
45-49	34	5,481	6.27
15-49	320	110,688	2.96[a]

Note: Exposure years are calculated using a life table technique; here, they represent the number of person-years that men or women are exposed to the probability of dying.
[1] Expressed per 1,000 population
[a] Age-adjusted rate

16.3 MATERNAL MORTALITY

Estimates of maternal mortality for the period 0 to 4 years before the survey are shown in Table 16.4. This period of time was chosen to produce estimates comparable to previous surveys. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the 2014-15 RDHS is 49 years), the overall rate for

[2] The time period is not exact because, as with all DHS calculations of exposure time, exposure is calculated separately for each respondent, counting back in time from the date of the interview, and dates of interview in the 2014-15 RDHS spanned a period of five months.

women age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy. This time-specific definition includes all deaths occurring during the specified period even if the death is due to causes that are not pregnancy-related. However, this definition is unlikely to result in over reporting of maternal deaths because most deaths to women in the specified period are due to maternal causes, and maternal deaths in general are more likely to be underreported than over reported. For any given age group, maternal deaths are a relatively rare occurrence, and as such the age-specific pattern should be interpreted with caution.

There were 34 maternal deaths reported by women in the period 0 to 4 years preceding the survey. During this period, the maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, was 0.27[3]. Maternal deaths accounted for 15 percent of all deaths to women age 15-49; in other words, about 1 in 6 Rwandan women who died in the five years preceding the survey died as a result of pregnancy or pregnancy-related causes. Maternal deaths accounted for a lower proportion of overall female deaths than they had in the past; in the 2005 RDHS and the 2010 RDHS, respectively, maternal deaths accounted for 20 percent and 24 percent of all female deaths in the five years prior to each survey.

The maternal mortality ratio, obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful indicator of maternal mortality because it measures the obstetric risk associated with each live birth. Table 16.4 shows that the maternal mortality ratio for Rwanda for the period 0-4 years prior to the survey was 210 deaths per 100,000 live births (or, alternatively, 2.1 deaths per 1,000 live births). The maternal mortality ratio can be converted to an estimate of the lifetime risk of dying from maternal causes: 0.009, which is a sizeable decline relative to the figure of 0.023 reported in 2010.

Table 16.4 Maternal mortality

Direct estimates of maternal mortality rates for the five years preceding the survey, by five-year age groups, Rwanda 2014-15

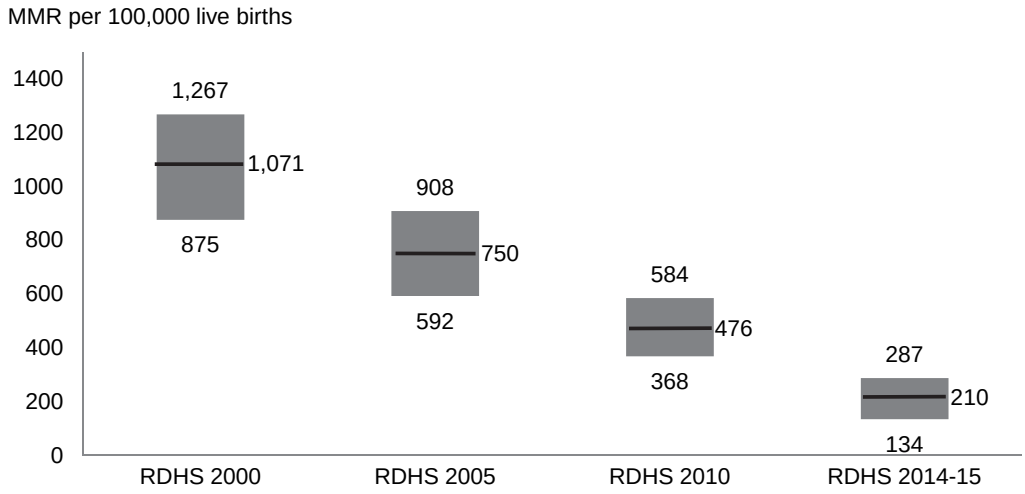
Age	Percentage of female deaths that are maternal	Maternal deaths	Exposure years	Maternal mortality rate[1]
15-19	0.0	0	18,347	0.00
20-24	16.1	6	23,625	0.27
25-29	28.0	8	24,795	0.31
30-34	9.7	4	21,009	0.19
35-39	24.5	10	14,680	0.71
40-44	15.9	6	9,758	0.59
45-49	0.0	0	6,068	0.00
15-49	14.6	34	118,281	0.27[a]
General fertility rate (GFR)[2]	128			
Maternal mortality ratio (MMR)[3]	210			
Lifetime risk of maternal death[4]	0.009			

[1] Expressed per 1,000 woman-years of exposure
[2] Expressed per 1,000 women age 15-49
[3] Expressed per 100,000 live births; calculated as the age-adjusted maternal mortality rate times 100 divided by the age-adjusted general fertility rate
[4] Calculated as $1-(1-MMR)^{TFR}$, where TFR represents the total fertility rate for the five years preceding the survey
[a] Age-adjusted rate

[3] A rate is a measure of the frequency with which an event occurs in a defined population in a defined time: number of maternal deaths per thousand in five years. It has a time dimension. Ratio is the value obtained by dividing one quantity by another: i.e. the male to female ratio. A ratio often compares two rates. For example maternal mortality ratio (MMR) compares maternal mortality rates (0.27 per 1,000) and general fertility rate (GFR) (128 per 1,000), calculated as (0.27/128) x 100,000 =210 per 100,000.

In the 2000, 2005, and 2010 RDHS surveys, maternal mortality ratios were 1,071, 750, and 476 deaths per 100,000 live births, respectively (Figure 16.1). A comparison of the maternal mortality ratios from these three surveys and the 2014-15 RDHS shows no reason to doubt that there has been a steady decline in the maternal mortality ratio between 2000 and 2014-15. Nevertheless, the level of decline should be interpreted with caution and with consideration of the sampling error of the estimates or confident interval[4].

Figure 16.1 **Maternal mortality ratios for the period 0-4 years prior to the 2000, 2005, 2010, and 2014-15 RDHS surveys**



[4] A 95 percent confidence interval is a given realized interval calculated from sample data that there is a 95 percent probability the population parameter lies within the interval, that there is a 95 percent confidence that the interval covers the population estimate.

DOMESTIC VIOLENCE 17

Key Findings

- Fourteen percent of women and 11 percent of men, age 15-49 have experienced physical violence within the 12 months preceding the survey.
- Thirty-five percent of women and 39 percent of men age 15-49 have ever experienced physical violence at least once since age 15.
- Eight percent of women and 1 percent of men age 15-49 report having experienced sexual violence at least once in the past 12 months.
- Twenty-two percent of women and 5 percent of men age 15-49 report having experienced sexual violence at least once in their lifetime.
- The most common perpetrators of sexual violence among ever-married women are current husbands/partners (34 percent), whereas the most common perpetrators among men are current/former girlfriends (20 percent).
- Overall, 4 in 10 women and 2 in 10 men age 15-49 report having experienced emotional, physical, or sexual violence from a spouse.
- Among women and men who have ever experienced spousal physical or sexual violence, 35 percent and 31 percent, respectively, reported suffering physical injuries.
- Forty-eight percent of women and 45 percent of men have sought assistance to stop the violence they have experienced.

Domestic violence has negative health consequences for victims, especially with respect to the reproductive health of women and the physical, emotional, and mental health of their children. Acts of domestic violence may also be committed against men. The 2014-15 RDHS included a domestic violence module for both women and men, in recognition of the seriousness of the problem of domestic violence. Gender-based violence is defined as any act that results in, or is likely to result in, physical, sexual, or psychological harm or suffering among women and men, including threats of such acts and coercion or arbitrary deprivations of liberty, whether occurring in public or in private life (United Nations, 1993; United Nations, 1995).

17.1 MEASUREMENT OF VIOLENCE

Collecting valid, reliable, and ethical data on domestic violence poses particular challenges because what constitutes violence or abuse varies across cultures and among individuals. Also, a culture of silence usually surrounds domestic violence and can affect reporting. The sensitivity of the topic is another issue. Assuring the safety of respondents and interviewers when asking about domestic violence in a household setting, protecting those who disclose violence, and reducing the risk of double victimization of respondents as they relive their experiences are all specific ethical concerns. The responses to these challenges by the 2014-15 RDHS are described in the sections that follow.

17.1.1 Use of Valid Measures of Violence

In the 2014-15 RDHS, information was obtained from ever-married respondents on violence committed by their current and former spouses and by others. Information was collected from never-married respondents on violence committed by anyone. Since international research shows that intimate partner violence is one of the

most common forms of violence, especially against women, information on spousal violence was measured in more detail than violence committed by other perpetrators. This was done by using a shortened, modified version of the Conflict Tactics Scale (Strauss, 1990). Specifically, violence by the current spouse/partner for currently married respondents and by the most recent spouse/partner for formerly married respondents was measured by asking all ever-married women and men the following set of questions.

Does (did) your (last) spouse/partner ever:

(a) Push you, shake you, or throw something at you?

(b) Slap you?

(c) Twist your arm or pull your hair?

(d) Punch you with his/her fist or with something that could hurt you?

(e) Kick you, drag you, or beat you up?

(f) Try to choke you or burn you on purpose?

(g) Threaten or attack you with a knife, gun, or any other weapon?

(h) Physically force you to have sexual intercourse with him/her even when you did not want to?

(i) Force you to perform any sexual acts you did not want to?

(j) Force you with threats or in any other way to perform sexual acts you did not want to?

For every question that a respondent answered "yes," she or he was asked about the frequency of the act in the 12 months preceding the survey. An affirmative answer to one or more of items (a) to (g) above constitutes evidence of physical violence, and an affirmative answer to one or more of items (h) to (j) constitutes evidence of sexual violence.

Similarly, emotional violence among ever-married respondents was measured with the following questions.

Does (did) your (last) spouse/partner ever:

(a) Say or do something to humiliate you in front of others?

(b) Threaten to hurt or harm you or someone close to you?

(c) Insult you or make you feel bad about yourself?

This approach of asking about specific acts to measure different forms of violence has the advantage of not being affected by different understandings of what constitutes a summary term such as "violence." By including a wide range of acts, this approach has the additional advantage of giving the respondent multiple opportunities to disclose any experience of violence.

In addition to these questions asked only of ever-married respondents, all women and men were asked about physical violence from persons other than the current or most recent spouse/partner. Respondents who answered yes to this question were asked who committed violence against them and the frequency of such violence during the 12 months preceding the survey. Respondents who reported experiencing different forms of violence were asked for the perpetrators of the violence.

Although this approach to questioning is generally considered to be optimal, the possibility of underreporting of violence, particularly sexual violence, cannot be entirely ruled out in any survey.

17.1.2 Ethical Considerations in the 2014-15 RDHS

In recognition of the challenges in collecting data on violence, the interviewers in the 2014-15 RDHS were given special training. The training focused on how to ask sensitive questions, ensure privacy, and build rapport between interviewer and respondent. Rapport with the interviewer, confidentiality, and privacy are all key to building respondents' confidence so that they can safely share their experiences with the interviewer. Also, placement of questions about violence at the end of the questionnaire provides time for the interviewer to develop a certain degree of intimacy that should further encourage respondents to share their experiences of violence, if any. In addition, the following protections were built into the survey in keeping with the World Health Organization's ethical and safety recommendations for research on domestic violence (WHO, 2001):

1. To maintain confidentiality, questions on domestic violence were asked of only one woman or man in each of the households selected for the male interview. In half of the households selected for the male survey, one man per household was randomly selected to receive the questions on domestic violence. In the remaining half of the households, one woman per household was selected for the questions on violence. The random selection of one woman or man was done through a simple selection procedure based on the Kish grid, which was built into the Household Questionnaire (Kish, 1965).

2. As a means of obtaining additional consent beyond the initial consent at the start of the interview, the respondent was informed that the questions could be sensitive and was reassured regarding the confidentiality of her/his responses.

3. The violence module was implemented only if privacy could be obtained. The interviewers were instructed to skip the module, thank the respondent, and end the interview if they could not maintain privacy.

17.1.3 Subsample for the Violence Module

The domestic violence module was implemented only in the subsample of households selected for the men's survey. Furthermore, in keeping with ethical requirements, only one woman or man per household was selected for the module, as mentioned above. As a result of these restrictions, a weighted total of 2,679 women age 15-49 (1,691 ever-married women) and 1,876 men age 15-49 (1,007 ever-married men) completed the domestic violence module. Specially constructed weights were used to adjust for the selection of only one woman or man per household and to ensure that the domestic violence subsample was nationally representative.

17.2 Experience of Physical Violence

Tables 17.1.1 and 17.1.2 show the percentages of women and men, respectively, who have ever experienced physical violence since age 15 and the percentages of women and men experienced violence during the 12 months preceding the survey, by background characteristics. Thirty-five percent of women and 39 percent of men age 15-49 have experienced physical violence since age 15. Fourteen percent and 11 percent, respectively, experienced physical violence in the 12 months prior to the survey. Overall, 3 percent of women and 2 percent of men reported that they had experienced physical violence often in the past 12 months, and 11 percent and 9 percent, respectively, said they had experienced physical violence sometimes during the past 12 months.

Table 17.1.1 Experience of physical violence: Women

Percentage of women age 15-49 who have ever experienced physical violence since age 15 and percentage who have experienced violence during the 12 months preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Age					
15-19	24.4	1.8	7.7	9.6	512
20-24	28.1	1.8	7.5	9.3	485
25-29	35.4	2.0	11.0	13.1	458
30-39	39.6	4.2	13.7	18.0	760
40-49	43.4	4.7	11.3	16.0	464
Religion					
Catholic	37.0	4.1	11.3	15.5	1,041
Protestant	34.2	2.4	10.3	12.8	1,231
Adventist	29.0	2.6	9.4	12.0	301
Muslim	30.6	1.2	10.1	11.3	71
Jehovah's Witness	(22.2)	(0.0)	(2.6)	(2.6)	29
Other	*	*	*	*	4
Residence					
Urban	35.0	2.4	7.1	9.7	506
Rural	34.4	3.2	11.4	14.5	2,173
Province					
Kigali City	35.8	2.7	8.6	11.2	359
South	32.2	5.1	9.7	14.9	638
West	33.6	2.4	9.5	12.1	600
North	37.3	2.1	13.3	15.4	433
East	35.2	2.3	11.6	13.9	648
Marital status					
Never married	22.4	0.9	4.5	5.4	988
Married or living together	39.2	3.5	14.9	18.5	1,415
Divorced/separated/widowed	54.2	7.9	10.1	18.1	276
Number of living children					
0	23.3	1.3	5.3	6.6	913
1-2	36.5	3.3	11.5	14.8	829
3-4	42.6	4.6	15.7	20.5	558
5+	45.6	4.3	13.4	17.8	379
Employment					
Employed for cash	39.8	3.7	12.6	16.3	1,494
Employed not for cash	32.7	2.7	9.2	12.0	802
Not employed	17.7	1.0	5.5	6.5	382
Education					
No education	40.5	3.3	11.8	15.1	342
Primary	36.2	3.9	12.5	16.5	1,727
Secondary and higher	26.4	0.5	4.3	4.8	610
Wealth quintile					
Lowest	43.7	5.8	14.3	20.1	501
Second	34.6	2.6	12.9	15.5	510
Middle	36.6	3.8	10.7	14.5	520
Fourth	29.2	2.3	8.6	10.9	502
Highest	29.9	1.1	7.1	8.5	646
Total 15-49	34.5	3.0	10.5	13.6	2,679

Note: Total includes 1 woman for whom information on religion is missing and 1 woman for whom information on employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Includes violence in the past 12 months. For women who were married before age 15 and who reported physical violence by a spouse, the violence could have occurred before age 15.

[2] Includes women for whom frequency in the past 12 months is not known

Table 17.1.2 Experience of physical violence: Men

Percentage of men age 15-49 who have ever experienced physical violence since age 15 and percentage who have experienced violence during the 12 months preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			Number of men
		Often	Sometimes	Often or sometimes[2]	
Age					
15-19	28.2	1.9	11.3	13.2	381
20-24	40.7	1.3	7.1	8.4	346
25-29	43.0	1.0	10.7	11.7	329
30-39	39.7	1.4	7.6	9.0	538
40-49	48.4	1.8	10.6	12.5	282
Religion					
Catholic	37.1	1.3	9.0	10.3	829
Protestant	40.8	1.4	9.6	11.0	732
Adventist	41.9	2.8	7.8	10.6	224
Muslim	46.9	0.0	9.8	9.8	41
Jehovah's Witness	*	*	*	*	13
Other	(45.2)	(2.7)	(16.5)	(19.2)	32
Residence					
Urban	41.7	1.1	7.8	9.0	363
Rural	38.9	1.6	9.6	11.2	1,513
Province					
Kigali City	41.9	0.0	9.1	9.1	259
South	39.0	0.5	8.6	9.1	442
West	40.8	1.9	8.8	10.7	413
North	35.6	2.3	10.4	12.7	286
East	39.6	2.3	9.7	12.0	475
Marital status					
Never married	34.8	1.0	9.6	10.6	869
Married or living together	42.3	1.4	8.5	9.9	974
Divorced/separated/widowed	(77.4)	(16.0)	(24.6)	(40.6)	33
Number of living children					
0	35.0	1.2	9.9	11.1	886
1-2	40.1	1.5	8.1	9.6	446
3-4	47.6	1.1	10.1	11.3	326
5+	43.7	2.9	7.8	10.7	218
Employment					
Employed for cash	42.6	1.4	9.1	10.5	1,364
Employed not for cash	34.4	2.9	7.8	10.7	312
Not employed	26.1	0.0	12.5	12.5	200
Education					
No education	42.5	1.4	9.7	11.1	185
Primary	40.9	1.1	10.0	11.1	1,239
Secondary and higher	34.1	2.4	7.1	9.6	452
Wealth quintile					
Lowest	41.0	0.7	12.5	13.2	299
Second	41.9	1.1	10.1	11.2	355
Middle	39.1	1.3	9.7	11.0	353
Fourth	37.6	3.1	8.4	11.5	441
Highest	38.5	0.8	6.8	7.6	429
Total 15-49	39.4	1.5	9.3	10.7	1,876
50-59	48.4	1.3	10.9	12.2	242
Total 15-59	40.5	1.5	9.4	10.9	2,118

Note: Total includes 4 men for whom information on religion is missing and 1 man for whom information on employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Includes violence in the past 12 months. For men who were married before age 15 and who reported physical violence by a spouse, the violence could have occurred before age 15.

[2] Includes men for whom frequency in the past 12 months is not known

The experience of physical violence varies by background characteristics. Older women (40-49) are more likely to have ever experienced physical violence (43 percent) than younger women (24 percent among 15-19). Similarly, women with five or more children are more likely to have experienced physical violence (46

percent) than women with no children (23 percent). Ever-married women are more likely to have ever experienced physical violence than those who have never been married, implying that in Rwanda violence perpetrated by spouses is more prevalent than violence perpetrated by other individuals. Fifty-four percent of women who are divorced, separated, or widowed and 39 percent of currently married women have experienced physical violence since age 15, as compared with 22 percent of never-married women. The percentage of women who have experienced physical violence decreases as educational level increases from 41 percent among those with no education to 26 percent for those with secondary or higher education and is lowest among those in the highest wealth quintile (30 percent). Variations by residence and province are minimal.

The percentage of men who have experienced physical violence since age 15 is lowest among those age 15-19 (28 percent). Men living in urban areas are slightly more likely than those living in rural areas to report experiencing physical violence (42 percent and 39 percent, respectively). Married men, men with three or more children, and those who are employed for cash are more likely to have experienced physical violence than other category of men. The percentage of men who have experienced physical violence since age 15 decreases with increasing education, from 43 percent among those with no education to 34 percent among those with a secondary education or higher. There is no clear relationship between experience of physical violence and wealth quintile among men.

17.3 PERPETRATORS OF PHYSICAL VIOLENCE

Tables 17.2.1 and 17.2.2 show perpetrators of physical violence, according to marital status, among women and men who have experienced physical violence since age 15. Among ever-married women, the most commonly reported perpetrator of physical violence is the current husband or partner (58 percent), followed by the former husband/partner (27 percent), indicating a high level of spousal violence. Among ever-married men, the most common perpetrators are those in the "other" category (20 percent), followed by the current wife or partner (18 percent) and police or solders (17 percent).

Table 17.2.1 Persons committing physical violence: Women

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's current marital status, Rwanda 2014-15

	Marital status		
Person	Ever married	Never married	Total
Current husband/partner	57.5	na	43.8
Former husband/partner	27.4	na	20.9
Current boyfriend	0.0	0.8	0.2
Former boyfriend	1.2	4.0	1.9
Father/stepfather	6.3	17.4	9.0
Mother/stepmother	3.3	20.3	7.3
Sister/brother	4.3	18.7	7.8
Daughter/son	0.3	0.0	0.2
Other relative	5.8	8.2	6.4
Mother-in-law	0.2	na	0.2
Other in-law	1.1	na	0.8
Teacher	2.8	21.2	7.2
Employer/someone at work	0.5	1.3	0.7
Police/soldier	1.1	0.8	1.1
Other	6.6	21.4	10.1
Number of women who have experienced physical violence since age 15	704	221	925

na = Not applicable

Table 17.2.2 Persons committing physical violence: Men

Among men age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's current marital status, Rwanda 2014-15

	Marital status		
Person	Ever married	Never married	Total
Current wife/partner	18.3	na	10.8
Former wife/partner	8.8	na	5.2
Current girlfriend	0.2	0.0	0.1
Former girlfriend	0.1	0.0	0.1
Father/stepfather	4.6	13.1	8.1
Mother/stepmother	2.9	4.3	3.4
Sister/brother	5.1	6.8	5.8
Other relative	10.3	10.8	10.5
Other in-law	1.7	na	1.0
Teacher	3.9	17.8	9.5
Employer/someone at work	6.8	2.8	5.2
Police/soldier	17.4	7.9	13.5
Other	19.9	24.5	21.8
Number of men who have experienced physical violence since age 15	437	303	740

na = Not applicable

Among never-married women who have experienced physical violence since age 15, the most common perpetrators are teachers and those in the "other" category (21 percent, each), followed by mothers or stepmothers (20 percent) and sisters or brothers (19 percent). Among never-married men, the most commonly reported perpetrators are those in the "other" category (25 percent), followed by teachers (18 percent) and fathers or stepfathers (13 percent).

17.4 EXPERIENCE OF SEXUAL VIOLENCE

Tables 17.3.1 and 17.3.2 show the percentage of women and men, respectively, who have experienced sexual violence ever and in the past 12 months, according to background characteristics.

Twenty-two percent of women age 15-49 and 5 percent of men have ever experienced sexual violence and that 8 percent of women and one percent of men experienced sexual violence in the past 12 months. There are notable variations in the experience of sexual violence by age. Younger women (age 15-19) are less likely than older women (age 40-49) to report ever having experienced sexual violence (15 percent and 26 percent, respectively). Similarly, those who have never been married and those who have no children are less likely to have experienced sexual violence. Differences by other background characteristics are not large. Urban women, those living in City of Kigali, and those who are divorced, separated, or widowed are more likely to have ever experienced sexual violence than other women. In all background characteristics, experiencing sexual violence is lower among men compared to women.

Table 17.3.1 Experience of sexual violence: Women

Percentage of women age 15-49 who have ever experienced sexual violence and percentage who have experienced sexual violence in the 12 months preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have experienced sexual violence: Ever[1]	In the past 12 months	Number of women
Age			
15-19	14.5	3.8	512
20-24	25.3	7.8	485
25-29	21.8	7.6	458
30-39	23.9	9.9	760
40-49	26.3	7.5	464
Religion			
Catholic	21.8	7.1	1,041
Protestant	22.4	7.5	1,231
Adventist	23.5	7.2	301
Muslim	24.6	15.1	71
Jehovah's Witness	(31.7)	(9.0)	29
Other	*	*	4
Residence			
Urban	28.0	9.1	506
Rural	21.1	7.2	2,173
Province			
Kigali City	25.6	6.9	359
South	22.2	7.1	638
West	23.2	8.3	600
North	19.7	7.4	433
East	22.1	7.7	648
Marital status			
Never married	19.0	4.4	988
Married or living together	23.2	9.7	1,415
Divorced/separated/widowed	30.7	8.2	276
Employment			
Employed for cash	25.1	8.4	1,494
Employed not for cash	19.5	7.0	802
Not employed	18.2	5.7	382
Number of living children			
0	16.8	5.0	913
1-2	27.1	8.9	829
3-4	23.5	8.3	558
5+	24.3	9.6	379
Education			
No education	18.2	6.8	342
Primary	22.9	8.2	1,727
Secondary and higher	23.6	6.3	610
Wealth quintile			
Lowest	23.0	9.3	501
Second	22.8	7.4	510
Middle	22.1	7.8	520
Fourth	18.9	5.7	502
Highest	24.7	7.6	646
Total 15-49	22.4	7.6	2,679

Note: Total includes 1 case each in which information on religion and employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes violence in the past 12 months

Table 17.3.2 Experience of sexual violence: Men

Percentage of men age 15-49 who have ever experienced sexual violence and percentage who have experienced sexual violence in the 12 months preceding the survey, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have experienced sexual violence: Ever[1]	In the past 12 months	Number of men
Age			
15-19	2.8	0.6	381
20-24	8.3	1.7	346
25-29	6.1	1.6	329
30-39	5.0	1.2	538
40-49	3.3	0.7	282
Religion			
Catholic	5.0	1.0	829
Protestant	5.4	1.4	732
Adventist	4.1	1.1	224
Muslim	7.8	1.8	41
Jehovah's Witness	*	*	13
Other	(5.5)	(0.0)	32
Residence			
Urban	7.9	1.3	363
Rural	4.4	1.1	1,513
Province			
Kigali City	6.7	1.5	259
South	4.1	0.6	442
West	5.2	1.3	413
North	5.7	1.6	286
East	4.6	1.1	475
Marital status			
Never married	4.7	0.5	869
Married or living together	4.9	1.3	974
Divorced/separated/widowed	(20.2)	(15.5)	33
Employment			
Employed for cash	5.8	1.5	1,364
Employed not for cash	4.0	0.0	312
Not employed	1.7	0.5	200
Number of living children			
0	4.9	0.7	886
1-2	6.3	2.3	446
3-4	4.7	0.7	326
5+	3.7	1.3	218
Education			
No education	3.9	1.6	185
Primary	5.0	1.2	1,239
Secondary and higher	5.8	0.8	452
Wealth quintile			
Lowest	4.6	1.7	299
Second	3.2	0.6	355
Middle	5.0	0.8	353
Fourth	5.7	1.8	441
Highest	6.4	0.9	429
Total 15-49	5.1	1.2	1,876
50-59	3.9	1.0	242
Total 15-59	4.9	1.1	2,118

Note: Total includes 4 cases in which information on religion is missing and 1 case in which information on employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes violence in the past 12 months

17.5 PERPETRATORS OF SEXUAL VIOLENCE

Tables 17.4.1 and 17.4.2 show perpetrators of sexual violence, according to marital status, among women and men who have ever experienced sexual violence.

Among ever-married women, the most commonly reported perpetrators of sexual violence are current husbands/partners (34 percent), followed by former husbands/partners (22 percent). Among men, the most common perpetrators are current/former girlfriends (20 percent), current wives (18 percent), and friends/acquaintances (18 percent).

Among never-married women who have experienced sexual violence, the most commonly reported perpetrators are current/former boyfriends (41 percent), friends or acquaintances (16 percent), and family friends (12 percent).

Table 17.4.1 Persons committing sexual violence: Women

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons who committed the violence, according to the respondent's current marital status, Rwanda 2014-15

	Marital status		
Person	Ever married	Never married	Total
Current husband/partner	33.8	na	23.3
Former husband/partner	21.8	na	15.0
Current/former boyfriend	16.4	41.3	24.2
Father/stepfather	0.6	1.5	0.9
Brother/stepbrother	0.2	0.0	0.1
Other relative	4.9	7.4	5.6
In-law	3.0	na	2.4
Own friend/acquaintance	12.0	15.8	13.2
Family friend	9.9	11.9	10.5
Teacher	0.4	2.8	1.2
Employer/someone at work	2.5	3.5	2.8
Police/soldier	1.8	1.4	1.7
Priest/religious leader	0.2	0.0	0.2
Stranger	8.4	11.1	9.2
Other	0.6	2.1	1.0
Number of women who have experienced sexual violence	413	188	601

Note: Women can report more than one person who committed the violence.
na = Not applicable

Table 17.4.2 Persons committing sexual violence: Men

Among men age 15-49 who have experienced sexual violence, percentage who report specific persons who committed the violence, according to the respondent's current marital status, Rwanda 2014-15

	Marital status		
Person	Ever married	Never married	Total
Current wife/partner	17.6	na	10.1
Former wife/partner	12.2	na	7.0
Current/former girlfriend	19.6	(13.0)	16.8
Mother/stepmother	0.0	(6.1)	2.6
Sister/stepsister	0.0	(0.0)	0.0
Other relative	2.1	(5.1)	3.4
In-law	0.7	na	1.2
Own friend/acquaintance	17.5	(28.7)	22.3
Family friend	4.7	(10.7)	7.3
Teacher	0.0	(0.0)	0.0
Employer/someone at work	15.3	(9.2)	12.7
Police/soldier	0.0	(0.0)	0.0
Priest/religious leader	0.0	(0.0)	0.0
Stranger	5.9	(14.4)	9.5
Other	0.0	(0.0)	0.0
Number of men who have experienced sexual violence	55	41	95

Note: Men can report more than one person who committed the violence. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

17.6 AGE AT FIRST EXPERIENCE OF SEXUAL VIOLENCE

Table 17.5.1 and Table17.5.2 shows the percentage of respondents age 15-49 who experienced sexual violence by specific exact ages it first happened, according to current age and current marital status. Overall, 78 percent of women and 95 percent of men have not experienced sexual violence at time of the survey.

Among women, 1 percent or less experienced sexual violence by exact age 10 or 12. Four percent of women and a very insignificant proportion of men experienced sexual violence by age 15. Ten percent of women experienced sexual violence by age 18, and 16 percent experienced sexual violence by age 22.

Women age 40-49 (18 percent) are more likely to have experienced sexual violence by age 22 than younger women age 25-39 (14 percent). Furthermore, a higher percentage of never-married women than ever-married women experienced sexual violence by each specific age.

Table 17.5.1 Age at first experience of sexual violence among women

Percentage of women age 15-49 who experienced sexual violence by specific exact ages, according to current age and current marital status, Rwanda 2014-15

Background characteristic	Percentage who first experienced sexual violence by exact age: 10	12	15	18	22	Percentage who have not experienced sexual violence	Number of women
Age							
15-19	1.4	3.3	6.8	na	na	85.5	512
20-24	0.8	1.1	3.1	11.0	na	74.7	485
25-29	0.0	0.6	3.4	7.9	13.8	78.2	458
30-39	0.6	0.7	2.4	7.7	13.4	76.1	760
40-49	0.5	1.1	2.6	11.7	18.2	73.7	464
Marital status							
Never married	1.1	2.5	5.6	12.5	17.4	81.0	988
Ever married	0.4	0.6	2.4	8.7	15.5	75.6	1,691
Total	0.7	1.3	3.6	10.1	16.2	77.6	2,679

na = Not applicable

Table 17.5.2 Age at first experience of sexual violence: Men

Percentage of men age 15-49 who experienced sexual violence by specific exact ages, according to current age and current marital status, Rwanda 2014-15

Background characteristic	Percentage who first experienced sexual violence by exact age: 15	18	22	Percentage who have not experienced sexual violence	Number of men
Total	0.0	0.0	0.3	94.9	1,876

17.7 EXPERIENCE OF DIFFERENT FORMS OF VIOLENCE

Tables 17.6.1 and 17.6.2 present information on the experience of various forms of violence among respondents age 15-49.

Forty-four percent of women age 15-49 reported that they have ever experienced either physical or sexual violence (Table 17.6.1). Twenty-two percent have ever experienced physical violence only, 9 percent have ever experienced sexual violence only, and 13 percent have ever experienced both physical and sexual violence. The percentage of women who have ever experienced both physical and sexual violence; and the percentage who have ever experienced either physical or sexual violence increase gradually with age.

Table 17.6.1 Experience of different forms of violence: Women

Percentage of women age 15-49 who have ever experienced different forms of violence, by current age, Rwanda 2014-15

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of women
15-19	18.1	8.2	6.4	32.6	512
15-17	14.6	8.2	5.8	28.6	333
18-19	24.5	8.1	7.5	40.0	178
20-24	16.9	14.2	11.2	42.3	485
25-29	24.4	10.8	11.0	46.2	458
30-39	23.1	7.4	16.5	47.0	760
40-49	24.5	7.4	18.9	50.8	464
Total	21.5	9.4	13.1	43.9	2,679

Overall, 41 percent of men age 15-49 reported that they have ever experienced either physical or sexual violence; 36 percent have ever experienced physical violence only, 2 percent have ever experienced sexual

violence only, and 3 percent have ever experienced both physical and sexual violence. In general, the percentage of men who have ever experienced physical or sexual violence tends to increase with age (Table 17.6.2).

Table 17.6.2 Experience of different forms of violence: Men

Percentage of men age 15-49 who have ever experienced different forms of violence, by current age, Rwanda 2014-15

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of men
15-19	26.4	0.9	1.8	29.2	381
15-17	20.6	0.9	2.1	23.5	238
18-19	36.2	1.1	1.4	38.6	142
20-24	35.3	2.9	5.4	43.6	346
25-29	38.6	1.7	4.4	44.7	329
30-39	36.2	1.5	3.5	41.2	538
40-49	46.5	1.3	2.0	49.7	282
Total 15-49	36.0	1.7	3.4	41.1	1,876
50-59	46.0	1.5	2.4	49.9	242
Total 15-59	37.2	1.6	3.3	42.1	2,118

17.8 VIOLENCE DURING PREGNANCY

Respondents who had ever been pregnant were asked specifically whether they had ever experienced physical violence while pregnant and, if so, who the perpetrators of the violence were.

Table 17.7 shows that 8 percent of women who has ever been pregnant experienced physical violence during pregnancy. Differences by background characteristics are not large. The main exception is that women who are divorced, separated, or widowed were substantially more likely to have ever experienced violence during pregnancy (18 percent) than women in other marital status categories (5 to7 percent).

Table 17.7 Experience of violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Age		
15-19	(8.5)	37
20-24	6.8	276
25-29	7.1	360
30-39	7.9	711
40-49	11.3	449
Religion		
Catholic	8.7	696
Protestant	9.1	843
Adventist	5.9	215
Muslim	5.7	55
Jehovah's Witness	*	16
Other	*	3
Residence		
Urban	9.0	322
Rural	8.3	1,509
Province		
Kigali City	10.8	231
South	8.0	429
West	6.4	394
North	8.3	294
East	9.4	483
Marital status		
Never married	5.0	165
Married or living together	7.0	1,393
Divorced/separated/widowed	17.6	273
Number of living children		
0	4.1	65
1-2	6.7	829
3-4	9.7	558
5+	11.0	379
Education		
No education	8.7	318
Primary	8.9	1,279
Secondary and higher	5.2	234
Wealth quintile		
Lowest	11.8	389
Second	8.1	375
Middle	6.6	362
Fourth	7.7	327
Highest	7.5	377
Total 15-49	8.4	1,831

Note: Total includes 1 case in which information on religion is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

17.9 MARITAL CONTROL BY SPOUSE

Close control and monitoring of a spouse's behavior is known to be an important warning sign and correlate with violence in a relationship. A series of questions were included in the 2014-15 RDHS to elicit the degree of marital control exercised by husbands or wives over their spouses. Controlling behaviors most often manifest themselves in terms of extreme possessiveness, jealousy, and attempts to isolate spouses from their family and friends. To determine the degree of marital control, ever-married women and men were asked whether their current or former spouse exhibited each of the following controlling behaviors: (1) is jealous or gets angry if she/he talks to other men/women, (2) frequently accuses her/him of being unfaithful, (3) does not permit meetings with female/male friends, (4) tries to limit contact with her/his family, and (5) insists on

knowing where she/he is at all times. Because the concentration of such behaviors is more significant than the display of any single behavior, the proportion of respondents whose spouses display at least three of the specified behaviors is highlighted. Tables 17.8.1 and 17.8.2 present the percentage of ever-married women and men, respectively, whose spouses display each of the listed behaviors, by selected background characteristics.

The main controlling behaviors women experienced from their husbands were jealousy or anger if they talked to other men (35 percent) and insisting on knowing where they are at all times (29 percent), followed by not permitting them to meet female friends (14 percent), limiting contact with family (13 percent), and frequently accusing them of being unfaithful (12 percent).

Seventeen percent of ever-married women confirm that their husbands display three or more of these controlling behaviors. More than half (55 percent) say that their husbands display none of these behaviors.

Women who are afraid of their husbands/partners most of the time (56 percent) and those who are divorced, separated, or widowed (34 percent) are much more likely to report that their husbands display three or more of these controlling behaviors than other women.

Table 17.8.1 Marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husbands/partners have ever demonstrated specific types of controlling behaviors, by background characteristics, Rwanda 2014-15

	Percentage of women whose husband/partner:							
Background characteristic	Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Displays 3 or more of the specific behaviors	Displays none of the specific behaviors	Number of ever-married women
Age								
15-19	*	*	*	*	*	*	*	19
20-24	41.2	7.7	13.7	11.5	31.4	13.0	46.3	223
25-29	34.3	11.9	13.9	13.4	28.9	16.2	53.4	325
30-39	36.2	11.7	15.8	14.7	30.7	18.8	54.0	677
40-49	30.0	14.3	12.4	10.5	26.0	16.2	63.4	446
Religion								
Catholic	31.3	11.2	12.3	12.0	26.9	15.2	58.7	642
Protestant	36.5	12.9	15.6	14.4	30.5	18.6	52.7	777
Adventist	34.0	12.6	14.8	11.9	29.0	19.0	58.8	199
Muslim	66.9	11.9	23.8	13.5	45.7	14.3	29.6	51
Jehovah's Witness	*	*	*	*	*	*	*	18
Other	*	*	*	*	*	*	*	3
Residence								
Urban	42.0	12.3	18.2	13.1	31.2	18.4	50.3	296
Rural	33.6	12.0	13.6	13.0	29.1	16.8	56.1	1,395
Province								
Kigali City	41.1	13.0	22.8	15.0	29.3	21.9	52.7	207
South	36.3	13.7	15.7	14.5	35.1	21.3	53.4	393
West	39.1	13.4	11.2	11.5	30.2	14.6	51.4	353
North	29.7	10.5	13.0	12.4	28.5	14.5	56.5	286
East	31.6	10.3	12.9	12.6	24.6	14.7	59.6	453
Marital status								
Married or living together	33.0	10.0	11.2	10.9	26.7	13.8	57.3	1,415
Divorced/separated/widowed	45.9	22.5	30.9	24.3	43.5	33.7	43.8	276
Number of living children								
0	41.4	9.1	9.7	12.7	34.2	17.5	49.8	77
1-2	33.9	10.4	14.8	13.8	30.4	16.0	53.9	692
3-4	37.7	14.1	15.5	14.9	30.7	19.8	53.7	544
5+	32.4	12.8	13.1	9.2	24.9	14.8	60.4	378
Employment								
Employed for cash	37.3	13.9	16.4	14.5	30.2	18.8	52.2	1,089
Employed not for cash	30.4	9.6	10.2	11.8	28.8	14.6	60.5	501
Not employed	33.9	4.7	14.1	3.4	24.6	10.0	60.0	100

(Continued…)

Table 17.8.1—*Continued*

Background characteristic	Percentage of women whose husband/partner: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Displays 3 or more of the specific behaviors	Displays none of the specific behaviors	Number of ever-married women
Education								
No education	32.5	16.1	14.7	11.1	25.7	16.6	57.8	305
Primary	35.5	11.8	13.9	13.1	30.4	17.3	54.8	1,187
Secondary and higher	36.6	7.8	16.9	15.8	29.5	16.2	52.6	198
Wealth quintile								
Lowest	42.0	19.6	20.7	16.2	34.1	25.0	48.2	359
Second	35.3	12.2	12.8	14.2	30.8	16.6	54.4	349
Middle	29.8	10.6	11.3	10.0	26.0	13.5	61.1	333
Fourth	30.6	9.2	11.5	11.4	29.5	13.4	57.8	307
Highest	36.9	8.1	15.1	13.0	26.4	16.0	54.7	342
Woman afraid of husband/partner								
Afraid most of the time	71.9	37.2	46.6	48.7	64.1	56.1	19.5	180
Sometimes afraid	59.1	25.0	26.5	20.0	41.6	32.0	32.4	283
Never afraid	24.1	5.4	6.9	6.3	21.6	7.9	65.6	1,223
Total	35.1	12.1	14.4	13.1	29.4	17.1	55.1	1,691

Note: Total includes 1 case in which information on religion is missing, 1 case in which information on employment is missing, and 5 cases in which information on fear of husband/partner is missing. Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 17.8.2 shows that, similar to women, the main controlling behaviors men experienced from their wives were jealousy or anger if they talked to other women (39 percent) and insisting on knowing where they are at all times (24 percent). Fifteen percent of men said that their wives frequently accuse them of being unfaithful, 5 percent reported that their wives try to limit contact with family, and 4 percent said that their wives do not permit them to meet male friends.

Table 17.8.2 Marital control exercised by wives

Percentage of ever-married men age 15-49 whose wives/partners have ever demonstrated specific types of controlling behaviors, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of men whose wife/partner: Is jealous or angry if he talks to other women	Frequently accuses him of being unfaithful	Does not permit him to meet his male friends	Tries to limit his contact with his family	Insists on knowing where he is at all times	Displays 3 or more of the specific behaviors	Displays none of the specific behaviors	Number of ever-married men
Age								
15-19	*	*	*	*	*	*	*	1
20-24	36.3	7.1	3.2	6.2	30.9	5.7	42.7	67
25-29	39.9	16.3	7.2	7.6	25.2	13.0	50.6	188
30-39	42.7	16.2	4.4	5.0	24.8	10.4	50.4	475
40-49	32.6	13.7	2.9	3.9	18.9	5.8	57.2	276
Religion								
Catholic	39.1	14.9	3.8	5.6	21.6	8.0	50.8	441
Protestant	36.1	13.4	4.5	5.5	23.4	9.4	55.8	399
Adventist	43.3	19.6	4.5	4.2	29.6	13.7	46.6	122
Muslim	(66.4)	(17.8)	(0.0)	(0.0)	(31.7)	(7.0)	(27.3)	17
Jehovah's Witness	*	*	*	*	*	*	*	8
Other	(38.4)	(16.3)	(16.5)	(6.8)	(24.0)	(6.8)	(48.4)	19
Residence								
Urban	45.7	14.6	5.5	7.9	36.5	12.0	42.3	169
Rural	37.7	15.0	4.2	4.7	21.0	8.7	53.7	837

(Continued…)

Table 17.8.2—*Continued*

Background characteristic	Percentage of men whose wife/partner: Is jealous or angry if he talks to other women	Frequently accuses him of being unfaithful	Does not permit him to meet his male friends	Tries to limit his contact with his family	Insists on knowing where he is at all times	Displays 3 or more of the specific behaviors	Displays none of the specific behaviors	Number of ever-married men
Province								
Kigali City	33.2	13.4	5.1	4.5	32.8	9.1	54.5	123
South	37.1	13.2	5.2	5.7	23.1	11.4	52.7	215
West	46.2	13.5	4.5	7.0	28.0	7.3	42.2	239
North	36.8	11.3	5.9	8.1	24.0	11.1	54.6	167
East	38.3	20.6	2.4	2.0	15.6	8.3	56.5	263
Marital status								
Married or living together	38.1	13.4	3.6	4.5	22.9	8.3	52.7	974
Divorced/separated/widowed	(68.2)	(59.6)	(28.6)	(27.6)	(43.8)	(39.7)	(23.0)	33
Number of living children								
0	35.4	11.9	6.3	5.6	30.9	11.6	52.6	60
1-2	38.0	13.2	5.1	5.6	23.4	8.9	52.2	406
3-4	40.1	15.4	4.0	6.2	25.5	11.1	51.4	324
5+	40.4	18.2	3.2	3.2	19.2	6.7	51.2	218
Employment								
Employed for cash	39.2	14.8	4.6	5.3	23.6	9.1	51.8	868
Employed not for cash	37.7	15.7	3.2	5.0	23.4	10.5	51.8	138
Not employed	*	*	*	*	*	*	*	1
Education								
No education	37.3	16.8	7.5	7.5	26.7	10.4	49.6	163
Primary	38.6	15.5	3.8	4.8	22.6	9.2	52.6	734
Secondary and higher	44.6	8.6	3.7	5.0	25.9	8.0	49.3	110
Wealth quintile								
Lowest	41.9	18.0	6.4	6.2	22.3	10.5	47.7	190
Second	39.1	13.8	2.8	5.1	20.2	9.4	52.5	220
Middle	36.4	15.8	7.1	7.2	20.8	9.5	56.1	202
Fourth	40.1	14.9	1.4	2.4	23.9	6.9	49.9	219
Highest	37.6	12.1	5.0	5.7	32.2	10.5	52.4	176
Man afraid of wife/partner								
Afraid most of the time	*	*	*	*	*	*	*	17
Sometimes afraid	61.8	34.2	15.9	19.1	53.6	32.7	27.8	73
Never afraid	36.6	12.7	3.1	3.6	20.5	6.7	54.3	915
Total 15-49	39.0	14.9	4.4	5.3	23.6	9.3	51.7	1,007
50-59	32.3	18.0	4.9	4.7	15.8	9.5	59.8	239
Total 15-59	37.8	15.5	4.5	5.2	22.1	9.3	53.3	1,246

Note: Total includes 1 case in which information on religion is missing, 1 case in which information on employment is missing, and 1 case in which information on fear of wife/partner is missing. Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Nine percent of ever-married men say that their wives display three or more of these controlling behaviors. Variations by background characteristics are minimal with the exception that men who say they are sometimes afraid of their wives (33 percent) are more likely to say their wives display three or more controlling behaviors than those who are never afraid of their wives (7 percent). Fifty-two percent of men confirmed that their wives display none of these 3 controlling behaviors.

17.10 Forms of Spousal Violence

Different types of violence are not mutually exclusive, and people may report multiple forms of violence. Tables 17.9.1 and 17.9.2 show the percentage of ever-married women and men age 15-49, respectively, who have experienced various forms of violence by their spouse over the course of the marriage and in the 12 months preceding the survey. Note that respondents who are currently married reported on violence by their current spouse, and respondents who are widowed, divorced, or separated reported on violence by their most recent spouse.

Table 17.9.1 shows that 31 percent of ever-married women reported that they have ever had experienced any physical violence committed by their current or most recent husband or partner, 12 percent reported any sexual violence, and 27 percent reported any emotional violence. Thirty-four percent of ever-married women have experienced any form of physical and/or sexual violence, and 4 in 10 (40 percent) have experienced any form of emotional and/or physical and/or sexual violence. Thirty-seven percent of women have experienced physical and/or sexual violence committed by their current or most recent husband or partner.

The most common form of spousal violence reported by ever-married women is being slapped (28 percent). Twenty-three percent of women reported that their husbands had insulted them or made them feel bad about themselves; 15 percent said that they had been pushed, been shaken, or had something thrown at them; and 11 percent reported that they had been physically forced to have sexual intercourse when they did not want to.

Table 17.9.1 Forms of spousal violence: Women

Percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey committed by their husband/partner, Rwanda 2014-15

		In the past 12 months[1]		
Type of violence	Ever	Often	Sometimes	Often or sometimes
Physical violence				
Any physical violence	31.1	4.0	13.5	17.6
Pushed her, shook her, or threw something at her	14.6	2.7	6.3	8.9
Slapped her	28.1	2.7	12.7	15.4
Twisted her arm or pulled her hair	7.5	1.4	3.4	4.7
Punched her with his fist or with something that could hurt her	12.0	2.0	4.7	6.7
Kicked her, dragged her, or beat her up	11.9	2.0	4.8	6.8
Tried to choke her or burn her on purpose	3.1	0.6	1.0	1.6
Threatened her or attacked her with a knife, gun, or other weapon	4.6	0.9	2.1	3.0
Sexual violence				
Any sexual violence	11.6	1.7	6.5	8.3
Physically forced her to have sexual intercourse with him when she did not want to	10.7	1.5	6.1	7.6
Physically forced her to perform any other sexual acts she did not want to	6.5	1.1	3.1	4.2
Forced her with threats or in any other way to perform sexual acts she did not want to	5.2	0.9	2.3	3.3
Emotional violence				
Any emotional violence	26.6	5.5	13.0	18.5
Said or did something to humiliate her in front of others	16.7	3.3	7.6	10.9
Threatened to hurt or harm her or someone she cared about	13.1	3.0	5.9	9.0
Insulted her or made her feel bad about herself	23.3	4.6	11.5	16.1
Any form of physical and/or sexual violence	34.4	4.6	16.0	20.6
Any form of emotional and/or physical and/or sexual violence	40.4	6.7	19.9	26.7
Spousal violence committed by any husband/partner				
Physical violence	33.6	na	na	17.6
Sexual violence	13.3	na	na	8.4
Physical and/or sexual violence	37.1	na	na	20.7
Number of ever-married women	1,691	1,691	1,691	1,691

[1] For widows, estimates of spousal violence by the current or most recent spouse in the past 12 months are not known; hence, widows are excluded from the estimate of spousal violence by the current or most recent spouse in the past 12 months. However, widows are included in the estimate of spousal violence committed by any husband/partner in the past 12 months.
na = Not applicable

Eighteen percent of ever-married women reported having experienced physical violence in the 12 months preceding the survey. Eight percent of women reported sexual violence while 19 percent experienced

any emotional violence, and 21 percent has experienced physical and/or sexual in the past 12 months preceding the survey.

Table 17.9.2 shows that, among ever-married men, 10 percent reported ever experiencing any physical violence by their current or most recent wife or partner, 2 percent reported any sexual violence, and 17 percent reported any emotional violence. Eleven percent of men have ever experienced physical and/or sexual violence, and 20 percent have experienced at least one of the three forms of spousal violence.

Thirteen percent of men reported that their current or most recent spouse or partner insulted them or made them feel bad about themselves; 6 percent reported having been pushed with her fist or with something that could hurt him, been shaken, or had something thrown at them; and 4 percent each reported having been slapped or punched with a fist. One percent of men said that they had been physically forced to have sexual intercourse when they did not want to.

Table 17.9.2 Forms of spousal violence: Men

Percentage of ever-married men age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey committed by their wife/partner, Rwanda 2014-15

		In the past 12 months		
Type of violence	Ever	Often	Sometimes	Often or sometimes
Physical violence				
Any physical violence	9.9	1.6	5.0	6.5
Pushed him, shook him, or threw something at him	5.6	0.6	3.2	3.8
Slapped him	4.2	0.4	2.3	2.7
Twisted his arm or pulled his hair	1.5	0.1	0.6	0.7
Punched him with her fist or with something that could hurt him	3.7	0.5	1.5	2.0
Kicked him, dragged him, or beat him up	1.4	0.2	0.6	0.8
Tried to choke him or burn him on purpose	0.6	0.0	0.3	0.3
Threatened him or attacked him with a knife, gun, or other weapon	1.6	0.6	0.4	1.0
Sexual violence				
Any sexual violence	1.6	0.6	0.6	1.2
Physically forced him to have sexual intercourse with her when he did not want to	0.8	0.3	0.2	0.5
Physically forced him to perform any other sexual acts he did not want to	1.0	0.5	0.2	0.7
Forced him with threats or in any other way to perform sexual acts he did not want to	0.4	0.1	0.3	0.4
Emotional violence				
Any emotional violence	16.7	3.3	10.8	14.0
Said or did something to humiliate him in front of others	10.9	2.0	6.7	8.7
Threatened to hurt or harm him or someone he cared about	4.9	0.7	2.9	3.6
Insulted him or made him feel bad about himself	12.6	2.6	8.0	10.6
Any form of physical and/or sexual violence	10.7	1.7	5.3	7.0
Any form of emotional and/or physical and/or sexual violence	19.8	4.1	11.7	15.8
Spousal violence committed by any wife/partner				
Physical violence	11.5	na	na	6.5
Sexual violence	1.6	na	na	1.2
Physical and/or sexual violence	12.3	na	na	7.0
Number of ever-married men	1,007	1,007	1,007	1,007

na = Not applicable

Seven percent of ever-married men reported experiencing spousal physical violence, 1 percent experienced sexual violence, and 14 percent experienced emotional often or sometimes in the past 12 months.

17.11 SPOUSAL VIOLENCE BY BACKGROUND CHARACTERISTICS

Tables 17.10.1 and 17.10.2 show the percentages of ever-married women and men age 15-49, respectively, who have ever experienced spousal emotional, physical, or sexual violence by selected background characteristics.

Four in 10 ever-married women (40 percent) have ever experienced at least one form of spousal violence (emotional, physical, or sexual), and 7 percent have experienced all three forms of violence.

The percentage of women who have experienced at least one form of spousal violence increases with age and number of living children. It is higher among rural women (42 percent), women in the North province (46 percent), and women who are divorced, separated, or widowed (55 percent) than among other categories of women. Women with a secondary education or higher, women who are not employed, and those in the wealthiest quintile are less likely to have ever experienced at least one form of spousal violence (27 percent each) than other women.

Table 17.10.1 Spousal violence by background characteristics: Women

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their husband/partner, by background characteristics, Rwanda 2014-15

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Age								
15-19	*	*	*	*	*	*	*	19
20-24	22.4	22.1	9.9	5.6	5.2	26.4	32.9	223
25-29	22.1	28.7	9.6	6.1	4.8	32.2	37.5	325
30-39	28.7	32.9	12.8	9.1	8.3	36.6	42.4	677
40-49	28.3	34.5	11.9	9.9	8.1	36.5	42.7	446
Religion								
Catholic	28.3	34.0	12.1	8.9	7.6	37.1	43.8	642
Protestant	27.2	32.1	11.2	8.5	7.3	34.8	40.4	777
Adventist	20.6	20.1	11.1	8.1	7.7	23.1	28.3	199
Muslim	18.3	27.7	17.1	1.3	1.3	43.5	46.6	51
Jehovah's Witness	*	*	*	*	*	*	*	18
Other	*	*	*	*	*	*	*	3
Residence								
Urban	20.6	23.2	13.4	7.7	6.4	29.0	33.1	296
Rural	27.9	32.8	11.2	8.4	7.4	35.5	42.0	1,395
Province								
Kigali City	23.7	28.3	11.8	9.1	6.6	30.9	35.5	207
South	27.4	29.3	10.0	7.0	6.3	32.2	38.6	393
West	26.2	28.8	12.3	7.1	5.9	34.1	40.3	353
North	25.9	37.4	11.7	8.3	7.1	40.9	46.3	286
East	28.1	31.7	12.2	9.9	9.3	34.1	40.6	453
Marital status								
Married or living together	22.6	28.4	9.9	6.3	5.2	32.0	37.5	1,415
Divorced/separated/widowed	47.0	45.1	20.2	18.5	17.3	46.8	55.2	276
Number of living children								
0	27.2	24.7	12.4	8.8	7.8	28.3	35.4	77
1-2	23.8	27.3	11.7	7.0	6.3	32.0	37.7	692
3-4	27.1	33.2	11.2	8.7	7.7	35.8	40.5	544
5+	30.9	36.3	11.6	9.8	7.8	38.1	46.3	378
Employment								
Employed for cash	29.9	33.9	11.7	8.6	7.7	36.9	43.3	1,089
Employed not for cash	21.8	29.0	10.8	8.0	6.5	31.7	36.9	501
Not employed	15.9	11.5	14.3	5.3	5.3	20.5	27.1	100

(Continued…)

Table 17.10.1—*Continued*

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Education								
No education	27.2	34.2	10.9	8.2	7.4	36.9	42.7	305
Primary	27.7	32.7	11.8	8.5	7.3	36.0	42.0	1,187
Secondary and higher	19.2	16.9	10.9	6.8	6.4	21.0	27.3	198
Wealth quintile								
Lowest	37.0	43.1	13.2	10.5	9.6	45.7	52.5	359
Second	27.2	33.3	11.6	9.6	7.9	35.3	41.8	349
Middle	26.1	28.9	10.7	8.2	6.9	31.4	39.1	333
Fourth	26.9	30.3	11.8	7.0	6.3	35.1	41.3	307
Highest	15.4	19.2	10.5	5.7	5.0	23.9	26.8	342
Total 15-49	26.6	31.1	11.6	8.3	7.2	34.4	40.4	1,691

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Total includes 1 case in which information on religion is missing and 1 case in which information on employment is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 17.10.2 shows that 20 percent of ever-married men have ever experienced at least one form of spousal violence (emotional, physical, or sexual), and only 1 percent have experienced all three forms of violence. There is no consistent pattern by age in the percentage of men who have experienced at least one form of spousal violence. Men in urban areas (22 percent) and those with three or four living children (23 percent) are slightly more likely to have experienced at least one form of violence than their counterparts. Men with a secondary education or higher (11 percent) and those in the fourth wealth quintile (15 percent) are less likely to have experienced at least one form of spousal violence. There are no differences between provinces.

Table 17.10.2 Spousal violence by background characteristics: Men

Percentage of ever-married men age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their wife/partner, by background characteristics, Rwanda 2014-15

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married men
Age								
15-19	*	*	*	*	*	*	*	1
20-24	23.3	5.5	7.5	5.5	5.5	7.5	24.7	67
25-29	13.8	8.2	2.2	0.4	0.4	9.9	16.0	188
30-39	18.5	10.0	0.9	0.4	0.4	10.4	21.5	475
40-49	13.9	12.1	1.1	0.5	0.5	12.7	18.3	276
Religion								
Catholic	16.9	9.9	1.6	0.9	0.9	10.6	20.7	441
Protestant	14.6	9.6	1.7	1.0	1.0	10.3	17.4	399
Adventist	20.9	10.1	0.8	0.1	0.1	10.8	21.2	122
Muslim	(16.2)	(7.3)	(9.5)	(0.0)	(0.0)	(16.8)	(29.5)	17
Jehovah's Witness	*	*	*	*	*	*	*	8
Other	(20.8)	(18.7)	(0.0)	(0.0)	(0.0)	(18.7)	(25.5)	19
Residence								
Urban	19.7	9.4	1.9	0.2	0.2	11.2	22.4	169
Rural	16.0	10.0	1.6	0.9	0.9	10.7	19.3	837
Province								
Kigali City	16.1	8.8	0.6	0.0	0.0	9.4	20.2	123
South	16.9	7.9	1.2	0.0	0.0	9.1	19.4	215
West	16.6	10.2	1.8	1.1	1.1	10.9	19.7	239
North	17.1	12.0	2.8	2.3	2.3	12.5	20.4	167
East	16.5	10.5	1.5	0.6	0.6	11.4	19.6	263
Marital status								
Married or living together	15.0	8.2	1.0	0.2	0.2	9.0	17.9	974
Divorced/separated/widowed	(66.6)	(60.2)	(20.2)	(17.8)	(17.8)	(62.6)	(74.5)	33

(Continued…)

Table 17.10.2—*Continued*

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married men
Number of living children								
0	10.2	5.6	5.5	1.9	1.9	9.2	13.2	60
1-2	17.2	8.9	1.9	1.3	1.3	9.5	19.8	406
3-4	18.5	13.2	1.0	0.0	0.0	14.1	22.7	324
5+	14.6	8.1	0.9	0.6	0.6	8.5	17.3	218
Employment								
Employed for cash	16.4	9.6	1.9	0.9	0.9	10.6	19.6	868
Employed not for cash	18.6	12.0	0.0	0.0	0.0	12.0	21.5	138
Not employed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Education								
No education	24.6	13.4	2.7	0.8	0.8	15.3	28.1	163
Primary	16.0	9.2	1.6	0.9	0.9	9.9	19.2	734
Secondary and higher	9.2	9.3	0.2	0.1	0.1	9.4	11.3	110
Wealth quintile								
Lowest	21.3	13.1	3.0	1.3	1.3	14.8	27.8	190
Second	13.3	9.3	0.3	0.0	0.0	9.6	17.6	220
Middle	20.9	11.6	1.4	0.6	0.6	12.4	22.5	202
Fourth	13.6	7.6	2.5	1.9	1.9	8.3	15.0	219
Highest	14.9	8.2	0.9	0.1	0.1	9.0	16.7	176
Total 15-49	16.7	9.9	1.6	0.8	0.8	10.7	19.8	1,007
50-59	19.7	16.3	1.4	0.7	0.7	17.0	23.9	239
Total 15-59	17.2	11.1	1.6	0.8	0.8	12.0	20.6	1,246

Note: Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. Total includes 1 case in which information on religion is missing and 1 case in which information on employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

17.12 VIOLENCE BY SPOUSAL CHARACTERISTICS AND EMPOWERMENT INDICATORS

Tables 17.11.1 and 17.11.2 present information on ever-married women and men age 15-49, respectively, who have ever experienced emotional, physical, or sexual violence committed by their spouse according to spousal characteristics and empowerment indicators.

Table 17.11.1 shows that, among ever-married women, spousal violence is highest among those whose husbands have no education (50 percent) and, especially, those whose husbands get drunk very often (79 percent). It should be noted that spousal violence is not correlated with spousal education differences.

Spousal violence increases linearly with the number of controlling behaviors displayed by the husband. Twenty-one percent of women whose husbands display none of the five controlling behaviors have experienced one or more forms of violence, as compared with 96 percent of women whose husbands display all of marital control behaviors. Women's experience of violence decreases as the number of decisions in which they participate increases; 48 percent of women who do not participate in any decisions and 33 percent of those who participate in three decisions have experienced at least one form of violence. On the other hand, spousal violence increases as the number of reasons women give for which wife beating is justified increases; 37 percent of women who do not feel that wife beating is justified for any of the specified reasons report having experienced spousal physical, sexual, or emotional violence, as compared with 53 percent of women who agree with all five reasons justifying wife beating. Women whose fathers did not beat their mothers are less likely to experience any type of violence by their husband than women whose fathers beat their mothers (36 percent versus 47 percent). Finally, women who are never afraid of their husband or partner are much less likely to experience spousal violence than women who are afraid most of the time (26 percent versus 90 percent).

Table 17.11.1 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their husband/partner, by husband's characteristics and empowerment indicators, Rwanda 2014-15

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Husband's/partner's education								
No education	37.3	38.1	12.8	10.3	9.8	40.7	49.8	301
Primary	24.9	32.1	11.1	8.4	7.0	34.8	39.8	1,167
Secondary	20.3	15.5	12.6	4.8	4.2	23.3	30.1	213
Don't know/missing	*	*	*	*	*	*	*	9
Husband's/partner's alcohol consumption								
Does not drink	13.6	16.6	7.6	3.1	2.5	21.1	25.0	595
Drinks/never gets drunk	9.3	12.8	3.3	1.0	0.0	15.0	18.6	219
Gets drunk sometimes	27.4	35.2	11.1	7.5	5.8	38.8	46.3	605
Gets drunk very often	67.8	68.3	28.6	27.6	26.9	69.2	78.7	267
DK/Missing	*	*	*	*	*	*	*	5
Spousal education difference								
Husband better educated	24.5	28.7	11.1	6.9	5.9	32.9	38.4	712
Wife better educated	31.1	33.9	12.7	9.4	8.5	37.1	44.1	624
Both equally educated	17.8	28.8	8.8	7.6	6.1	29.9	33.6	222
Neither educated	32.7	34.6	14.8	11.6	10.4	37.8	46.1	116
Don't know/missing	*	*	*	*	*	*	*	17
Spousal age difference[1]								
Wife older	20.5	28.1	7.1	6.0	5.5	29.3	36.1	189
Wife same age	19.5	28.2	8.2	4.4	4.4	31.9	36.3	132
Wife 1-4 years younger	20.9	28.1	11.1	6.2	5.0	33.0	37.3	560
Wife 5-9 years younger	23.9	30.0	9.8	6.2	5.0	33.6	38.5	330
Wife 10+ years younger	28.7	25.9	10.0	7.8	6.0	28.1	38.4	199
Missing	*	*	*	*	*	*	*	5
Number of marital control behaviors displayed by husband/partner[2]								
0	9.9	16.3	3.6	2.2	1.4	17.7	20.9	931
1-2	33.4	38.0	13.6	7.1	6.1	44.6	54.5	471
3-4	63.3	61.8	28.2	23.2	21.1	66.7	75.6	223
5	90.5	86.6	53.3	51.3	49.8	88.6	96.0	66
Number of decisions in which women participate[3]								
0	29.2	38.3	16.3	12.2	10.0	42.4	47.9	100
1-2	30.9	32.9	13.6	9.0	7.4	37.5	45.9	387
3	18.5	25.4	7.6	4.5	3.8	28.6	32.9	928
Number of reasons for which wife beating is justified[4]								
0	24.2	29.4	10.7	8.0	7.1	32.1	36.8	1,039
1-2	27.6	32.5	10.4	8.2	6.6	34.7	42.3	348
3-4	32.0	33.2	15.2	7.2	6.9	41.3	49.8	220
5	38.0	40.3	18.0	14.2	11.5	44.1	52.5	83
Woman's father beat her mother								
Yes	30.9	37.0	13.0	9.0	7.8	41.0	47.2	656
No	23.8	26.9	10.1	7.3	6.4	29.6	35.5	951
Don't know/missing	25.5	32.7	16.8	12.5	11.3	37.0	43.0	84
Woman afraid of husband/partner								
Afraid most of the time	81.9	79.9	44.0	40.7	40.0	83.1	89.5	180
Sometimes afraid	51.5	56.1	18.9	13.8	11.4	61.1	71.9	283
Never afraid	12.8	18.0	5.2	2.3	1.4	21.0	25.9	1,223
Missing	*	*	*	*	*	*	*	5
Total 15-49	26.6	31.1	11.6	8.3	7.2	34.4	40.4	1,691

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes only currently married women
[2] According to the wife's report. See Table 17.8.1 for list of behaviors.
[3] According to the wife's report. Includes only currently married women. See Table 15.5 for list of decisions.
[4] According to the wife's report. See Table 15.7.1 for list of reasons.

Table 17.11.2 shows similar patterns in spousal violence against ever-married men. Spousal violence against men is higher among those whose wives get drunk sometimes (54 percent) and it increases as the number of controlling behaviors displayed by the wife increases. Eight percent of men whose wife displays none of the

five controlling behaviors have experienced one or more forms of violence, as compared with 57 percent of men whose wife exhibits three or four controlling behaviors. The percentage of men experiencing violence increases as the number of reasons they give for which wife beating is justified increases. As with women, men whose fathers did not beat their mothers are less likely to experience any type of violence by their spouse than men whose fathers beat their mothers (14 percent versus 25 percent). Men who are never afraid of their wives are much less likely to have experienced physical, sexual, or emotional violence than men who are sometimes afraid (16 percent versus 54 percent).

Table 17.11.2 Spousal violence by wife's characteristics and empowerment indicators

Percentage of ever-married men age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their wife/partner, by wife's characteristics and empowerment indicators, Rwanda 2014-15

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married men
Wife's/partner's alcohol consumption								
Does not drink	12.6	6.3	1.4	0.7	0.7	7.0	14.8	648
Drinks/never gets drunk	14.7	9.1	1.7	1.1	1.1	9.7	18.5	262
Gets drunk sometimes	45.4	35.9	1.2	0.3	0.3	36.7	54.1	83
Gets drunk very often	*	*	*	*	*	*	*	12
Don't know/Missing	*	*	*	*	*	*	*	1
Spousal age difference[1]								
Husband older	12.9	7.7	0.8	0.2	0.2	8.3	16.0	685
Husband same age	15.7	10.2	1.7	0.0	0.0	11.9	19.5	96
Husband 1-4 years younger	20.1	6.1	1.3	0.0	0.0	7.4	21.9	134
Husband 5-9 years younger	(17.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(17.2)	26
Husband 10+ years younger	*	*	*	*	*	*	*	5
Number of marital control behaviors displayed by wife/partner[2]								
0	5.2	4.4	0.3	0.0	0.0	4.8	7.9	521
1-2	21.3	12.5	2.5	1.2	1.2	13.8	25.1	392
3-4	53.7	26.2	4.9	3.1	3.1	28.0	57.2	76
5	*	*	*	*	*	*	*	17
Number of decisions in which men participate[3]								
0	*	*	*	*	*	*	*	6
1-2	15.0	8.3	1.0	0.2	0.2	9.0	18.0	968
Number of reasons for which wife beating is justified[4]								
0	15.1	8.9	1.6	0.9	0.9	9.6	18.2	877
1-2	30.3	13.0	2.6	0.0	0.0	15.6	31.5	67
3-4	(28.2)	(24.0)	(0.0)	(0.0)	(0.0)	(24.0)	(33.3)	32
5	*	*	*	*	*	*	*	17
Man's father beat his mother								
Yes	20.9	14.9	1.8	0.9	0.9	15.8	25.4	442
No	12.0	4.5	1.2	0.3	0.3	5.4	14.0	472
Don't know/missing	20.0	13.6	3.3	2.9	2.9	14.0	22.9	93
Man afraid of wife/partner								
Afraid most of the time	*	*	*	*	*	*	*	17
Sometimes afraid	46.2	33.5	0.2	0.0	0.0	33.7	54.2	73
Never afraid	13.3	7.7	1.6	0.8	0.8	8.5	16.1	915
Missing	*	*	*	*	*	*	*	1
Total 15-49	16.7	9.9	1.6	0.8	0.8	10.7	19.8	1,007
50-59	19.7	16.3	1.4	0.7	0.7	17.0	23.9	239
Total 15-59	17.2	11.1	1.6	0.8	0.8	12.0	20.6	1,246

Note: Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes only currently married men.
[2] According to the husband's report. See Table 17.8.2 for list of behaviors.
[3] According to the husband's report. Includes only currently married men. See Table 15.5 for list of decisions.
[4] According to the husband's report. See Table 15.7.1 for list of reasons.

17.13 Recent Spousal Violence

Tables 17.12.1 and 17.12.2 show the percentage of ever-married women and men, respectively, who have experienced physical or sexual violence by any spouse/partner in the past 12 months, by background characteristics.

Overall, 21 percent of women (Table 17.12.1) experienced physical or sexual violence by any husband or partner in the past 12 months. The percentage of women who have experienced recent physical or sexual violence is slightly higher among those who work for cash, and those in the lowest wealth quintile. The characteristic most highly correlated with recent spousal violence is women's fear of their husband; women who say they are afraid of their husband most of the time are much more likely to have recently experienced spousal violence (56 percent) than those who say they are never afraid of their husband (12 percent).

Among ever-married men (Table 17.12.2), 7 percent experienced physical or sexual violence in the past 12 months by any wife or partner. Variations by background characteristics are minimal with the exception of men's fear of their wife. Men who are sometimes afraid of their wives are more likely to have experienced spousal violence in the previous 12 months than men who are never afraid of their wives (21 percent and 5 percent, respectively).

Table 17.12.1 Physical or sexual violence in the past 12 months by any husband/partner

Percentage of ever-married women age 15-49 who have experienced physical or sexual violence by any husband/partner in the past 12 months, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of women who have experienced physical or sexual violence in the past 12 months from any husband/partner	Number of ever-married women
Age		
15-19	*	19
20-24	21.9	223
25-29	18.9	325
30-39	23.1	677
40-49	17.2	446
Religion		
Catholic	23.4	642
Protestant	19.7	777
Adventist	15.0	199
Muslim	29.7	51
Jehovah's Witness	*	18
Other	*	3
Residence		
Urban	18.7	296
Rural	21.1	1,395
Province		
Kigali City	19.1	207
South	22.0	393
West	20.0	353
North	22.7	286
East	19.5	453
Marital status		
Married or living together	21.4	1,415
Divorced/separated/widowed	17.1	276
Number of living children		
0	20.0	77
1-2	20.7	692
3-4	22.1	544
5+	18.9	378
Employment		
Employed for cash	22.5	1,089
Employed not for cash	17.3	501
Not employed	18.2	100
Education		
No education	17.2	305
Primary	23.2	1,187
Secondary and higher	10.8	198
Wealth quintile		
Lowest	26.0	359
Second	22.1	349
Middle	18.3	333
Fourth	20.1	307
Highest	16.6	342
Woman afraid of husband/partner		
Afraid most of the time	55.5	180
Sometimes afraid	38.3	283
Never afraid	11.6	1,223
Total 15-49	20.7	1,691

Note: Total includes 1 case in which information on religion is missing, 1 case in which information on employment is missing, and 5 cases in which information on fear of husband is missing. Any husband/partner includes all current, most recent, and former husbands/partners. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 17.12.2 Physical or sexual violence in the past 12 months by any wife/partner

Percentage of ever-married men age 15-49 who have experienced physical or sexual violence by any wife/partner in the past 12 months, by background characteristics, Rwanda 2014-15

Background characteristic	Percentage of men who have experienced physical or sexual violence in the past 12 months from any wife/partner	Number of ever-married men
Age		
15-19	*	1
20-24	6.1	67
25-29	8.4	188
30-39	5.9	475
40-49	8.3	276
Religion		
Catholic	7.2	441
Protestant	6.2	399
Adventist	7.4	122
Muslim	(4.2)	17
Jehovah's Witness	*	8
Other	(18.7)	19
Residence		
Urban	6.6	169
Rural	7.1	837
Province		
Kigali City	6.0	123
South	6.1	215
West	6.6	239
North	8.7	167
East	7.5	263
Marital status		
Married or living together	5.9	974
Divorced/separated/widowed	(40.6)	33
Employment		
Employed for cash	6.6	868
Employed not for cash	9.5	138
Not employed	*	1
Number of living children		
0	7.7	60
1-2	6.3	406
3-4	8.4	324
5+	6.1	218
Education		
No education	8.7	163
Primary	6.6	734
Secondary and higher	7.5	110
Wealth quintile		
Lowest	9.4	190
Second	5.0	220
Middle	8.4	202
Fourth	6.8	219
Highest	5.6	176
Man afraid of wife/partner		
Afraid most of the time	*	17
Sometimes afraid	21.2	73
Never afraid	5.4	915
Total 15-49	7.0	1,007
50-59	10.2	239
Total 15-59	7.6	1,246

Note: Total includes 1 case in which information on religion is missing, 1 case in which information on employment is missing, and 1 case in which information on fear of wife/partner is missing. Any wife/partner includes all current, most recent, and former wives/partners. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

17.14 ONSET OF SPOUSAL VIOLENCE

To obtain information on the onset of marital violence, the 2014-15 RDHS asked ever-married women and men how long after marriage the onset of spousal violence occurred, if ever. Tables 17.13.1 and 17.3.2 show the data for women and men, respectively.

Table 17.13.1 shows that 68 percent of women have never experienced physical or sexual violence by their current or most recent husband. Twelve percent of women experienced violence in the first two years of their marriage, 20 percent first experienced it in the first five years, and 27 percent experienced it within the first 10 years. These data show that a considerable percentage of women first experienced spousal physical or sexual violence relatively early in their marriages.

Table 17.13.1 Experience of spousal violence by duration of marriage: Women

Among currently married women age 15-49 who have been married only once, the percentage who first experienced physical or sexual violence committed by their current husband/partner by specific exact years since marriage, according to marital duration, Rwanda 2014-15

	Percentage who first experienced spousal physical or sexual violence by exact marital duration:				Percentage who have not experienced spousal sexual or physical violence	Number of currently married women who have been married only once
Duration of marriage	Before marriage	2 years	5 years	10 years		
Years since marriage						
<2	1.5	na	na	na	88.0	136
2-4	0.0	16.9	na	na	72.3	216
5-9	0.0	11.1	23.6	na	66.7	316
10+	0.3	9.9	17.4	27.6	63.6	606
Total	0.3	11.6	20.1	27.3	68.4	1,274

Among ever-married men, more than 9 in 10 (92 percent) have not experienced physical or sexual violence by their current or most recent wife, 2 percent first experienced violence in the first two years of marriage, 5 percent experienced it in the first five years, and 7 percent experienced it within the first 10 years of marriage (Table 17.13.2).

Table 17.13.2 Experience of spousal violence by duration of marriage: Men

Among currently married men age 15-49 who have been married only once, the percentage who first experienced physical or sexual violence committed by their current wife/partner by specific exact years since marriage, according to marital duration, Rwanda 2014-15

	Percentage who first experienced spousal physical or sexual violence by exact marital duration:				Percentage who have not experienced spousal sexual or physical violence	Number of currently married men who have been married only once
Duration of marriage	Before marriage	2 years	5 years	10 years		
Years since marriage						
<2	0.2	na	na	na	95.3	103
2-4	0.4	2.7	na	na	94.1	158
5-9	0.0	2.6	6.6	na	90.7	219
10+	0.2	1.5	3.5	6.6	90.4	386
Total	0.2	2.4	4.9	6.9	91.7	866

17.15 PHYSICAL CONSEQUENCES OF SPOUSAL VIOLENCE

In the 2014-15 RDHS, ever-married women and men were asked whether they had sustained some form of injury as a result of physical or sexual violence inflicted by their spouse. Thirty-three percent of women who reported ever having experienced spousal physical or sexual violence suffered from cuts, bruises, or aches; 16 percent had eye injuries, sprains, dislocations, or burns; and 7 percent had deep wounds, broken bones, broken teeth, or other serious injuries (Table 17.14.1). Overall, 35 percent of women who had ever experienced spousal physical or sexual violence suffered from cuts, bruises or aches. This proportion is slightly lower among women

who experienced spousal violence in the 12 months before the survey (36 percent). Thirty-eight percent and 41 percent of women suffered any type of injury as a result of experiencing spousal physical violence in the past 12 months and ever, respectively; the corresponding proportions among women who experienced sexual violence are 44 percent and 40 percent.

Table 17.14.1 Injuries due to spousal violence: Women

Percentage of ever-married women age 15-49 who have experienced specific types of spousal violence by types of injuries resulting from the violence, according to the type of violence and whether they experienced the violence ever and in the 12 months preceding the survey, Rwanda 2014-15

Type of violence	Cuts, bruises, or aches	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married women who have ever experienced any physical or sexual violence
Experienced physical violence[1]					
Ever[2]	35.7	17.9	7.3	38.1	526
In the past 12 months	39.3	19.9	7.4	41.3	297
Experienced sexual violence					
Ever[2]	41.0	25.4	11.9	43.6	196
In the past 12 months	37.7	23.0	7.7	40.0	140
Experienced physical or sexual violence[1]					
Ever[2]	32.5	16.3	6.6	34.8	582
In the past 12 months	34.4	17.6	6.4	36.2	348

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women.
[1] Excludes women who reported violence only in response to a direct question on violence during pregnancy
[2] Includes in the past 12 months

Table 17.14.2 shows that 29 percent of men who had ever experienced spousal physical or sexual violence suffered from cuts, bruises or aches; the proportion is slightly lower among men who experienced spousal violence in the 12 months before the survey (28 percent). Thirty-one percent and 30 percent of men suffered any type of injury as a result of experiencing spousal physical or sexual violence ever and in the past 12 months, respectively.

Table 17.14.2 Injuries due to spousal violence: Men

Percentage of ever-married men age 15-49 who have experienced specific types of spousal violence by types of injuries resulting from the violence, according to the type of violence and whether they experienced the violence ever and in the 12 months preceding the survey, Rwanda 2014-15

Type of violence	Cuts, bruises, or aches	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married men who have ever experienced any physical or sexual violence
Experienced physical violence					
Ever[1]	31.8	13.6	3.3	32.4	100
In the past 12 months	30.1	11.9	2.4	31.1	66
Experienced sexual violence					
Ever[1]	*	*	*	*	16
In the past 12 months	*	*	*	*	12
Experienced physical or sexual violence					
Ever[1]	29.3	13.3	3.0	30.6	108
In the past 12 months	28.1	12.2	2.3	30.1	71

Note: Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months

17.16 VIOLENCE BY WOMEN AND MEN AGAINST THEIR SPOUSE

In cases of domestic violence, either person (husband or wife) can be the perpetrator of violence. In the 2014-15 RDHS, ever-married women and men were asked about instances if they were the instigator of spousal violence. Specifically, all eligible ever-married respondents were asked whether they had ever initiated physical violence against their spouse when he or she was not already beating or physically hurting them. Tables 17.15.1 and 17.15.2 show the percentage of ever-married women and men age 15-49, respectively who reported initiating physical violence against their current or most recent spouse/partner ever and in the 12 months prior to the survey, by background characteristics.

Overall, only 2 percent of ever-married women reported that they had ever initiated physical violence against their husbands, and less than 1 percent had done so in the past 12 months. Women who have been physically abused by their husband/partner ever and in the past 12 months (5 percent and 6 percent, respectively) are more likely to have initiated spousal physical abuse than women who have never been abused (less than 1 percent). Differences by other background characteristics are minimal.

Table 17.15.2 shows that 21 percent of ever-married men age 15-49 reported having initiated physical violence against their wives, and 8 percent had done so in the past 12 months. Men who have been physically abused by their spouse ever and in the past 12 months are much more likely to initiate physical violence against their wives (52 percent and 57 percent, respectively) than those who have never been abused (18 percent). The proportion of men who have ever initiated violence against their wives increases with age and number of living children. Men with a secondary education or higher and those in the highest wealth quintile are least likely to have initiated physical violence against their wife or partner.

Table 17.15.1 Women's violence against their spouse

Percentage of ever-married women age 15-49 who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting them, ever and in the past 12 months, according to women's own experience of spousal violence and background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	In the past 12 months	
Woman's experience of spousal physical violence			
Ever[1]	4.9	2.0	526
In the past 12 months	6.2	3.2	297
Never	0.3	0.1	1,165
Age			
15-19	*	*	19
20-24	0.7	0.7	223
25-29	0.7	0.3	325
30-39	1.7	0.6	677
40-49	2.8	1.0	446
Religion			
Catholic	1.6	0.7	642
Protestant	2.2	1.0	777
Adventist	0.8	0.0	199
Muslim	0.0	0.0	51
Jehovah's Witness	*	*	18
Other	*	*	3
Residence			
Urban	1.5	0.8	296
Rural	1.7	0.7	1,395
Province			
Kigali City	1.4	0.9	207
South	1.2	0.4	393
West	1.5	0.8	353
North	2.9	0.9	286
East	1.6	0.7	453
Marital status			
Married or living together	1.5	0.9	1,415
Divorced/separated/widowed	2.6	0.0	276
Employment			
Employed for cash	1.9	0.7	1,089
Employed not for cash	1.4	0.5	501
Not employed	1.7	1.7	100
Number of living children			
0	0.0	0.0	77
1-2	1.5	0.7	692
3-4	1.8	0.6	544
5+	2.3	1.0	378
Education			
No education	2.0	0.8	304
Primary	1.7	0.8	1187
Secondary and higher	1.5	0.0	198
Wealth quintile			
Lowest	2.0	1.4	359
Second	1.4	0.7	349
Middle	3.0	1.0	333
Fourth	0.6	0.2	307
Highest	1.4	0.3	342
Total	1.7	0.7	1,691

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Total includes 2 case in which information on education is missing, 1 case in which information on religion is missing and 1 case in which information on employment is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months

Table 17.15.2 Men's violence against their spouse

Percentage of ever-married men age 15-49 who have committed physical violence against their current or most recent wife/partner when she was not already beating or physically hurting them, ever and in the past 12 months, according to men's own experience of spousal violence and background characteristics, Rwanda 2014-15

Background characteristic	Percentage who have committed physical violence against their wife/partner		Number of ever-married men
	Ever[1]	In the past 12 months	
Man's experience of spousal physical violence			
Ever[1]	52.2	24.7	100
In the past 12 months	57.1	33.8	66
Never	17.7	6.1	907
Age			
15-19	*	*	1
20-24	10.9	9.5	67
25-29	18.3	8.8	188
30-39	22.5	8.0	475
40-49	23.3	6.9	276
Religion			
Catholic	20.1	7.3	441
Protestant	19.1	8.1	399
Adventist	25.9	9.9	122
Muslim	(16.9)	(0.0)	17
Jehovah's Witness	*	*	8
Other	(53.8)	(15.8)	19
Residence			
Urban	19.1	5.7	169
Rural	21.5	8.4	837
Province			
Kigali City	14.9	5.1	123
South	23.0	8.2	215
West	21.5	6.2	239
North	24.7	8.9	167
East	19.9	10.0	263
Marital status			
Married or living together	20.5	7.4	974
Divorced/separated/widowed	(39.9)	(23.0)	33
Employment			
Employed for cash	20.9	7.9	868
Employed not for cash	22.1	8.5	138
Not employed	*	*	1
Number of living children			
0	12.5	7.2	60
1-2	17.4	9.2	406
3-4	24.7	7.0	324
5+	25.1	7.0	218
Education			
No education	26.3	10.9	163
Primary	21.5	8.0	734
Secondary and higher	10.6	2.8	110
Wealth quintile			
Lowest	29.1	13.4	190
Second	19.2	7.0	220
Middle	24.9	8.9	202
Fourth	19.3	7.7	219
Highest	12.9	2.3	176
Total 15-49	21.1	7.9	1,007
50-59	27.8	4.9	239
Total 15-59	22.4	7.4	1,246

Note: Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. Total includes 1 case in which information on religion is missing and 1 case in which information on employment is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months

Table 17.16.1 Women's violence against their spouse by spouse's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting them, ever and in the past 12 months, according to the empowerment indicators and husband's characteristics, Rwanda 2014-15

Background characteristic	Percentage who have committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	In the past 12 months	
Husband's/partner's education			
No education	2.6	1.8	301
Primary	1.5	0.5	1,167
Secondary and higher	1.7	0.4	213
Don't know/missing	*	*	9
Husband's/partner's alcohol consumption			
Does not drink	1.0	0.1	595
Drinks/never gets drunk	0.4	0.4	219
Gets drunk sometimes	1.2	0.8	605
Gets drunk very often	5.5	2.1	267
Don't know/missing	*	*	5
Spousal education difference			
Husband better educated	1.3	0.5	712
Wife better educated	1.8	0.9	624
Both equally educated	2.3	0.8	222
Neither educated	3.0	1.4	116
Don't know/missing	*	*	17
Spousal age difference[2]			
Wife older	2.2	1.4	189
Wife same age	2.6	1.5	132
Wife 1-4 years younger	1.2	0.5	560
Wife 5-9 years younger	1.0	0.8	330
Wife 10+ years younger	1.9	1.1	199
Missing	*	*	5
Number of marital control behaviors displayed by husband/partner[3]			
0	0.6	0.2	931
1-2	1.8	1.0	471
3-4	3.1	1.8	223
5	12.0	1.5	66
Number of decisions in which women participate[4]			
0	1.5	0.8	100
1-2	2.0	1.2	387
3	1.3	0.7	928
Number of reasons for which wife beating is justified[5]			
0	1.6	0.4	1,039
1-2	2.2	1.5	348
3-4	2.3	1.1	220
5	0.0	0.0	83
Woman's father beat her mother			
Yes	2.8	1.0	656
No	0.9	0.4	951
Don't know	2.0	2.0	84
Woman afraid of husband/partner			
Afraid most of the time	5.5	1.8	180
Sometimes afraid	2.8	1.6	283
Never afraid	0.9	0.4	1,223
Missing	*	*	5
Total	1.7	0.7	1,691

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months
[2] Includes only currently married women
[3] According to the wife's report. See Table 17.8.1 for list of behaviors.
[4] According to the wife's report. Includes only currently married women. See Table 15.5 for list of decisions.
[5] According to the wife's report. See Table 15.7.1 for list of reasons.

Tables 17.16.1 and 17.16.2 present information on the proportion of ever-married women and men age 15-49, respectively, who have initiated physical violence against their spouse ever and in the past 12 months, according to spousal characteristics and empowerment indicators.

Table 17.16.1 shows that violence against husbands is highest among women whose husband gets drunk very often (6 percent, ever) and 2 percent in the past 12 months prior the survey, women who are afraid of their husband most of the time (6 percent, ever) and 2 percent in the last 12 months preceding the survey, and both women and men are uneducated (3 percent, ever). Women's violence against their husband increases as the number of controlling behaviors displayed by the husband increases. There is no relationship between the proportion of women who initiate violence against their spouse and the number of decisions in which women participate or the number of reasons they give for which wife beating is justified. Women whose fathers beat their mothers are only slightly more likely to commit spousal physical violence than women whose fathers did not beat their mothers (3 percent versus 1 percent). Similar patterns by background characteristics are observed in women's physical violence against their spouse in the past 12 months.

Table 17.16.2 shows that men whose wife gets drunk sometimes (43 percent) are more likely to have committed spousal violence than men whose wife does not drink or who drinks but never gets drunk (18 to19 percent). These proportions are lower for the 12 months preceding the survey; 27 percent of men whose wife gets drunken sometimes committed spousal violence compared to 6 percent each for men whose wife does not drink or who drinks but never gets drunk. The proportion of men who have initiated violence against their wives increases steadily as the number of controlling behaviors displayed by the wife increases. Fourteen percent of men whose wives display none of the five controlling behaviors have initiated physical violence against their spouse, as compared with 43 percent of men whose wives exhibit three or four controlling behaviors. Men's violence against their spouse is higher among those who are sometimes afraid of their wives than among those who are never afraid (36 percent versus 20 percent). Men whose fathers did not beat their mothers are much less likely to commit physical violence against their spouse than men whose fathers beat their mothers (16 percent versus 28 percent).

Table 17.16.2 Men's violence against their spouse by spouse's characteristics and empowerment indicators

Percentage of ever-married men age 15-49 who have committed physical violence against their current or most recent wife/partner when she was not already beating or physically hurting them, ever and in the past 12 months, according to their wife's characteristics, Rwanda 2014-15

Background characteristic	Percentage who have committed physical violence against their wife/partner		Number of ever-married men
	Ever[1]	In the past 12 months	
Wife's/partner's alcohol consumption			
Does not drink	18.3	6.0	648
Drinks/never gets drunk	18.9	5.9	262
Gets drunk sometimes	42.7	26.7	83
Gets drunk very often	*	*	12
Don't know/missing	*	*	1
Spousal age difference[2]			
Husband older	20.8	7.2	685
Husband same age	21.9	8.4	96
Husband 1-4 years younger	17.8	6.5	134
Husband 5-9 years younger	(12.4)	(9.0)	26
Husband 10+ years younger	*	*	5
Number of marital control behaviors displayed by wife/partner[3]			
0	13.9	4.8	521
1-2	25.0	8.6	392
3-4	43.4	23.3	76
5	*	*	17
Number of decisions in which men participate[4]			
0	*	*	6
1-2	20.5	7.4	968
Number of reasons for which wife beating is justified[5]			
0	20.3	7.1	877
1-2	31.9	17.6	67
3-4	(27.3)	(9.7)	32
5	*	*	17
Man's father beat his mother			
Yes	27.5	11.6	442
No	15.6	4.8	472
Don't know/missing	18.9	6.0	93
Man afraid of wife/partner			
Afraid most of the time	*	*	17
Sometimes afraid	36.3	17.8	73
Never afraid	19.7	7.1	915
Missing	*	*	1
Total 15-49	21.1	7.9	1,007
50-59	27.8	4.9	239
Total 15-59	22.4	7.4	1,246

Note: Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated, or widowed men. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months
[2] Includes only currently married men
[3] According to the husband's report. See Table 17.8.2 for list of behaviors.
[4] According to the husband's report. Includes only currently married men. See Table 15.5 for list of decisions.
[5] According to the husband's report. See Table 15.7.1 for list of reasons.

17.17 HELP-SEEKING BEHAVIOR BY THOSE WHO EXPERIENCE VIOLENCE

Tables 17.17.1 and 17.17.2 show the percent distribution of women and men, respectively, who have ever experienced physical or sexual violence committed by anyone, according to whether they ever sought help to stop the violence and, among those who did not seek help, whether or not they told anyone about the violence.

Table 17.17.1 Help seeking to stop violence: Women

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by their help-seeking behavior, according to type of violence and background characteristics, Rwanda 2014-15

Background characteristic	Sought help to stop violence	Never sought help but told someone	Never sought help, never told anyone	Missing/don't know	Total	Number of women who have ever experienced any physical or sexual violence
Type of violence experienced						
Physical only	50.6	25.3	21.9	2.2	100.0	575
Sexual only	31.5	33.8	34.0	0.8	100.0	251
Physical and sexual	54.5	28.6	16.9	0.0	100.0	350
Age						
15-19	39.4	31.4	27.9	1.3	100.0	167
20-24	39.5	35.6	23.3	1.5	100.0	205
25-29	39.2	28.2	30.8	1.9	100.0	212
30-39	54.3	25.9	19.0	0.8	100.0	357
40-49	58.1	22.5	18.3	1.1	100.0	236
Religion						
Catholic	48.0	25.4	25.1	1.5	100.0	473
Protestant	48.5	29.7	20.5	1.3	100.0	535
Adventist	45.0	30.9	24.1	0.0	100.0	115
Muslim	(53.1)	(15.8)	(31.1)	(0.0)	100.0	36
Jehovah's Witness	*	*	*	*	100.0	15
Other	*	*	*	*	100.0	3
Residence						
Urban	40.6	29.6	28.4	1.3	100.0	242
Rural	49.5	27.7	21.6	1.2	100.0	934
Province						
Kigali City	48.7	26.0	24.6	0.7	100.0	168
South	43.6	32.8	21.2	2.4	100.0	276
West	42.1	32.0	25.1	0.7	100.0	264
North	47.4	26.1	25.1	1.3	100.0	190
East	56.6	22.3	20.3	0.7	100.0	277
Marital status						
Never married	36.3	35.8	26.5	1.4	100.0	340
Married or living together	48.3	26.4	24.2	1.1	100.0	678
Divorced/separated/widowed	69.5	19.0	10.2	1.3	100.0	159
Number of living children						
0	33.2	36.5	28.9	1.4	100.0	299
1-2	46.2	26.2	26.1	1.5	100.0	408
3-4	56.5	22.9	19.2	1.3	100.0	267
5+	60.2	26.5	13.0	0.3	100.0	202
Employment						
Employed for cash	50.8	27.7	20.7	0.8	100.0	743
Employed not for cash	47.4	25.2	25.9	1.5	100.0	316
Not employed	28.6	38.7	29.7	3.0	100.0	118
Education						
No education	64.7	17.3	16.8	1.2	100.0	153
Primary	51.2	25.0	22.7	1.1	100.0	779
Secondary and higher	25.8	44.7	27.9	1.6	100.0	244
Wealth quintile						
Lowest	56.2	20.9	22.3	0.6	100.0	253
Second	48.5	25.9	23.5	2.1	100.0	221
Middle	47.4	30.2	21.4	1.0	100.0	242
Fourth	44.7	34.4	18.9	2.0	100.0	188
Highest	41.3	30.4	27.5	0.7	100.0	272
Total	47.7	28.1	23.0	1.2	100.0	1,176

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Overall, 48 percent of women who have ever experienced any type of physical or sexual violence from anyone sought help to stop the violence. Twenty-eight percent of women never sought help but told someone, while 23 percent never sought help and never told anyone. Women who have experienced both physical and sexual violence (55 percent), women age 45-49 (58 percent), women living in rural areas (50 percent), and women in the East province (57 percent) are more likely to seek help to stop violence than other women. A much

higher proportion of divorced, separated, or widowed women (70 percent) than never-married women (36 percent) have ever sought help to stop violence. Help seeking increases with number of living children, from 33 percent among women with no living children to 60 percent among those with five or more children. Unemployed women (29 percent), highly educated women (26 percent), and those in the wealthiest quintile (41 percent) are less likely to seek help from any source to stop the violence than other women.

Table 17.17.2 Help seeking to stop violence: Men

Percent distribution of men age 15-49 who have ever experienced physical or sexual violence by their help-seeking behavior, according to type of violence and background characteristics, Rwanda 2014-15

Background characteristic	Sought help to stop violence	Never sought help but told someone	Never sought help, never told anyone	Missing/ don't know	Total	Number of men who have ever experienced any physical or sexual violence
Type of violence experienced						
Physical only	48.0	31.8	16.6	3.7	100.0	676
Sexual only	(13.8)	(26.7)	(49.0)	(10.6)	100.0	31
Physical and sexual	29.6	30.1	36.4	3.9	100.0	64
Age						
15-19	41.0	21.7	36.3	1.0	100.0	111
20-24	35.6	32.1	24.0	8.3	100.0	151
25-29	47.9	35.9	14.1	2.1	100.0	147
30-39	49.4	31.6	14.8	4.3	100.0	221
40-49	48.6	33.6	14.7	3.1	100.0	140
Religion						
Catholic	45.3	29.4	20.9	4.4	100.0	318
Protestant	47.0	33.5	15.1	4.5	100.0	315
Adventist	43.3	27.7	27.2	1.8	100.0	98
Muslim	(45.2)	(18.9)	(32.1)	(3.8)	100.0	19
Jehovah's Witness	*	*	*	*	100.0	6
Other	*	*	*	*	100.0	14
Residence						
Urban	36.7	31.3	24.7	7.2	100.0	163
Rural	47.3	31.5	18.1	3.1	100.0	608
Province						
Kigali City	28.8	40.3	21.3	9.6	100.0	113
South	47.0	30.4	20.0	2.6	100.0	176
West	50.8	26.8	19.9	2.5	100.0	176
North	36.4	27.3	30.9	5.4	100.0	108
East	52.1	33.8	11.6	2.5	100.0	198
Marital status						
Never married	38.4	31.6	25.6	4.4	100.0	319
Married or living together	49.7	31.2	15.4	3.7	100.0	426
Divorced/separated/widowed	(49.5)	(34.4)	(13.1)	(3.0)	100.0	26
Number of living children						
0	39.7	30.6	25.2	4.5	100.0	327
1-2	46.1	31.2	19.0	3.7	100.0	185
3-4	52.0	32.3	12.1	3.7	100.0	159
5+	49.7	33.5	13.7	3.1	100.0	99
Employment						
Employed for cash	46.5	29.9	19.5	4.1	100.0	607
Employed not for cash	46.7	36.0	13.3	4.1	100.0	109
Not employed	(25.1)	(40.0)	(32.3)	(2.6)	100.0	54
Education						
No education	45.1	39.6	9.8	5.5	100.0	82
Primary	49.1	28.0	19.7	3.1	100.0	522
Secondary and higher	32.2	38.3	23.7	5.8	100.0	167
Wealth quintile						
Lowest	51.8	29.4	14.3	4.5	100.0	125
Second	52.4	27.7	16.0	3.8	100.0	154
Middle	45.0	32.1	20.1	2.8	100.0	143
Fourth	42.8	37.1	18.1	2.0	100.0	173
Highest	36.1	30.2	27.2	6.5	100.0	176
Total 15-49	45.0	31.5	19.5	4.0	100.0	771
50-59	47.6	24.8	22.1	5.5	100.0	121
Total 15-59	45.4	30.6	19.9	4.2	100.0	892

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Among men age 15-49 who have experienced any type of physical or sexual violence from anyone, 45 percent sought help to stop the violence. Thirty-two percent never sought help but told someone, and 20 percent never sought help and never told anyone. The observed patterns in help-seeking behavior among men by background characteristics are generally similar to those among women.

Tables 17.18.1 and 17.8.2 show the percentage of abused women and men, respectively, who reported seeking help from specific types of sources. The most common sources of help among women and men who experienced physical or sexual violence are neighbors (60 percent and 44 percent, respectively) and family members (27 percent and 28 percent, respectively). A relatively high percentage of women (16 percent) seek help from their husband's or partner's family, while men are far less likely to seek help from their wife's family (2 percent). Men are much more likely than women to seek help from a friend to stop the violence (18 percent and 5 percent, respectively) and slightly more likely to seek help from the police (12 percent and 10 percent, respectively). Although sources of help differ somewhat depending on the type of violence experienced, the patterns are generally similar.

Table 17.18.1 Sources for help to stop the violence: Women

Percentage of women age 15-49 who have experienced physical or sexual violence and sought help by sources from which they sought help, according to the type of violence that women reported, Rwanda 2014-15

	Type of violence experienced			
Person	Physical only	Sexual only	Physical and sexual	Physical or sexual
Own family	22.5	37.1	30.9	27.4
Husband/partner's family	18.8	4.4	16.4	16.0
Husband/partner	1.1	2.8	1.1	1.4
Boyfriend	0.8	0.0	0.0	0.4
Friend	3.3	2.9	9.6	5.4
Neighbor	59.8	54.8	62.3	60.0
Religious leader	1.0	1.7	2.1	1.5
Doctor/medical personnel	1.2	0.0	2.5	1.5
Police	6.7	9.7	13.7	9.5
Lawyer	4.3	0.0	5.5	4.1
Social work organization	0.5	0.0	2.2	1.0
Other	3.6	13.7	3.0	4.8
Number of women who have experienced violence and sought help	291	79	191	561

Table 17.18.2 Sources for help to stop the violence: Men

Percentage of men age 15-49 who have experienced physical or sexual violence and sought help by sources from which they sought help, according to the type of violence that men reported, Rwanda 2014-15

	Type of violence experienced			
Person	Physical only	Sexual only	Physical and sexual	Physical or sexual
Own family	25.8	*	(48.9)	27.5
Wife/partner's family	1.8	*	(9.2)	2.2
Wife/partner	0.3	*	(0.0)	0.2
Girlfriend	0.0	*	(0.0)	0.0
Friend	18.7	*	(13.0)	18.1
Neighbor	44.3	*	(35.4)	43.6
Religious leader	1.0	*	(3.9)	1.1
Doctor/medical personnel	1.5	*	(0.0)	1.7
Police	12.0	*	(7.4)	11.6
Lawyer	7.1	*	(5.7)	6.9
Social work organization	1.0	*	(0.0)	1.0
Other	23.6	*	(21.5)	23.7
Number of men who have experienced violence and sought help	324	4	19	347

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

EARLY CHILDHOOD EDUCATION AND DEVELOPMENT

18

Key Findings

- Thirteen percent of children age 36-59 months are attending an organized early childhood education program.
- Forty-nine percent of children engaged with an adult household member in four or more activities that promote learning and school readiness during the three days before the survey.
- Children under age 5 rarely have three or more children's books (1 percent).
- Thirty-five percent of children under age 5 were left alone or left in the care of other children under age 10 for one hour or more during the week preceding the interview.
- Thirty percent of children under age 5 played with 2 or more types of playthings.
- Sixty-three percent of children age 36-59 months are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains.

Children are the foundation of sustainable development. The early childhood is crucial not only for individual health and physical development, but also for cognitive and social-emotional development. Events in the first few years of life are formative and play a vital role in building human capital. This chapter provides key data on early childhood education and development collected in the 2014-15 RDHS. These data will help the Rwandan government, civil society, communities, and other stakeholders design and implement programs and policies that help children reach their full potential by supporting families and communities and increasing access to quality early childhood care and education.

18.1 PREVALENCE OF EARLY CHILDHOOD EDUCATION

The readiness of children for primary school can be improved through early childhood education programs such as preschools. Early childhood education programs include those that have organized learning components. In the 2014-15 RDHS, women with a child under age 6 living with them were asked questions regarding early childhood care and education. In the case of women with more than one child under age 6, questions referred to the youngest child.

The data show that 13 percent of children age 36-59 months (age 3-4) are attending an organized early childhood education program (Table 18.1). Access to early childhood education increases with age; from 9 percent in age 36-47 month, to 19 percent in age 48-59 months. Children living in urban areas (37 percent) are much more likely to attend an early childhood education program than children living in rural areas (9 percent). Participation in early childhood education varies substantially by province, from a high of 38 percent among children in City of Kigali to a low of only 4 percent among children in West. Considerable differences are observed by mother's education and household wealth quintile. Only 4 percent of children whose mothers have no education attend an early childhood education program, as compared with 49 percent of children whose mothers have a secondary education or higher. Forty-five percent of children living in the richest

households attend an early childhood education program, compared with only 3 percent of children in the poorest households.

Table 18.1 Early childhood education

Percent distribution of children age 36-59 months who are attending an organized early childhood education program, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage of children age 36-59 months attending early childhood education[1]	Number of children age 36-59 months
Age in months		
36-47	8.7	1,504
48-59	18.8	1,170
Child's sex		
Male	11.8	1,367
Female	14.4	1,308
Residence		
Urban	37.3	414
Rural	8.7	2,260
Province		
City of Kigali	37.5	302
South	10.6	649
West	4.4	646
North	8.7	362
East	15.2	716
Mother's education		
No education	4.3	434
Primary	10.0	1,965
Secondary and higher	48.8	276
Wealth quintile		
Lowest	2.6	641
Second	6.0	597
Middle	11.3	572
Fourth	11.4	459
Highest	44.8	405
Total	13.1	2,675

[1] Not including day care and baby-sitting

18.2 ADULT INVOLVEMENT IN EARLY LEARNING ACTIVITIES

It is recognized that a period of rapid brain development occurs in the first three to four years of life and that the quality of home care is the major determinant of a child's development during this period. In this context, the amount of "quality time" adults spend with children, the presence of children's books in the home, opportunities for play to stimulate the imagination, and conditions of care are all important indicators of quality of home care. Children should be physically healthy, mentally alert, emotionally secure, socially competent, and ready to learn.

Information on a number of activities that support early learning was collected for children age 3-4 who were living with their mothers. Survey items focused on the involvement of adults with children in the following activities: reading books or looking at picture books; telling stories; singing songs; taking children outside the home, compound, or yard; playing with children; and spending time with children naming, counting, or drawing things.

Forty-nine percent of children age 36-59 months are engaged with an adult household member in activities that promote learning and school readiness within the three days prior to the survey (Table 18.2). The average number of activities in which adults engaged with children was 3.5. Three-quarters of children age

36-59 months live with their biological fathers; of these children, only 3 percent engaged with their father in four or more early educational activities. The average number of activities in which fathers involved themselves with children was 0.6. The involvement of mothers in early childhood learning activities was somewhat greater than that of fathers. Twelve percent of children engaged with their mothers in four or more such activities, with an average of 1.3 activities. Nevertheless, it is clear that other household adult members besides mothers and fathers are engaged in such activities.

Table 18.2 Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by biological fathers and mothers, Rwanda 2014-15

Background characteristic	Percentage of children with whom adult household members[1] have engaged in four or more activities[2]	Mean number of activities with adult household members	Percentage of children living with their biological father	Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities	Mean number of activities with biological fathers	Number of children age 36-59 months living with their biological fathers	Percentage of children with whom biological mothers have engaged in four or more activities	Mean number of activities with biological mothers	Number of children age 36-59 months
Age in months										
36-47	48.8	3.5	75.3	1,504	3.7	0.7	1,132	12.1	1.4	1,504
48-59	48.2	3.5	74.8	1,170	1.7	0.5	875	11.7	1.3	1,170
Child's sex										
Male	48.6	3.5	75.1	1,367	2.9	0.7	1,026	11.1	1.3	1,367
Female	48.5	3.5	75.0	1,308	2.7	0.6	981	12.8	1.4	1,308
Residence										
Urban	60.5	4.2	73.5	414	4.0	0.8	305	18.7	1.8	414
Rural	46.3	3.4	75.3	2,260	2.6	0.6	1,703	10.7	1.3	2,260
Province										
City of Kigali	63.5	4.3	77.8	302	2.7	0.9	235	18.8	1.9	302
South	56.5	4.1	68.8	649	4.8	0.8	447	10.3	1.4	649
West	33.7	2.5	78.0	646	0.8	0.4	504	5.0	0.7	646
North	56.1	3.9	79.6	362	4.1	0.8	289	16.0	1.6	362
East	44.5	3.3	74.6	716	2.4	0.5	534	14.7	1.4	716
Mother's education										
No education	34.9	2.7	74.4	434	1.7	0.4	322	6.3	0.9	434
Primary	47.9	3.5	76.2	1,965	2.6	0.6	1,498	11.1	1.3	1,965
Secondary and higher	74.2	5.0	67.7	276	6.8	1.1	187	26.4	2.2	276
Father's education										
No education	36.3	2.9	100.0	372	1.3	0.4	372	9.8	1.0	372
Primary	48.5	3.5	100.0	1,447	2.5	0.6	1,447	10.4	1.3	1,447
Secondary and higher	69.5	4.6	100.0	188	8.5	1.2	188	20.8	1.8	188
Not living with father	49.4	3.5	0.0	667	*	*	0	13.9	1.5	667
Wealth quintile										
Lowest	35.6	2.7	63.6	641	2.2	0.6	408	7.2	1.1	641
Second	45.4	3.1	77.5	597	2.8	0.6	463	11.0	1.2	597
Middle	49.6	3.7	80.5	572	1.6	0.5	461	12.1	1.3	572
Fourth	53.8	3.9	80.7	459	3.9	0.7	371	14.2	1.5	459
Highest	66.2	4.6	75.4	405	4.1	0.8	306	17.8	1.8	405
Total	48.5	3.5	75.1	2,675	2.8	0.6	2,008	11.9	1.3	2,675

Note: Total includes 1 case in which information on father's education is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Including parents or other adult members of the household
[2] Including the following activities: reading books or looking at picture books; telling stories; singing songs; taking children outside the home, compound, or yard; playing with children; and spending time with children naming, counting, or drawing things

There was no difference between boys and girls with respect to adults' engagement in activities that promote learning and school readiness. A larger percentage of children in urban areas (61 percent) than rural areas (46 percent) engaged with adults in early education activities. The city of Kigali has the highest percentage of children with whom adults are involved in early education activities (64 percent), while the

lowest percentage is observed in the West province (34 percent). Differences are observed by educational level of the mother and father, as well as by socioeconomic status. The percentage of children who have an adult engage with them in four or more learning activities rises steadily with increasing parents' education and increasing household wealth. For example, 66 percent of children living in the richest households had an adult engage with them in four or more learning-related activities, as opposed to 36 percent of those living in the poorest households. Similarly, 74 percent of children whose mothers have a secondary education or higher engaged with an adult in at least four learning activities, as compared with 35 percent of children whose mothers have no education. Seventy percent of fathers who have a secondary education or higher engaged in four or more activities, compared to only 36 percent of those with no education. Patterns by background characteristics in fathers' and mothers' involvement in such activities were similar.

18.3 CHILDREN'S BOOKS AND PLAYTHINGS

Exposure to books in the early years not only provides children with a greater understanding of the nature of print but may also give them opportunities to see others reading (e.g., older siblings doing schoolwork). The presence of books is also important for later school performance. Mothers of children under age 5 were asked about the number of children's books or picture books they have. By stimulating the imagination, play also contributes to brain development. Mothers were asked which items children play with, including homemade toys, toys purchased from a shop, and other household objects or objects found around or outside the home.

In Rwanda, only 1 percent of children under age 5 have at least three children's books at home (Table 18.3). One factor that could contribute somewhat to this low figure is that if a woman had more than one child under age 5, questions were asked about the youngest child. Consequently, Table 18.3 does not adequately reflect older children in this age group but, rather, is disproportionally based on younger children who generally may have fewer children's books.

Differences by background characteristics in the proportion of children who have access to three or more children's books are minimal.

Table 18.3 also shows that 30 percent of children under age 5 play with two or more types of playthings: homemade toys (including dolls and cars), toys purchased from a shop, and household objects (such as pots and bowls) along with objects and materials found outside the home (such as sticks, rocks, animal shells, and leaves), which are equally important for early child development as other toys. Thirteen percent of children play with toys that come from a shop, while 27 percent play with homemade toys. Household objects are the most common types of playthings; more than 6 in 10 children play with such objects.

The percentage of children who play with two or more types of playthings is higher at age 24-59 months than age 0-23 months (43 percent and 19 percent, respectively) and higher in urban areas than rural areas (39 percent and 28 percent, respectively). By province, the percentage of children who play with two or more types of playthings varies from 22 percent in West to 36 percent in City of Kigali. This percentage increases with increasing mother's education and household wealth. Twenty-six percent of children whose mothers have no education play with two or more playthings, as compared with 41 percent of children whose mothers have a secondary education or higher. By wealth quintile, the proportion of children who play with two or more types of playthings varies from 21 percent among those in the lowest quintile to 41 percent among those in the highest quintile.

Table 18.3 Learning materials

Percentage of children under age 5 living in households with three or more children's books and percentage who play with various types of playthings, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage of children living in households that have three or more children's books	Percentage of children who play with:				
		Homemade toys	Toys from shop/ manufactured	Household objects/objects found outside	Two or more types of playthings	Number of children under age 5
Age in months						
0-23	0.5	15.6	11.7	44.4	18.5	3,122
24-59	1.3	39.9	15.1	80.6	42.5	2,714
Child's sex						
Male	0.9	27.4	12.0	61.3	29.1	2,942
Female	0.9	26.4	14.6	61.2	30.1	2,894
Residence						
Urban	2.3	28.9	38.7	57.4	38.9	953
Rural	0.6	26.5	8.3	62.0	27.8	4,883
Province						
City of Kigali	1.6	24.8	40.9	61.7	36.2	674
South	1.3	33.8	8.7	66.8	34.6	1,354
West	0.3	18.6	9.7	55.8	21.8	1,339
North	1.4	33.0	9.5	65.3	34.2	855
East	0.4	25.6	10.4	58.7	26.8	1,613
Mother's education						
No education	0.3	26.0	4.1	60.1	25.8	855
Primary	0.5	26.5	9.7	62.8	28.3	4,205
Secondary and higher	3.9	30.1	42.9	54.1	41.2	776
Wealth quintile						
Lowest	0.1	20.7	3.5	60.7	21.4	1,388
Second	0.4	26.5	4.1	61.1	26.4	1,264
Middle	0.4	27.6	8.1	63.3	29.0	1,167
Fourth	1.1	31.5	15.1	63.4	34.6	1,035
Highest	3.0	30.4	43.0	57.3	40.9	983
Total	0.9	26.9	13.3	61.2	29.6	5,836

18.4 ADEQUATE CARE FOR YOUNG CHILDREN

Leaving children alone or only in the presence of other young children is known to increase the risk of accidents, abuse and neglect. In the 2014-15 RDHS, mothers were asked two questions to establish whether their youngest child age 0-59 months had been left alone during the week preceding the interview for one hour or more and whether the child was left in the care of other children under age 10 for one hour or more.

A child under age 5 left only in the care of another child or left alone is considered inadequately cared for. Table 18.4 shows that 35 percent of children under age 5 were left alone or left in the care of other children under age 10 for one hour or more during the week preceding the interview. Thirty-two percent of children under age 5 had been left in the care of other children under age 10 and 7 percent of children under age 5 were left completely alone (under the care of no one) for at least one hour during the week preceding the interview. .

Table 18.4 Inadequate care

Percentage of children under age 5 left alone or left in the care of another child younger than age 10 for one hour or more at least once during the past week, Rwanda 2014-15

Background characteristic	Percentage of children under age 5: Left alone in the past week	Left in the care of another child younger than age 10 in the past week	Left with inadequate care in the past week[1]	Number of children under age 5
Age in months				
0-23	3.8	20.6	22.3	3,122
24-59	11.4	45.4	48.8	2,714
Child's sex				
Male	7.5	32.1	34.6	2,942
Female	7.2	32.1	34.6	2,894
Residence				
Urban	7.1	20.3	22.8	953
Rural	7.4	34.4	36.9	4,883
Province				
City of Kigali	5.3	19.4	20.8	674
South	6.8	33.6	35.7	1,354
West	7.7	35.9	39.1	1,339
North	8.3	38.9	41.1	855
East	7.9	29.4	32.3	1,613
Mother's education				
No education	8.3	41.0	43.3	855
Primary	7.6	33.1	35.8	4,205
Secondary and higher	5.0	17.0	18.6	776
Wealth quintile				
Lowest	8.1	35.7	38.0	1,388
Second	7.9	34.7	37.9	1,264
Middle	7.0	35.5	38.1	1,167
Fourth	6.7	33.2	35.2	1,035
Highest	6.7	18.6	21.0	983
Total	7.3	32.1	34.6	5,836

[1] A child under age 5 left only in the care of another child or left alone is considered inadequately cared for.

Children age 24-59 months were more than twice as likely to be left without adequate care (49 percent) as children age 0-23 months (22 percent). There was no variation in the proportion of children left with inadequate care by sex of the child. A higher percentage of rural children (37 percent) than urban children (23 percent) received inadequate care. By province, the percentage of children left with inadequate care in the week before the survey varied from 21 percent in City of Kigali to 41 percent in North. Differences were also observed with regard to the educational level of the mother as well as the socioeconomic status of the household. Children whose mothers had no education were more than twice as likely as those whose mothers had a secondary education or higher to be left with inadequate care (43 percent versus 19 percent). Similarly, 38 percent of children living in households in the lowest three wealth quintiles were left with inadequate care, as compared with 21 percent of children living in the wealthiest households.

18.5 EARLY CHILDHOOD DEVELOPMENT

Early child development is defined as an orderly, predictable process along a continuous path in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling, and relating to others. Physical growth, literacy and numeracy skills, socioemotional development, and readiness to learn are vital domains of a child's overall development, which is a basis for overall human development.

A 10-item module was used to calculate the Early Child Development Index (ECDI). The ECDI is based on benchmarks that children are expected to reach if they are progressing in their development at a pace similar to the majority of children in their age group. The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Rwanda. Each of the 10 items is used in one of four

domains to determine whether children aged 36-59 months are developmentally on track in that domain. The domains in question are as follows.

- **Literacy-numeracy:** Children are identified as being developmentally on track according to whether they can identify/name at least 10 letters of the alphabet; whether they can read at least four simple, popular words; and whether they know the names and recognize the symbols of all numbers from 1 to 10. If at least two of these capabilities are observed, the child is considered developmentally on track.

- **Physical:** If the child can pick up a small object such as a stick or a rock from the ground with two fingers and/or the mother does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain. If child was able to perform one of those two activities, the child is regarded as being on track in physical domain.

- **Social-emotional:** A child is considered to be developmentally on track if two of the following are true: the child gets along well with other children; the child does not kick, bite, or hit other children; and the child does not become distracted easily. If child was able to show two out of three behaviors, the child is regarded as being on track in social-emotional domain.

- **Learning:** If the child follows simple directions on how to do something correctly and/or when given something to do, and is able to do it independently, then the child is considered to be developmentally on track in this domain. If child was able to perform one of those two activities, the child is regarded as being on track in learning domain.

The ECDI score is calculated as the percentage of children who are developmentally on track in at least three of these four domains.

Overall, 6 in 10 children age 36-59 months (63 percent) are developmentally on track (i.e., on track in at least three of the four domains). The ECDI score is higher at age 48-59 months than at age 36-47 months (67 percent and 60 percent, respectively). Similarly, urban children are more likely than rural children to be developmentally on track (67 percent versus 62 percent). The proportion of children developmentally on track varies by province, from a low of 57 percent in City of Kigali to a high of 68 percent in South. ECDI scores are positively associated with mother's education, varying from 59 percent among children whose mothers have no education to 69 percent among those whose mothers have a secondary education or higher. Also, scores are higher among children in the upper two wealth quintiles (67-68 percent) than among those in the lowest three quintiles (59-63 percent).

The percentages of children age 36-59 months who are developmentally on track in the literacy-numeracy, physical, social-emotional, and learning domains, as well as ECDI scores, are presented in Table 18.5. Analysis of the four domains of child development shows that at least 9 in 10 children are on track in the physical (92 percent), social-emotional (73 percent), and learning (86 percent) domains. However, only about 7 percent of children age 36-59 months are developmentally on track in literacy-numeracy.

Variations in the percentage of children who are developmentally on track are more pronounced in the literacy-numeracy domain than in the other domains. As might be expected, children age 36-47 months are less likely to be on track in that domain than those age 48-59 months (6 percent and 9 percent, respectively). In addition, a higher proportion of urban children than rural children are on track (17 percent versus 5 percent). Nineteen percent of children whose mothers have a secondary education or higher are on track in literacy-numeracy, as compared with only 3 percent of children whose mothers have no education. Similarly, 18 percent of children in the highest wealth quintile are on track, as compared with around 5 percent of children in the other quintiles.

Table 18.5 Early Child Development Index

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the Early Child Development Index score, Rwanda 2014-15

Background characteristic	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early Child Development Index score[2]	Number of children age 36-59 months
	Literacy-numeracy[1]	Physical[1]	Social-emotional[1]	Learning[1]		
Age in months						
36-47	5.5	91.0	72.5	82.3	59.8	1,504
48-59	9.0	94.0	73.9	90.1	67.3	1,170
Child's sex						
Male	6.3	92.4	72.9	85.4	62.6	1,367
Female	7.8	92.2	73.3	86.1	63.6	1,308
Residence						
Urban	16.7	88.6	70.2	90.3	66.7	414
Rural	5.2	93.0	73.6	84.9	62.4	2,260
Province						
City of Kigali	14.4	88.5	60.1	90.4	56.7	302
South	8.6	95.5	74.6	86.7	67.8	649
West	5.2	90.5	70.9	83.2	61.1	646
North	6.8	86.2	78.1	85.7	60.7	362
East	4.2	95.7	76.7	85.2	64.5	716
Mother's education						
No education	2.5	91.7	72.1	81.5	59.2	434
Primary	6.4	92.5	73.9	85.6	63.1	1,965
Secondary and higher	18.8	91.8	68.9	93.6	69.1	276
Wealth quintile						
Lowest	5.5	92.8	76.0	82.0	61.3	641
Second	4.7	92.1	72.6	82.3	59.3	597
Middle	4.5	92.3	72.3	86.8	62.5	572
Fourth	5.4	93.4	76.1	88.9	68.0	459
Highest	18.2	90.5	66.8	91.7	66.9	405
Total	7.0	92.3	73.1	85.7	63.1	2,675

[1] See the text for the items included in each domain.
[2] Percentage of children who are developmentally on track in at least three of the four domains

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SAMPLE IMPLEMENTATION *Appendix* A

A.1 INTRODUCTION

The 2014-15 Rwanda Demographic and Health Survey (RDHS) followed surveys implemented in 1992, 2000, 2005, and 2010. A nationally representative sample of 12,800 households, was selected. All women age 15-49 who were usual residents of the selected households or who slept in the households the night before the survey were eligible for the survey. A survey of men was also conducted in a subsample consisting of every second household. All men age 15-59 who were usual residents or who slept in the subsampled households the night before the survey were eligible to be interviewed. Altogether, 13,497 women age 15-49 and 6,217 men age 15-59 were interviewed. As with prior surveys, the main objectives of the 2014-15 RDHS are to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness, approval, and use of family planning methods; maternal and child health; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STIs); and prevalence of HIV among the population.

The survey was designed to produce representative estimates for the main demographic and health indictors for the country as a whole, for the urban and rural areas, and for each of the five provinces. For some indicators, representative results may be available for each of the thirty districts.

A.2 SAMPLING FRAME

The sampling frame used for 2014-15 RDHS is the Rwanda Population and Housing Census (RPHC) which was conducted in 2012. The sampling frame is a complete list of enumeration areas (EAs) covering the whole country, provided by the National Institute of Statistics of Rwanda (NISR), the implementing agency for the 2014-15 RDHS. An EA is a natural village, or a part of a village, created for the RPHC 2012 which served as a counting unit for the census. Each EA appears with identification information, administrative belongings and a measure of size which is the number of residential households residing in the EA. Each EA is also classified into one of the four types of residence, urban, semi-urban, peri-urban and rural. The urban and the semi-urban are grouped together as “urban” areas, and the peri-urban and rural are grouped together as “rural” areas. Each EA also has companied cartographical materials which delineate its geographical locations, boundaries, main access and land marks in or outside the EA which helps to identify the EAs.

Rwanda’s administrative units had been reformed in 2006, reducing the number of provinces from 11 to 5 compared to the last population census conducted in 2002. According to the RPHC 2012, Rwanda is divided into provinces; each province is sub-divided into districts; each district into sectors, each sector into cells, and each cell into villages. There are 5 provinces, 30 districts, and 417 sectors. Table A.1 shows the residential population from the 2012 census, after excluding the institutional population, by province, by district within each province, and according to type of residence (urban and rural). The percentage of the total population goes from 11 percent for Kigali City, to 25 percent for East and South provinces. The population share for districts is quite homogeneous, ranging from 3 percent to 5 percent. In Rwanda, 17 percent of the residential population lives in urban areas. The urban percentage of the provinces varies from 76 percent in Kigali, to 7 percent for East province. Table A.2 is similar to Table A.1, but it shows the distribution of households instead of population. There is a slight difference between the two distributions because in general, the urban household size is smaller than the rural household size. As a result, the percentage of urban households is slightly over 17 percent.

Table A.3 shows the distribution of enumeration areas (EAs) and their average size in number of households after excluding 88 institutional EAs. Among the 16,640 EAs included, 2,554 EAs are in urban areas, and 14,086 EAs are in rural areas. The average size of the EAs is 165 households for the urban EAs, and 142 households for the rural EAs, with an overall average of 146 households per EA.

Table A.1 Population by province and by district within province according to type of residence

Province	District	Population			Percentage of urban	Percent of total population
		Urban	Rural	Total		
Kigali City	Nyarugenge	215069	69746	284815	75.5	2.7
	Gasabo	366717	164184	530901	69.1	5.1
	Kicukiro	280361	38752	319113	87.9	3.0
Kigali City Total		862147	272682	1134829	76.0	10.8
South	Nyanza	25419	297969	323388	7.9	3.1
	Gisagara	5014	317789	322803	1.6	3.1
	Nyaruguru	5131	288293	293424	1.7	2.8
	Huye	53101	275504	328605	16.2	3.1
	Nyamagabe	24932	305721	330653	7.5	3.2
	Ruhango	26470	295551	322021	8.2	3.1
	Muhanga	54362	264603	318965	17.0	3.0
	Kamonyi	38767	304025	342792	11.3	3.3
South Total		233196	2349455	2582651	9.0	24.6
West	Karongi	22898	292872	315770	7.3	3.0
	Rutsiro	6736	316515	323251	2.1	3.1
	Rubavu	148368	255910	404278	36.7	3.9
	Nyabihu	40610	254582	295192	13.8	2.8
	Ngororero	12280	322133	334413	3.7	3.2
	Rusizi	63868	340844	404712	15.8	3.9
	Nyamasheke	6199	376939	383138	1.6	3.7
West Total		300959	2159795	2460754	12.2	23.5
North	Rulindo	8706	279746	288452	3.0	2.8
	Gakenke	9367	329219	338586	2.8	3.2
	Musanze	102799	265764	368563	27.9	3.5
	Burera	6240	330215	336455	1.9	3.2
	Gicumbi	23839	361798	385637	6.2	3.7
North Total		150951	1566742	1717693	8.8	16.4
East	Rwamagana	27179	283059	310238	8.8	3.0
	Nyagatare	47888	419056	466944	10.3	4.5
	Gatsibo	23719	400196	423915	5.6	4.0
	Kayonza	37179	309572	346751	10.7	3.3
	Kirehe	10056	330927	340983	2.9	3.3
	Ngoma	15461	323101	338562	4.6	3.2
	Bugesera	29511	333828	363339	8.1	3.5
East Total		190993	2399739	2590732	7.4	24.7
Rwanda		1738246	8748413	10486659	16.6	100.0

*Source: Residential population, 2012 population census, Rwanda

Table A.2 Distribution of residential households by province and by district within province according to type of residence

Province	District	Household number			Percentage of urban	Percent of total households
		Urban	Rural	Total		
Kigali City	Nyarugenge	53512	17369	70881	75.5	2.9
	Gasabo	100235	41718	141953	70.6	5.9
	Kicukiro	68538	9980	78518	87.3	3.2
Kigali City Total		222285	69067	291352	76.3	12.0
South	Nyanza	6533	68514	75047	8.7	3.1
	Gisagara	1242	75995	77237	1.6	3.2
	Nyaruguru	1395	59895	61290	2.3	2.5
	Huye	11350	67002	78352	14.5	3.2
	Nyamagabe	4933	70093	75026	6.6	3.1
	Ruhango	6517	70034	76551	8.5	3.2
	Muhanga	10445	63296	73741	14.2	3.0
	Kamonyi	9624	71482	81106	11.9	3.3
South Total		52039	546311	598350	8.7	24.7
West	Karongi	5904	67847	73751	8.0	3.0
	Rutsiro	1457	69813	71270	2.0	2.9
	Rubavu	34345	54702	89047	38.6	3.7
	Nyabihu	8671	57551	66222	13.1	2.7
	Ngororero	3021	76209	79230	3.8	3.3
	Rusizi	13314	70442	83756	15.9	3.5
	Nyamasheke	1389	80914	82303	1.7	3.4
West Total		68101	477478	545579	12.5	22.5
North	Rulindo	2087	65364	67451	3.1	2.8
	Gakenke	2505	77257	79762	3.1	3.3
	Musanze	23262	61520	84782	27.4	3.5
	Burera	1504	72197	73701	2.0	3.0
	Gicumbi	5629	80796	86425	6.5	3.6
North Total		34987	357134	392121	8.9	16.2
East	Rwamagana	6615	67585	74200	8.9	3.1
	Nyagatare	12128	94622	106750	11.4	4.4
	Gatsibo	5877	90254	96131	6.1	4.0
	Kayonza	7433	70735	78168	9.5	3.2
	Kirehe	2359	75331	77690	3.0	3.2
	Ngoma	3360	76585	79945	4.2	3.3
	Bugesera	7238	78237	85475	8.5	3.5
East Total		45010	553349	598359	7.5	24.7
Rwanda		422422	2003339	2425761	17.4	100.0

*Source: Residential households, 2012 population census, Rwanda

Table A.3 Distribution of EAs and their average size in number of households by province and by district, according to type of residence

		Number of EAs			Average EA size		
Province	District	Urban	Rural	Total	Urban	Rural	Total
Kigali City	Nyarugenge	396	122	518	135	142	137
	Gasabo	585	262	847	171	159	168
	Kicukiro	473	72	545	145	139	144
Kigali City Total		1454	456	1910	153	151	153
South	Nyanza	36	432	468	181	159	160
	Gisagara	9	533	542	138	143	143
	Nyaruguru	8	391	399	174	153	154
	Huye	64	486	550	177	138	142
	Nyamagabe	31	525	556	159	134	135
	Ruhango	40	511	551	163	137	139
	Muhanga	49	361	410	213	175	180
	Kamonyi	41	386	427	235	185	190
South Total		278	3625	3903	187	151	153
West	Karongi	35	511	546	169	133	135
	Rutsiro	9	482	491	162	145	145
	Rubavu	203	375	578	169	146	154
	Nyabihu	44	445	489	197	129	135
	Ngororero	16	484	500	189	157	158
	Rusizi	83	543	626	160	130	134
	Nyamasheke	8	602	610	174	134	135
West Total		398	3442	3840	171	139	142
North	Rulindo	11	492	503	190	133	134
	Gakenke	17	603	620	147	128	129
	Musanze	116	405	521	201	152	163
	Burera	10	582	592	150	124	124
	Gicumbi	34	611	645	166	132	134
North Total		188	2693	2881	186	133	136
East	Rwamagana	39	467	506	170	145	147
	Nyagatare	59	635	694	206	149	154
	Gatsibo	28	643	671	210	140	143
	Kayonza	35	426	461	212	166	170
	Kirehe	17	613	630	139	123	123
	Ngoma	20	510	530	168	150	151
	Bugesera	38	576	614	190	136	139
East Total		236	3870	4106	191	143	146
Rwanda		2554	14086	16640	165	142	146

*Source: 2012 population census excluding 88 institutional EAs

A.3 STRUCTURE OF THE SAMPLE AND THE SAMPLING PROCEDURE

The sample for RDHS 2014 was a stratified sample selected in two stages from the 2012 census frame. Stratification was achieved by separating each district into urban and rural areas, each of which formed a sampling stratum. In total, 60 sampling strata were created. Samples were selected independently in each sampling stratum, by a two-stage selection. Implicit stratification and proportional allocation would have been achieved at each of the lower administrative units by sorting the sampling frame within the explicit stratum according to administrative unit in different levels before sample selection and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 492 EAs were selected with probability proportional to the EA size and with independent selection in each sampling stratum with the sample allocation given in Table A.4. A household listing operation was carried out in all of the selected EAs before the main survey. The household listing operation consisted of visiting each of the 492 selected EAs to draw a location map and a detailed sketch map, and to record on the household listing forms all residential households found in the EA with the address and the name of the head of the households. The resulting list of households served as the sampling frame for the selection of households in the second stage which took place in the central office. The methodology and the detailed household listing procedures are addressed in the household listing manual.

Table A.4 Sample allocation of EAs and households by province and by district within province according to type of residence

		Allocation of EAs			Allocation of households		
Province	District	Urban	Rural	Total	Urban	Rural	Total
Kigali City	Nyarugenge	15	5	20	390	130	520
	Gasabo	14	6	20	364	156	520
	Kicukiro	17	3	20	442	78	520
Kigali City Total		46	14	60	1196	364	1560
South	Nyanza	2	14	16	52	364	416
	Gisagara	2	14	16	52	364	416
	Nyaruguru	2	14	16	52	364	416
	Huye	3	13	16	78	338	416
	Nyamagabe	2	14	16	52	364	416
	Ruhango	2	14	16	52	364	416
	Muhanga	3	13	16	78	338	416
	Kamonyi	3	13	16	78	338	416
South Total		19	109	128	494	2834	3328
West	Karongi	2	14	16	52	364	416
	Rutsiro	2	14	16	52	364	416
	Rubavu	6	10	16	156	260	416
	Nyabihu	3	13	16	78	338	416
	Ngororero	2	14	16	52	364	416
	Rusizi	3	13	16	78	338	416
	Nyamasheke	2	14	16	52	364	416
West Total		20	92	112	520	2392	2912
North	Rulindo	2	14	16	52	364	416
	Gakenke	2	14	16	52	364	416
	Musanze	5	11	16	130	286	416
	Burera	2	14	16	52	364	416
	Gicumbi	2	14	16	52	364	416
North Total		13	67	80	338	1742	2080
East	Rwamagana	2	14	16	52	364	416
	Nyagatare	3	13	16	78	338	416
	Gatsibo	2	14	16	52	364	416
	Kayonza	2	14	16	52	364	416
	Kirehe	2	14	16	52	364	416
	Ngoma	2	14	16	52	364	416
	Bugesera	2	14	16	52	364	416
East Total		15	97	112	390	2522	2912
Rwanda		113	379	492	2938	9854	12792

At the second stage, a fixed number of 26 households was selected from each selected EA. Table A.4 shows the sample allocation of EAs and households. Among the 492 EAs, 113 were from urban areas and 379 were from rural areas. The total number of households selected was 12,792, 2,938 of which were from urban areas, and 9854 of which were from rural areas. The urban area was slightly oversampled because of the low urbanization in most of the districts, where at least two urban clusters needed to be selected. With the request for representative results to be produced for some indicators at district level and because the total sample size was tight due to budget, therefore an equal size allocation was adopted, with a slightly larger sample size for the districts in Kigali City because of the low fertility level in Kigali City. In fact, because the district sizes are quite homogeneous in terms of population size, the equal size allocation is not far from proportional allocation which is the most optimal allocation. On the other hand, the total sample size was already large, and any substantial increase in the total sample size in order to provide results by district was considered to be counter-productive as it would compromise the data quality due to limited capability to manage a larger survey. With the designed sample size, adequate survey precision at district level was expected for indicators based on all women with values above 15 percent; and for indicators based on children under five with values above 20 percent.

Table A.5 shows the sample allocation of expected number of women and men interviews. The sample calculations were based on the survey results of the 2010 RDHS-IV: the average number of women 15-49 per household was 1.10; the average number of men 15-59 per household was 1.02; the household response rate was 98 percent; the women's individual response rate was 99 percent; and the men's individual response rate was 99 percent.

Table A.5 Sample allocation of expected number of interviews by province and by district within province according to type of residence

		Women 15-49			Men 15-59		
Province	District	Urban	Rural	Total	Urban	Rural	Total
Kigali City	Nyarugenge	416	139	555	193	65	258
	Gasabo	389	166	555	180	77	257
	Kicukiro	471	83	554	219	38	257
Kigali City Total		1276	388	1664	592	180	772
South	Nyanza	55	389	444	25	180	205
	Gisagara	55	389	444	25	180	205
	Nyaruguru	55	389	444	25	180	205
	Huye	83	360	443	38	168	206
	Nyamagabe	55	389	444	25	180	205
	Ruhango	55	389	444	25	180	205
	Muhanga	83	360	443	38	168	206
	Kamonyi	83	360	443	38	168	206
South Total		524	3025	3549	239	1404	1643
West	Karongi	55	389	444	25	180	205
	Rutsiro	55	389	444	25	180	205
	Rubavu	166	278	444	77	128	205
	Nyabihu	83	360	443	38	168	206
	Ngororero	55	389	444	25	180	205
	Rusizi	83	360	443	38	168	206
	Nyamasheke	55	389	444	25	180	205
West Total		552	2554	3106	253	1184	1437
North	Rulindo	55	389	444	25	180	205
	Gakenke	55	389	444	25	180	205
	Musanze	139	305	444	65	141	206
	Burera	55	389	444	25	180	205
	Gicumbi	55	389	444	25	180	205
North Total		359	1861	2220	165	861	1026
East	Rwamagana	55	389	444	25	180	205
	Nyagatare	83	360	443	38	168	206
	Gatsibo	55	389	444	25	180	205
	Kayonza	55	389	444	25	180	205
	Kirehe	55	389	444	25	180	205
	Ngoma	55	389	444	25	180	205
	Bugesera	55	389	444	25	180	205
East Total		413	2694	3107	188	1248	1436
Rwanda		3124	10522	13646	1437	4877	6314

* Male survey was carried out in ½ of the households selected for female survey.

A.4 SELECTION PROBABILITY AND SAMPLING WEIGHT

Due to the non-proportional allocation of the sample to the different provinces and to their districts and the possible differences in response rates, sampling weights are required for any analysis using the 2014-15 RDHS-V data to ensure the actual representative of the survey results at national level and as well as at domain level. Since the RDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster. We use the following notations

P_{1hi}: first-stage sampling probability of the ith EA in stratum h

P_{2hi}: second -stage sampling probability within the ith EA (household selection)

Let a_h be the number of EAs selected in stratum h, M_{hi} the total population according to the sampling frame in the ith EA, and $\sum M_{hi}$ the total population in the stratum h. The probability of selecting the ith EA in the 2014-15 RDHS-V sample is calculated as follows:

$$\frac{a_h \; M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected segment compared to the total number of households in the EA *i* in stratum *h* if the EA is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting EA *i* in the sample is:

$$P_{1hi} = \frac{a_h \, M_{hi}}{\sum M_{hi}} \times b_{hi}$$

A 2014-15 RDHS-V cluster is either an EA or a segment of a large EA. Let L_{hi} be the number of households listed in the household listing operation in the cluster *i* in stratum *h*, and let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster *i* of stratum *h* is therefore the product of the selection probabilities at the two stages:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The design weight for each household in cluster *i* of stratum *h* is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

A spreadsheet containing all sampling parameters and selection probabilities was prepared to facilitate the calculation of the design weights. Design weights were adjusted for household non-response as well as for individual non-response to get the sampling weights for the women and men surveys respectively. The differences of the household sampling weights and the individual sampling weights are introduced by individual non-response. The final sampling weights were normalized in order to give the total number of un-weighted cases equal to the total number of weighted cases at national level, for both household weights and individual weights. The normalized weights are relative weights which are valid for estimating means, proportions and ratios, but not valid for estimating population totals and for pooled data. The sampling weights for HIV testing were calculated in a similar way, but the normalization of the HIV testing weights is different compared to the individual survey weights. The HIV testing weights are normalized for women and men together at the national level, in order that the HIV prevalence rates calculated for both sexes combined are valid. Sampling weights for the domestic violence surveys were calculated based on the number of eligible respondents in the households selected for domestic violence module, for male and female surveys respectively.

A number of sets of weights were calculated:

- one set for all households selected for the survey
- one set for the women's individual survey
- one set for households selected for the male survey
- one set for the male individual survey
- one set for women selected for the domestic violence survey
- one set for men selected for the domestic violence survey
- one set for women's HIV testing
- one set for men's HIV testing

- one set for HIV testing for children 0-14 years

Also the number of weighted cases by using the normalized weight has no direct relationship with the survey precision because it is relative. Especially for oversampled areas, the number of weighted cases is much smaller than the number of un-weighted cases which is directly related to survey precision.

Sampling errors are calculated for selected indicators for the national sample, for the urban and rural areas separately, and for each of the five provinces.

A.5 SURVEY RESULTS

Table A.6 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Rwanda 2014-15

	Residence		Province					
Result	Urban	Rural	Kigali City	South	West	North	East	Total
Selected households								
Completed (C)	98.5	99.5	98.5	99.8	99.1	99.1	99.4	99.3
Household present but no competent respondent at home (HP)	0.3	0.0	0.3	0.0	0.1	0.0	0.0	0.1
Refused (R)	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.1
Household absent (HA)	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Dwelling vacant/address not a dwelling (DV)	0.7	0.3	0.6	0.2	0.5	0.5	0.3	0.4
Dwelling destroyed (DD)	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1
Other (O)	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,939	9,854	1,560	3,329	2,912	2,080	2,912	12,793
Household response rate (HRR)[1]	99.5	100.0	99.2	100.0	99.9	100.0	100.0	99.9
Eligible women								
Completed (EWC)	99.4	99.5	99.4	99.4	99.6	99.7	99.4	99.5
Not at home (EWNH)	0.2	0.0	0.2	0.0	0.0	0.1	0.0	0.1
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.1
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incapacitated (EWI)	0.1	0.4	0.2	0.5	0.3	0.1	0.6	0.4
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,446	10,118	1,888	3,454	3,071	2,176	2,975	13,564
Eligible women response rate (EWRR)[2]	99.4	99.5	99.4	99.4	99.6	99.7	99.4	99.5
Overall women response rate (ORR)[3]	98.9	99.5	98.5	99.4	99.5	99.7	99.3	99.4

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC)
[3] The overall women response rate (OWRR) is calculated as: OWRR = HRR * EWRR/100

Table A.7 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Rwanda 2014-15

	Residence		Province					
Result	Urban	Rural	Kigali City	South	West	North	East	Total
Selected households								
Completed (C)	98.6	99.4	98.5	99.6	99.0	99.0	99.5	99.2
Household present but no competent respondent at home (HP)	0.3	0.0	0.3	0.0	0.1	0.0	0.1	0.1
Refused (R)	0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.1
Household absent (HA)	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0
Dwelling vacant/address not a dwelling (DV)	0.7	0.3	0.6	0.2	0.7	0.6	0.2	0.4
Dwelling destroyed (DD)	0.0	0.1	0.0	0.1	0.1	0.3	0.1	0.1
Other (O)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,469	4,926	780	1,664	1,456	1,039	1,456	6,395
Household response rate (HRR)[1]	99.4	100.0	99.1	100.0	99.9	100.0	99.9	99.9
Eligible men								
Completed (EMC)	99.3	99.6	99.5	99.3	99.6	99.2	99.6	99.5
Not at home (EMNH)	0.2	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Refused (EMR)	0.2	0.0	0.2	0.1	0.1	0.0	0.0	0.1
Incapacitated (EMI)	0.3	0.4	0.2	0.5	0.3	0.5	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,619	4,630	886	1,658	1,358	932	1,415	6,249
Eligible men response rate (EMRR)[2]	99.3	99.6	99.5	99.3	99.6	99.2	99.6	99.5
Overall men response rate (ORR)[3]	98.6	99.6	98.6	99.3	99.6	99.2	99.6	99.3

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC)
[3] The overall men response rate (OMRR) is calculated as: OMRR = HRR * EMRR/100

Table A.8 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Rwanda 2014-15

Characteristic	Testing status			Total	Number
	DBS Tested[1]	Refused to provide blood	Other/ missing		
Marital status					
Never married	99.3	0.7	0.0	100.0	2,586
Ever had sexual intercourse	99.4	0.6	0.0	100.0	804
Never had sexual intercourse	99.3	0.7	0.0	100.0	1,782
Married/living together	99.7	0.2	0.1	100.0	3,497
Divorced or separated	99.8	0.2	0.0	100.0	410
Widowed	99.6	0.4	0.0	100.0	284
Type of union					
In polygynous union	100.0	0.0	0.0	100.0	248
In non-polygynous union	99.8	0.2	0.0	100.0	3,208
Not currently in union	99.4	0.6	0.0	100.0	3,280
DK/missing	97.6	0.0	2.4	100.0	41
Ever had sexual intercourse					
Yes	99.7	0.3	0.0	100.0	4,993
No	99.3	0.7	0.0	100.0	1,782
Missing	100.0	0.0	0.0	100.0	2
Currently pregnant					
Pregnant	100.0	0.0	0.0	100.0	473
Not pregnant or not sure	99.6	0.4	0.0	100.0	6,304
Times slept away from home in past 12 months					
None	99.5	0.5	0.0	100.0	3,503
1-2	99.8	0.1	0.0	100.0	2,348
3-4	99.7	0.3	0.0	100.0	575
5+	98.2	1.5	0.3	100.0	339
Missing	100.0	0.0	0.0	100.0	12
Time away in past 12 months					
Away for more than 1 month	99.6	0.4	0.0	100.0	566
Away for less than 1 month	99.6	0.3	0.1	100.0	2,705
No away	99.5	0.5	0.0	100.0	3,506
Religion					
Catholic	99.7	0.3	0.0	100.0	2,764
Protestant	99.6	0.4	0.0	100.0	2,950
Adventist	99.3	0.7	0.0	100.0	829
Muslim	100.0	0.0	0.0	100.0	142
Jehovah Witness	98.1	1.9	0.0	100.0	53
Traditional	100.0	0.0	0.0	100.0	2
Other	100.0	0.0	0.0	100.0	26
Missing	100.0	0.0	0.0	100.0	8
Total	99.6	0.4	0.0	100.0	6,777

[1] Includes all dried blood spot samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.9 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-59 by HIV testing status, according to social and demographic characteristics (unweighted), Rwanda 2014-15

Characteristic	Testing status				Total	Number
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing		
Marital status						
Never married	99.6	0.3	0.0	0.0	100.0	2,747
Ever had sexual intercourse	99.5	0.4	0.1	0.0	100.0	1,159
Never had sexual intercourse	99.7	0.3	0.0	0.0	100.0	1,588
Married/living together	99.5	0.4	0.0	0.1	100.0	3,327
Divorced or separated	99.1	0.9	0.0	0.0	100.0	110
Widowed	100.0	0.0	0.0	0.0	100.0	33
Type of union						
In polygynous union	98.9	1.1	0.0	0.0	100.0	94
In non-polygynous union	99.6	0.4	0.0	0.1	100.0	3,233
Not currently in union	99.6	0.3	0.0	0.0	100.0	2,890
Ever had sexual intercourse						
Yes	99.5	0.4	0.0	0.0	100.0	4,627
No	99.7	0.3	0.0	0.0	100.0	1,587
Missing	100.0	0.0	0.0	0.0	100.0	3
Male circumcision						
Circumcised	99.0	0.9	0.1	0.1	100.0	1,821
Not circumcised	99.8	0.2	0.0	0.0	100.0	4,391
DK/Missing	100.0	0.0	0.0	0.0	100.0	5
Times slept away from home in past 12 months						
None	99.6	0.4	0.0	0.1	100.0	3,831
1-2	99.9	0.1	0.0	0.0	100.0	1,389
3-4	99.4	0.4	0.2	0.0	100.0	477
5+	99.0	1.0	0.0	0.0	100.0	514
Missing	100.0	0.0	0.0	0.0	100.0	6
Time away in past 12 months						
Away for more than 1 month	99.5	0.3	0.2	0.0	100.0	627
Away for less than 1 month	99.6	0.4	0.0	0.0	100.0	1,751
No away	99.6	0.4	0.0	0.1	100.0	3,831
Missing	100.0	0.0	0.0	0.0	100.0	8
Religion						
Catholic	99.7	0.3	0.0	0.0	100.0	2,842
Protestant	99.5	0.4	0.0	0.1	100.0	2,305
Adventist	99.6	0.4	0.0	0.0	100.0	718
Muslim	99.5	0.5	0.0	0.0	100.0	199
Jehovah Witness	100.0	0.0	0.0	0.0	100.0	47
Traditional	100.0	0.0	0.0	0.0	100.0	1
Other	98.0	2.0	0.0	0.0	100.0	99
Missing	100.0	0.0	0.0	0.0	100.0	5
Total	99.6	0.4	0.0	0.0	100.0	6,217

[1] Includes all dried blood spot samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.10 Coverage of HIV testing by sexual behavior characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Rwanda 2014-15

Sexual behavior characteristic	Testing status			Total	Number
	DBS Tested[1]	Refused to provide blood	Other/ missing		
Age at first sexual intercourse					
<16	100.0	0.0	0.0	100.0	449
16-17	99.6	0.4	0.0	100.0	745
18-19	99.7	0.3	0.0	100.0	1,124
20+	99.7	0.3	0.0	100.0	2,583
Missing	97.8	1.1	1.1	100.0	92
Multiple sexual partners and partner concurrency in past 12 months					
0	99.5	0.5	0.0	100.0	970
1	99.7	0.2	0.1	100.0	3,965
2+	98.2	1.8	0.0	100.0	56
Had concurrent partners[2]	100.0	0.0	0.0	100.0	10
None of the partners were concurrent	97.8	2.2	0.0	100.0	46
Missing	100.0	0.0	0.0	100.0	2
Condom use at last sexual intercourse in past 12 months					
Used condom	99.1	0.6	0.2	100.0	463
Did not use condom	99.8	0.2	0.0	100.0	3,556
No sexual intercourse in last 12 months	99.5	0.5	0.0	100.0	972
DK/Missing	100.0	0.0	0.0	100.0	2
Number of lifetime partners					
1	99.7	0.3	0.1	100.0	3,485
2	99.7	0.3	0.0	100.0	1,049
3-4	99.5	0.5	0.0	100.0	411
5-9	100.0	0.0	0.0	100.0	35
10+	100.0	0.0	0.0	100.0	10
Missing	100.0	0.0	0.0	100.0	3
Prior HIV testing					
Ever tested	99.7	0.3	0.0	100.0	4,782
Received results	99.7	0.3	0.0	100.0	4,742
Did not received results	100.0	0.0	0.0	100.0	40
Never tested	100.0	0.0	0.0	100.0	210
Missing	100.0	0.0	0.0	100.0	1
Total	99.7	0.3	0.0	100.0	4,993

[1] Includes all dried blood spot samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey

Table A.11 Coverage of HIV testing by sexual behavior characteristics: Men

Percent distribution of interviewed men age 15-59 who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Rwanda 2014-15

	Testing status					
Sexual behavior characteristic	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing	Total	Number
Age at first sexual intercourse						
<16	100.0	0.0	0.0	0.0	100.0	591
16-17	99.6	0.2	0.2	0.0	100.0	458
18-19	99.3	0.7	0.0	0.0	100.0	825
20+	99.5	0.5	0.0	0.1	100.0	2,627
Missing	100.0	0.0	0.0	0.0	100.0	126
Multiple sexual partners and partner concurrency in past 12 months						
0	99.2	0.7	0.1	0.0	100.0	746
1	99.6	0.4	0.0	0.1	100.0	3,583
2+	99.7	0.3	0.0	0.0	100.0	298
Had concurrent partners[2]	99.2	0.8	0.0	0.0	100.0	120
None of the partners were concurrent	100.0	0.0	0.0	0.0	100.0	178
Condom use at last sexual intercourse in past 12 months						
Used condom	99.8	0.2	0.0	0.0	100.0	617
Did not use condom	99.5	0.4	0.0	0.1	100.0	3,263
No sexual intercourse in last 12 months	99.2	0.7	0.1	0.0	100.0	746
DK/Missing	100.0	0.0	0.0	0.0	100.0	1
Paid for sexual intercourse in past 12 months						
Yes	100.0	0.0	0.0	0.0	100.0	76
Used condom	100.0	0.0	0.0	0.0	100.0	48
Did not use condom	100.0	0.0	0.0	0.0	100.0	28
No (No paid sexual intercourse/no sexual intercourse in last 12 months)	99.5	0.4	0.0	0.0	100.0	4,551
Number of lifetime partners						
1	99.5	0.3	0.1	0.1	100.0	1,826
2	99.5	0.5	0.0	0.0	100.0	1,345
3-4	99.7	0.3	0.0	0.0	100.0	961
5-9	99.7	0.3	0.0	0.0	100.0	334
10+	98.7	1.3	0.0	0.0	100.0	156
Missing	100.0	0.0	0.0	0.0	100.0	5
Prior HIV testing						
Ever tested	99.5	0.4	0.0	0.0	100.0	4,141
Received results	99.6	0.4	0.0	0.0	100.0	4,024
Did not received results	99.1	0.9	0.0	0.0	100.0	117
Never tested	99.4	0.6	0.0	0.0	100.0	486
Total	99.5	0.4	0.0	0.0	100.0	4,627

[1] Includes all dried blood spot samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners includes polygynous men who had overlapping sexual partnerships with two or more wives).

ESTIMATES OF SAMPLING ERRORS *Appendix* B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2014-15 Rwanda Demographic and Health Survey (RDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2014-15 RDHS is only one of many samples that could have been selected from the same population, using the same design and identical size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2014-15 RDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2014-15 RDHS is a SAS program. This program used the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1}{x^2}\sum_{h=1}^{H}\left[(1-f_h)\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,
x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and

f_h is the sampling fraction of PSU in the hth stratum

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2014-15 RDHS, there were 492 non-empty clusters. Hence, 492 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 492 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 491 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the program computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design, such as multistage and cluster selection. The program also computes the relative standard error and the confidence limits for the estimates.

Sampling errors for the 2014-15 RDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for the urban and the rural areas separately, and for each of the 5 provinces. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.9 present the value of the statistic (R), its standard error (SE), the number of unweighted (N-UNWE) and weighted (N-WEIG) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing.

The confidence interval (e.g., as calculated for *children ever born to women over age 40*) can be interpreted as follows: the overall average from the national sample is 5.482 and its standard error is 0.060. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 5.482±2×0.060. There is a high probability (95 percent) that the *true* average number of children ever born to all women age 40-49 is between 5.361 and 5.603.

For the total sample, the value of the design effect (DEFT), averaged over all variables for the women's survey, is 1.181 which means that, due to multistage and clustering of the sample, the average standard error is increased by a factor of 1.181 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Rwanda 2014-15

Variable	Estimate	Base Population
WOMEN		
Urban residence	Proportion	All women 15-49
Literacy	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary and higher education	Proportion	All women 15-49
Never married (never in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had sex before age 18	Proportion	Women 25-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women over age 40	Mean	Women age 40-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using implants	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using rhythm	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Used public sector sources	Proportion	Users of modern methods, women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Ideal family size	Proportion	All women 15-49
Mothers protected against neonatal tetanus for last birth	Proportion	Last birth in last 5 years
Mothers received medical assistance at delivery	Proportion	Births in last 5 years
Had diarrhea in last 2 weeks	Proportion	Children under 5
Treated with ORS packets or pre-packed liquid	Proportion	Children under 5 with diarrhea in last 2 weeks
Consulted medical personnel for diarrhea	Proportion	Children under 5 with diarrhea in last 2 weeks
Having health card, seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height (< -2 SD)	Proportion	Children under 5 who were measured
Height-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Weight-for-age (< -2 SD)	Proportion	Children under 5 who were measured
Prevalence of anemia (children 6-59 months)	Proportion	Children under 6-59 months who were tested
Prevalence of anemia (women 15-49)	Proportion	Women 15-49 who were tested
Body mass index (BMI) <18.5	Proportion	Women 15-49 who were measured
Had 2+ sexual partners in past 12 months	Proportion	All women 15-49
Condom use at last sex	Proportion	Women 15-49 with 2+ partners in past 12 months
Abstinence among youth (never had sex)	Proportion	Never-married women 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married women 15-24
Had an HIV test and received results in past 12 months	Proportion	All women 15-49
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
Experienced physical violence since age 15 by anyone	Proportion	All women 15-49
Ever experienced sexual violence by anyone	Proportion	All women 15-49
Ever experienced physical or sexual violence by any husband/partner	Proportion	Ever-married women 15-49
Ever experienced physical or sexual violence by any husband/partner in the past 12 months	Proportion	Ever-married women 15-49
Total fertility rate (last 3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate [1]	Rate	Children-months of exposure to death
Post neonatal mortality rate [1]	Rate	Children-months of exposure to death
Infant mortality rate [1]	Rate	Children-months of exposure to death
Child mortality rate [1]	Rate	Children-months of exposure to death
Under-five mortality rate [1]	Rate	Children-months of exposure to death
Maternal mortality ratio [2] (last 0-6 years)	Rate	Women-years of exposure to pregnancy
Prevalence of HIV (15-49)	Proportion	Women 15-49 who were tested
Prevalence of HIV (15-24)	Proportion	Women 15-24 who were tested

(Continued…)

Table B.1—*Continued*

Variable	Estimate	Base Population
MEN		
Urban residence	Proportion	All men 15-49
No education	Proportion	All men 15-49
Secondary and higher education	Proportion	All men 15-49
Never married (never in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Had sexual intercourse before age 18	Proportion	All men 20-49
Had 2+ sexual partners in past 12 months	Proportion	All men 15-49
Condom use at last sex	Proportion	Men 15-49 with 2+ partners in past 12 months
Abstinence among never-married youth (never had sex)	Proportion	Never-married men 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married men 15-24
Paid for sexual intercourse in past 12 months	Proportion	All men 15-49
Had an HIV test and received results in past 12 months	Proportion	All men 15-49
Accepting attitudes towards people with HIV	Proportion	All men who have heard of HIV/AIDS
Prevalence of HIV (men 15-49)	Proportion	Men 15-49 who were tested
Prevalence of HIV (men 15-59)	Proportion	Men 15-59 who were tested
Prevalence of HIV (men 15-24)	Proportion	Men 15-24 who were tested
MEN AND WOMEN		
Prevalence of HIV (men and women 15-49)	Proportion	Men and women 15-49 who were tested
Prevalence of HIV (men and women 15-24)	Proportion	Men and women 15-49 who were tested

[1] The mortality rates are calculated for last 5 years for the total sample, and 10 years for the urban, rural and the regional samples.
[2] The maternal mortality rate is calculated just for the total sample since the regional sample sizes are not big enough for a reliable estimation.

Table B.2 Sampling errors: Total sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
			WOMEN					
Urban residence	0.195	0.005	13497	13497	1.378	0.024	0.185	0.204
Literacy	0.802	0.005	13497	13497	1.382	0.006	0.793	0.812
No education	0.123	0.004	13497	13497	1.294	0.030	0.116	0.131
Secondary school or higher	0.234	0.006	13497	13497	1.676	0.026	0.221	0.246
Never married (in union)	0.378	0.005	13497	13497	1.261	0.014	0.367	0.388
Currently married (in union)	0.517	0.005	13497	13497	1.194	0.010	0.507	0.528
Married before age 20	0.308	0.006	8245	8272	1.179	0.019	0.296	0.320
Had sex before age 18	0.187	0.005	8245	8272	1.162	0.027	0.177	0.197
Currently pregnant	0.073	0.003	13497	13497	1.124	0.034	0.068	0.078
Children ever born	2.276	0.025	13497	13497	1.167	0.011	2.227	2.326
Children surviving	1.994	0.020	13497	13497	1.115	0.010	1.954	2.035
Children ever born to women age 40-49	5.482	0.060	2201	2246	1.137	0.011	5.361	5.603
Currently using any method	0.532	0.008	6890	6982	1.303	0.015	0.517	0.548
Currently using any modern method	0.475	0.008	6890	6982	1.301	0.016	0.459	0.491
Currently using pill	0.084	0.004	6890	6982	1.166	0.047	0.076	0.091
Currently using IUD	0.011	0.001	6890	6982	0.983	0.113	0.008	0.013
Currently using condoms	0.038	0.002	6890	6982	1.048	0.063	0.033	0.043
Currently using injectables	0.240	0.006	6890	6982	1.197	0.026	0.228	0.253
Currently using implants	0.077	0.004	6890	6982	1.143	0.048	0.070	0.084
Currently using female sterilization	0.012	0.001	6890	6982	1.088	0.118	0.009	0.015
Currently using rhythm	0.027	0.002	6890	6982	1.067	0.078	0.023	0.031
Currently using withdrawal	0.031	0.002	6890	6982	1.126	0.076	0.026	0.036
Used public sector source	0.909	0.006	3713	3747	1.246	0.006	0.897	0.921
Want no more children	0.487	0.006	6890	6982	1.077	0.013	0.474	0.499
Want to delay birth at least 2 years	0.393	0.007	6890	6982	1.118	0.017	0.380	0.406
Ideal family size	3.364	0.016	13374	13372	1.302	0.005	3.331	3.397
Mothers protected against neonatal tetanus for last birth	0.824	0.006	5955	6060	1.180	0.007	0.812	0.836
Mothers received medical assistance at delivery	0.907	0.006	7856	8004	1.541	0.006	0.896	0.918
Having diarrhea in the last 2 weeks	0.121	0.004	7558	7694	1.125	0.036	0.112	0.130
Treated with oral rehydration salts (ORS)	0.275	0.016	905	931	1.075	0.059	0.242	0.307
Taken to a health provider	0.436	0.018	905	931	1.070	0.042	0.399	0.472
Vaccination card seen	0.940	0.007	1537	1581	1.183	0.008	0.925	0.954
Received BCG	0.989	0.004	1537	1581	1.658	0.005	0.980	0.997
Received DPT (3 doses)	0.981	0.004	1537	1581	1.313	0.005	0.972	0.990
Received polio (3 doses)	0.966	0.006	1537	1581	1.240	0.006	0.955	0.978
Received measles	0.952	0.006	1537	1581	1.123	0.006	0.940	0.964
Fully immunized	0.926	0.008	1537	1581	1.168	0.008	0.911	0.942
Height-for-age (below -2SD)	0.379	0.009	3783	3813	1.117	0.024	0.360	0.397
Weight-for-height (below -2SD)	0.022	0.002	3783	3813	0.985	0.105	0.017	0.027
Weight-for-age (below -2SD)	0.093	0.005	3783	3813	1.039	0.054	0.083	0.103
Prevalence of anemia (children 6-59 months)	0.365	0.009	3495	3524	1.139	0.026	0.347	0.384
Prevalence of anemia (women 15-49)	0.192	0.006	6692	6680	1.313	0.033	0.180	0.205
BMI < 18.5	0.066	0.003	6108	6088	1.040	0.050	0.059	0.072
Had 2+ sexual partners in past 12 months	0.007	0.001	13497	13497	1.096	0.112	0.005	0.009
Condom use at last sex	0.484	0.046	100	95	0.920	0.095	0.392	0.577
Abstinence among never-married youth (never had sex)	0.751	0.007	4178	4107	1.094	0.010	0.736	0.766
Sexually active in past 12 months among never-married youth	0.113	0.005	4178	4107	1.074	0.047	0.103	0.124
Had an HIV test and received results in past 12 months	0.389	0.005	13497	13497	1.245	0.013	0.379	0.400
Accepting attitudes towards people with HIV	0.503	0.006	13486	13486	1.363	0.012	0.491	0.514
Ever experienced any physical violence since age 15	0.345	0.011	2679	2679	1.162	0.031	0.324	0.367
Ever experienced any sexual violence	0.224	0.010	2679	2679	1.201	0.043	0.204	0.243
Ever experienced any physical/sexual violence by any husband/partner	0.371	0.013	1908	1691	1.180	0.035	0.345	0.397
Physical/sexual violence in the last 12 months by any husband/partner	0.206	0.011	1908	1691	1.192	0.054	0.184	0.228
Total fertility rate (last 3 years)	4.165	0.067	37653	37650	1.254	0.016	4.030	4.299
Neonatal mortality (last 0-4 years)	19.584	1.703	7883	8027	1.035	0.087	16.178	22.990
Post-neonatal mortality (last 0-4 years)	12.703	1.381	7850	7995	1.103	0.109	9.942	15.465
Infant mortality (last 0-4 years)	32.287	2.246	7888	8032	1.089	0.070	27.795	36.780
Child mortality (last 0-4 years)	18.687	1.804	7709	7855	1.163	0.097	15.079	22.294
Under-five mortality (last 0-4 years)	50.371	2.933	7944	8094	1.139	0.058	44.506	56.236
HIV prevalence (Women 15-49)	0.036	0.002	6749	6752	1.058	0.066	0.031	0.041
HIV prevalence (Women 15-24)	0.013	0.002	2606	2583	1.109	0.187	0.008	0.018

(Continued…)

Table B.2—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.210	0.006	5585	5577	1.135	0.030	0.197	0.222
No education	0.089	0.004	5585	5577	1.076	0.046	0.081	0.097
Secondary school or higher	0.259	0.008	5585	5577	1.377	0.031	0.243	0.275
Never married (in union)	0.482	0.008	5585	5577	1.185	0.016	0.467	0.498
Currently married (in union)	0.501	0.008	5585	5577	1.198	0.016	0.485	0.517
Had sex before age 18	0.153	0.006	4304	4295	1.121	0.040	0.141	0.166
Had 2+ sexual partners in past 12 months	0.046	0.003	5585	5577	1.091	0.067	0.039	0.052
Condom use at last sex	0.309	0.027	255	254	0.923	0.087	0.255	0.362
Abstinence among never married youth (never had sex)	0.669	0.012	2105	2095	1.178	0.018	0.645	0.693
Sexually active in past 12 months among never married youth	0.131	0.008	2105	2095	1.109	0.062	0.115	0.147
Had paid sex in past 12 months	0.013	0.002	5585	5577	1.177	0.136	0.010	0.017
Had HIV test and received results in past 12 months	0.367	0.007	5585	5577	1.101	0.019	0.353	0.382
Accepting attitudes towards people with HIV	0.634	0.008	5582	5574	1.189	0.012	0.619	0.650
HIV prevalence (Men 15-49)	0.022	0.002	5560	5551	1.016	0.091	0.018	0.026
HIV prevalence (Men 15-59)	0.025	0.002	6191	6188	1.023	0.082	0.021	0.029
HIV prevalence (Men 15-24)	0.006	0.002	2276	2269	0.998	0.269	0.003	0.009
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.030	0.002	12309	12302	1.221	0.063	0.026	0.033
HIV prevalence (Women and men 15-24)	0.010	0.002	4882	4853	1.131	0.162	0.007	0.013

Table B.3 Sampling errors: Urban sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	1.000	0.000	3427	2626	na	0.000	1.000	1.000
Literacy	0.911	0.007	3427	2626	1.392	0.007	0.897	0.925
No education	0.053	0.006	3427	2626	1.437	0.104	0.042	0.064
Secondary school or higher	0.459	0.018	3427	2626	2.093	0.039	0.424	0.495
Never married (in union)	0.445	0.015	3427	2626	1.743	0.033	0.416	0.475
Currently married (in union)	0.455	0.014	3427	2626	1.656	0.031	0.427	0.483
Married before age 20	0.254	0.014	1985	1511	1.416	0.054	0.226	0.282
Had sex before age 18	0.199	0.013	1985	1511	1.453	0.066	0.173	0.225
Currently pregnant	0.066	0.005	3427	2626	1.241	0.080	0.056	0.077
Children ever born	1.771	0.051	3427	2626	1.380	0.029	1.669	1.872
Children surviving	1.614	0.045	3427	2626	1.376	0.028	1.525	1.704
Children ever born to women age 40-49	4.800	0.120	429	316	0.985	0.025	4.560	5.040
Currently using any method	0.565	0.017	1549	1194	1.338	0.030	0.531	0.599
Currently using any modern method	0.511	0.017	1549	1194	1.320	0.033	0.478	0.545
Currently using pill	0.097	0.010	1549	1194	1.265	0.098	0.078	0.116
Currently using IUD	0.035	0.005	1549	1194	1.096	0.147	0.025	0.045
Currently using condoms	0.052	0.007	1549	1194	1.262	0.137	0.037	0.066
Currently using injectables	0.180	0.012	1549	1194	1.279	0.069	0.155	0.205
Currently using implants	0.106	0.009	1549	1194	1.119	0.082	0.089	0.124
Currently using female sterilization	0.020	0.005	1549	1194	1.310	0.235	0.010	0.029
Currently using rhythm	0.029	0.005	1549	1194	1.189	0.176	0.019	0.039
Currently using withdrawal	0.025	0.005	1549	1194	1.279	0.204	0.015	0.035
Used public sector source	0.767	0.021	916	706	1.500	0.027	0.726	0.809
Want no more children	0.444	0.015	1549	1194	1.223	0.035	0.413	0.475
Want to delay birth at least 2 years	0.424	0.017	1549	1194	1.378	0.041	0.390	0.459
Ideal family size	3.268	0.031	3407	2611	1.292	0.009	3.206	3.329
Mothers protected against neonatal tetanus for last birth	0.825	0.011	1317	1025	1.089	0.014	0.803	0.848
Mothers received medical assistance at delivery	0.969	0.005	1725	1347	1.091	0.005	0.960	0.978
Having diarrhea in the last 2 weeks	0.098	0.009	1671	1303	1.208	0.095	0.079	0.116
Treated with oral rehydration salts (ORS)	0.334	0.040	168	127	1.047	0.119	0.254	0.414
Taken to a health provider	0.466	0.042	168	127	1.030	0.090	0.382	0.551
Vaccination card seen	0.935	0.014	355	278	1.098	0.015	0.907	0.964
Received BCG	0.992	0.005	355	278	1.182	0.005	0.982	1.003
Received DPT (3 doses)	0.987	0.007	355	278	1.092	0.007	0.974	1.000
Received polio (3 doses)	0.967	0.013	355	278	1.343	0.013	0.941	0.992
Received measles	0.964	0.012	355	278	1.272	0.013	0.940	0.989
Fully immunized	0.934	0.016	355	278	1.243	0.017	0.901	0.966
Height-for-age (below -2SD)	0.237	0.019	803	612	1.174	0.079	0.199	0.274
Weight-for-height (below -2SD)	0.018	0.005	803	612	1.107	0.283	0.008	0.029
Weight-for-age (below -2SD)	0.059	0.009	803	612	1.111	0.159	0.040	0.078
Prevalence of anemia (children 6-59 months)	0.302	0.019	726	552	1.110	0.063	0.264	0.340
Prevalence of anemia (women 15-49)	0.163	0.011	1725	1325	1.194	0.065	0.142	0.185
BMI < 18.5	0.055	0.006	1586	1218	1.099	0.114	0.043	0.068
Had 2+ sexual partners in past 12 months	0.014	0.003	3427	2626	1.262	0.179	0.009	0.019
Condom use at last sex	0.644	0.071	46	37	0.994	0.110	0.502	0.786
Abstinence among never-married youth (never had sex)	0.658	0.016	1201	913	1.181	0.025	0.625	0.690
Sexually active in past 12 months among never-married youth	0.172	0.012	1201	913	1.112	0.070	0.148	0.197
Had an HIV test and received results in past 12 months	0.431	0.011	3427	2626	1.340	0.026	0.408	0.454
Accepting attitudes towards people with HIV	0.486	0.012	3426	2625	1.434	0.025	0.462	0.511
Ever experienced any physical violence since age 15	0.350	0.025	591	506	1.251	0.070	0.301	0.399
Ever experienced any sexual violence	0.280	0.028	591	506	1.513	0.100	0.224	0.336
Ever experienced any physical/sexual violence by any husband/partner	0.332	0.036	396	296	1.498	0.107	0.261	0.403
Physical/sexual violence in the last 12 months by any husband/partner	0.183	0.029	396	296	1.497	0.159	0.125	0.242
Total fertility rate (last 3 years)	3.565	0.160	9571	7330	1.654	0.045	3.246	3.885
Neonatal mortality (last 0-9 years)	15.403	2.454	3328	2580	1.012	0.159	10.494	20.312
Post-neonatal mortality (last 0-9 years)	16.991	2.660	3316	2573	1.248	0.157	11.672	22.310
Infant mortality (last 0-9 years)	32.394	3.519	3331	2583	1.170	0.109	25.356	39.432
Child mortality (last 0-9 years)	19.497	2.821	3255	2521	1.036	0.145	13.854	25.139
Under-five mortality (last 0-9 years)	51.259	4.689	3346	2595	1.198	0.091	41.882	60.636
HIV prevalence (Women 15-49)	0.078	0.008	1672	1277	1.146	0.097	0.063	0.093
HIV prevalence (Women 15-24)	0.027	0.006	682	521	0.976	0.223	0.015	0.040

(Continued…)

Table B.3—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	1.000	0.000	1507	1169	na	0.000	1.000	1.000
No education	0.042	0.007	1507	1169	1.409	0.173	0.027	0.057
Secondary school or higher	0.465	0.022	1507	1169	1.695	0.047	0.421	0.508
Never married (in union)	0.558	0.020	1507	1169	1.586	0.036	0.517	0.598
Currently married (in union)	0.423	0.020	1507	1169	1.566	0.047	0.383	0.463
Had sex before age 18	0.162	0.013	1228	964	1.259	0.082	0.135	0.188
Had 2+ sexual partners in past 12 months	0.071	0.007	1507	1169	0.998	0.093	0.058	0.084
Condom use at last sex	0.577	0.056	96	83	1.107	0.097	0.465	0.690
Abstinence among never married youth (never had sex)	0.571	0.026	558	431	1.242	0.046	0.519	0.623
Sexually active in past 12 months among never married youth	0.213	0.022	558	431	1.291	0.105	0.168	0.258
Had paid sex in past 12 months	0.027	0.005	1507	1169	1.243	0.192	0.017	0.037
Had HIV test and received results in past 12 months	0.409	0.016	1507	1169	1.278	0.040	0.377	0.442
Accepting attitudes towards people with HIV	0.689	0.015	1507	1169	1.233	0.021	0.659	0.718
HIV prevalence (Men 15-49)	0.046	0.005	1493	1164	0.995	0.118	0.035	0.057
HIV prevalence (Men 15-59)	0.051	0.006	1592	1236	1.039	0.112	0.040	0.063
HIV prevalence (Men 15-24)	0.013	0.005	583	452	1.136	0.405	0.003	0.024
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.062	0.006	3165	2440	1.319	0.091	0.051	0.074
HIV prevalence (Women and men 15-24)	0.021	0.004	1265	973	1.081	0.208	0.012	0.030

na = Not applicable

Table B.4 Sampling errors: Rural sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.000	0.000	10070	10871	na	na	0.000	0.000
Literacy	0.776	0.006	10070	10871	1.350	0.007	0.765	0.787
No education	0.140	0.004	10070	10871	1.250	0.031	0.132	0.149
Secondary school or higher	0.179	0.006	10070	10871	1.598	0.034	0.167	0.191
Never married (in union)	0.362	0.005	10070	10871	1.138	0.015	0.351	0.372
Currently married (in union)	0.532	0.005	10070	10871	1.085	0.010	0.522	0.543
Married before age 20	0.320	0.007	6260	6761	1.126	0.021	0.307	0.334
Had sex before age 18	0.184	0.005	6260	6761	1.097	0.029	0.174	0.195
Currently pregnant	0.075	0.003	10070	10871	1.091	0.038	0.069	0.080
Children ever born	2.399	0.028	10070	10871	1.111	0.012	2.343	2.454
Children surviving	2.086	0.022	10070	10871	1.052	0.011	2.041	2.131
Children ever born to women age 40-49	5.593	0.067	1772	1930	1.141	0.012	5.459	5.727
Currently using any method	0.526	0.009	5341	5788	1.285	0.017	0.508	0.543
Currently using any modern method	0.467	0.009	5341	5788	1.287	0.019	0.450	0.485
Currently using pill	0.081	0.004	5341	5788	1.138	0.053	0.072	0.089
Currently using IUD	0.006	0.001	5341	5788	1.006	0.177	0.004	0.008
Currently using condoms	0.035	0.003	5341	5788	1.001	0.072	0.030	0.040
Currently using injectables	0.253	0.007	5341	5788	1.173	0.028	0.239	0.267
Currently using implants	0.071	0.004	5341	5788	1.152	0.057	0.063	0.079
Currently using female sterilization	0.011	0.001	5341	5788	1.037	0.137	0.008	0.014
Currently using rhythm	0.026	0.002	5341	5788	1.038	0.086	0.022	0.031
Currently using withdrawal	0.032	0.003	5341	5788	1.090	0.082	0.027	0.037
Used public sector source	0.942	0.005	2797	3041	1.148	0.005	0.932	0.952
Want no more children	0.495	0.007	5341	5788	1.038	0.014	0.481	0.510
Want to delay birth at least 2 years	0.386	0.007	5341	5788	1.054	0.018	0.372	0.400
Ideal family size	3.388	0.019	9967	10761	1.284	0.006	3.350	3.425
Mothers protected against neonatal tetanus for last birth	0.824	0.007	4638	5035	1.179	0.008	0.811	0.837
Mothers received medical assistance at delivery	0.894	0.007	6131	6657	1.501	0.007	0.881	0.907
Having diarrhea in the last 2 weeks	0.126	0.005	5887	6391	1.092	0.039	0.116	0.136
Treated with oral rehydration salts (ORS)	0.265	0.018	737	804	1.063	0.066	0.230	0.300
Taken to a health provider	0.431	0.020	737	804	1.058	0.046	0.391	0.471
Vaccination card seen	0.940	0.008	1182	1303	1.186	0.009	0.924	0.957
Received BCG	0.988	0.005	1182	1303	1.662	0.005	0.977	0.998
Received DPT (3 doses)	0.980	0.005	1182	1303	1.308	0.005	0.970	0.991
Received polio (3 doses)	0.966	0.006	1182	1303	1.210	0.007	0.953	0.979
Received measles	0.949	0.007	1182	1303	1.085	0.007	0.936	0.963
Fully immunized	0.925	0.009	1182	1303	1.141	0.009	0.908	0.942
Height-for-age (below -2SD)	0.406	0.010	2980	3200	1.111	0.025	0.385	0.426
Weight-for-height (below -2SD)	0.023	0.003	2980	3200	0.953	0.113	0.018	0.028
Weight-for-age (below -2SD)	0.100	0.006	2980	3200	1.012	0.057	0.088	0.111
Prevalence of anemia (children 6-59 months)	0.377	0.010	2769	2972	1.123	0.028	0.356	0.398
Prevalence of anemia (women 15-49)	0.199	0.007	4967	5355	1.311	0.037	0.185	0.214
BMI < 18.5	0.068	0.004	4522	4870	1.017	0.056	0.061	0.076
Had 2+ sexual partners in past 12 months	0.005	0.001	10070	10871	1.046	0.142	0.004	0.007
Condom use at last sex	0.381	0.063	54	58	0.948	0.166	0.255	0.507
Abstinence among never-married youth (never had sex)	0.778	0.008	2977	3193	1.064	0.010	0.761	0.794
Sexually active in past 12 months among never-married youth	0.096	0.006	2977	3193	1.066	0.060	0.085	0.108
Had an HIV test and received results in past 12 months	0.379	0.006	10070	10871	1.216	0.015	0.368	0.391
Accepting attitudes towards people with HIV	0.507	0.007	10060	10861	1.334	0.013	0.493	0.520
Ever experienced any physical violence since age 15	0.344	0.012	2088	2173	1.140	0.034	0.321	0.368
Ever experienced any sexual violence	0.211	0.010	2088	2173	1.115	0.047	0.191	0.230
Ever experienced any physical/sexual violence by any husband/partner	0.380	0.014	1512	1395	1.116	0.037	0.352	0.407
Physical/sexual violence in the last 12 months by any husband/partner	0.211	0.012	1512	1395	1.133	0.056	0.187	0.235
Total fertility rate (last 3 years)	4.308	0.072	28083	30319	1.160	0.017	4.164	4.452
Neonatal mortality (last 0-9 years)	23.549	1.537	12520	13556	1.061	0.065	20.475	26.623
Post-neonatal mortality (last 0-9 years)	20.167	1.539	12532	13569	1.106	0.076	17.090	23.245
Infant mortality (last 0-9 years)	43.717	2.150	12542	13579	1.104	0.049	39.417	48.016
Child mortality (last 0-9 years)	27.584	1.849	12358	13384	1.138	0.067	23.886	31.283
Under-five mortality (last 0-9 years)	70.095	2.808	12625	13670	1.095	0.040	64.478	75.712
HIV prevalence (Women 15-49)	0.027	0.002	5077	5475	1.051	0.089	0.022	0.031
HIV prevalence (Women 15-24)	0.010	0.003	1924	2062	1.208	0.276	0.004	0.015

(Continued…)

Table B.4—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.000	0.000	4078	4408	na	na	0.000	0.000
No education	0.101	0.005	4078	4408	1.015	0.047	0.092	0.111
Secondary school or higher	0.205	0.008	4078	4408	1.304	0.040	0.188	0.221
Never married (in union)	0.463	0.008	4078	4408	1.078	0.018	0.446	0.479
Currently married (in union)	0.521	0.009	4078	4408	1.103	0.017	0.504	0.538
Had sex before age 18	0.151	0.007	3076	3330	1.078	0.046	0.137	0.165
Had 2+ sexual partners in past 12 months	0.039	0.003	4078	4408	1.130	0.088	0.032	0.046
Condom use at last sex	0.179	0.030	159	171	0.975	0.166	0.119	0.238
Abstinence among never married youth (never had sex)	0.695	0.014	1547	1664	1.161	0.020	0.667	0.722
Sexually active in past 12 months among never married youth	0.110	0.008	1547	1664	1.053	0.076	0.093	0.127
Had paid sex in past 12 months	0.010	0.002	4078	4408	1.191	0.190	0.006	0.013
Had HIV test and received results in past 12 months	0.356	0.008	4078	4408	1.049	0.022	0.340	0.372
Accepting attitudes towards people with HIV	0.620	0.009	4075	4405	1.164	0.014	0.602	0.638
HIV prevalence (Men 15-49)	0.015	0.002	4067	4387	1.065	0.133	0.011	0.020
HIV prevalence (Men 15-59)	0.018	0.002	4599	4952	1.044	0.114	0.014	0.022
HIV prevalence (Men 15-24)	0.004	0.001	1693	1817	0.947	0.355	0.001	0.007
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.022	0.002	9144	9862	1.212	0.085	0.018	0.025
HIV prevalence (Women and men 15-24)	0.007	0.002	3617	3880	1.189	0.232	0.004	0.011

na = Not applicable

Table B.5 Sampling errors: Kigali City sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.790	0.010	1876	1799	1.018	0.012	0.771	0.809
Literacy	0.921	0.007	1876	1799	1.187	0.008	0.907	0.936
No education	0.043	0.006	1876	1799	1.207	0.132	0.031	0.054
Secondary school or higher	0.432	0.021	1876	1799	1.798	0.048	0.391	0.473
Never married (in union)	0.437	0.019	1876	1799	1.651	0.043	0.399	0.475
Currently married (in union)	0.468	0.019	1876	1799	1.655	0.041	0.430	0.506
Married before age 20	0.214	0.015	1102	1059	1.191	0.069	0.184	0.243
Had sex before age 18	0.192	0.016	1102	1059	1.319	0.082	0.161	0.223
Currently pregnant	0.069	0.007	1876	1799	1.244	0.105	0.055	0.084
Children ever born	1.751	0.064	1876	1799	1.344	0.037	1.623	1.879
Children surviving	1.616	0.057	1876	1799	1.321	0.035	1.502	1.729
Children ever born to women age 40-49	4.616	0.175	220	216	1.051	0.038	4.267	4.965
Currently using any method	0.545	0.020	832	842	1.145	0.036	0.505	0.584
Currently using any modern method	0.497	0.021	832	842	1.214	0.042	0.455	0.539
Currently using pill	0.098	0.012	832	842	1.127	0.119	0.074	0.121
Currently using IUD	0.038	0.007	832	842	0.982	0.171	0.025	0.051
Currently using condoms	0.048	0.009	832	842	1.241	0.192	0.030	0.066
Currently using injectables	0.166	0.016	832	842	1.230	0.096	0.134	0.197
Currently using implants	0.106	0.014	832	842	1.305	0.131	0.078	0.134
Currently using female sterilization	0.016	0.005	832	842	1.085	0.293	0.007	0.026
Currently using rhythm	0.023	0.006	832	842	1.181	0.269	0.011	0.035
Currently using withdrawal	0.025	0.009	832	842	1.610	0.350	0.007	0.042
Used public sector source	0.730	0.027	487	490	1.325	0.037	0.677	0.783
Want no more children	0.438	0.020	832	842	1.181	0.046	0.397	0.478
Want to delay birth at least 2 years	0.433	0.022	832	842	1.272	0.051	0.390	0.477
Ideal family size	3.201	0.034	1862	1786	1.138	0.011	3.132	3.270
Mothers protected against neonatal tetanus for last birth	0.839	0.014	716	723	1.033	0.017	0.811	0.867
Mothers received medical assistance at delivery	0.945	0.009	923	944	1.199	0.010	0.926	0.963
Having diarrhea in the last 2 weeks	0.081	0.010	900	921	1.052	0.118	0.062	0.100
Treated with oral rehydration salts (ORS)	0.307	0.053	76	75	1.010	0.174	0.200	0.413
Taken to a health provider	0.447	0.057	76	75	0.990	0.127	0.334	0.561
Vaccination card seen	0.937	0.017	199	204	0.986	0.018	0.904	0.970
Received BCG	0.996	0.004	199	204	0.955	0.004	0.987	1.004
Received DPT (3 doses)	0.991	0.006	199	204	0.912	0.006	0.979	1.003
Received polio (3 doses)	0.987	0.007	199	204	0.851	0.007	0.974	1.000
Received measles	0.974	0.014	199	204	1.253	0.014	0.947	1.002
Fully immunized	0.961	0.015	199	204	1.109	0.015	0.932	0.991
Height-for-age (below -2SD)	0.227	0.024	431	419	1.108	0.106	0.179	0.275
Weight-for-height (below -2SD)	0.023	0.007	431	419	1.032	0.323	0.008	0.038
Weight-for-age (below -2SD)	0.053	0.011	431	419	1.068	0.215	0.030	0.076
Prevalence of anemia (children 6-59 months)	0.306	0.024	391	381	1.056	0.079	0.258	0.355
Prevalence of anemia (women 15-49)	0.148	0.014	942	900	1.209	0.095	0.120	0.176
BMI < 18.5	0.054	0.008	861	819	0.994	0.142	0.039	0.070
Had 2+ sexual partners in past 12 months	0.017	0.003	1876	1799	1.155	0.203	0.010	0.024
Condom use at last sex	0.699	0.090	31	31	1.071	0.129	0.519	0.879
Abstinence among never-married youth (never had sex)	0.645	0.021	634	594	1.110	0.033	0.603	0.687
Sexually active in past 12 months among never-married youth	0.159	0.014	634	594	0.974	0.089	0.131	0.188
Had an HIV test and received results in past 12 months	0.425	0.015	1876	1799	1.309	0.035	0.395	0.455
Accepting attitudes towards people with HIV	0.470	0.017	1876	1799	1.511	0.037	0.435	0.505
Ever experienced any physical violence since age 15	0.358	0.028	329	359	1.046	0.077	0.303	0.413
Ever experienced any sexual violence	0.256	0.032	329	359	1.337	0.126	0.192	0.321
Ever experienced any physical/sexual violence by any husband/partner	0.344	0.039	216	207	1.196	0.113	0.266	0.421
Physical/sexual violence in the last 12 months by any husband/partner	0.191	0.031	216	207	1.146	0.161	0.130	0.253
Total fertility rate (last 3 years)	3.568	0.209	5263	5045	1.565	0.059	3.150	3.986
Neonatal mortality (last 0-9 years)	12.327	2.580	1791	1795	0.909	0.209	7.167	17.487
Post-neonatal mortality (last 0-9 years)	16.569	3.753	1790	1792	1.354	0.226	9.063	24.074
Infant mortality (last 0-9 years)	28.896	4.015	1793	1796	1.089	0.139	20.866	36.925
Child mortality (last 0-9 years)	13.990	3.104	1748	1739	1.014	0.222	7.783	20.198
Under-five mortality (last 0-9 years)	42.482	5.461	1799	1801	1.199	0.129	31.559	53.404
HIV prevalence (Women 15-49)	0.080	0.010	916	881	1.156	0.129	0.060	0.101
HIV prevalence (Women 15-24)	0.035	0.010	360	348	1.000	0.279	0.015	0.054

(Continued…)

Table B.5—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.767	0.017	823	804	1.120	0.022	0.734	0.800
No education	0.041	0.009	823	804	1.262	0.214	0.023	0.058
Secondary school or higher	0.408	0.026	823	804	1.532	0.064	0.355	0.460
Never married (in union)	0.542	0.024	823	804	1.377	0.044	0.494	0.590
Currently married (in union)	0.448	0.024	823	804	1.376	0.053	0.401	0.496
Had sex before age 18	0.133	0.015	700	675	1.183	0.115	0.102	0.163
Had 2+ sexual partners in past 12 months	0.068	0.009	823	804	0.986	0.127	0.051	0.085
Condom use at last sex	0.595	0.072	53	55	1.063	0.122	0.450	0.740
Abstinence among never married youth (never had sex)	0.619	0.038	291	286	1.318	0.061	0.544	0.695
Sexually active in past 12 months among never married youth	0.202	0.026	291	286	1.084	0.126	0.151	0.253
Had paid sex in past 12 months	0.029	0.007	823	804	1.167	0.234	0.016	0.043
Had HIV test and received results in past 12 months	0.385	0.023	823	804	1.354	0.060	0.339	0.431
Accepting attitudes towards people with HIV	0.738	0.027	823	804	1.760	0.037	0.684	0.792
HIV prevalence (Men 15-49)	0.044	0.007	814	800	0.937	0.153	0.031	0.058
HIV prevalence (Men 15-59)	0.050	0.006	873	859	0.866	0.128	0.037	0.062
HIV prevalence (Men 15-24)	0.017	0.007	305	300	0.985	0.435	0.002	0.031
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.063	0.008	1730	1681	1.315	0.122	0.048	0.079
HIV prevalence (Women and men 15-24)	0.026	0.007	665	647	1.155	0.273	0.012	0.041

Table B.6 Sampling errors: South sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.104	0.005	3435	3214	0.993	0.050	0.093	0.114
Literacy	0.799	0.008	3435	3214	1.222	0.010	0.782	0.816
No education	0.115	0.006	3435	3214	1.100	0.052	0.103	0.127
Secondary school or higher	0.204	0.010	3435	3214	1.483	0.050	0.184	0.225
Never married (in union)	0.387	0.009	3435	3214	1.118	0.024	0.368	0.405
Currently married (in union)	0.500	0.008	3435	3214	0.975	0.017	0.483	0.516
Married before age 20	0.224	0.011	2157	2028	1.174	0.047	0.203	0.245
Had sex before age 18	0.148	0.008	2157	2028	1.102	0.057	0.131	0.165
Currently pregnant	0.069	0.005	3435	3214	1.198	0.075	0.059	0.080
Children ever born	2.224	0.044	3435	3214	1.090	0.020	2.137	2.311
Children surviving	1.960	0.036	3435	3214	1.048	0.018	1.888	2.032
Children ever born to women age 40-49	4.979	0.104	643	610	1.131	0.021	4.771	5.187
Currently using any method	0.527	0.016	1702	1606	1.360	0.031	0.494	0.560
Currently using any modern method	0.482	0.016	1702	1606	1.294	0.033	0.451	0.514
Currently using pill	0.083	0.007	1702	1606	1.005	0.081	0.069	0.096
Currently using IUD	0.013	0.003	1702	1606	1.080	0.232	0.007	0.018
Currently using condoms	0.031	0.005	1702	1606	1.121	0.152	0.022	0.040
Currently using injectables	0.255	0.011	1702	1606	1.076	0.045	0.232	0.277
Currently using implants	0.084	0.007	1702	1606	1.057	0.085	0.070	0.098
Currently using female sterilization	0.009	0.002	1702	1606	1.112	0.290	0.004	0.014
Currently using rhythm	0.022	0.004	1702	1606	1.059	0.173	0.014	0.029
Currently using withdrawal	0.024	0.004	1702	1606	1.026	0.160	0.016	0.031
Used public sector source	0.938	0.012	928	879	1.506	0.013	0.914	0.962
Want no more children	0.526	0.014	1702	1606	1.149	0.026	0.499	0.554
Want to delay birth at least 2 years	0.347	0.013	1702	1606	1.129	0.038	0.321	0.374
Ideal family size	3.247	0.030	3412	3193	1.261	0.009	3.186	3.307
Mothers protected against neonatal tetanus for last birth	0.851	0.010	1482	1406	1.064	0.012	0.831	0.871
Mothers received medical assistance at delivery	0.901	0.011	1939	1837	1.514	0.013	0.878	0.924
Having diarrhea in the last 2 weeks	0.123	0.008	1856	1756	1.056	0.068	0.106	0.140
Treated with oral rehydration salts (ORS)	0.257	0.029	228	216	0.993	0.113	0.199	0.315
Taken to a health provider	0.434	0.035	228	216	1.051	0.082	0.363	0.505
Vaccination card seen	0.954	0.011	350	331	0.968	0.011	0.932	0.976
Received BCG	0.988	0.006	350	331	1.031	0.006	0.976	1.000
Received DPT (3 doses)	0.986	0.006	350	331	1.002	0.006	0.974	0.999
Received polio (3 doses)	0.982	0.007	350	331	0.969	0.007	0.968	0.996
Received measles	0.949	0.011	350	331	0.956	0.012	0.927	0.972
Fully immunized	0.945	0.012	350	331	0.948	0.012	0.922	0.968
Height-for-age (below -2SD)	0.405	0.016	967	910	1.024	0.040	0.373	0.438
Weight-for-height (below -2SD)	0.024	0.005	967	910	0.940	0.190	0.015	0.033
Weight-for-age (below -2SD)	0.105	0.011	967	910	1.037	0.101	0.084	0.127
Prevalence of anemia (children 6-59 months)	0.393	0.015	897	842	0.960	0.039	0.362	0.424
Prevalence of anemia (women 15-49)	0.229	0.013	1708	1605	1.293	0.057	0.203	0.255
BMI < 18.5	0.093	0.007	1553	1462	0.985	0.078	0.079	0.108
Had 2+ sexual partners in past 12 months	0.007	0.001	3435	3214	1.007	0.208	0.004	0.010
Condom use at last sex	0.356	0.088	27	22	0.937	0.247	0.180	0.531
Abstinence among never-married youth (never had sex)	0.776	0.012	1066	983	0.931	0.015	0.752	0.800
Sexually active in past 12 months among never-married youth	0.106	0.010	1066	983	1.029	0.092	0.086	0.125
Had an HIV test and received results in past 12 months	0.377	0.010	3435	3214	1.175	0.026	0.358	0.397
Accepting attitudes towards people with HIV	0.581	0.010	3432	3211	1.242	0.018	0.560	0.602
Ever experienced any physical violence since age 15	0.322	0.021	676	638	1.147	0.064	0.281	0.364
Ever experienced any sexual violence	0.221	0.014	676	638	0.879	0.064	0.193	0.249
Ever experienced any physical/sexual violence by any husband/partner	0.353	0.025	460	393	1.133	0.072	0.302	0.403
Physical/sexual violence in the last 12 months by any husband/partner	0.220	0.021	460	393	1.107	0.097	0.177	0.263
Total fertility rate (last 3 years)	4.022	0.110	9543	8911	1.139	0.027	3.801	4.243
Neonatal mortality (last 0-9 years)	24.588	2.853	4007	3803	1.054	0.116	18.883	30.294
Post-neonatal mortality (last 0-9 years)	15.631	2.578	4005	3802	1.162	0.165	10.475	20.788
Infant mortality (last 0-9 years)	40.220	3.760	4016	3811	1.107	0.093	32.701	47.739
Child mortality (last 0-9 years)	26.605	2.907	3946	3731	1.082	0.109	20.791	32.420
Under-five mortality (last 0-9 years)	65.755	5.228	4045	3839	1.217	0.080	55.298	76.212
HIV prevalence (Women 15-49)	0.032	0.004	1714	1601	0.924	0.123	0.024	0.040
HIV prevalence (Women 15-24)	0.014	0.005	642	592	0.991	0.326	0.005	0.023

(Continued…)

Table B.6—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.120	0.011	1441	1327	1.251	0.089	0.098	0.141
No education	0.091	0.009	1441	1327	1.147	0.095	0.074	0.109
Secondary school or higher	0.225	0.015	1441	1327	1.353	0.066	0.195	0.255
Never married (in union)	0.530	0.015	1441	1327	1.159	0.029	0.500	0.561
Currently married (in union)	0.456	0.015	1441	1327	1.157	0.033	0.425	0.486
Had sex before age 18	0.157	0.012	1064	987	1.059	0.075	0.133	0.180
Had 2+ sexual partners in past 12 months	0.029	0.005	1441	1327	1.141	0.173	0.019	0.039
Condom use at last sex	0.367	0.061	43	39	0.820	0.165	0.246	0.489
Abstinence among never married youth (never had sex)	0.674	0.024	582	533	1.238	0.036	0.626	0.722
Sexually active in past 12 months among never married youth	0.096	0.012	582	533	0.978	0.124	0.072	0.120
Had paid sex in past 12 months	0.008	0.002	1441	1327	0.936	0.267	0.004	0.013
Had HIV test and received results in past 12 months	0.338	0.013	1441	1327	1.047	0.039	0.312	0.365
Accepting attitudes towards people with HIV	0.687	0.013	1440	1327	1.090	0.019	0.661	0.714
HIV prevalence (Men 15-49)	0.020	0.004	1438	1321	1.015	0.189	0.012	0.027
HIV prevalence (Men 15-59)	0.022	0.004	1644	1515	1.047	0.173	0.014	0.029
HIV prevalence (Men 15-24)	0.004	0.003	605	554	1.066	0.706	0.000	0.009
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.026	0.003	3152	2922	1.132	0.123	0.020	0.033
HIV prevalence (Women and men 15-24)	0.009	0.003	1247	1146	0.996	0.294	0.004	0.015

Table B.7 Sampling errors: West sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.134	0.010	3060	2965	1.653	0.076	0.113	0.154
Literacy	0.779	0.013	3060	2965	1.672	0.016	0.754	0.804
No education	0.151	0.010	3060	2965	1.592	0.068	0.130	0.171
Secondary school or higher	0.217	0.015	3060	2965	1.954	0.067	0.188	0.246
Never married (in union)	0.387	0.011	3060	2965	1.280	0.029	0.365	0.410
Currently married (in union)	0.520	0.011	3060	2965	1.262	0.022	0.497	0.543
Married before age 20	0.333	0.014	1825	1779	1.271	0.042	0.305	0.361
Had sex before age 18	0.181	0.011	1825	1779	1.182	0.059	0.159	0.202
Currently pregnant	0.074	0.005	3060	2965	1.134	0.072	0.063	0.085
Children ever born	2.339	0.054	3060	2965	1.172	0.023	2.231	2.448
Children surviving	2.074	0.045	3060	2965	1.119	0.022	1.984	2.164
Children ever born to women age 40-49	5.857	0.138	452	441	1.138	0.024	5.582	6.133
Currently using any method	0.471	0.015	1590	1542	1.204	0.032	0.441	0.501
Currently using any modern method	0.412	0.016	1590	1542	1.309	0.039	0.379	0.444
Currently using pill	0.056	0.007	1590	1542	1.258	0.130	0.041	0.070
Currently using IUD	0.003	0.001	1590	1542	0.991	0.488	0.000	0.005
Currently using condoms	0.033	0.005	1590	1542	0.999	0.135	0.024	0.042
Currently using injectables	0.227	0.012	1590	1542	1.121	0.052	0.203	0.250
Currently using implants	0.062	0.008	1590	1542	1.247	0.122	0.047	0.077
Currently using female sterilization	0.020	0.004	1590	1542	1.144	0.201	0.012	0.028
Currently using rhythm	0.031	0.005	1590	1542	1.070	0.150	0.022	0.040
Currently using withdrawal	0.028	0.005	1590	1542	1.106	0.163	0.019	0.037
Used public sector source	0.937	0.011	750	716	1.205	0.011	0.916	0.959
Want no more children	0.469	0.012	1590	1542	0.978	0.026	0.444	0.493
Want to delay birth at least 2 years	0.417	0.013	1590	1542	1.030	0.031	0.392	0.442
Ideal family size	3.459	0.043	3019	2925	1.546	0.012	3.374	3.544
Mothers protected against neonatal tetanus for last birth	0.803	0.014	1401	1365	1.313	0.017	0.775	0.831
Mothers received medical assistance at delivery	0.905	0.015	1965	1920	1.955	0.017	0.875	0.935
Having diarrhea in the last 2 weeks	0.148	0.010	1886	1842	1.196	0.070	0.127	0.169
Treated with oral rehydration salts (ORS)	0.289	0.029	274	273	1.006	0.100	0.231	0.347
Taken to a health provider	0.419	0.034	274	273	1.077	0.081	0.352	0.487
Vaccination card seen	0.949	0.015	385	372	1.352	0.016	0.918	0.979
Received BCG	0.988	0.007	385	372	1.288	0.007	0.974	1.002
Received DPT (3 doses)	0.963	0.013	385	372	1.354	0.014	0.936	0.989
Received polio (3 doses)	0.956	0.015	385	372	1.387	0.015	0.927	0.985
Received measles	0.931	0.017	385	372	1.280	0.018	0.898	0.964
Fully immunized	0.898	0.019	385	372	1.249	0.022	0.859	0.937
Height-for-age (below -2SD)	0.449	0.019	920	894	1.162	0.043	0.411	0.488
Weight-for-height (below -2SD)	0.023	0.005	920	894	1.029	0.218	0.013	0.033
Weight-for-age (below -2SD)	0.101	0.011	920	894	1.080	0.110	0.079	0.124
Prevalence of anemia (children 6-59 months)	0.345	0.020	853	829	1.180	0.058	0.305	0.385
Prevalence of anemia (women 15-49)	0.179	0.013	1483	1442	1.265	0.070	0.154	0.204
BMI < 18.5	0.049	0.007	1356	1316	1.119	0.134	0.036	0.062
Had 2+ sexual partners in past 12 months	0.005	0.002	3060	2965	1.210	0.307	0.002	0.008
Condom use at last sex	0.577	0.154	15	15	1.151	0.266	0.270	0.885
Abstinence among never-married youth (never had sex)	0.773	0.015	984	939	1.155	0.020	0.742	0.804
Sexually active in past 12 months among never-married youth	0.088	0.010	984	939	1.136	0.117	0.067	0.108
Had an HIV test and received results in past 12 months	0.392	0.010	3060	2965	1.157	0.026	0.371	0.412
Accepting attitudes towards people with HIV	0.456	0.012	3055	2960	1.385	0.027	0.431	0.481
Ever experienced any physical violence since age 15	0.336	0.024	625	600	1.269	0.071	0.288	0.384
Ever experienced any sexual violence	0.230	0.025	625	600	1.486	0.109	0.180	0.281
Ever experienced any physical/sexual violence by any husband/partner	0.358	0.032	439	353	1.376	0.088	0.295	0.421
Physical/sexual violence in the last 12 months by any husband/partner	0.200	0.027	439	353	1.399	0.134	0.147	0.254
Total fertility rate (last 3 years)	4.560	0.145	8606	8354	1.184	0.032	4.270	4.851
Neonatal mortality (last 0-9 years)	24.579	3.158	3864	3780	1.174	0.128	18.263	30.895
Post-neonatal mortality (last 0-9 years)	16.748	2.324	3861	3778	1.017	0.139	12.099	21.396
Infant mortality (last 0-9 years)	41.327	4.296	3867	3783	1.219	0.104	32.736	49.918
Child mortality (last 0-9 years)	21.884	2.577	3765	3679	0.981	0.118	16.730	27.038
Under-five mortality (last 0-9 years)	62.306	4.928	3888	3805	1.088	0.079	52.451	72.162
HIV prevalence (Women 15-49)	0.032	0.004	1566	1508	0.975	0.137	0.023	0.040
HIV prevalence (Women 15-24)	0.004	0.003	640	607	0.994	0.609	0.000	0.009

(Continued…)

Table B.7—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.152	0.010	1209	1182	0.982	0.067	0.131	0.172
No education	0.113	0.010	1209	1182	1.102	0.089	0.093	0.133
Secondary school or higher	0.255	0.017	1209	1182	1.383	0.068	0.220	0.289
Never married (in union)	0.453	0.017	1209	1182	1.194	0.038	0.419	0.488
Currently married (in union)	0.531	0.017	1209	1182	1.182	0.032	0.497	0.565
Had sex before age 18	0.157	0.014	928	910	1.195	0.091	0.129	0.186
Had 2+ sexual partners in past 12 months	0.058	0.006	1209	1182	0.957	0.111	0.045	0.071
Condom use at last sex	0.183	0.046	70	69	0.992	0.252	0.091	0.276
Abstinence among never married youth (never had sex)	0.715	0.024	464	455	1.163	0.034	0.666	0.763
Sexually active in past 12 months among never married youth	0.105	0.016	464	455	1.152	0.156	0.072	0.138
Had paid sex in past 12 months	0.014	0.004	1209	1182	1.179	0.281	0.006	0.022
Had HIV test and received results in past 12 months	0.411	0.016	1209	1182	1.110	0.038	0.380	0.443
Accepting attitudes towards people with HIV	0.616	0.016	1208	1181	1.152	0.026	0.583	0.648
HIV prevalence (Men 15-49)	0.013	0.003	1204	1177	1.031	0.256	0.006	0.020
HIV prevalence (Men 15-59)	0.018	0.004	1347	1317	0.974	0.195	0.011	0.025
HIV prevalence (Men 15-24)	0.000	0.000	525	515	na	na	0.000	0.000
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.024	0.003	2770	2684	1.077	0.132	0.017	0.030
HIV prevalence (Women and men 15-24)	0.002	0.001	1165	1122	0.985	0.608	0.000	0.005

na = Not applicable

Table B.8 Sampling errors: North sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.105	0.012	2170	2211	1.781	0.112	0.081	0.128
Literacy	0.799	0.011	2170	2211	1.302	0.014	0.777	0.822
No education	0.114	0.008	2170	2211	1.134	0.068	0.098	0.129
Secondary school or higher	0.218	0.012	2170	2211	1.393	0.057	0.193	0.242
Never married (in union)	0.397	0.012	2170	2211	1.184	0.031	0.373	0.422
Currently married (in union)	0.511	0.012	2170	2211	1.148	0.024	0.486	0.536
Married before age 20	0.381	0.017	1303	1325	1.252	0.044	0.347	0.414
Had sex before age 18	0.220	0.014	1303	1325	1.226	0.064	0.192	0.248
Currently pregnant	0.063	0.005	2170	2211	1.052	0.087	0.052	0.074
Children ever born	2.219	0.061	2170	2211	1.133	0.028	2.097	2.342
Children surviving	1.962	0.051	2170	2211	1.075	0.026	1.861	2.063
Children ever born to women age 40-49	5.618	0.163	356	361	1.201	0.029	5.291	5.944
Currently using any method	0.608	0.020	1108	1130	1.382	0.033	0.568	0.649
Currently using any modern method	0.550	0.019	1108	1130	1.274	0.035	0.512	0.588
Currently using pill	0.093	0.010	1108	1130	1.127	0.106	0.073	0.113
Currently using IUD	0.007	0.002	1108	1130	0.973	0.361	0.002	0.011
Currently using condoms	0.039	0.006	1108	1130	1.105	0.166	0.026	0.051
Currently using injectables	0.295	0.015	1108	1130	1.119	0.052	0.264	0.326
Currently using implants	0.089	0.009	1108	1130	1.093	0.105	0.071	0.108
Currently using female sterilization	0.010	0.003	1108	1130	1.070	0.317	0.004	0.017
Currently using rhythm	0.027	0.005	1108	1130	1.071	0.193	0.017	0.038
Currently using withdrawal	0.031	0.006	1108	1130	1.054	0.176	0.020	0.042
Used public sector source	0.939	0.009	661	674	1.003	0.010	0.920	0.957
Want no more children	0.509	0.015	1108	1130	1.005	0.030	0.479	0.539
Want to delay birth at least 2 years	0.384	0.015	1108	1130	1.052	0.040	0.353	0.415
Ideal family size	3.455	0.039	2161	2201	1.185	0.011	3.377	3.533
Mothers protected against neonatal tetanus for last birth	0.814	0.017	866	885	1.287	0.021	0.780	0.848
Mothers received medical assistance at delivery	0.922	0.011	1085	1108	1.336	0.012	0.899	0.945
Having diarrhea in the last 2 weeks	0.110	0.010	1051	1071	1.002	0.090	0.090	0.129
Treated with oral rehydration salts (ORS)	0.293	0.047	113	117	1.116	0.159	0.200	0.386
Taken to a health provider	0.444	0.055	113	117	1.171	0.124	0.334	0.555
Vaccination card seen	0.949	0.017	216	220	1.145	0.018	0.915	0.983
Received BCG	1.000	0.000	216	220	na	0.000	1.000	1.000
Received DPT (3 doses)	1.000	0.000	216	220	na	0.000	1.000	1.000
Received polio (3 doses)	0.975	0.011	216	220	1.057	0.012	0.952	0.997
Received measles	0.974	0.015	216	220	1.331	0.015	0.945	1.003
Fully immunized	0.948	0.018	216	220	1.182	0.019	0.913	0.984
Height-for-age (below -2SD)	0.392	0.023	530	541	1.077	0.059	0.346	0.438
Weight-for-height (below -2SD)	0.018	0.006	530	541	1.017	0.324	0.006	0.030
Weight-for-age (below -2SD)	0.093	0.012	530	541	0.971	0.130	0.069	0.117
Prevalence of anemia (children 6-59 months)	0.336	0.024	490	502	1.110	0.071	0.288	0.383
Prevalence of anemia (women 15-49)	0.154	0.012	1072	1088	1.117	0.080	0.129	0.178
BMI < 18.5	0.045	0.007	1003	1016	1.109	0.161	0.031	0.060
Had 2+ sexual partners in past 12 months	0.004	0.002	2170	2211	1.131	0.375	0.001	0.007
Condom use at last sex	0.341	0.046	10	9	0.306	0.135	0.249	0.433
Abstinence among never-married youth (never had sex)	0.811	0.016	702	716	1.095	0.020	0.778	0.843
Sexually active in past 12 months among never-married youth	0.081	0.011	702	716	1.086	0.138	0.059	0.103
Had an HIV test and received results in past 12 months	0.396	0.013	2170	2211	1.267	0.034	0.369	0.422
Accepting attitudes towards people with HIV	0.402	0.014	2167	2208	1.358	0.036	0.373	0.430
Ever experienced any physical violence since age 15	0.373	0.028	439	433	1.198	0.074	0.317	0.428
Ever experienced any sexual violence	0.197	0.021	439	433	1.090	0.105	0.156	0.238
Ever experienced any physical/sexual violence by any husband/partner	0.422	0.029	316	286	1.057	0.070	0.363	0.481
Physical/sexual violence in the last 12 months by any husband/partner	0.224	0.025	316	286	1.071	0.112	0.174	0.274
Total fertility rate (last 3 years)	3.701	0.139	5971	6084	1.087	0.038	3.422	3.980
Neonatal mortality (last 0-9 years)	23.360	3.172	2327	2381	0.991	0.136	17.016	29.703
Post-neonatal mortality (last 0-9 years)	14.704	2.347	2333	2388	0.924	0.160	10.009	19.398
Infant mortality (last 0-9 years)	38.063	3.939	2330	2384	0.980	0.103	30.185	45.941
Child mortality (last 0-9 years)	23.132	3.430	2323	2386	1.091	0.148	16.271	29.992
Under-five mortality (last 0-9 years)	60.315	4.843	2341	2396	0.991	0.080	50.630	70.000
HIV prevalence (Women 15-49)	0.025	0.005	1088	1109	1.002	0.190	0.016	0.035
HIV prevalence (Women 15-24)	0.008	0.004	420	430	0.904	0.504	0.000	0.015

(Continued…)

Table B.8—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits: Lower (R-2SE)	Confident Limits: Upper (R+2SE)
MEN								
Urban residence	0.108	0.012	830	851	1.096	0.109	0.085	0.132
No education	0.086	0.010	830	851	1.069	0.121	0.065	0.107
Secondary school or higher	0.218	0.018	830	851	1.231	0.081	0.183	0.253
Never married (in union)	0.431	0.019	830	851	1.132	0.045	0.392	0.470
Currently married (in union)	0.554	0.019	830	851	1.126	0.035	0.515	0.593
Had sex before age 18	0.146	0.014	628	642	0.991	0.096	0.118	0.174
Had 2+ sexual partners in past 12 months	0.030	0.006	830	851	0.944	0.187	0.019	0.041
Condom use at last sex	0.191	0.071	25	25	0.893	0.374	0.048	0.333
Abstinence among never married youth (never had sex)	0.673	0.024	295	307	0.871	0.035	0.626	0.721
Sexually active in past 12 months among never married youth	0.127	0.019	295	307	0.977	0.149	0.089	0.165
Had paid sex in past 12 months	0.011	0.004	830	851	1.089	0.363	0.003	0.019
Had HIV test and received results in past 12 months	0.359	0.019	830	851	1.155	0.054	0.321	0.398
Accepting attitudes towards people with HIV	0.445	0.022	829	850	1.247	0.048	0.402	0.488
HIV prevalence (Men 15-49)	0.021	0.005	828	847	1.088	0.259	0.010	0.032
HIV prevalence (Men 15-59)	0.024	0.006	923	944	1.225	0.260	0.011	0.036
HIV prevalence (Men 15-24)	0.007	0.005	329	342	1.044	0.698	0.000	0.016
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.023	0.004	1916	1956	1.157	0.171	0.015	0.031
HIV prevalence (Women and men 15-24)	0.007	0.003	749	772	0.952	0.407	0.001	0.013

na = Not applicable

Table B.9 Sampling errors: East sample, Rwanda 2014-15

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
WOMEN								
Urban residence	0.074	0.005	2956	3308	1.004	0.065	0.064	0.083
Literacy	0.763	0.010	2956	3308	1.311	0.013	0.742	0.783
No education	0.157	0.008	2956	3308	1.204	0.051	0.141	0.173
Secondary school or higher	0.180	0.013	2956	3308	1.810	0.071	0.154	0.206
Never married (in union)	0.316	0.010	2956	3308	1.188	0.032	0.296	0.336
Currently married (in union)	0.563	0.010	2956	3308	1.072	0.017	0.544	0.583
Married before age 20	0.372	0.012	1858	2081	1.046	0.032	0.349	0.395
Had sex before age 18	0.207	0.010	1858	2081	1.049	0.048	0.187	0.227
Currently pregnant	0.084	0.005	2956	3308	1.033	0.063	0.073	0.095
Children ever born	2.595	0.055	2956	3308	1.156	0.021	2.485	2.705
Children surviving	2.183	0.042	2956	3308	1.099	0.019	2.099	2.267
Children ever born to women age 40-49	5.934	0.113	530	618	1.090	0.019	5.707	6.160
Currently using any method	0.536	0.016	1658	1863	1.333	0.030	0.504	0.569
Currently using any modern method	0.465	0.016	1658	1863	1.338	0.035	0.433	0.498
Currently using pill	0.095	0.009	1658	1863	1.206	0.091	0.078	0.112
Currently using IUD	0.007	0.002	1658	1863	0.964	0.288	0.003	0.011
Currently using condoms	0.044	0.005	1658	1863	0.897	0.103	0.035	0.053
Currently using injectables	0.240	0.014	1658	1863	1.358	0.059	0.211	0.268
Currently using implants	0.063	0.006	1658	1863	1.065	0.101	0.050	0.075
Currently using female sterilization	0.008	0.002	1658	1863	0.996	0.267	0.004	0.013
Currently using rhythm	0.029	0.004	1658	1863	1.018	0.145	0.021	0.037
Currently using withdrawal	0.042	0.005	1658	1863	1.027	0.121	0.032	0.052
Used public sector source	0.932	0.009	887	989	1.059	0.010	0.914	0.950
Want no more children	0.475	0.013	1658	1863	1.048	0.027	0.449	0.501
Want to delay birth at least 2 years	0.399	0.013	1658	1863	1.100	0.033	0.372	0.425
Ideal family size	3.422	0.034	2920	3266	1.223	0.010	3.354	3.489
Mothers protected against neonatal tetanus for last birth	0.817	0.011	1490	1682	1.118	0.014	0.794	0.839
Mothers received medical assistance at delivery	0.889	0.010	1944	2196	1.243	0.011	0.870	0.908
Having diarrhea in the last 2 weeks	0.119	0.009	1865	2103	1.137	0.075	0.101	0.137
Treated with oral rehydration salts (ORS)	0.255	0.036	214	251	1.197	0.140	0.184	0.327
Taken to a health provider	0.447	0.036	214	251	1.045	0.081	0.375	0.520
Vaccination card seen	0.918	0.016	387	453	1.189	0.018	0.886	0.951
Received BCG	0.980	0.013	387	453	1.938	0.014	0.953	1.007
Received DPT (3 doses)	0.980	0.010	387	453	1.421	0.010	0.960	1.000
Received polio (3 doses)	0.950	0.013	387	453	1.215	0.014	0.923	0.976
Received measles	0.951	0.010	387	453	0.947	0.011	0.931	0.971
Fully immunized	0.910	0.016	387	453	1.138	0.018	0.877	0.942
Height-for-age (below -2SD)	0.348	0.018	935	1049	1.125	0.053	0.311	0.385
Weight-for-height (below -2SD)	0.022	0.004	935	1049	0.946	0.206	0.013	0.031
Weight-for-age (below -2SD)	0.092	0.010	935	1049	1.012	0.108	0.072	0.112
Prevalence of anemia (children 6-59 months)	0.397	0.021	864	970	1.234	0.053	0.355	0.438
Prevalence of anemia (women 15-49)	0.218	0.016	1487	1646	1.452	0.072	0.187	0.249
BMI < 18.5	0.074	0.008	1335	1474	1.045	0.102	0.059	0.089
Had 2+ sexual partners in past 12 months	0.006	0.001	2956	3308	0.997	0.243	0.003	0.008
Condom use at last sex	0.279	0.103	17	19	0.923	0.369	0.073	0.485
Abstinence among never-married youth (never had sex)	0.722	0.018	792	875	1.121	0.025	0.686	0.758
Sexually active in past 12 months among never-married youth	0.143	0.013	792	875	1.069	0.093	0.117	0.170
Had an HIV test and received results in past 12 months	0.376	0.012	2956	3308	1.295	0.031	0.353	0.399
Accepting attitudes towards people with HIV	0.554	0.013	2956	3308	1.421	0.023	0.528	0.580
Ever experienced any physical violence since age 15	0.352	0.022	610	648	1.117	0.061	0.309	0.395
Ever experienced any sexual violence	0.221	0.019	610	648	1.121	0.085	0.183	0.258
Ever experienced any physical/sexual violence by any husband/partner	0.378	0.025	477	453	1.138	0.067	0.327	0.429
Physical/sexual violence in the last 12 months by any husband/partner	0.195	0.022	477	453	1.192	0.111	0.152	0.239
Total fertility rate (last 3 years)	4.606	0.140	8270	9255	1.312	0.030	4.326	4.887
Neonatal mortality (last 0-9 years)	21.662	2.648	3859	4378	1.086	0.122	16.367	26.958
Post-neonatal mortality (last 0-9 years)	29.566	3.325	3859	4383	1.165	0.112	22.915	36.217
Infant mortality (last 0-9 years)	51.229	4.054	3867	4387	1.134	0.079	43.120	59.338
Child mortality (last 0-9 years)	36.656	4.156	3831	4369	1.239	0.113	28.344	44.969
Under-five mortality (last 0-9 years)	86.007	5.251	3898	4423	1.091	0.061	75.505	96.510
HIV prevalence (Women 15-49)	0.029	0.005	1465	1653	1.124	0.171	0.019	0.039
HIV prevalence (Women 15-24)	0.014	0.007	544	607	1.371	0.497	0.000	0.028

(Continued…)

Table B.9—*Continued*

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confident Limits Lower (R-2SE)	Confident Limits Upper (R+2SE)
MEN								
Urban residence	0.086	0.006	1282	1413	0.738	0.067	0.075	0.098
No education	0.096	0.008	1282	1413	0.965	0.083	0.080	0.112
Secondary school or higher	0.235	0.017	1282	1413	1.402	0.071	0.202	0.268
Never married (in union)	0.459	0.015	1282	1413	1.105	0.034	0.428	0.490
Currently married (in union)	0.515	0.016	1282	1413	1.173	0.032	0.482	0.547
Had sex before age 18	0.165	0.013	984	1081	1.132	0.081	0.138	0.192
Had 2+ sexual partners in past 12 months	0.047	0.007	1282	1413	1.259	0.158	0.032	0.062
Condom use at last sex	0.214	0.053	64	67	1.024	0.248	0.108	0.320
Abstinence among never married youth (never had sex)	0.649	0.026	473	513	1.191	0.040	0.596	0.701
Sexually active in past 12 months among never married youth	0.153	0.019	473	513	1.170	0.127	0.114	0.192
Had paid sex in past 12 months	0.009	0.004	1282	1413	1.391	0.405	0.002	0.017
Had HIV test and received results in past 12 months	0.352	0.012	1282	1413	0.936	0.035	0.327	0.377
Accepting attitudes towards people with HIV	0.655	0.014	1282	1413	1.031	0.021	0.628	0.683
HIV prevalence (Men 15-49)	0.019	0.004	1276	1406	1.036	0.210	0.011	0.027
HIV prevalence (Men 15-59)	0.020	0.004	1404	1554	1.061	0.199	0.012	0.028
HIV prevalence (Men 15-24)	0.008	0.003	512	559	0.903	0.455	0.001	0.015
WOMEN AND MEN								
HIV prevalence (Women and men 15-49)	0.024	0.004	2741	3058	1.323	0.161	0.016	0.032
HIV prevalence (Women and men 15-24)	0.011	0.004	1056	1165	1.252	0.368	0.003	0.019

Table B.10 Sampling errors for adult and maternal mortality probability and rates in last 0-4 years, Rwanda 2014

Variable	Value R	Standard Error SE	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design Effect DEFT	Relative Error SE/R	Confidence limits Lower R-2SE	Confidence limits Upper R+2SE
WOMEN								
Adult mortality rates								
15-19	1.209	0.340	18399	18347	1.266	0.281	0.529	1.890
20-24	1.679	0.276	23701	23625	1.026	0.164	1.128	2.230
25-29	1.096	0.251	24735	24795	1.162	0.229	0.594	1.597
30-34	1.937	0.336	20852	21009	1.109	0.173	1.265	2.610
35-39	2.882	0.473	14547	14680	1.044	0.164	1.935	3.829
40-44	3.748	0.722	9632	9758	1.165	0.193	2.305	5.191
45-49	4.173	0.898	5985	6068	1.082	0.215	2.377	5.968
15-49 (age-adjusted)	2.040	0.159	117852	118281	1.126	0.078	1.722	2.358
Adult mortality probabilities								
$_{35}q_{15}$ [2014]	80	7	117852	118281	1.253	0.083	67	94
$_{35}q_{15}$ [2010]	114	7	121025	120900	1.209	0.057	101	127
$_{35}q_{15}$ [2005]	238	10	96343	96220	1.162	0.044	217	259
$_{35}q_{15}$ [2000]	328	14	85238	86314	1.435	0.043	299	356
Maternal mortality rates								
15-19	0.000	0.000	18399	18347	na	na	0.000	0.000
20-24	0.270	0.108	23701	23625	1.012	0.401	0.054	0.486
25-29	0.307	0.131	24735	24795	1.178	0.427	0.045	0.569
30-34	0.188	0.091	20852	21009	0.960	0.484	0.006	0.369
35-39	0.707	0.238	14547	14680	1.082	0.336	0.232	1.182
40-44	0.594	0.269	9632	9758	1.090	0.453	0.056	1.133
45-49	0.000	0.000	5985	6068	na	na	0.000	0.000
15-49 (age-adjusted)	0.270	0.049	117852	118281	1.077	0.182	0.172	0.368
Maternal mortality ratio (MMR) [2014]	210	38	117852	118281	1.077	0.183	134	287
Maternal mortality ratio (MMR) [2010]	476	54	121025	120900	1.055	0.113	368	584
Maternal mortality ratio (MMR) [2005]	750	79	96343	96220	1.085	0.105	592	908
Maternal mortality ratio (MMR) [2000]	1071	98	85238	86314	1.129	0.091	875	1267
MEN								
Adult mortality rates								
15-19	1.331	0.288	18430	18317	1.070	0.217	0.755	1.908
20-24	2.361	0.382	22566	22515	1.183	0.162	1.596	3.125
25-29	2.772	0.380	23323	23393	1.105	0.137	2.013	3.531
30-34	2.675	0.390	19077	19041	1.043	0.146	1.894	3.456
35-39	3.429	0.585	13176	13301	1.154	0.171	2.259	4.600
40-44	5.383	0.895	8514	8641	1.054	0.166	3.592	7.173
45-49	6.269	1.160	5297	5481	1.019	0.185	3.950	8.589
15-49 (age-adjusted)	2.961	0.194	110384	110688	1.080	0.065	2.574	3.349
Adult mortality probabilities								
$_{35}q_{15}$ [2014]	114	8	110384	110688	1.185	0.070	98	130
$_{35}q_{15}$ [2010]	151	9	111616	111646	1.195	0.059	133	169
$_{35}q_{15}$ [2005]	262	12	85981	85986	1.247	0.045	239	286
$_{35}q_{15}$ [2000]	455	17	76540	77713	1.494	0.038	421	490

na = Not applicable

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Rwanda 2014-15

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	852	3.0	813	3.2	37	321	1.1	233	0.9
1	796	2.8	810	3.2	38	308	1.1	187	0.7
2	779	2.7	795	3.1	39	245	0.9	181	0.7
3	831	2.9	840	3.3	40	309	1.1	238	0.9
4	700	2.5	723	2.8	41	245	0.9	196	0.8
5	760	2.7	792	3.1	42	265	0.9	177	0.7
6	861	3.0	833	3.3	43	215	0.8	161	0.6
7	798	2.8	868	3.4	44	223	0.8	161	0.6
8	830	2.9	854	3.4	45	205	0.7	193	0.8
9	790	2.8	761	3.0	46	207	0.7	164	0.6
10	726	2.6	813	3.2	47	187	0.7	133	0.5
11	698	2.5	704	2.8	48	173	0.6	136	0.5
12	883	3.1	804	3.2	49	208	0.7	141	0.6
13	671	2.4	587	2.3	50	120	0.4	168	0.7
14	589	2.1	711	2.8	51	166	0.6	120	0.5
15	692	2.4	572	2.2	52	221	0.8	149	0.6
16	527	1.9	507	2.0	53	186	0.7	123	0.5
17	516	1.8	554	2.2	54	174	0.6	138	0.5
18	554	2.0	568	2.2	55	175	0.6	138	0.5
19	466	1.6	438	1.7	56	193	0.7	114	0.4
20	555	2.0	489	1.9	57	134	0.5	111	0.4
21	468	1.6	358	1.4	58	151	0.5	111	0.4
22	532	1.9	393	1.5	59	136	0.5	96	0.4
23	411	1.4	368	1.4	60	157	0.6	112	0.4
24	501	1.8	383	1.5	61	92	0.3	71	0.3
25	448	1.6	425	1.7	62	130	0.5	92	0.4
26	498	1.8	369	1.5	63	108	0.4	70	0.3
27	454	1.6	368	1.4	64	91	0.3	57	0.2
28	473	1.7	400	1.6	65	93	0.3	70	0.3
29	419	1.5	351	1.4	66	79	0.3	52	0.2
30	484	1.7	473	1.9	67	56	0.2	64	0.3
31	407	1.4	290	1.1	68	71	0.2	35	0.1
32	483	1.7	447	1.8	69	48	0.2	34	0.1
33	385	1.4	332	1.3	70+	806	2.8	484	1.9
34	388	1.4	337	1.3	DK/missing	1	0.0	2	0.0
35	365	1.3	339	1.3					
36	336	1.2	234	0.9	Total	28,427	100.0	25,415	100.0

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Rwanda 2014-15

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	3,567	na	na	na
15-19	2,756	2,740	20.4	99.4
20-24	2,466	2,450	18.3	99.4
25-29	2,292	2,280	17.0	99.5
30-34	2,147	2,134	15.9	99.4
35-39	1,575	1,566	11.7	99.4
40-44	1,257	1,252	9.3	99.6
45-49	980	978	7.3	99.8
50-54	869	na	na	na
15-49	13,473	13,401	100.0	99.5

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64, interviewed men age 15-59 and percent of eligible men who were interviewed (weighted), by five-year age groups, Rwanda 2014-15

Age group	Household population of men age 10-59	Interviewed men age 15-54		Percentage of eligible men interviewed
		Number	Percentage	
10-14	1,823	na	na	na
15-19	1,276	1,271	20.6	99.6
20-24	987	981	15.9	99.4
25-29	942	938	15.2	99.6
30-34	927	923	15.0	99.6
35-39	569	567	9.2	99.6
40-44	472	468	7.6	99.0
45-49	380	379	6.1	99.7
50-54	348	346	5.6	99.4
55-59	293	291	4.7	99.3
60-64	188	na	na	na
15-59	6,195	6,165	100.0	99.5

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the household questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Rwanda 2014-15

Subject	Percentage with information missing	Number of cases
Month only (Births in the 15 years preceding the survey)	0.33	22,759
Month and year (Births in the 15 years preceding the survey)	0.00	22,759
Age at death (Deceased children born in the 15 years preceding the survey)	0.00	1,860
Age/date at first union[1] (Ever married women age 15-49)	0.05	8,397
Age/date at first union (Ever married men age 15-49)	0.00	3,514
Respondent's education (All women age 15-49)	0.10	13,497
Respondent's education (All men age 15-49)	0.00	6,217
Diarrhea in last 2 weeks (Living children 0-59 months)	1.02	7,694
Height (Living children age 0-59 months from the Household Questionnaire)	0.43	3,913
Weight (Living children age 0-59 months from the Household Questionnaire)	0.30	3,913
Height or weight (Living children age 0-59 months from the Household Questionnaire)	0.48	3,913
Height (Women age 15-49 from the Household Questionnaire)	1.05	6,711
Weight (Women age 15-49 from the Household Questionnaire)	0.97	6,711
Height or weight (Women age 15-49 from the Household Questionnaire)	1.05	6,711
Height (Men age 15-49 from the Household Questionnaire)	0.98	5,557
Weight (Men age 15-49 from the Household Questionnaire)	0.97	5,557
Height or weight (Men age 15-49 from the Household Questionnaire)	1.03	5,557
Anemia (Living children age 6-59 months from the Household Questionnaire)	1.01	3,559
Anemia (All women from the Household Questionnaire)	1.16	6,711

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Rwanda 2014-15

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	L	D	T	L	D	T	L	D	T	L	D	T
2015	119	4	123	100.0	100.0	100.0	61.7	35.1	60.7	na	na	na
2014	1,673	50	1,723	100.0	100.0	100.0	95.8	256.3	98.4	na	na	na
2013	1,575	76	1,652	100.0	100.0	100.0	108.0	97.1	107.5	97.6	142.5	99.1
2012	1,555	57	1,612	99.9	100.0	99.9	99.4	211.1	102.0	99.5	77.2	98.5
2011	1,550	71	1,622	99.9	100.0	99.9	97.9	75.3	96.7	107.3	125.8	108.0
2010	1,334	57	1,391	100.0	100.0	100.0	108.4	145.6	109.7	88.9	82.0	88.6
2009	1,452	66	1,518	100.0	100.0	100.0	101.9	106.4	102.1	96.1	66.6	94.3
2008	1,686	143	1,829	99.4	99.4	99.4	99.8	108.6	100.5	117.0	155.2	119.3
2007	1,431	118	1,549	99.7	98.9	99.6	103.7	77.7	101.5	88.5	89.1	88.5
2006	1,548	122	1,670	99.6	100.0	99.7	99.7	143.2	102.3	109.0	86.6	107.0
2011-2015	6,472	259	6,731	100.0	100.0	100.0	99.3	125.6	100.2	na	na	na
2006-2010	7,451	506	7,957	99.7	99.6	99.7	102.4	110.5	102.9	na	na	na
2001-2005	6,069	876	6,945	99.4	98.6	99.3	100.9	119.2	103.1	na	na	na
1996-2000	4,001	1,055	5,056	99.3	98.8	99.2	105.4	108.2	106.0	na	na	na
<1996	2,924	1,113	4,037	99.1	98.1	98.8	93.5	114.9	99.0	na	na	na
All	26,917	3,808	30,725	99.6	98.7	99.5	100.8	114.0	102.3	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Rwanda 2014-15

	Number of years preceding the survey				Total
Age at death (days)	0-4	5-9	10-14	15-19	0-19
<1	45	59	64	74	242
1	23	28	47	27	124
2	18	17	24	7	67
3	17	20	12	11	60
4	2	6	4	8	19
5	5	4	9	3	21
6	4	2	11	6	24
7	22	21	44	30	117
8	1	2	1	0	4
9	0	1	1	4	6
10	0	0	1	1	3
11	0	1	1	0	2
12	2	0	0	1	3
13	0	0	2	0	2
14	11	15	17	15	58
15	0	1	5	1	7
16	0	2	0	0	2
17	1	1	0	0	1
18	0	0	0	1	1
19	0	0	0	0	0
20	1	1	0	3	5
21	2	7	3	6	17
22	0	2	0	0	2
23	0	0	1	0	1
24	0	3	1	0	4
25	0	0	1	1	2
27	1	0	0	0	1
28	0	2	1	0	3
29	0	0	1	0	1
30	0	3	0	0	3
Total 0-30	156	199	251	199	805
Percentage early neonatal[1]	73.1	68.5	68.7	68.1	69.3

[1] 0-6 days / 0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Rwanda 2014-15

	Number of years preceding the survey				Total
Age at death (months)	0-4	5-9	10-14	15-19	0-19
<1	156	199	251	199	805
1	14	38	35	35	122
2	13	18	44	33	107
3	5	11	33	37	84
4	7	16	23	25	71
5	8	19	14	18	60
6	4	22	34	37	96
7	8	13	26	18	65
8	7	15	29	15	66
9	19	26	44	48	136
10	5	9	5	13	32
11	2	2	11	5	20
12	8	13	38	35	94
13	6	2	11	11	31
14	9	17	20	19	65
15	1	6	7	12	26
16	1	1	8	7	17
17	0	5	6	12	23
18	3	11	19	16	49
19	4	1	3	4	13
20	4	2	9	5	19
21	1	1	3	1	7
22	1	0	5	2	9
23	1	1	0	1	3
1 Year	1	14	16	28	59
Total 0-11	249	387	547	482	1,664
Percentage neonatal[1]	62.8	51.4	45.8	41.4	48.4

[a] Includes deaths under one month reported in days
[1] Under one month / under one year

Table C.7 Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population, Rwanda 2014-15

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	0.7	4.9	(0.2)	0.0	1.3	17.1	0.9	0.0	0.6	10.1	0.6	322
6-8	5.1	15.3	(0.7)	1.2	4.1	11.0	0.4	1.9	8.5	4.9	(0.3)	215
9-11	6.4	19.1	(1.1)	0.9	2.7	9.1	0.3	1.6	11.2	0.9	(0.6)	213
12-17	14.6	42.2	(1.7)	0.9	3.1	7.3	0.2	3.5	15.0	0.6	(0.9)	401
18-23	15.0	48.3	(1.8)	0.4	3.5	5.3	(0.0)	2.4	15.6	1.1	(1.0)	364
24-35	10.6	34.0	(1.5)	0.2	1.6	1.6	(0.0)	2.8	16.2	0.8	(0.9)	798
36-47	11.1	35.6	(1.5)	0.0	0.3	2.8	0.2	1.3	10.9	0.5	(0.8)	832
48-59	12.2	35.5	(1.6)	0.3	0.8	1.4	0.1	2.8	12.0	0.5	(0.9)	657
Sex												
Male	11.5	35.5	(1.5)	0.3	1.7	4.3	0.2	2.5	12.0	1.4	(0.8)	1,922
Female	9.3	29.4	(1.3)	0.4	1.7	5.8	0.2	1.8	12.2	2.0	(0.7)	1,880
Birth interval in months[3]												
First birth[4]	7.6	29.6	(1.3)	0.7	1.4	5.0	0.2	2.3	10.0	1.9	(0.7)	984
<24	12.9	34.2	(1.5)	0.0	2.5	6.9	0.2	5.6	13.8	2.0	(0.8)	349
24-47	11.1	35.3	(1.5)	0.1	1.5	4.2	0.2	1.4	13.0	1.1	(0.8)	1,354
48+	9.8	29.8	(1.3)	0.5	2.2	6.5	0.2	1.2	11.6	2.5	(0.7)	851
Size at birth[3]												
Very small	14.6	52.7	(1.9)	1.4	3.1	5.0	(0.1)	6.1	24.5	0.8	(1.3)	85
Small	16.5	44.1	(1.8)	0.6	2.8	3.6	(0.1)	6.3	23.3	0.7	(1.2)	429
Average or larger	8.9	29.9	(1.3)	0.3	1.6	5.5	0.2	1.3	9.9	1.9	(0.6)	3,012
Missing	*	*	*	*	*	*	*	*	*	*	*	12
Mother's interview status												
Interviewed	10.0	32.3	(1.4)	0.4	1.7	5.3	0.2	2.0	11.9	1.8	(0.7)	3,538
Not interviewed but in household	(10.7)	(33.1)	1.5	(0.0)	(0.0)	(2.1)	(0.2)	(3.6)	(6.7)	(0.0)	0.8	30
Not interviewed and not in the household[5]	17.5	35.5	(1.5)	0.0	1.3	2.4	0.1	4.1	15.6	1.0	(0.9)	235
Mother's nutritional status[6]												
Thin (BMI<18.5)	18.6	43.1	(1.8)	1.5	5.6	1.1	(0.4)	4.5	30.7	1.1	(1.4)	151
Normal (BMI 18.5-24.9)	10.6	34.3	(1.5)	0.4	1.9	4.8	0.1	2.1	12.8	1.3	(0.8)	2,246
Overweight/ obese (BMI ≥ 25)	6.6	23.8	(1.1)	0.1	0.6	7.3	0.4	0.7	5.5	2.3	(0.4)	688
Residence												
Urban	4.6	19.2	(0.8)	0.2	1.3	7.5	0.3	1.6	7.4	4.4	(0.3)	609
Rural	11.6	35.0	(1.5)	0.4	1.8	4.6	0.2	2.2	13.0	1.2	(0.8)	3,193
Province												
Kigali City	3.9	18.6	(0.8)	0.2	2.2	7.4	0.2	1.9	7.3	3.5	(0.3)	418
South	10.8	33.1	(1.5)	0.1	2.2	5.2	0.2	2.5	14.6	1.4	(0.8)	908
West	13.8	39.2	(1.6)	0.5	1.5	3.3	0.2	2.7	13.7	1.3	(0.9)	893
North	10.3	32.3	(1.4)	0.5	1.6	6.0	0.3	2.0	11.1	1.1	(0.7)	538
East	9.9	31.8	(1.4)	0.4	1.3	5.0	0.2	1.5	10.9	1.9	(0.7)	1,045
Mother's education												
No education	14.5	40.9	(1.8)	0.5	2.9	4.5	0.2	3.2	14.4	1.4	(0.9)	530
Primary	10.3	33.3	(1.4)	0.3	1.5	4.9	0.2	1.9	12.2	1.4	(0.8)	2,580
Secondary and higher	3.0	16.5	(0.7)	0.3	1.6	7.8	0.2	1.4	6.9	4.0	(0.3)	457
Wealth quintile												
Lowest	15.2	42.5	(1.7)	0.5	1.7	4.1	0.1	2.9	16.9	1.2	(1.0)	956
Second	12.7	39.3	(1.6)	0.4	1.9	4.7	0.1	2.8	15.9	0.6	(0.9)	829
Middle	10.7	31.8	(1.4)	0.3	1.9	4.3	0.2	2.0	11.0	0.3	(0.7)	740
Fourth	7.1	25.0	(1.2)	0.2	2.0	5.6	0.3	1.6	8.3	2.5	(0.5)	650
Highest	3.4	16.7	(0.7)	0.1	0.9	7.2	0.3	0.8	4.9	4.7	(0.2)	627
Total	10.4	32.5	(1.4)	0.3	1.7	5.0	0.2	2.1	12.1	1.7	(0.7)	3,802

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight

[1] Recumbent length is measured for children under age 2, or in the few cases when the age of the child ids unknown and the child is less than 85cm; standing height is measured for all other children" to be consistent with table 11.1.1

[2] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

[3] Excludes children whose mothers were not interviewed

[4] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[5] Includes children whose mothers are deceased

[6] Excludes children whose mothers were not interviewed, children whose mothers were not weighed and measured, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.1

[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table C.8 Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population Rwanda 2010

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	1.1	5.8	(0.4)	0.6	2.0	12.9	0.6	0.3	1.7	5.6	0.2	339
6-8	2.2	13.6	(0.7)	0.0	4.0	11.3	0.2	1.0	7.9	2.3	(0.4)	200
9-11	7.5	23.2	(1.2)	1.9	7.2	3.6	(0.2)	5.7	19.3	1.7	(1.1)	215
12-17	13.2	40.6	(1.6)	0.8	4.6	3.7	(0.1)	4.0	20.9	1.1	(1.2)	384
18-23	19.9	52.8	(2.0)	0.2	5.1	5.3	(0.1)	2.7	23.3	1.1	(1.2)	416
24-35	12.5	37.2	(1.6)	0.0	1.7	2.0	(0.0)	2.7	17.5	0.9	(1.0)	940
36-47	14.0	42.2	(1.8)	0.2	0.8	2.0	0.2	0.7	12.5	0.3	(1.0)	926
48-59	16.0	43.9	(1.9)	0.3	1.7	1.7	0.1	2.3	15.8	0.7	(1.1)	924
Sex												
Male	13.3	38.8	(1.6)	0.5	3.0	3.1	0.0	2.5	16.1	1.2	(1.0)	2,190
Female	12.1	35.7	(1.5)	0.2	1.9	4.5	0.1	1.9	14.5	1.3	(0.9)	2,156
Birth interval in months[3]												
First birth4	9.2	29.7	(1.4)	0.5	1.8	4.8	0.2	1.1	10.8	1.2	(0.8)	998
<24	12.1	37.7	(1.7)	0.2	1.8	3.5	0.2	1.3	13.8	0.6	(0.9)	616
24-47	14.3	41.0	(1.7)	0.4	2.9	4.1	0.0	2.7	17.7	1.3	(1.0)	1,865
48+	13.4	36.5	(1.5)	0.4	3.6	2.6	(0.0)	2.8	18.3	1.6	(1.0)	579
Size at birth[3]												
Very small	15.4	56.3	(2.0)	0.0	3.8	4.3	(0.1)	6.7	30.0	2.0	(1.3)	82
Small	16.3	43.2	(1.8)	0.4	2.8	3.9	(0.1)	3.2	24.8	0.4	(1.2)	533
Average or larger	11.9	35.7	(1.5)	0.4	2.5	3.9	0.1	1.8	13.7	1.3	(0.9)	3,424
Missing	13.1	37.0	(1.6)	0.0	0.0	12.5	0.4	0.0	16.8	12.5	(0.7)	17
Mother's interview status												
Interviewed	12.6	37.1	(1.6)	0.4	2.6	3.9	0.1	2.1	15.5	1.2	(0.9)	4,057
Not interviewed but in household	22.3	45.1	(2.2)	0.0	0.0	0.0	(0.6)	3.0	16.6	3.0	(1.6)	36
Not interviewed, and not in the household[5]	13.9	38.7	(1.6)	0.0	1.7	1.8	0.1	3.6	12.8	1.5	(0.9)	252
Mother's nutritional status[6]												
Thin (BMI<18.5)	12.3	40.1	(1.7)	1.3	5.9	2.1	(0.4)	5.1	30.1	0.0	(1.4)	184
Normal (BMI 18.5-24.9)	13.4	38.7	(1.6)	0.4	2.6	3.5	0.0	2.1	16.1	0.9	(1.0)	3,167
Overweight/ obese (BMI ≥ 25)	9.4	29.7	(1.3)	0.2	1.7	6.2	0.3	1.2	9.3	2.8	(0.5)	722
Missing	14.6	22.8	(2.8)	0.0	0.0	0.0	(1.3)	8.4	22.7	8.4	(2.1)	13
Residence												
Urban	6.2	20.6	(1.0)	0.6	2.7	4.3	0.1	1.0	9.6	2.5	(0.6)	513
Rural	13.6	39.5	(1.7)	0.3	2.4	3.7	0.1	2.4	16.1	1.1	(1.0)	3,833
Region												
Kigali City	5.8	18.3	(0.9)	0.8	3.4	4.5	0.1	1.8	10.3	3.1	(0.5)	392
South	10.3	34.8	(1.5)	0.6	3.1	3.7	(0.1)	2.5	16.2	1.3	(1.0)	1,049
West	15.6	42.2	(1.8)	0.1	1.9	2.5	0.1	1.8	17.1	0.4	(1.0)	1,085
North	14.5	43.3	(1.8)	0.2	1.2	3.5	0.2	1.7	14.2	1.2	(0.9)	707
East	13.5	37.6	(1.6)	0.3	3.0	4.9	0.1	2.8	15.3	1.4	(0.9)	1,112
Education												
No education	17.1	44.4	(1.8)	0.4	2.3	2.5	0.1	2.9	18.0	0.5	(1.1)	801
Primary	12.4	37.6	(1.6)	0.4	2.6	4.1	0.1	2.0	16.0	1.1	(0.9)	2,941
Secondary and higher	4.9	16.6	(0.8)	0.4	2.3	5.5	0.1	1.1	5.5	4.1	(0.4)	352
Wealth quintile												
Lowest	17.8	46.5	(1.9)	0.2	2.9	4.3	0.1	3.1	19.1	1.0	(1.1)	961
Second	15.2	43.5	(1.8)	0.7	2.8	2.9	(0.0)	2.5	19.3	0.7	(1.1)	959
Middle	12.8	38.9	(1.7)	0.1	2.4	4.0	0.1	2.4	15.5	0.9	(0.9)	878
Fourth	9.7	33.2	(1.5)	0.4	2.0	3.0	0.1	1.5	12.4	1.3	(0.9)	843
Highest	5.8	18.9	(0.9)	0.3	2.0	4.8	0.1	1.1	8.2	2.6	(0.5)	704
Total	**12.7**	**37.3**	**(1.6)**	**0.3**	**2.5**	**3.8**	**0.1**	**2.2**	**15.3**	**1.2**	**(0.9)**	**4,346**

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO Child Growth Standards.
Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median
[2] Excludes children whose mothers were not interviewed
[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval
[4] Includes children whose mothers are deceased
[5] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10
[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Table C.9 Prevalence of anemia in children in 2005

Percentage of children age 6-59 months classified as having anemia, by background characteristics, Rwanda 2005

Background characteristic	Any anemia	Anemia status by hemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (below 7.0 g/dl)	Number of children
Age in months					
6-9	74.2	23.0	48.2	3.0	254
10-11	67.7	25.4	41.1	1.2	149
12-23	59.5	22.5	32.3	4.6	796
24-35	50.1	23.5	24.4	2.1	898
36-47	46.0	23.2	21.9	0.8	708
48-59	38.9	17.1	20.9	1.0	732
Sex					
Male	53.0	23.5	27.0	2.5	1,741
Female	50.1	20.4	27.7	2.0	1,797
Residence					
Urban	46.6	17.8	26.8	2.0	495
Rural	52.3	22.6	27.5	2.3	3,042
Province					
Kigali	54.6	16.6	35.2	2.7	226
South	47.0	20.8	24.0	2.2	908
West	58.2	27.4	30.2	0.5	933
North	43.5	19.6	22.1	1.9	729
East	55.7	20.4	30.8	4.6	741
Mother's education[1]					
No education	54.4	22.4	29.2	2.8	923
Primary	53.0	22.4	28.5	2.1	1,656
Secondary and higher	47.7	21.0	24.6	2.1	588
Missing	43.7	17.4	24.9	1.4	174
Wealth quintile					
Lowest	54.2	21.9	29.3	2.9	721
Second	56.1	24.9	28.2	2.9	755
Middle	51.1	20.9	28.1	2.1	733
Fourth	50.7	21.0	27.9	1.7	740
Highest	44.1	20.5	22.3	1.3	588
Total	**51.5**	**21.9**	**27.4**	**2.2**	**3,537**

Note: Table is based on children who slept in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for correct altitude using formulas in CDC, 1998. Hemoglobin in grams per deciliter (g/dl).

[1] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table C.10 Prevalence of anemia in women in 2005

Percentage of women age 15-49 with anemia, by background characteristics, Rwanda 2005

Background characteristic	Any anemia	Anemia status by hemoglobin level			Number of women
		Mild anemia	Moderate anemia	Severe anemia	
Age					
15-19	21.8	17.0	3.8	1.0	1,317
20-24	25.2	19.0	5.3	0.9	1,145
25-29	25.3	19.2	5.3	0.8	826
30-34	24.7	18.2	5.5	1.0	811
35-39	30.1	20.2	9.5	0.5	536
40-44	29.2	21.9	6.5	0.8	555
45-49	30.3	21.4	8.0	1.0	466
Number of children ever born					
0	22.6	17.4	4.2	1.0	2,142
1	26.8	18.6	7.2	1.0	539
2-3	25.8	20.8	4.5	0.6	1,028
4-5	27.8	18.6	8.1	1.2	876
6+	29.0	21.3	7.1	0.6	1,072
Maternity status					
Pregnant	28.8	14.2	13.6	1.0	432
Breastfeeding	25.8	19.9	5.1	0.8	1,923
Neither	25.1	19.2	5.0	0.9	3,302
Residence					
Urban	22.6	16.7	5.2	0.8	938
Rural	26.2	19.5	5.8	0.9	4,719
Province					
Kigali	24.8	18.4	5.6	0.8	547
South	28.3	20.9	6.3	1.2	1,518
West	22.8	17.8	4.5	0.5	1,397
North	17.7	13.1	3.9	0.7	1,020
East	32.7	23.6	8.0	1.1	1,175
Education					
No education	29.2	20.5	7.9	0.8	1,273
Primary	24.9	18.8	5.2	0.9	3,824
Secondary and higher	22.7	17.7	3.9	1.1	560
Wealth quintile					
Lowest	28.3	19.4	8.1	0.8	1,197
Second	27.2	20.8	5.2	1.2	1,197
Middle	25.9	19.9	4.9	1.1	1,044
Fourth	25.4	18.5	6.2	0.7	1,115
Highest	21.0	16.5	3.9	0.6	1,103
Total	**25.6**	**19.0**	**5.7**	**0.9**	**5,657**

Note: Prevalence is adjusted for correct altitude and for smoking status if known using formulas in CDC, 1998.

Table C.11 Prevalence of anemia in children in 2007-08

Percentage of children age 6-59 months classified as having anemia, by background characteristics, Rwanda 2007-08

Background characteristic	Anemia status by hemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (below 7.0 g/dl)	Any anemia	Number of children
Age in months					
6-8	33.3	39.7	1.8	74.8	260
9-11	30.5	39.1	0.3	69.8	254
12-17	30.7	22.1	0.5	53.4	593
18-23	25.3	17.5	0.6	43.4	608
24-35	21.9	14.7	0.1	36.6	953
36-47	20.0	10.2	0.4	30.6	1,084
48-59	17.3	8.2	0.1	25.5	1,000
Sex					
Male	22.7	17.6	0.5	40.8	2,373
Female	23.5	14.9	0.3	38.7	2,379
Residence					
Urban	22.2	14.6	0.4	37.3	666
Rural	23.2	16.5	0.4	40.1	4,086
Province					
Kigali	21.4	17.5	0.3	39.3	340
South	22.1	17.6	0.4	40.2	1,243
West	25.1	15.7	0.2	41.0	1,191
North	21.5	15.0	0.0	36.4	835
East	23.7	16.0	0.8	40.5	1,143
Mother's education[2]					
No education	23.5	18.8	0.4	42.7	1,124
Primary	24.0	15.8	0.4	40.1	2,913
Secondary and higher	19.6	19.3	0.2	39.2	324
Missing	18.0	10.2	0.6	28.8	391
Wealth quintile					
Lowest	21.4	19.7	0.6	41.7	693
Second	23.9	15.2	0.4	39.5	1,373
Middle	24.1	16.7	0.2	41.0	949
Fourth	23.5	16.0	0.5	39.9	928
Highest	21.6	15.0	0.2	36.8	809
Total	**23.1**	**16.3**	**0.4**	**39.7**	**4,752**

Note: Table is based on children who slept in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for correct altitude using formulas in CDC, 1998. Hemoglobin in grams per deciliter (g/dl).

[1] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table C.12 Prevalence of anemia in women in 2007-08

Percentage of women age 15-49 with anemia, by background characteristics, Rwanda 2007-08

Background characteristic	Anemia status by hemoglobin level			Any anemia	Number of women
	Mild anemia	Moderate anemia	Severe anemia		
Age					
15-19	13.2	2.0	0.1	15.3	1,325
20-29	15.0	2.4	0.1	17.5	2,851
30-39	16.2	2.8	0.1	19.1	1,678
40-49	15.6	2.6	0.1	18.3	1,284
Number of children ever born					
0	14.8	2.2	0.2	17.2	2,427
1	14.1	3.5	0.1	17.7	817
2-3	15.3	2.5	0.0	17.8	1,515
4-5	15.8	2.3	0.1	18.2	1,182
6+	15.5	2.1	0.0	17.6	1,196
Maternity status					
Pregnant	13.3	6.5	0.0	19.8	682
Breastfeeding	15.2	2.0	0.0	17.2	2,530
Neither	15.3	2.0	0.2	17.5	3,925
Residence					
Urban	13.9	2.9	0.2	17.1	1,199
Rural	15.3	2.3	0.1	17.7	5,938
Province					
Kigali	14.7	4.2	0.2	19.1	642
South	15.1	2.9	0.1	18.1	1,901
West	15.5	1.3	0.0	16.9	1,727
North	12.7	1.3	0.0	14.0	1,228
East	16.6	3.2	0.2	19.9	1,638
Education					
No education	17.2	3.2	0.2	20.7	1,599
Primary	14.8	2.1	0.1	17.1	4,730
Secondary and higher	12.3	2.5	0.1	14.9	808
Wealth quintile					
Lowest	16.0	2.7	0.0	18.7	1,085
Second	16.0	2.1	0.1	18.3	1,931
Middle	13.4	2.5	0.2	16.0	1,340
Fourth	16.9	2.3	0.1	19.3	1,288
Highest	13.3	2.6	0.1	16.0	1,492
Total	**15.1**	**2.4**	**0.1**	**17.6**	**7,137**

Note: Prevalence is adjusted for correct altitude and for smoking status if known using formulas in CDC, 1998.

Table C.13 Rotavirus and pneumococcal vaccinations by source of information

Percentage of children age 12-23 months who received rotavirus and pneumococcal vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated 12 months of age, Rwanda 2014-15

	Rotavirus			Pneumococcal			
Source of information	1	2	3	1	2	3	Number of children
Vaccinated at any time before survey							
Vaccination card	90.9	90.5	90.1	93.8	93.6	90.1	1,485
Mother's report	5.0	4.8	4.7	5.3	5.2	4.6	96
Either source	95.9	95.3	94.7	99.1	98.8	94.7	1,581
Vaccinated by 12 months of age	95.7	95.1	94.5	98.9	98.7	94.6	1,581

Table C.14 Rotavirus and pneumococcal vaccinations by background characteristics

Percentage of children age 12-23 months who received Rotavirus and pneumococcal vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Rwanda 2014-15

	Rotavirus			Pneumococcal				
Background characteristic	1	2	3	1	2	3	Percentage with a vaccination card seen	Number of children
Sex								
Male	96.1	95.5	95.1	99.5	99.1	95.1	93.9	814
Female	95.7	95.1	94.3	98.6	98.5	94.3	94.1	766
Birth order								
1	96.4	95.9	95.2	99.1	99.1	94.9	93.7	447
2-3	95.8	95.3	94.5	99.1	99.0	94.5	94.2	593
4-5	95.6	95.3	94.9	98.8	97.8	95.3	94.2	306
6+	95.7	94.2	94.2	99.2	99.2	94.2	93.6	234
Residence								
Urban	95.8	95.8	95.6	98.7	98.7	95.8	93.5	278
Rural	95.9	95.2	94.5	99.2	98.8	94.5	94.0	1,303
Province								
Kigali City	95.9	95.9	95.7	99.1	99.1	95.9	93.7	204
South	93.9	93.9	93.6	98.6	98.6	93.9	95.4	331
West	95.9	95.0	93.6	99.1	98.5	93.6	94.9	372
North	97.1	94.7	94.7	100.0	100.0	94.1	94.9	220
East	96.8	96.5	96.0	98.9	98.5	96.0	91.8	453
Mother's education								
No education	92.7	92.3	90.9	98.0	97.6	90.9	91.0	233
Primary	96.4	95.7	95.2	99.3	99.0	95.2	94.4	1,124
Secondary and higher	97.0	96.5	96.5	99.1	99.1	96.5	95.0	223
Wealth quintile								
Lowest	93.8	92.1	91.5	98.1	97.0	91.5	92.6	384
Second	95.6	95.6	94.2	99.6	99.6	93.8	94.4	316
Middle	97.7	97.0	96.4	99.1	99.1	96.7	94.4	323
Fourth	97.2	96.8	96.8	100.0	100.0	96.8	95.6	273
Highest	95.9	95.9	95.7	98.9	98.9	95.9	93.2	285
Total	95.9	95.3	94.7	99.1	98.8	94.7	94.0	1,581

Table C.15 Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days, Rwanda 2014-15

Background characteristic	Percentage of children age 36-59 months with whom adult household members have engaged in						Number of children age 36-59 months
	Reading books	Story telling	Singing songs	Going outside the home	Playing	Counting or drawing	
Age group							
36-47	22.0	36.5	51.9	57.9	71.5	52.5	1,504
48-59	26.8	41.9	50.6	58.3	69.9	54.7	1,170
Child's sex							
Male	22.8	39.2	50.8	59.3	70.8	53.4	1,367
Female	25.5	38.5	51.9	56.7	70.7	53.5	1,308
Residence							
Urban	41.3	48.0	57.8	66.2	77.3	71.9	414
Rural	21.0	37.2	50.1	56.6	69.5	50.1	2,260
Province							
Kigali City	35.0	46.9	59.2	69.7	80.1	77.6	302
South	25.8	47.0	60.6	66.8	84.0	59.2	649
West	19.4	27.2	39.1	44.6	55.1	42.6	646
North	28.0	47.8	55.1	63.5	75.4	57.9	362
East	20.2	34.2	48.7	54.7	66.7	45.7	716
Mother's education							
No education	13.6	32.7	41.4	45.9	61.6	37.4	434
Primary	22.2	37.8	51.7	58.3	70.8	53.3	1,965
Secondary and higher	54.0	56.6	64.0	75.3	84.8	80.1	276
Father's education							
No education	15.7	32.1	42.6	49.6	64.5	42.0	372
Primary	22.4	36.9	50.8	58.0	69.7	53.5	1,447
Secondary+	48.2	56.0	60.3	69.9	78.4	74.3	188
No living with father	25.5	42.0	54.6	59.5	74.2	54.0	667
Wealth quintile							
Lowest	11.8	28.2	42.4	49.8	65.2	39.8	641
Second	18.1	36.3	47.5	54.0	66.5	48.0	597
Middle	22.8	40.4	53.7	60.3	71.5	54.4	572
Fourth	29.8	43.7	57.6	63.7	74.1	57.7	459
Highest	47.8	52.1	60.6	67.7	81.0	77.0	405
Total	24.1	38.9	51.3	58.1	70.8	53.5	2,675

Table C.16 Adult mortality rates

Direct estimates of female and male mortality rates for the 0-4 years preceding the survey, by five-year age groups, Rwanda 2014-15

Age	Deaths	Exposure years	Mortality rates[1]
		FEMALE	
15-19	22	18,347	1.21
20-24	40	23,625	1.68
25-29	27	24,795	1.10
30-34	41	21,009	1.94
35-39	42	14,680	2.88
40-44	37	9,758	3.75
45-49	25	6,068	4.17
15-49	234	118,281	2.04[a]
		MALE	
15-19	24	18,317	1.33
20-24	53	22,515	2.36
25-29	65	23,393	2.77
30-34	51	19,041	2.67
35-39	46	13,301	3.43
40-44	47	8,641	5.38
45-49	34	5,481	6.27
15-49	320	110,688	2.96[a]
		TOTAL	
15-19	47	36,664	1.27
20-24	93	46,140	2.01
25-29	92	48,187	1.91
30-34	92	40,050	2.29
35-39	88	27,981	3.14
40-44	83	18,398	4.52
45-49	60	11,549	5.17
15-49	554	228,969	2.48[a]

[1] Expressed per 1,000 population
[a] Age-adjusted rate

Table C.17 Smoking

Percentage of respondents age 15-49 who smoke cigarettes, a pipe, or smoke other tobacco, according to background characteristics, Rwanda 2014-15

Background characteristic	Percentage who smoke			Does not smoke	Number of respondents[2]
	Cigarettes	Pipe	Other tobacco[1]		
Age					
15-19	0.6	0.0	0.0	99.4	2,654
20-24	2.1	0.1	0.3	97.5	2,217
25-29	5.4	0.4	0.3	93.9	2,091
30-34	5.8	1.3	0.4	92.5	2,054
35-39	6.9	2.0	0.0	91.2	1,346
40-44	7.0	4.3	0.0	88.7	1,122
45-49	7.2	6.1	0.0	86.7	880
Residence					
Urban	4.2	0.2	0.3	95.3	2,456
Rural	4.3	1.6	0.2	93.9	9,908
Province					
City of Kigali	4.3	0.4	0.4	94.9	1,694
South	5.8	1.7	0.2	92.3	2,935
West	1.9	0.2	0.1	97.7	2,697
North	3.9	1.9	0.1	94.2	1,967
East	5.1	2.2	0.1	92.6	3,071
Education					
No education	6.9	3.7	0.1	89.4	1,359
Primary	4.8	1.4	0.2	93.5	7,982
Secondary and higher	1.7	0.1	0.1	98.1	3,023
Wealth quintile					
Lowest	6.9	2.9	0.2	90.0	2,068
Second	4.5	1.9	0.1	93.6	2,306
Middle	4.7	1.3	0.3	93.7	2,438
Fourth	3.2	0.9	0.1	95.8	2,613
Highest	2.9	0.2	0.2	96.6	2,939
Total	4.3	1.3	0.2	94.2	12,364

[1] Exclude those who chew tobacco.
[2] Estimates are calculated from respondents in the subsample of households selected for male survey.

Table D2.3.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median years completed, by district, Rwanda 2014-15

District	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Nyarugenge	9.0	45.3	16.9	16.8	8.5	3.4	0.1	100.0	668	4.5
Gasabo	11.0	40.7	18.0	16.0	7.7	6.5	0.1	100.0	1,202	4.8
Kicukiro	8.6	38.9	14.6	15.3	10.5	12.2	0.0	100.0	691	5.2
Nyanza	20.0	55.2	17.2	5.7	1.2	0.7	0.0	100.0	705	2.3
Gisagara	25.9	56.7	12.1	4.3	1.0	0.1	0.0	100.0	779	1.8
Nyaruguru	24.7	51.9	10.9	9.9	2.4	0.2	0.0	100.0	598	2.4
Huye	20.0	44.8	16.8	11.8	2.9	3.5	0.3	100.0	766	3.3
Nyamagabe	23.7	53.1	10.7	10.3	1.6	0.6	0.0	100.0	770	2.6
Ruhango	15.9	57.0	14.8	9.6	1.9	0.6	0.1	100.0	748	2.7
Muhanga	13.2	53.9	15.4	12.3	3.6	1.4	0.3	100.0	701	3.5
Kamonyi	10.8	55.0	21.2	8.8	2.9	1.4	0.0	100.0	802	3.4
Karongi	17.2	53.8	11.2	12.0	4.7	1.1	0.0	100.0	732	2.9
Rutsiro	24.4	57.0	9.8	7.1	1.5	0.2	0.0	100.0	664	2.3
Rubavu	21.8	50.9	11.3	10.5	3.0	2.6	0.0	100.0	898	2.7
Nyabihu	23.9	54.8	11.7	7.9	1.4	0.3	0.0	100.0	585	2.0
Ngororero	25.3	51.1	10.7	9.6	1.8	1.5	0.0	100.0	777	2.3
Rusizi	17.5	52.1	14.0	12.2	3.5	0.8	0.0	100.0	929	3.2
Nyamasheke	18.5	56.3	12.9	9.8	2.1	0.3	0.0	100.0	800	2.6
Rulindo	19.5	47.4	19.1	10.5	2.0	1.3	0.1	100.0	647	3.2
Gakenke	16.5	50.9	17.3	12.1	2.6	0.5	0.0	100.0	748	3.4
Musanze	18.4	52.2	10.1	14.9	3.4	1.0	0.0	100.0	941	3.1
Burera	21.4	58.1	10.8	8.0	1.4	0.3	0.0	100.0	768	2.3
Gicumbi	21.0	45.3	20.7	10.5	1.4	1.0	0.0	100.0	867	3.3
Rwamagana	13.7	54.0	18.1	10.3	2.7	1.1	0.0	100.0	792	3.1
Nyagatare	24.7	51.8	12.1	9.5	1.0	0.9	0.0	100.0	1,053	2.3
Gatsibo	24.3	55.7	11.2	7.0	1.6	0.1	0.1	100.0	1,129	2.0
Kayonza	20.3	52.7	15.3	9.0	1.9	0.9	0.0	100.0	748	2.8
Kirehe	21.1	60.9	9.8	6.2	1.3	0.6	0.0	100.0	681	2.0
Ngoma	17.8	53.8	15.8	9.7	2.0	0.9	0.0	100.0	802	2.7
Bugesera	20.5	54.1	13.0	9.7	1.9	0.6	0.1	100.0	717	2.6

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

Table D2.3.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, by district, Rwanda 2014-15

District	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Nyarugenge	5.9	45.2	19.6	14.1	9.5	5.4	0.3	100.0	624	4.9
Gasabo	8.2	42.5	19.0	13.1	7.0	10.0	0.2	100.0	1,159	4.9
Kicukiro	6.2	38.8	17.8	14.5	9.3	13.4	0.0	100.0	631	5.3
Nyanza	15.2	58.2	14.5	8.6	2.5	1.1	0.0	100.0	563	2.5
Gisagara	20.4	60.7	11.6	4.6	1.9	0.8	0.0	100.0	577	2.0
Nyaruguru	19.6	60.5	8.4	8.8	1.4	1.1	0.1	100.0	539	2.1
Huye	14.9	51.4	13.4	11.4	3.5	5.1	0.4	100.0	676	3.3
Nyamagabe	16.0	58.2	12.2	10.0	2.1	1.5	0.0	100.0	653	2.4
Ruhango	11.7	64.7	13.6	7.3	1.0	1.5	0.3	100.0	671	2.4
Muhanga	10.8	61.2	15.2	8.7	2.1	1.7	0.3	100.0	599	3.1
Kamonyi	10.3	56.8	19.5	9.7	2.1	1.4	0.2	100.0	706	3.0
Karongi	11.3	57.0	15.0	10.4	3.1	3.0	0.1	100.0	680	3.2
Rutsiro	14.2	65.5	10.2	8.0	1.7	0.4	0.0	100.0	558	2.6
Rubavu	19.3	47.0	11.1	13.1	5.6	4.0	0.0	100.0	832	3.2
Nyabihu	14.5	60.0	12.3	10.5	1.8	0.8	0.0	100.0	492	2.7
Ngororero	18.7	60.8	9.8	5.8	3.7	1.1	0.2	100.0	647	2.4
Rusizi	11.6	55.2	15.8	13.3	3.2	0.8	0.0	100.0	812	3.3
Nyamasheke	15.7	57.8	13.6	9.2	1.7	1.8	0.2	100.0	630	2.6
Rulindo	15.5	56.0	18.3	7.0	1.2	2.0	0.0	100.0	566	3.1
Gakenke	11.9	57.2	17.7	9.3	2.6	1.5	0.0	100.0	634	3.3
Musanze	11.1	58.5	10.6	13.4	3.5	2.9	0.0	100.0	736	3.3
Burera	9.9	66.8	12.2	7.9	1.7	1.4	0.2	100.0	646	2.4
Gicumbi	15.3	51.3	19.3	9.1	3.6	1.4	0.0	100.0	803	3.2
Rwamagana	9.2	58.9	14.8	12.6	2.3	2.2	0.0	100.0	644	3.2
Nyagatare	16.0	54.8	17.8	8.0	2.5	0.9	0.0	100.0	1,001	2.8
Gatsibo	16.0	61.3	8.6	12.7	0.9	0.5	0.1	100.0	918	2.6
Kayonza	15.1	58.8	14.6	9.0	1.1	1.4	0.0	100.0	647	2.7
Kirehe	11.5	63.2	12.4	8.8	2.8	1.1	0.2	100.0	602	2.8
Ngoma	14.2	60.6	11.4	8.9	2.4	2.5	0.0	100.0	740	2.3
Bugesera	12.7	57.9	14.4	9.9	3.4	1.7	0.0	100.0	652	3.0

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

Table D2.4 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the gender parity index (GPI), by district, Rwanda 2014-15

District	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender parity index[3]	Male	Female	Total	Gender parity index[3]
PRIMARY SCHOOL								
Nyarugenge	94.5	94.6	94.6	1.00	155.4	147.9	151.7	0.95
Gasabo	88.7	92.2	90.3	1.04	129.9	139.0	134.0	1.07
Kicukiro	95.1	88.6	91.6	0.93	153.5	133.2	142.5	0.87
Nyanza	94.6	93.8	94.2	0.99	147.3	137.1	141.7	0.93
Gisagara	84.5	79.2	81.6	0.94	126.7	115.4	120.4	0.91
Nyaruguru	88.3	89.1	88.7	1.01	128.6	135.6	131.9	1.05
Huye	82.8	89.8	85.9	1.08	121.6	128.1	124.5	1.05
Nyamagabe	88.1	91.7	89.8	1.04	134.9	140.8	137.8	1.04
Ruhango	95.6	95.8	95.7	1.00	147.7	140.8	144.3	0.95
Muhanga	94.7	91.1	93.0	0.96	136.2	128.0	132.3	0.94
Kamonyi	95.0	95.8	95.4	1.01	139.3	147.1	143.3	1.06
Karongi	94.8	95.2	95.0	1.00	151.3	141.5	146.4	0.94
Rutsiro	97.0	96.1	96.5	0.99	148.3	133.3	140.5	0.90
Rubavu	82.3	87.7	85.3	1.07	136.4	113.5	123.7	0.83
Nyabihu	95.2	97.5	96.3	1.02	133.0	139.8	136.3	1.05
Ngororero	85.0	88.7	86.9	1.04	133.6	133.8	133.7	1.00
Rusizi	91.8	94.1	92.9	1.03	136.5	146.3	141.2	1.07
Nyamasheke	93.7	93.2	93.4	1.00	137.8	128.1	132.6	0.93
Rulindo	89.9	96.5	93.0	1.07	134.0	133.5	133.7	1.00
Gakenke	89.6	92.7	91.2	1.03	129.9	127.0	128.5	0.98
Musanze	91.3	92.5	91.9	1.01	131.2	129.0	130.1	0.98
Burera	92.9	97.9	95.1	1.05	151.1	162.2	156.1	1.07
Gicumbi	92.2	92.9	92.5	1.01	132.2	133.9	133.0	1.01
Rwamagana	93.6	96.4	95.1	1.03	142.6	141.2	141.8	0.99
Nyagatare	90.7	87.0	88.9	0.96	137.7	131.2	134.6	0.95
Gatsibo	90.6	94.3	92.6	1.04	130.4	136.4	133.6	1.05
Kayonza	92.3	91.3	91.8	0.99	134.7	143.4	139.0	1.06
Kirehe	88.4	92.5	90.7	1.05	141.4	132.3	136.3	0.94
Ngoma	93.8	92.4	93.1	0.98	139.6	128.6	134.2	0.92
Bugesera	93.5	95.7	94.6	1.02	131.6	148.0	139.5	1.12
SECONDARY SCHOOL								
Nyarugenge	28.1	25.8	26.8	0.92	40.8	28.6	34.2	0.70
Gasabo	35.8	31.7	33.6	0.89	48.3	39.7	43.6	0.82
Kicukiro	31.5	28.4	29.6	0.90	60.2	39.8	47.5	0.66
Nyanza	25.1	20.0	22.8	0.80	28.3	25.8	27.1	0.91
Gisagara	17.6	11.4	14.3	0.65	23.6	21.9	22.7	0.92
Nyaruguru	23.1	27.3	25.2	1.18	30.3	38.5	34.3	1.27
Huye	30.3	39.5	34.9	1.30	43.4	52.5	48.0	1.21
Nyamagabe	26.0	28.9	27.5	1.11	39.2	42.4	40.8	1.08
Ruhango	17.8	29.9	23.5	1.68	30.5	38.7	34.4	1.27
Muhanga	28.9	48.0	37.6	1.66	34.4	68.5	50.0	1.99
Kamonyi	23.7	27.4	25.6	1.16	33.6	34.9	34.3	1.04
Karongi	32.3	38.9	35.2	1.21	47.3	63.7	54.6	1.35
Rutsiro	25.8	35.0	30.1	1.36	33.0	41.6	37.0	1.26
Rubavu	31.5	34.1	32.7	1.08	48.8	52.4	50.5	1.07
Nyabihu	24.9	28.6	26.6	1.15	39.5	38.2	38.9	0.97
Ngororero	19.3	38.2	28.1	1.98	23.7	53.5	37.5	2.26
Rusizi	32.9	40.0	36.5	1.21	51.5	54.5	53.0	1.06
Nyamasheke	29.8	48.2	39.6	1.61	45.2	58.9	52.5	1.30
Rulindo	24.2	36.3	30.0	1.50	34.3	46.7	40.2	1.36
Gakenke	26.2	41.4	34.2	1.58	37.2	49.2	43.6	1.32
Musanze	32.9	46.2	40.4	1.41	48.3	60.3	55.1	1.25
Burera	17.6	20.6	19.3	1.17	26.2	25.3	25.7	0.97
Gicumbi	29.1	36.8	32.9	1.26	35.1	50.9	42.9	1.45
Rwamagana	32.2	29.1	30.6	0.91	43.5	36.9	40.2	0.85
Nyagatare	22.2	18.8	20.5	0.85	29.2	29.9	29.5	1.02
Gatsibo	27.5	29.9	28.7	1.09	39.1	35.4	37.3	0.90
Kayonza	28.6	26.6	27.6	0.93	35.2	40.7	37.9	1.16
Kirehe	21.5	21.2	21.4	0.98	29.1	28.1	28.7	0.97
Ngoma	21.6	28.2	25.0	1.31	30.7	40.5	35.7	1.32
Bugesera	20.4	22.2	21.3	1.09	29.6	30.4	30.0	1.03

[1] The NAR for primary school is the percentage of the primary school age (7-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary school age (13-18 years) population that is attending secondary school. By definition, the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary school age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary school age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
[3] The gender parity index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The gender parity index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Table D2.7 Hand washing

Percentage of households in which the place most often used for washing hands was observed, by district, Rwanda 2014-15

District	Percentage of households where place for washing hands was observed	Number of households
Nyarugenge	6.0	374
Gasabo	14.3	742
Kicukiro	32.2	380
Nyanza	1.1	401
Gisagara	2.1	403
Nyaruguru	29.8	291
Huye	38.6	407
Nyamagabe	11.6	378
Ruhango	12.9	416
Muhanga	13.2	385
Kamonyi	5.2	422
Karongi	1.1	391
Rutsiro	2.6	352
Rubavu	30.1	457
Nyabihu	35.5	319
Ngororero	2.6	419
Rusizi	5.1	438
Nyamasheke	16.7	413
Rulindo	10.0	379
Gakenke	4.4	408
Musanze	5.8	457
Burera	1.2	384
Gicumbi	13.1	463
Rwamagana	9.1	409
Nyagatare	4.6	605
Gatsibo	2.8	568
Kayonza	33.5	401
Kirehe	2.7	385
Ngoma	4.1	439
Bugesera	4.5	414

Table D2.11 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, by district, Rwanda 2014-15

District	Children whose births are registered			Number of children
	Percentage who had a birth certificate	Percentage who did not have a birth certificate	Percentage registered	
Nyarugenge	4.7	51.9	56.6	240
Gasabo	1.3	55.6	57.0	463
Kicukiro	3.2	65.5	68.7	197
Nyanza	0.7	38.2	38.8	253
Gisagara	2.3	38.5	40.8	252
Nyaruguru	1.1	55.3	56.5	196
Huye	1.7	59.5	61.3	226
Nyamagabe	6.6	39.5	46.1	209
Ruhango	0.8	34.3	35.1	221
Muhanga	2.5	66.9	69.4	210
Kamonyi	3.8	52.1	55.8	242
Karongi	4.7	62.9	67.6	218
Rutsiro	1.2	25.7	26.9	240
Rubavu	5.2	28.0	33.2	340
Nyabihu	2.9	38.6	41.5	196
Ngororero	5.2	46.8	52.1	259
Rusizi	2.7	85.3	88.0	320
Nyamasheke	1.2	66.6	67.8	328
Rulindo	4.0	70.1	74.1	209
Gakenke	0.6	75.0	75.6	182
Musanze	3.9	46.9	50.8	245
Burera	2.9	64.5	67.4	236
Gicumbi	8.2	61.4	69.6	277
Rwamagana	2.9	59.1	62.1	283
Nyagatare	1.0	44.0	45.0	401
Gatsibo	1.7	47.4	49.1	386
Kayonza	1.7	52.5	54.2	267
Kirehe	0.4	55.8	56.2	237
Ngoma	2.2	50.3	52.5	312
Bugesera	0.4	70.2	70.6	271

Table D2.12 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, by district, Rwanda 2014-15

		Living with mother but not with father		Living with father but not with mother		Not living with either parent								
District	Living with both parents	Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/ mother	Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
Nyarugenge	65.4	17.0	4.1	2.2	0.5	6.8	0.5	2.2	1.0	0.3	100.0	10.5	8.3	1,847
Gasabo	68.1	15.9	3.9	1.8	0.5	6.1	0.4	2.0	0.9	0.2	100.0	9.5	7.8	1,245
Kicukiro	59.8	19.2	4.5	3.1	0.6	8.2	0.5	2.5	1.2	0.5	100.0	12.4	9.3	602
Nyanza	55.8	23.0	5.0	1.8	0.6	8.7	1.3	2.4	1.0	0.4	100.0	13.4	10.4	797
Gisagara	59.5	18.0	7.8	1.1	0.8	8.0	0.8	1.8	2.0	0.4	100.0	12.5	13.1	863
Nyaruguru	67.8	12.3	4.2	2.2	0.5	10.2	0.6	0.9	0.9	0.5	100.0	12.6	7.1	756
Huye	56.6	20.8	6.0	1.7	0.6	8.7	0.5	2.0	1.6	1.5	100.0	12.8	11.2	781
Nyamagabe	65.0	15.2	5.4	0.9	0.3	9.0	1.5	0.9	1.4	0.3	100.0	12.9	9.6	827
Ruhango	54.0	22.7	4.9	1.3	0.8	9.7	1.7	2.2	1.1	1.6	100.0	14.7	10.8	827
Muhanga	57.8	20.6	4.8	1.4	0.8	9.2	1.7	1.0	0.9	1.9	100.0	12.8	9.1	746
Kamonyi	59.3	18.4	5.3	2.2	1.2	11.0	0.5	1.0	0.7	0.4	100.0	13.2	8.8	845
Karongi	63.9	16.4	4.3	0.7	1.3	8.7	0.6	1.5	1.0	1.5	100.0	11.8	8.7	797
Rutsiro	67.2	15.4	3.1	0.9	0.5	8.3	0.4	1.5	1.0	1.6	100.0	11.2	6.5	787
Rubavu	70.2	10.5	6.8	1.3	2.0	5.7	0.6	0.6	1.6	0.7	100.0	8.5	11.9	1,080
Nyabihu	61.7	16.2	9.2	1.2	0.0	7.1	1.0	1.4	1.9	0.3	100.0	11.5	13.6	686
Ngororero	60.3	18.3	6.3	1.4	0.4	7.4	1.3	3.0	1.0	0.6	100.0	12.7	12.0	885
Rusizi	71.3	13.4	4.7	0.6	1.3	6.2	0.9	0.8	0.4	0.4	100.0	8.2	8.0	1,104
Nyamasheke	66.8	16.9	2.9	0.6	0.4	8.7	0.9	1.3	0.5	1.1	100.0	11.4	6.2	941
Rulindo	61.9	19.3	5.0	0.3	0.7	9.6	1.0	1.4	0.2	0.7	100.0	12.2	8.2	703
Gakenke	65.0	16.5	4.9	1.8	1.2	7.1	0.2	1.2	1.3	0.7	100.0	9.8	8.9	774
Musanze	67.8	12.2	4.9	1.1	0.8	8.7	1.2	1.2	1.0	1.0	100.0	12.1	9.2	1,003
Burera	67.4	13.2	4.6	0.3	0.4	11.5	0.3	1.1	0.8	0.6	100.0	13.6	7.3	941
Gicumbi	66.8	11.4	7.3	0.9	0.4	9.7	0.5	0.9	1.6	0.6	100.0	12.8	10.8	1,019
Rwamagana	57.6	21.7	3.8	1.7	0.1	11.0	1.3	1.2	0.2	1.3	100.0	13.8	6.7	890
Nyagatare	63.5	14.0	5.4	2.5	0.8	9.0	1.7	1.9	0.9	0.4	100.0	13.5	10.7	1,315
Gatsibo	64.1	16.0	6.4	1.1	0.5	8.3	0.9	1.3	0.4	0.9	100.0	11.0	9.7	1,279
Kayonza	59.2	18.2	5.3	2.7	0.7	8.7	0.3	1.8	1.1	2.1	100.0	11.9	9.8	894
Kirehe	61.5	18.9	6.0	1.7	0.3	7.8	0.4	1.5	1.2	0.6	100.0	10.9	9.4	795
Ngoma	62.6	18.1	4.9	3.6	0.6	7.5	0.6	1.1	0.6	0.5	100.0	9.8	7.7	939
Bugesera	61.8	19.0	4.0	1.3	0.2	9.7	1.1	1.9	0.4	0.5	100.0	13.1	7.7	849

Note: Table is based on de jure members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent

Table D2.14 Household bank account and health insurance

Percentage of households in which at least one member has a bank account and is covered by health insurance, and percentage of households with specific types of health insurance, by district, Rwanda 2014-15

District	Percentage of households with at least one member having a bank account	Number of households	Percentage of households with at least one member covered by health insurance	Number of households	Type of insurance					Number of households with at least one member covered by health insurance
					Mutual/community	RAMA (RSSB)	MMI	Private/commercial	Other	
Nyarugenge	60.6	374	72.0	374	94.5	9.5	1.8	3.0	1.4	269
Gasabo	61.9	742	77.6	742	94.4	9.9	1.7	3.7	2.0	576
Kicukiro	72.3	380	82.2	380	91.0	15.1	5.2	9.2	0.5	312
Nyanza	40.2	401	68.3	401	98.2	2.5	1.0	0.6	0.0	273
Gisagara	34.4	403	75.7	403	99.5	3.2	0.0	0.0	0.0	305
Nyaruguru	55.2	291	68.6	291	97.0	5.5	0.8	0.0	0.0	199
Huye	50.4	407	84.9	407	96.2	8.7	1.5	2.6	1.2	346
Nyamagabe	47.5	378	75.2	378	98.6	3.8	0.0	0.6	0.0	284
Ruhango	36.1	416	73.4	416	98.7	3.4	0.0	0.0	0.0	306
Muhanga	55.6	385	72.3	385	97.8	6.5	0.0	0.3	0.2	279
Kamonyi	48.8	422	88.4	422	97.8	5.5	0.5	0.4	0.3	373
Karongi	50.7	391	77.8	391	94.9	9.9	0.3	0.0	0.0	304
Rutsiro	47.9	352	80.1	352	97.7	3.8	0.4	0.1	0.0	282
Rubavu	35.6	457	67.5	457	95.2	6.2	1.5	1.1	0.7	308
Nyabihu	29.6	319	82.7	319	98.9	1.9	1.0	0.0	0.0	264
Ngororero	41.1	419	85.9	419	97.0	5.8	0.8	0.2	0.0	360
Rusizi	43.6	438	79.0	438	97.8	5.5	1.1	0.0	0.0	346
Nyamasheke	39.0	413	76.1	413	96.9	4.3	0.0	0.8	0.0	315
Rulindo	48.2	379	77.2	379	97.7	3.5	0.7	0.6	0.1	293
Gakenke	56.4	408	90.9	408	97.3	5.8	0.0	0.0	0.0	371
Musanze	39.6	457	84.1	457	97.6	5.1	1.3	0.7	0.3	384
Burera	34.4	384	86.8	384	98.5	4.3	0.4	0.4	0.0	333
Gicumbi	31.4	463	82.9	463	96.6	5.6	0.4	0.3	0.9	384
Rwamagana	51.4	409	81.8	409	97.5	5.9	1.0	0.0	0.0	335
Nyagatare	38.9	605	78.5	605	97.7	3.9	0.0	0.0	0.0	475
Gatsibo	44.0	568	77.5	568	98.1	2.7	0.9	0.0	0.4	440
Kayonza	54.8	401	82.7	401	96.3	3.2	0.9	1.0	0.0	332
Kirehe	39.7	385	73.0	385	98.5	2.7	0.6	0.0	0.0	281
Ngoma	45.9	439	78.1	439	96.7	6.2	2.2	0.2	0.1	343
Bugesera	44.5	414	78.8	414	99.4	2.5	0.4	0.4	0.2	327

Table D2.15 Health insurance among adult women and men

Percentage of respondents covered by health insurance, and percent distribution of respondents with specific types of health insurance, by district, Rwanda 2014-15

District	Percentage of respondents covered by health insurance	Number of respondents	Type of insurance							Number of respondents covered by health insurance
			Mutual/community	RAMA (RSSB)	MMI	Private/ com-mercial	Other	Don't know/ missing	Total	
				WOMEN						
Nyarugenge	68.0	452	90.3	5.6	0.9	1.4	1.5	0.4	100.0	307
Gasabo	73.5	863	88.3	7.9	1.1	1.9	0.8	0.0	100.0	634
Kicukiro	80.1	484	83.9	7.7	3.3	4.7	0.4	0.0	100.0	388
Nyanza	60.1	375	96.4	1.4	1.2	0.7	0.0	0.4	100.0	226
Gisagara	70.8	418	97.8	2.2	0.0	0.0	0.0	0.0	100.0	296
Nyaruguru	59.6	304	93.5	4.6	1.4	0.0	0.0	0.5	100.0	181
Huye	81.7	423	87.5	6.9	1.5	2.0	1.2	0.9	100.0	346
Nyamagabe	66.9	416	97.7	1.8	0.0	0.5	0.0	0.0	100.0	279
Ruhango	69.4	402	95.8	3.8	0.0	0.0	0.0	0.4	100.0	279
Muhanga	67.7	415	92.0	6.5	0.0	0.7	0.4	0.3	100.0	281
Kamonyi	85.5	460	95.4	3.6	0.5	0.2	0.3	0.0	100.0	393
Karongi	69.3	412	91.6	8.1	0.0	0.0	0.0	0.3	100.0	286
Rutsiro	72.8	339	96.2	3.7	0.1	0.0	0.0	0.0	100.0	247
Rubavu	58.5	488	88.7	8.1	1.7	0.8	0.4	0.4	100.0	285
Nyabihu	78.3	327	97.0	1.9	1.1	0.0	0.0	0.0	100.0	256
Ngororero	80.9	428	95.5	3.5	0.9	0.1	0.0	0.0	100.0	346
Rusizi	74.3	543	95.6	3.5	0.9	0.0	0.0	0.0	100.0	404
Nyamasheke	69.1	428	95.6	3.2	0.0	1.2	0.0	0.0	100.0	296
Rulindo	76.1	377	95.7	3.0	0.7	0.1	0.1	0.4	100.0	287
Gakenke	89.3	422	97.1	2.9	0.0	0.0	0.0	0.0	100.0	377
Musanze	80.8	505	93.3	4.8	0.9	0.7	0.3	0.0	100.0	408
Burera	82.0	421	97.3	2.3	0.4	0.0	0.0	0.0	100.0	345
Gicumbi	75.4	485	94.3	3.9	0.5	0.3	1.0	0.0	100.0	366
Rwamagana	79.9	455	95.2	4.3	0.6	0.0	0.0	0.0	100.0	363
Nyagatare	75.9	597	98.3	1.7	0.0	0.0	0.0	0.0	100.0	453
Gatsibo	75.2	600	97.2	1.8	0.9	0.0	0.0	0.0	100.0	451
Kayonza	77.9	416	94.3	3.6	0.7	0.9	0.0	0.6	100.0	324
Kirehe	65.8	356	96.9	2.3	0.7	0.0	0.0	0.1	100.0	234
Ngoma	71.4	482	92.9	5.0	1.7	0.1	0.0	0.3	100.0	344
Bugesera	77.0	401	97.0	2.0	0.2	0.4	0.2	0.2	100.0	309
				MEN						
Nyarugenge	65.5	219	87.8	7.2	1.1	2.5	0.8	0.6	100.0	143
Gasabo	69.3	421	84.9	7.1	1.6	2.8	3.6	0.0	100.0	292
Kicukiro	71.8	223	82.4	8.0	1.4	8.1	0.0	0.0	100.0	160
Nyanza	58.3	182	95.1	4.2	0.0	0.0	0.0	0.7	100.0	106
Gisagara	71.2	179	94.1	5.9	0.0	0.0	0.0	0.0	100.0	127
Nyaruguru	56.5	149	95.9	4.1	0.0	0.0	0.0	0.0	100.0	84
Huye	81.7	210	89.5	7.0	0.0	2.2	1.3	0.0	100.0	172
Nyamagabe	70.9	196	96.5	2.5	0.0	0.3	0.0	0.7	100.0	139
Ruhango	75.4	197	96.4	2.8	0.0	0.0	0.0	0.8	100.0	149
Muhanga	62.4	191	95.5	4.0	0.0	0.0	0.5	0.0	100.0	119
Kamonyi	80.9	217	95.2	4.4	0.0	0.4	0.0	0.0	100.0	176
Karongi	69.5	199	92.1	7.1	0.7	0.0	0.0	0.0	100.0	138
Rutsiro	68.9	156	96.6	2.4	0.9	0.1	0.0	0.0	100.0	107
Rubavu	58.6	242	95.9	2.4	1.7	0.0	0.0	0.0	100.0	142
Nyabihu	80.0	129	98.5	1.5	0.0	0.0	0.0	0.0	100.0	103
Ngororero	87.9	178	93.9	5.9	0.2	0.0	0.0	0.0	100.0	157
Rusizi	77.4	250	95.8	4.2	0.0	0.0	0.0	0.0	100.0	193
Nyamasheke	73.1	169	96.1	2.8	0.0	1.1	0.0	0.0	100.0	123
Rulindo	71.4	157	98.1	1.9	0.0	0.0	0.0	0.0	100.0	112
Gakenke	88.7	175	96.9	3.1	0.0	0.0	0.0	0.0	100.0	155
Musanze	78.8	218	95.4	3.9	0.0	0.0	0.7	0.0	100.0	172
Burera	83.7	168	95.4	3.6	0.0	1.0	0.0	0.0	100.0	141
Gicumbi	77.0	231	95.7	2.7	0.3	0.6	0.7	0.0	100.0	178
Rwamagana	77.2	207	89.6	9.8	0.6	0.0	0.0	0.0	100.0	160
Nyagatare	73.0	287	96.4	3.6	0.0	0.0	0.0	0.0	100.0	210
Gatsibo	78.1	278	98.7	0.7	0.6	0.0	0.0	0.0	100.0	217
Kayonza	74.7	195	94.5	3.9	0.0	1.6	0.0	0.0	100.0	146
Kirehe	67.2	185	96.2	3.8	0.0	0.0	0.0	0.0	100.0	125
Ngoma	67.4	222	92.9	6.7	0.4	0.0	0.0	0.0	100.0	150
Bugesera	72.6	187	98.5	1.5	0.0	0.0	0.0	0.0	100.0	136

Table D3.1 Distribution of respondents by district

Percent distribution of women and men age 15-49, by district, Rwanda 2014-15

District	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Nyarugenge	3.4	452	637	3.9	219	301
Gasabo	6.4	863	586	7.5	421	280
Kicukiro	3.6	484	653	4.0	223	301
Nyanza	2.8	375	385	3.3	182	192
Gisagara	3.1	419	427	3.2	179	187
Nyaruguru	2.2	304	424	2.7	149	216
Huye	3.1	423	439	3.8	210	224
Nyamagabe	3.1	417	453	3.5	196	210
Ruhango	3.0	402	403	3.5	197	195
Muhanga	3.1	415	447	3.4	191	207
Kamonyi	3.4	460	457	3.9	217	216
Karongi	3.1	412	428	3.6	199	208
Rutsiro	2.5	339	411	2.8	156	180
Rubavu	3.6	488	434	4.3	242	217
Nyabihu	2.4	327	418	2.3	129	162
Ngororero	3.2	428	426	3.2	178	178
Rusizi	4.0	543	512	4.5	250	236
Nyamasheke	3.2	428	431	3.0	169	172
Rulindo	2.8	377	414	2.8	157	175
Gakenke	3.1	422	427	3.1	175	172
Musanze	3.7	506	450	3.9	218	194
Burera	3.1	421	450	3.0	168	182
Gicumbi	3.6	485	429	4.1	231	202
Rwamagana	3.4	455	454	3.7	207	205
Nyagatare	4.4	597	405	5.1	287	201
Gatsibo	4.4	600	435	5.0	278	202
Kayonza	3.1	416	433	3.5	195	202
Kirehe	2.6	356	375	3.3	185	200
Ngoma	3.6	482	457	4.0	222	211
Bugesera	3.0	401	397	3.4	187	189

Table D3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, by district, Rwanda 2014-15

District	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Nyarugenge	4.2	29.9	21.9	21.5	11.2	11.3	100.0	5.8	1,347
Gasabo	4.4	31.7	24.1	22.1	9.4	8.3	100.0	5.6	863
Kicukiro	3.9	26.7	17.9	20.5	14.4	16.7	100.0	7.0	484
Nyanza	13.7	43.8	28.7	10.4	2.0	1.4	100.0	4.3	375
Gisagara	16.5	54.4	19.2	7.9	1.8	0.2	100.0	3.3	418
Nyaruguru	18.2	40.5	19.4	17.1	4.4	0.4	100.0	4.2	304
Huye	8.2	36.8	26.1	18.1	5.1	5.8	100.0	5.2	423
Nyamagabe	15.2	47.2	17.4	16.4	2.7	1.1	100.0	4.2	416
Ruhango	9.6	49.8	19.3	16.8	3.6	0.9	100.0	4.4	402
Muhanga	7.7	45.0	21.6	17.9	5.5	2.3	100.0	4.8	415
Kamonyi	5.9	41.7	31.0	14.2	4.9	2.3	100.0	5.1	460
Karongi	9.3	44.6	16.0	20.2	7.9	1.9	100.0	4.7	412
Rutsiro	19.2	50.2	16.4	10.7	3.0	0.5	100.0	3.7	339
Rubavu	18.1	42.5	14.2	16.4	4.1	4.6	100.0	4.0	488
Nyabihu	18.2	46.2	18.4	14.3	2.2	0.6	100.0	4.1	327
Ngororero	22.0	40.0	20.2	12.0	3.1	2.7	100.0	3.9	428
Rusizi	11.8	40.7	22.2	18.1	6.1	1.1	100.0	4.8	543
Nyamasheke	8.7	49.1	23.7	13.7	4.1	0.5	100.0	4.4	428
Rulindo	9.1	41.3	28.2	16.0	3.7	1.7	100.0	5.0	377
Gakenke	8.2	44.9	25.7	15.6	4.9	0.7	100.0	4.8	422
Musanze	11.8	43.7	17.4	19.2	6.0	1.9	100.0	4.6	505
Burera	15.2	50.9	18.0	13.0	2.4	0.6	100.0	3.8	421
Gicumbi	12.1	36.3	29.5	17.0	2.7	2.4	100.0	5.1	485
Rwamagana	9.8	40.1	27.3	16.3	4.5	2.0	100.0	5.0	455
Nyagatare	21.5	42.6	18.0	13.7	2.6	1.5	100.0	3.9	597
Gatsibo	17.4	47.9	19.1	12.2	3.0	0.3	100.0	3.9	600
Kayonza	13.9	43.3	23.3	14.7	3.4	1.4	100.0	4.5	416
Kirehe	17.2	54.4	15.5	8.5	3.2	1.2	100.0	3.1	356
Ngoma	13.0	45.4	22.6	14.1	3.4	1.5	100.0	4.1	482
Bugesera	14.9	43.4	23.3	14.1	3.1	1.1	100.0	4.3	401

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

Table D3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, by district, Rwanda 2014-15

District	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Nyarugenge	4.6	31.0	23.8	15.0	11.8	13.8	100.0	5.7	644
Gasabo	4.8	32.2	25.7	14.5	10.2	12.7	100.0	5.5	421
Kicukiro	4.3	28.8	20.2	16.0	14.8	15.9	100.0	6.0	223
Nyanza	14.4	45.2	18.4	13.7	5.2	3.0	100.0	3.8	182
Gisagara	13.4	58.3	15.8	7.7	2.3	2.5	100.0	3.4	179
Nyaruguru	21.6	43.7	15.7	16.3	2.3	0.6	100.0	3.9	149
Huye	11.2	37.3	21.5	14.9	7.5	7.7	100.0	5.1	210
Nyamagabe	11.9	46.6	21.9	12.3	4.3	3.0	100.0	4.4	196
Ruhango	8.5	47.8	24.8	14.4	0.9	3.6	100.0	4.4	197
Muhanga	4.9	48.7	30.1	11.5	2.9	2.0	100.0	4.7	191
Kamonyi	7.8	43.1	29.0	15.0	3.1	2.1	100.0	4.9	217
Karongi	11.4	38.7	23.1	16.7	4.3	5.9	100.0	5.0	199
Rutsiro	17.5	54.7	16.4	9.4	1.6	0.5	100.0	3.5	156
Rubavu	17.2	31.3	13.8	24.0	9.4	4.2	100.0	5.1	242
Nyabihu	17.5	41.7	18.9	16.2	4.4	1.2	100.0	4.1	129
Ngororero	14.1	57.6	13.5	7.1	5.4	2.3	100.0	4.2	178
Rusizi	9.2	39.3	24.1	21.8	4.7	0.9	100.0	5.1	250
Nyamasheke	10.6	47.9	23.7	10.8	3.6	3.5	100.0	4.3	169
Rulindo	10.1	47.2	28.3	10.2	2.0	2.2	100.0	4.5	157
Gakenke	10.0	40.4	33.6	10.0	4.5	1.6	100.0	5.0	175
Musanze	10.6	48.5	16.6	15.2	4.4	4.7	100.0	4.1	218
Burera	11.1	46.1	21.4	15.0	2.5	3.8	100.0	4.5	168
Gicumbi	13.7	36.4	29.6	13.7	6.2	0.5	100.0	5.0	231
Rwamagana	6.9	45.5	20.7	17.9	4.1	4.9	100.0	4.8	207
Nyagatare	14.1	37.2	28.7	12.6	4.1	3.3	100.0	4.8	287
Gatsibo	13.8	58.8	9.9	15.0	2.1	0.4	100.0	4.0	278
Kayonza	12.6	50.6	20.4	13.5	0.7	2.2	100.0	4.2	195
Kirehe	9.6	49.6	21.5	12.3	6.0	0.9	100.0	4.2	185
Ngoma	12.3	42.7	19.3	16.7	4.2	4.8	100.0	4.3	222
Bugesera	7.4	49.0	15.2	17.6	7.4	3.4	100.0	4.5	187

[1] Completed 6th grade (for 6-grade system) and 8th grade (for 8-grade system) at the primary level or were in vocational school.
[2] Completed 6th grade at the secondary level

Table D3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, by district, Rwanda 2014-15

		No schooling or primary school								
District	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number of women
Nyarugenge	44.0	45.5	3.2	7.2	0.0	0.0	0.1	100.0	92.8	1,347
Gasabo	39.8	50.1	2.2	7.9	0.0	0.0	0.0	100.0	92.1	863
Kicukiro	51.6	37.2	5.1	5.8	0.0	0.0	0.2	100.0	93.9	484
Nyanza	13.8	60.0	2.7	22.8	0.0	0.7	0.0	100.0	76.5	375
Gisagara	9.9	50.7	8.5	30.9	0.0	0.0	0.0	100.0	69.1	418
Nyaruguru	21.9	41.9	8.8	27.2	0.0	0.0	0.1	100.0	72.7	304
Huye	28.9	50.3	4.2	16.4	0.0	0.2	0.0	100.0	83.4	423
Nyamagabe	20.2	50.3	6.0	23.3	0.0	0.2	0.0	100.0	76.5	416
Ruhango	21.3	56.3	7.8	14.4	0.0	0.0	0.2	100.0	85.4	402
Muhanga	25.7	54.3	6.8	13.1	0.0	0.0	0.0	100.0	86.9	415
Kamonyi	21.4	60.1	4.7	13.8	0.0	0.0	0.0	100.0	86.2	460
Karongi	30.0	48.6	3.4	18.0	0.0	0.0	0.0	100.0	82.0	412
Rutsiro	14.3	53.7	5.3	26.8	0.0	0.0	0.0	100.0	73.2	339
Rubavu	25.1	39.9	11.3	23.7	0.0	0.0	0.0	100.0	76.3	488
Nyabihu	17.1	46.9	12.2	23.8	0.0	0.0	0.0	100.0	76.2	327
Ngororero	17.8	43.2	13.5	25.2	0.0	0.3	0.0	100.0	74.5	428
Rusizi	25.3	51.7	3.5	19.1	0.0	0.0	0.4	100.0	80.4	543
Nyamasheke	18.4	55.9	6.6	19.1	0.0	0.0	0.0	100.0	80.9	428
Rulindo	21.4	48.9	12.2	17.4	0.0	0.0	0.0	100.0	82.6	377
Gakenke	21.2	51.8	6.5	20.5	0.0	0.0	0.0	100.0	79.5	422
Musanze	27.1	51.7	4.5	15.8	0.5	0.2	0.2	100.0	83.2	505
Burera	16.0	53.6	4.2	25.2	0.3	0.5	0.2	100.0	73.7	421
Gicumbi	22.1	32.5	25.5	19.5	0.0	0.0	0.4	100.0	80.1	485
Rwamagana	22.8	57.5	3.5	16.2	0.0	0.0	0.0	100.0	83.8	455
Nyagatare	17.9	37.4	16.2	28.4	0.0	0.0	0.0	100.0	71.6	597
Gatsibo	15.5	48.6	9.5	25.9	0.0	0.2	0.4	100.0	73.6	600
Kayonza	19.5	55.3	4.6	20.4	0.0	0.0	0.3	100.0	79.3	416
Kirehe	12.9	54.4	6.2	26.5	0.0	0.0	0.0	100.0	73.5	356
Ngoma	18.9	49.6	3.9	27.3	0.0	0.2	0.0	100.0	72.5	482
Bugesera	18.4	53.6	10.9	16.5	0.0	0.0	0.6	100.0	82.9	401

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Table D3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, by district, Rwanda 2014-15

		No schooling or primary school								
District	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Missing	Total	Percent-age literate[1]	Number of men
Nyarugenge	40.6	45.6	6.4	7.1	0.0	0.0	0.4	100.0	92.5	644
Gasabo	37.4	49.4	4.4	8.4	0.0	0.0	0.4	100.0	91.2	421
Kicukiro	46.7	38.3	10.0	4.7	0.0	0.0	0.3	100.0	95.0	223
Nyanza	22.0	49.8	4.2	24.0	0.0	0.0	0.0	100.0	76.0	182
Gisagara	12.5	54.0	7.1	26.4	0.0	0.0	0.0	100.0	73.6	179
Nyaruguru	19.1	42.9	14.3	23.7	0.0	0.0	0.0	100.0	76.3	149
Huye	30.1	35.3	15.4	18.8	0.0	0.0	0.4	100.0	80.8	210
Nyamagabe	19.6	53.2	4.1	23.0	0.0	0.0	0.0	100.0	77.0	196
Ruhango	18.9	53.1	11.9	16.1	0.0	0.0	0.0	100.0	83.9	197
Muhanga	16.3	62.1	3.6	17.4	0.0	0.5	0.0	100.0	82.1	191
Kamonyi	20.2	56.9	5.3	17.2	0.0	0.0	0.5	100.0	82.4	217
Karongi	26.9	53.4	1.8	17.1	0.0	0.0	0.9	100.0	82.0	199
Rutsiro	11.4	58.6	3.3	26.7	0.0	0.0	0.0	100.0	73.3	156
Rubavu	37.6	17.4	21.9	23.0	0.0	0.0	0.0	100.0	77.0	242
Nyabihu	21.9	31.0	26.1	21.0	0.0	0.0	0.0	100.0	79.0	129
Ngororero	14.8	60.1	6.2	18.8	0.0	0.0	0.0	100.0	81.2	178
Rusizi	27.4	50.4	0.9	20.5	0.0	0.4	0.4	100.0	78.7	250
Nyamasheke	17.8	52.7	11.7	17.8	0.0	0.0	0.0	100.0	82.2	169
Rulindo	14.4	51.4	20.4	13.8	0.0	0.0	0.0	100.0	86.2	157
Gakenke	16.1	54.4	6.1	23.4	0.0	0.0	0.0	100.0	76.6	175
Musanze	24.3	54.6	6.1	15.0	0.0	0.0	0.0	100.0	85.0	218
Burera	21.4	56.7	3.9	18.0	0.0	0.0	0.0	100.0	82.0	168
Gicumbi	20.4	51.7	7.7	19.7	0.0	0.0	0.5	100.0	79.7	231
Rwamagana	26.9	53.2	2.8	16.6	0.0	0.0	0.5	100.0	82.8	207
Nyagatare	20.0	56.7	8.7	14.6	0.0	0.0	0.0	100.0	85.4	287
Gatsibo	17.5	55.4	9.7	16.8	0.0	0.5	0.0	100.0	82.6	278
Kayonza	16.5	61.0	10.2	12.4	0.0	0.0	0.0	100.0	87.6	195
Kirehe	19.2	55.5	4.5	20.8	0.0	0.0	0.0	100.0	79.2	185
Ngoma	25.7	49.6	5.1	19.6	0.0	0.0	0.0	100.0	80.4	222
Bugesera	28.4	55.9	4.8	11.0	0.0	0.0	0.0	100.0	89.0	187

[1] Refers to men who attended secondary school or higher and men who can read a whole sentence or part of a sentence

Table D3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by district, Rwanda 2014-15

District	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Nyarugenge	9.0	48.5	78.4	6.8	17.4	452
Gasabo	8.0	49.4	81.3	5.2	14.5	863
Kicukiro	13.9	60.2	81.5	10.9	11.5	484
Nyanza	10.7	7.7	62.5	2.2	36.0	375
Gisagara	5.8	7.3	60.8	1.0	38.3	418
Nyaruguru	1.7	2.4	62.3	0.3	37.4	304
Huye	5.7	20.5	51.4	4.1	45.8	423
Nyamagabe	10.2	9.8	70.6	2.9	27.9	416
Ruhango	2.1	6.4	60.1	0.9	39.3	402
Muhanga	6.1	14.2	69.2	1.8	29.1	415
Kamonyi	5.8	15.1	69.8	2.4	29.1	460
Karongi	2.9	9.8	61.4	0.6	37.2	412
Rutsiro	4.0	5.5	51.9	0.6	46.9	339
Rubavu	3.0	18.8	42.9	2.3	52.2	488
Nyabihu	0.8	1.3	28.9	0.0	69.9	327
Ngororero	9.7	5.4	50.8	0.8	44.7	428
Rusizi	4.5	12.9	65.6	2.3	33.9	543
Nyamasheke	6.6	7.6	57.3	1.1	40.3	428
Rulindo	7.5	11.8	65.8	2.4	33.9	377
Gakenke	3.3	6.5	68.1	0.3	30.2	422
Musanze	9.8	25.3	74.6	5.4	22.2	505
Burera	4.4	10.2	66.6	1.8	32.3	421
Gicumbi	2.8	4.7	40.8	0.6	58.0	485
Rwamagana	5.0	18.6	64.3	2.3	33.7	455
Nyagatare	0.3	5.7	40.5	0.3	58.6	597
Gatsibo	4.7	10.7	63.4	1.9	34.9	600
Kayonza	3.1	7.7	61.7	1.0	36.8	416
Kirehe	3.2	3.5	64.0	0.2	35.0	356
Ngoma	2.9	10.9	53.1	1.3	45.2	482
Bugesera	21.9	11.4	55.5	4.6	38.5	401

Table D3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by district, Rwanda 2014-15

District	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Nyarugenge	22.4	63.2	91.4	15.5	4.8	219
Gasabo	42.7	64.8	91.6	38.3	7.3	421
Kicukiro	42.7	66.7	85.4	36.5	9.3	223
Nyanza	1.4	7.4	72.5	1.1	26.9	182
Gisagara	6.1	15.2	93.6	3.0	5.8	179
Nyaruguru	2.9	2.8	52.0	0.4	46.7	149
Huye	13.9	20.6	73.6	9.1	24.9	210
Nyamagabe	2.6	6.0	68.0	0.8	31.5	196
Ruhango	0.6	3.8	46.8	0.6	53.2	197
Muhanga	4.4	23.4	74.5	2.0	24.1	191
Kamonyi	14.5	35.5	78.3	9.8	19.0	217
Karongi	8.7	20.7	74.4	4.0	23.5	199
Rutsiro	8.8	4.0	75.7	0.0	23.0	156
Rubavu	9.8	28.1	70.8	6.6	25.8	242
Nyabihu	1.6	4.8	35.7	1.1	64.3	129
Ngororero	15.0	20.7	94.7	8.6	4.1	178
Rusizi	3.8	41.3	91.2	2.6	8.1	250
Nyamasheke	8.5	10.5	54.9	3.6	43.2	169
Rulindo	6.1	23.9	94.7	3.8	5.3	157
Gakenke	6.9	31.8	94.6	2.5	3.5	175
Musanze	16.0	35.4	89.6	8.0	9.4	218
Burera	5.0	17.5	85.2	3.2	14.2	168
Gicumbi	4.5	7.1	58.6	0.5	41.4	231
Rwamagana	2.0	19.1	71.2	1.6	27.8	207
Nyagatare	14.4	9.6	73.2	2.4	25.3	287
Gatsibo	8.0	28.7	82.2	5.3	15.3	278
Kayonza	61.6	64.5	96.1	47.2	3.9	195
Kirehe	2.7	33.9	90.6	2.4	7.8	185
Ngoma	9.6	38.4	79.9	3.2	16.3	222
Bugesera	25.7	45.5	98.4	17.8	1.6	187

Table D3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to district, Rwanda 2014-15

District	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed[1]	Not currently employed				
Nyarugenge	58.9	19.7	21.4	0.0	100.0	452
Gasabo	67.8	8.3	24.0	0.0	100.0	863
Kicukiro	65.5	5.1	29.4	0.0	100.0	484
Nyanza	86.6	0.8	12.6	0.0	100.0	375
Gisagara	83.6	13.4	2.9	0.0	100.0	418
Nyaruguru	86.8	5.2	8.0	0.0	100.0	304
Huye	65.7	19.8	14.5	0.0	100.0	423
Nyamagabe	83.4	6.6	9.7	0.2	100.0	416
Ruhango	85.1	0.6	13.7	0.5	100.0	402
Muhanga	84.0	4.8	11.2	0.0	100.0	415
Kamonyi	81.1	3.5	15.1	0.3	100.0	460
Karongi	91.1	5.3	3.5	0.0	100.0	412
Rutsiro	90.0	5.4	4.6	0.0	100.0	339
Rubavu	45.3	6.3	48.4	0.0	100.0	488
Nyabihu	62.6	1.6	35.8	0.0	100.0	327
Ngororero	89.9	3.5	6.7	0.0	100.0	428
Rusizi	72.6	5.5	21.9	0.0	100.0	543
Nyamasheke	92.1	3.7	4.0	0.3	100.0	428
Rulindo	75.2	20.0	4.8	0.0	100.0	377
Gakenke	87.1	9.0	4.0	0.0	100.0	422
Musanze	74.1	10.1	15.8	0.0	100.0	505
Burera	82.3	4.6	13.1	0.0	100.0	421
Gicumbi	82.6	3.0	14.4	0.0	100.0	485
Rwamagana	80.9	8.9	10.2	0.0	100.0	455
Nyagatare	84.7	0.6	14.6	0.0	100.0	597
Gatsibo	46.4	38.8	14.8	0.0	100.0	600
Kayonza	87.8	5.3	6.9	0.0	100.0	416
Kirehe	92.0	2.5	5.3	0.2	100.0	356
Ngoma	91.6	5.8	2.6	0.1	100.0	482
Bugesera	86.4	1.3	12.3	0.0	100.0	401

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table D3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to district, Rwanda 2014-15

District	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of men
	Currently employed[1]	Not currently employed				
Nyarugenge	87.0	2.5	10.5	0.0	100.0	219
Gasabo	81.7	1.3	17.0	0.0	100.0	421
Kicukiro	80.9	0.0	19.1	0.0	100.0	223
Nyanza	83.4	3.2	13.5	0.0	100.0	182
Gisagara	89.4	0.0	10.6	0.0	100.0	179
Nyaruguru	95.6	0.6	3.8	0.0	100.0	149
Huye	86.6	2.4	10.0	1.0	100.0	210
Nyamagabe	96.5	0.5	2.8	0.2	100.0	196
Ruhango	77.3	0.0	21.2	1.5	100.0	197
Muhanga	88.7	0.0	11.0	0.3	100.0	191
Kamonyi	90.8	0.3	8.9	0.0	100.0	217
Karongi	92.3	2.4	5.3	0.0	100.0	199
Rutsiro	97.6	1.3	1.1	0.0	100.0	156
Rubavu	76.9	4.6	18.5	0.0	100.0	242
Nyabihu	82.9	0.0	17.1	0.0	100.0	129
Ngororero	92.9	2.0	5.1	0.0	100.0	178
Rusizi	76.9	0.9	22.2	0.0	100.0	250
Nyamasheke	77.1	4.0	18.9	0.0	100.0	169
Rulindo	93.2	1.2	5.5	0.0	100.0	157
Gakenke	99.4	0.0	0.6	0.0	100.0	175
Musanze	81.4	3.0	15.6	0.0	100.0	218
Burera	80.7	0.6	18.7	0.0	100.0	168
Gicumbi	85.9	0.5	13.6	0.0	100.0	231
Rwamagana	93.4	1.0	5.6	0.0	100.0	207
Nyagatare	86.4	1.4	11.8	0.5	100.0	287
Gatsibo	76.0	7.3	16.7	0.0	100.0	278
Kayonza	83.1	0.5	16.4	0.0	100.0	195
Kirehe	87.8	1.4	10.8	0.0	100.0	185
Ngoma	93.8	1.3	4.9	0.0	100.0	222
Bugesera	84.9	1.3	13.8	0.0	100.0	187

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table D3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, by district, Rwanda 2014-15

District	Profes-sional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agricul-ture	Missing	Total	Number of women
Nyarugenge	4.9	1.3	35.9	8.0	7.5	25.5	16.4	0.5	100.0	355
Gasabo	5.8	2.3	34.1	6.9	6.1	11.8	32.8	0.2	100.0	656
Kicukiro	10.2	3.0	35.6	7.6	4.3	25.3	14.0	0.0	100.0	342
Nyanza	1.4	0.2	3.5	2.8	0.0	1.8	90.3	0.0	100.0	328
Gisagara	2.0	0.0	1.4	2.9	0.3	1.1	92.2	0.0	100.0	406
Nyaruguru	2.8	0.0	8.5	0.7	1.3	1.5	84.9	0.3	100.0	279
Huye	6.1	1.2	17.1	3.1	0.0	4.7	66.1	1.8	100.0	362
Nyamagabe	1.6	0.0	8.7	0.6	1.6	0.8	86.6	0.0	100.0	375
Ruhango	2.0	0.3	7.7	6.2	2.7	3.1	77.9	0.3	100.0	345
Muhanga	3.4	0.7	8.0	2.1	2.4	3.4	79.2	0.8	100.0	369
Kamonyi	3.8	0.2	8.8	1.9	0.7	4.2	80.3	0.0	100.0	389
Karongi	3.7	0.5	7.9	0.7	0.9	2.7	83.5	0.0	100.0	397
Rutsiro	2.3	0.0	5.0	1.2	1.8	1.6	87.0	1.1	100.0	324
Rubavu	3.2	2.3	37.6	4.4	10.6	5.4	36.5	0.0	100.0	252
Nyabihu	2.1	0.0	10.7	2.6	2.1	0.4	82.1	0.0	100.0	210
Ngororero	2.0	0.1	4.0	0.8	0.2	1.2	91.7	0.0	100.0	399
Rusizi	2.3	0.5	17.1	1.6	0.5	3.1	74.1	0.7	100.0	424
Nyamasheke	1.5	0.0	5.6	0.9	1.4	0.3	89.8	0.6	100.0	410
Rulindo	2.0	0.3	7.0	1.5	4.3	2.3	78.7	3.8	100.0	359
Gakenke	2.2	0.0	3.6	2.9	0.3	0.6	90.6	0.0	100.0	405
Musanze	1.6	0.5	20.2	3.2	4.3	2.4	67.9	0.0	100.0	426
Burera	2.7	0.0	4.0	3.2	0.6	2.1	87.3	0.0	100.0	366
Gicumbi	2.9	0.1	7.4	0.6	0.0	0.4	88.5	0.0	100.0	415
Rwamagana	2.1	0.2	7.1	2.1	3.8	3.6	80.1	0.9	100.0	408
Nyagatare	2.2	0.0	5.6	2.8	2.2	0.8	86.5	0.0	100.0	510
Gatsibo	2.0	0.0	6.7	1.3	0.1	1.1	88.3	0.5	100.0	511
Kayonza	2.2	0.0	6.6	1.3	0.8	0.6	88.3	0.3	100.0	388
Kirehe	1.3	0.0	2.7	1.7	0.0	0.8	93.5	0.0	100.0	337
Ngoma	2.2	0.1	4.4	1.8	1.6	2.2	87.8	0.0	100.0	469
Bugesera	1.0	0.4	6.5	3.6	0.4	3.6	84.5	0.0	100.0	352

Table D3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, by district, Rwanda 2014-15

District	Profes-sional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agricul-ture	Missing	Total	Number of men
Nyarugenge	9.5	1.8	24.2	28.6	18.3	5.8	11.8	0.0	100.0	196
Gasabo	10.2	1.3	20.3	29.3	11.1	5.8	22.0	0.0	100.0	350
Kicukiro	10.6	1.6	20.8	32.9	15.7	10.5	7.8	0.0	100.0	180
Nyanza	3.9	0.0	4.3	4.8	5.6	3.5	77.8	0.0	100.0	157
Gisagara	4.6	0.0	4.0	5.0	1.7	0.0	83.9	0.8	100.0	160
Nyaruguru	2.1	0.1	4.2	5.5	6.8	1.3	80.0	0.0	100.0	144
Huye	8.6	0.0	11.1	10.3	8.9	6.0	55.1	0.0	100.0	187
Nyamagabe	2.6	0.0	5.1	4.9	7.3	0.0	80.1	0.0	100.0	190
Ruhango	3.2	0.0	7.3	5.9	5.4	2.6	75.6	0.0	100.0	152
Muhanga	1.9	0.4	6.9	11.8	7.6	0.5	69.2	1.7	100.0	169
Kamonyi	3.9	0.3	10.4	10.2	6.5	3.9	65.0	0.0	100.0	198
Karongi	8.4	0.0	7.4	6.6	6.0	0.9	70.6	0.0	100.0	189
Rutsiro	1.7	0.8	6.2	6.4	8.6	0.4	75.9	0.0	100.0	154
Rubavu	5.1	0.0	16.1	20.1	19.7	2.3	36.8	0.0	100.0	197
Nyabihu	0.9	0.0	5.0	10.2	6.9	3.7	73.4	0.0	100.0	107
Ngororero	5.3	0.0	10.1	5.2	11.3	1.1	67.1	0.0	100.0	169
Rusizi	4.6	0.6	6.6	11.5	7.2	2.0	67.6	0.0	100.0	194
Nyamasheke	4.3	0.0	8.0	12.8	8.4	0.8	65.8	0.0	100.0	137
Rulindo	1.7	0.0	6.6	6.8	21.6	1.4	61.8	0.0	100.0	148
Gakenke	2.9	0.6	7.0	7.6	9.2	1.3	71.4	0.0	100.0	174
Musanze	4.1	0.6	11.9	15.4	9.7	0.4	57.8	0.0	100.0	184
Burera	4.0	0.0	5.6	10.1	3.7	0.7	75.9	0.0	100.0	137
Gicumbi	2.8	1.5	9.2	7.0	11.7	2.0	65.8	0.0	100.0	199
Rwamagana	5.4	0.0	12.2	14.0	11.6	4.3	52.4	0.0	100.0	196
Nyagatare	5.4	0.0	9.6	10.6	8.6	0.8	64.9	0.0	100.0	252
Gatsibo	1.9	0.3	14.8	9.9	5.5	0.3	67.3	0.0	100.0	231
Kayonza	2.9	0.0	6.5	10.6	6.1	1.9	72.1	0.0	100.0	163
Kirehe	4.1	0.2	7.2	3.8	2.4	4.5	77.9	0.0	100.0	165
Ngoma	5.7	0.0	12.7	2.7	7.2	2.0	69.8	0.0	100.0	211
Bugesera	4.7	0.0	12.0	12.3	10.8	2.0	58.2	0.0	100.0	161

Table D3.8.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products, by district, Rwanda 2014-15

District	Uses tobacco			Does not use tobacco	Number of women
	Cigarettes	Pipe	Other tobacco		
Nyarugenge	0.8	0.0	1.0	98.2	452
Gasabo	0.6	0.2	0.3	98.9	863
Kicukiro	0.3	0.0	0.5	99.4	484
Nyanza	1.7	0.8	3.6	94.7	375
Gisagara	0.5	0.8	9.5	90.2	418
Nyaruguru	1.0	0.3	4.9	93.7	304
Huye	0.3	0.0	3.3	96.4	423
Nyamagabe	0.6	0.5	0.5	98.4	416
Ruhango	0.5	0.0	1.7	97.8	402
Muhanga	0.7	1.4	0.5	97.7	415
Kamonyi	0.2	0.2	1.4	98.1	460
Karongi	0.5	0.2	0.0	99.4	412
Rutsiro	0.0	0.0	0.6	99.4	339
Rubavu	0.0	0.0	0.2	99.8	488
Nyabihu	0.0	0.3	0.0	99.7	327
Ngororero	0.0	0.3	0.0	99.7	428
Rusizi	0.0	0.2	0.2	99.5	543
Nyamasheke	0.3	0.0	0.3	99.5	428
Rulindo	0.4	0.8	1.4	97.8	377
Gakenke	0.3	2.0	0.9	96.8	422
Musanze	0.2	0.0	0.9	99.1	505
Burera	0.0	1.2	0.5	98.5	421
Gicumbi	0.5	2.6	0.5	96.9	485
Rwamagana	0.4	1.7	0.4	97.5	455
Nyagatare	0.3	3.2	0.4	96.5	597
Gatsibo	0.8	2.0	0.6	96.9	600
Kayonza	0.5	0.5	0.3	98.7	416
Kirehe	0.0	0.9	0.9	98.2	356
Ngoma	0.3	0.0	2.8	96.9	482
Bugesera	0.0	0.8	0.8	98.3	401

Table D3.8.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products, by district, Rwanda 2014-15

District	Uses tobacco			Does not use tobacco	Number of men
	Cigarettes	Pipe	Other tobacco		
Nyarugenge	13.7	1.2	2.9	86.1	219
Gasabo	6.6	1.0	0.4	92.0	421
Kicukiro	11.3	0.0	0.2	88.7	223
Nyanza	13.8	4.9	0.0	84.2	182
Gisagara	17.8	9.8	0.0	77.5	179
Nyaruguru	7.7	1.7	8.9	82.8	149
Huye	21.1	7.4	2.5	77.3	210
Nyamagabe	5.1	4.1	0.0	92.4	196
Ruhango	10.2	0.6	2.1	88.2	197
Muhanga	14.1	3.1	0.0	82.9	191
Kamonyi	16.2	7.4	3.1	80.7	217
Karongi	3.9	2.0	0.8	94.4	199
Rutsiro	6.0	2.1	1.3	92.6	156
Rubavu	8.2	0.5	0.0	91.3	242
Nyabihu	8.6	0.7	0.0	91.4	129
Ngororero	7.8	2.4	0.0	89.7	178
Rusizi	2.2	0.4	0.5	97.4	250
Nyamasheke	3.4	0.0	0.6	96.6	169
Rulindo	20.2	7.7	1.2	78.0	157
Gakenke	11.6	5.9	0.0	84.9	175
Musanze	8.0	1.5	0.0	91.5	218
Burera	2.1	4.3	0.0	94.9	168
Gicumbi	7.7	3.2	0.5	90.7	231
Rwamagana	13.6	3.9	1.1	85.1	207
Nyagatare	12.0	4.9	0.0	86.4	287
Gatsibo	11.7	9.9	0.2	80.7	278
Kayonza	11.7	3.7	7.4	84.5	195
Kirehe	12.1	4.0	0.0	86.7	185
Ngoma	11.5	3.7	0.0	87.0	222
Bugesera	7.3	3.4	0.0	90.3	187

Table D4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, by district, Rwanda 2014-15

District	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
				WOMEN					
Nyarugenge	40.6	23.4	24.1	5.0	3.1	3.8	100.0	47.5	452
Gasabo	41.5	31.1	19.5	3.2	1.6	3.2	100.0	50.5	863
Kicukiro	50.5	23.5	16.0	5.3	1.3	3.4	100.0	39.5	484
Nyanza	30.2	33.6	20.6	5.4	3.6	6.6	100.0	54.2	375
Gisagara	35.0	34.3	16.2	2.1	6.6	5.8	100.0	50.6	418
Nyaruguru	37.0	35.3	19.6	2.7	1.1	4.3	100.0	54.9	304
Huye	42.7	33.1	13.4	4.5	1.6	4.9	100.0	46.4	423
Nyamagabe	44.7	36.5	9.5	2.9	3.3	3.1	100.0	46.0	416
Ruhango	37.8	34.1	15.7	7.3	1.9	3.1	100.0	49.8	402
Muhanga	39.6	44.6	6.4	2.0	4.3	3.2	100.0	50.9	415
Kamonyi	40.7	35.1	13.6	1.2	5.2	4.1	100.0	48.7	460
Karongi	43.9	40.2	7.7	0.4	4.6	3.2	100.0	47.9	412
Rutsiro	33.5	40.6	18.4	0.6	5.0	2.0	100.0	59.0	339
Rubavu	37.1	23.7	28.0	2.8	2.6	5.7	100.0	51.8	488
Nyabihu	36.0	27.9	25.6	0.5	3.9	6.2	100.0	53.5	327
Ngororero	34.8	39.0	15.6	2.4	2.1	6.1	100.0	54.6	428
Rusizi	44.7	37.7	8.9	1.1	4.5	3.1	100.0	46.6	543
Nyamasheke	38.2	45.4	8.5	3.2	1.9	2.8	100.0	53.9	428
Rulindo	38.3	42.0	10.6	3.1	1.1	5.0	100.0	52.6	377
Gakenke	40.9	42.7	9.1	1.8	1.5	4.0	100.0	51.7	422
Musanze	40.5	29.7	19.6	4.0	3.2	3.0	100.0	49.3	505
Burera	38.8	34.6	16.9	1.0	4.9	3.9	100.0	51.5	421
Gicumbi	39.9	42.4	8.6	1.5	1.4	6.2	100.0	50.9	485
Rwamagana	35.9	29.0	22.0	1.1	7.2	4.7	100.0	51.1	455
Nyagatare	31.1	40.5	17.4	3.3	3.0	4.7	100.0	57.9	597
Gatsibo	30.8	29.0	26.3	5.9	2.9	5.0	100.0	55.3	600
Kayonza	34.9	29.0	24.8	3.4	4.5	3.4	100.0	53.8	416
Kirehe	27.1	36.0	25.8	0.3	5.5	5.2	100.0	61.8	356
Ngoma	32.2	31.8	24.4	0.0	7.8	3.8	100.0	56.1	482
Bugesera	28.3	37.2	22.1	3.7	3.8	5.0	100.0	59.3	401
				MEN					
Nyarugenge	49.2	25.3	22.8	1.6	0.2	1.0	100.0	48.1	219
Gasabo	48.6	31.0	19.1	0.6	0.7	0.0	100.0	50.2	421
Kicukiro	56.7	26.1	16.5	0.4	0.0	0.3	100.0	42.6	223
Nyanza	45.4	32.5	18.9	2.3	0.5	0.4	100.0	51.4	182
Gisagara	43.0	38.4	16.8	0.6	0.6	0.6	100.0	55.3	179
Nyaruguru	44.5	36.2	18.1	0.8	0.0	0.4	100.0	54.3	149
Huye	53.8	33.8	9.3	1.9	0.8	0.4	100.0	43.1	210
Nyamagabe	49.2	42.4	8.1	0.0	0.3	0.0	100.0	50.5	196
Ruhango	46.9	36.5	14.6	1.0	0.5	0.5	100.0	51.1	197
Muhanga	43.8	49.2	4.7	0.5	1.3	0.5	100.0	53.9	191
Kamonyi	43.2	39.7	14.0	0.0	2.1	1.0	100.0	53.7	217
Karongi	44.0	45.4	6.7	0.0	1.9	2.0	100.0	52.1	199
Rutsiro	36.9	44.4	14.9	0.0	1.3	2.5	100.0	59.3	156
Rubavu	42.6	22.5	31.7	1.4	1.0	0.9	100.0	54.2	242
Nyabihu	37.4	32.7	29.5	0.0	0.4	0.0	100.0	62.2	129
Ngororero	34.7	44.2	19.3	0.7	0.6	0.6	100.0	63.5	178
Rusizi	49.9	40.4	8.0	0.0	1.7	0.0	100.0	48.4	250
Nyamasheke	33.4	53.4	11.9	0.6	0.0	0.8	100.0	65.3	169
Rulindo	36.6	50.3	10.8	0.1	1.0	1.0	100.0	61.2	157
Gakenke	34.1	58.7	6.0	0.0	0.6	0.6	100.0	64.7	175
Musanze	41.9	34.9	22.2	0.0	0.4	0.5	100.0	57.1	218
Burera	34.4	49.3	15.7	0.0	0.6	0.0	100.0	65.0	168
Gicumbi	45.1	40.4	11.9	2.1	0.5	0.0	100.0	52.3	231
Rwamagana	40.6	31.4	22.2	0.0	5.3	0.5	100.0	53.6	207
Nyagatare	39.1	34.9	24.4	0.3	0.5	0.8	100.0	59.3	287
Gatsibo	41.9	30.2	25.3	1.2	0.4	1.0	100.0	55.5	278
Kayonza	42.2	32.5	19.8	2.3	2.7	0.6	100.0	52.3	195
Kirehe	40.0	33.6	23.8	0.6	2.0	0.0	100.0	57.4	185
Ngoma	42.6	33.5	20.7	1.0	2.2	0.0	100.0	54.2	222
Bugesera	46.1	34.7	17.3	0.4	1.4	0.0	100.0	52.0	187

Table D4.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, by district, Rwanda 2014-15

District	Number of co-wives					Total	Number of women
	0	1	2+	Don't know	Missing		
Nyarugenge	96.3	3.1	0.4	0.2	0.0	100.0	215
Gasabo	93.5	3.7	1.0	1.8	0.0	100.0	436
Kicukiro	94.1	4.2	0.9	0.8	0.0	100.0	191
Nyanza	91.0	6.9	2.1	0.0	0.0	100.0	204
Gisagara	90.6	6.4	2.6	0.3	0.0	100.0	212
Nyaruguru	93.6	3.5	2.3	0.6	0.0	100.0	167
Huye	92.7	3.4	0.0	1.6	2.4	100.0	197
Nyamagabe	91.8	5.3	1.8	1.1	0.0	100.0	192
Ruhango	95.0	4.5	0.0	0.6	0.0	100.0	200
Muhanga	94.6	3.2	1.4	0.5	0.4	100.0	211
Kamonyi	92.3	4.7	1.3	1.7	0.0	100.0	224
Karongi	92.2	4.5	1.9	1.4	0.0	100.0	197
Rutsiro	88.3	7.8	1.0	3.0	0.0	100.0	200
Rubavu	88.4	8.9	2.3	0.4	0.0	100.0	253
Nyabihu	88.6	10.1	1.3	0.0	0.0	100.0	175
Ngororero	90.1	8.4	1.4	0.1	0.0	100.0	234
Rusizi	92.0	5.3	1.1	1.6	0.0	100.0	253
Nyamasheke	92.5	3.1	0.0	4.4	0.1	100.0	231
Rulindo	95.9	3.5	0.5	0.1	0.0	100.0	198
Gakenke	92.2	6.0	0.0	1.3	0.5	100.0	218
Musanze	94.1	4.5	1.4	0.0	0.0	100.0	249
Burera	94.0	4.8	0.9	0.2	0.1	100.0	217
Gicumbi	94.8	2.4	1.2	1.5	0.0	100.0	247
Rwamagana	92.9	5.7	0.0	1.0	0.4	100.0	232
Nyagatare	83.5	12.2	3.0	1.2	0.0	100.0	346
Gatsibo	90.6	5.2	3.8	0.4	0.0	100.0	332
Kayonza	90.8	6.3	2.1	0.9	0.0	100.0	224
Kirehe	92.1	7.4	0.5	0.0	0.0	100.0	220
Ngoma	90.7	7.1	1.2	1.0	0.0	100.0	271
Bugesera	91.6	6.9	0.9	0.6	0.0	100.0	238

Table D4.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, by district, Rwanda 2014-15

District	Number of wives		Total	Number of men
	1	2+		
Nyarugenge	98.1	1.9	100.0	105
Gasabo	98.2	1.8	100.0	211
Kicukiro	98.0	2.0	100.0	95
Nyanza	99.2	0.8	100.0	93
Gisagara	98.2	1.8	100.0	99
Nyaruguru	98.8	1.2	100.0	81
Huye	99.2	0.8	100.0	90
Nyamagabe	96.1	3.9	100.0	99
Ruhango	99.1	0.9	100.0	101
Muhanga	98.1	1.9	100.0	103
Kamonyi	98.5	1.5	100.0	117
Karongi	98.1	1.9	100.0	104
Rutsiro	92.9	7.1	100.0	92
Rubavu	93.9	6.1	100.0	131
Nyabihu	90.2	9.8	100.0	80
Ngororero	97.2	2.8	100.0	113
Rusizi	98.5	1.5	100.0	121
Nyamasheke	99.0	1.0	100.0	110
Rulindo	100.0	0.0	100.0	96
Gakenke	97.0	3.0	100.0	113
Musanze	98.1	1.9	100.0	124
Burera	98.1	1.9	100.0	109
Gicumbi	98.0	2.0	100.0	121
Rwamagana	98.2	1.8	100.0	111
Nyagatare	93.0	7.0	100.0	170
Gatsibo	97.2	2.8	100.0	154
Kayonza	92.2	7.8	100.0	102
Kirehe	96.4	3.6	100.0	106
Ngoma	97.9	2.1	100.0	120
Bugesera	96.5	3.5	100.0	97

Table D4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 25-49, and median age at first marriage among men age 30-59, by district, Rwanda 2014-15

District	Women age 25-49	Men age 30-59
Nyarugenge	23.0	28.8
Gasabo	23.7	28.0
Kicukiro	24.4	29.4
Nyanza	22.6	26.5
Gisagara	21.9	24.9
Nyaruguru	21.3	25.1
Huye	23.8	27.1
Nyamagabe	21.5	24.7
Ruhango	23.3	26.6
Muhanga	22.9	26.7
Kamonyi	23.7	26.5
Karongi	22.3	24.3
Rutsiro	21.3	23.5
Rubavu	20.4	24.0
Nyabihu	20.6	23.1
Ngororero	20.9	22.7
Rusizi	21.9	24.3
Nyamasheke	22.7	26.2
Rulindo	22.8	25.4
Gakenke	21.6	24.2
Musanze	20.6	22.7
Burera	20.3	21.8
Gicumbi	21.0	26.2
Rwamagana	21.7	27.0
Nyagatare	20.2	24.5
Gatsibo	21.1	24.9
Kayonza	21.5	25.5
Kirehe	21.2	24.3
Ngoma	21.7	26.0
Bugesera	21.5	25.5

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.

Table D4.6 Median age at first intercourse by background characteristics

Median age at first sexual intercourse among women age 25-49, and median age at first sexual intercourse among men age 30-59, by district, Rwanda 2014-15

District	Women age 25-49	Men age 30-59
Nyarugenge	20.7	20.7
Gasabo	21.2	23.2
Kicukiro	21.9	22.7
Nyanza	21.4	22.7
Gisagara	21.4	22.5
Nyaruguru	20.8	22.9
Huye	22.9	24.5
Nyamagabe	21.1	21.8
Ruhango	22.1	23.9
Muhanga	21.7	22.7
Kamonyi	22.6	22.6
Karongi	21.6	21.9
Rutsiro	20.8	21.4
Rubavu	20.1	21.0
Nyabihu	20.3	21.0
Ngororero	20.6	20.9
Rusizi	21.5	23.4
Nyamasheke	21.9	23.3
Rulindo	21.9	22.1
Gakenke	21.0	21.8
Musanze	20.2	21.8
Burera	19.7	20.5
Gicumbi	20.5	24.4
Rwamagana	20.6	21.9
Nyagatare	19.9	21.5
Gatsibo	20.8	22.9
Kayonza	20.7	22.6
Kirehe	20.7	21.5
Ngoma	20.1	22.1
Bugesera	20.9	22.0

Table D4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, by district, Rwanda 2014-15

District	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of women
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing			
Nyarugenge	47.0	13.5	15.8	0.0	23.7	100.0	452
Gasabo	50.7	10.7	14.2	0.0	24.4	100.0	863
Kicukiro	40.7	15.4	15.6	0.1	28.2	100.0	484
Nyanza	51.2	11.9	16.2	0.0	20.7	100.0	375
Gisagara	49.8	9.1	14.6	0.2	26.3	100.0	418
Nyaruguru	53.0	8.0	10.4	0.0	28.5	100.0	304
Huye	43.1	8.6	18.1	0.2	29.9	100.0	423
Nyamagabe	44.4	9.5	12.5	0.0	33.6	100.0	416
Ruhango	48.8	13.6	12.6	0.5	24.4	100.0	402
Muhanga	49.4	9.0	12.6	0.0	28.9	100.0	415
Kamonyi	48.1	10.0	15.7	0.0	26.3	100.0	460
Karongi	45.9	8.6	13.4	0.2	31.8	100.0	412
Rutsiro	55.1	9.3	12.7	0.0	22.8	100.0	339
Rubavu	49.5	10.5	13.7	0.0	26.3	100.0	488
Nyabihu	49.3	7.3	14.7	0.0	28.7	100.0	327
Ngororero	53.2	6.9	15.2	0.0	24.6	100.0	428
Rusizi	43.7	10.1	13.9	0.0	32.2	100.0	543
Nyamasheke	53.0	7.4	12.5	0.0	27.2	100.0	428
Rulindo	48.5	10.2	13.7	0.0	27.5	100.0	377
Gakenke	49.5	7.7	13.0	0.0	29.9	100.0	422
Musanze	45.5	9.3	12.8	0.0	32.3	100.0	505
Burera	48.5	8.9	11.9	0.0	30.7	100.0	421
Gicumbi	49.1	5.9	13.8	0.8	30.4	100.0	485
Rwamagana	49.4	9.0	16.9	0.0	24.6	100.0	455
Nyagatare	54.7	9.9	10.4	1.9	23.1	100.0	597
Gatsibo	52.8	12.1	14.7	0.2	20.1	100.0	600
Kayonza	51.2	10.1	14.7	0.2	23.7	100.0	416
Kirehe	55.5	10.4	15.8	0.0	18.3	100.0	356
Ngoma	53.3	13.0	14.9	0.0	18.7	100.0	482
Bugesera	57.5	9.6	12.3	0.0	20.6	100.0	401

[1] Excludes women who had sexual intercourse within the last 4 weeks

Table D4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, by district, Rwanda 2014-15

District	Timing of last sexual intercourse				Never had sexual intercourse	Total	Number of men
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing			
Nyarugenge	49.9	15.6	14.1	0.4	20.0	100.0	219
Gasabo	50.2	12.5	10.0	0.0	27.3	100.0	421
Kicukiro	41.1	17.6	18.3	0.0	23.0	100.0	223
Nyanza	48.5	11.5	16.3	0.0	23.7	100.0	182
Gisagara	52.7	8.6	17.0	0.0	21.8	100.0	179
Nyaruguru	47.7	7.9	7.4	0.0	37.1	100.0	149
Huye	43.1	10.6	15.5	0.0	30.7	100.0	210
Nyamagabe	44.7	11.8	11.8	0.0	31.7	100.0	196
Ruhango	48.0	8.7	13.4	0.0	29.9	100.0	197
Muhanga	51.5	10.5	15.0	0.0	22.9	100.0	191
Kamonyi	52.4	12.5	16.4	0.5	18.1	100.0	217
Karongi	53.6	7.2	12.0	0.0	27.2	100.0	199
Rutsiro	55.6	12.7	11.9	0.0	19.8	100.0	156
Rubavu	53.2	11.4	12.5	0.0	22.9	100.0	242
Nyabihu	59.7	4.5	6.5	0.0	29.3	100.0	129
Ngororero	63.9	6.4	3.9	0.0	25.8	100.0	178
Rusizi	48.4	4.7	11.3	0.0	35.5	100.0	250
Nyamasheke	63.1	6.0	6.3	0.0	24.6	100.0	169
Rulindo	59.2	8.2	7.9	0.0	24.6	100.0	157
Gakenke	58.0	13.4	8.5	0.0	20.1	100.0	175
Musanze	60.9	7.3	10.5	0.0	21.4	100.0	218
Burera	64.4	3.0	8.0	0.0	24.6	100.0	168
Gicumbi	51.0	3.9	12.2	1.1	31.9	100.0	231
Rwamagana	54.6	12.5	16.1	0.0	16.9	100.0	207
Nyagatare	58.6	6.1	5.3	0.0	30.1	100.0	287
Gatsibo	48.4	16.7	10.6	0.0	24.2	100.0	278
Kayonza	51.6	8.7	12.2	0.0	27.5	100.0	195
Kirehe	53.3	9.2	7.7	0.0	29.8	100.0	185
Ngoma	55.0	13.7	16.2	0.0	15.1	100.0	222
Bugesera	52.9	8.4	12.6	0.0	26.1	100.0	187

[1] Excludes men who had sexual intercourse within the last 4 weeks

Table D5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by district, Rwanda 2014-15

District	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Nyarugenge	3.7	7.6	4.7
Gasabo	4.0	8.2	4.8
Kicukiro	2.8	4.1	4.0
Nyanza	4.2	8.3	4.7
Gisagara	4.4	6.8	5.5
Nyaruguru	4.6	10.0	5.5
Huye	4.0	6.3	4.3
Nyamagabe	3.6	5.5	5.5
Ruhango	4.1	6.0	5.1
Muhanga	3.5	5.7	4.7
Kamonyi	3.9	7.7	4.8
Karongi	3.9	8.6	5.6
Rutsiro	5.2	8.6	6.5
Rubavu	4.9	6.4	6.4
Nyabihu	3.9	6.6	5.5
Ngororero	4.2	7.0	5.2
Rusizi	4.7	5.6	6.4
Nyamasheke	5.0	10.0	5.3
Rulindo	4.2	9.0	5.1
Gakenke	3.1	5.4	5.3
Musanze	3.5	4.8	5.7
Burera	4.0	7.4	6.0
Gicumbi	3.8	5.5	6.0
Rwamagana	4.4	7.4	5.4
Nyagatare	4.9	9.7	6.2
Gatsibo	4.8	9.1	6.1
Kayonza	4.5	11.2	5.9
Kirehe	4.2	5.6	6.4
Ngoma	4.6	7.1	5.7
Bugesera	4.8	7.9	5.7

Note: Total fertility rates are for the period 1-36 months prior to the interview.

Table D5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, by district, Rwanda 2014-15

District	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Nyarugenge	6.1	8.0	24.8	25.1	14.0	22.0	100.0	162	40.5
Gasabo	7.1	11.9	28.3	19.1	11.5	22.0	100.0	306	37.0
Kicukiro	5.8	10.7	24.3	21.0	10.8	27.4	100.0	144	41.6
Nyanza	8.1	8.9	29.4	23.3	13.9	16.4	100.0	187	36.7
Gisagara	3.6	8.4	33.7	17.4	20.4	16.5	100.0	190	37.6
Nyaruguru	4.3	5.3	42.7	23.8	10.5	13.4	100.0	152	34.9
Huye	2.0	6.1	26.5	25.9	12.8	26.7	100.0	150	43.2
Nyamagabe	4.3	6.6	35.5	20.4	13.0	20.2	100.0	156	38.2
Ruhango	5.1	7.8	28.1	26.6	11.6	20.8	100.0	151	41.1
Muhanga	3.8	6.6	28.9	19.2	15.1	26.5	100.0	142	43.4
Kamonyi	3.8	10.4	26.8	19.0	14.2	25.8	100.0	154	42.7
Karongi	7.8	9.0	31.9	22.1	13.3	15.8	100.0	153	36.3
Rutsiro	5.8	10.2	34.5	24.7	10.5	14.3	100.0	172	35.8
Rubavu	6.6	8.8	39.9	23.0	7.2	14.5	100.0	261	32.8
Nyabihu	3.8	7.9	32.5	24.7	16.2	14.9	100.0	146	38.3
Ngororero	8.1	6.8	39.1	19.6	10.1	16.3	100.0	187	33.9
Rusizi	7.9	12.9	37.8	21.0	9.6	10.8	100.0	235	33.2
Nyamasheke	5.7	13.9	37.7	20.0	12.3	10.3	100.0	238	32.9
Rulindo	2.2	14.1	26.2	22.6	13.2	21.8	100.0	143	38.7
Gakenke	3.7	11.6	23.7	22.0	14.5	24.4	100.0	113	41.3
Musanze	3.9	8.7	26.4	16.5	17.3	27.0	100.0	175	41.5
Burera	2.8	5.3	29.7	20.8	17.9	23.5	100.0	155	42.2
Gicumbi	1.9	7.9	25.2	20.6	22.8	21.7	100.0	197	44.0
Rwamagana	4.9	10.0	30.8	19.8	15.9	18.5	100.0	198	36.9
Nyagatare	4.8	7.8	26.9	21.4	17.5	21.6	100.0	278	40.8
Gatsibo	7.1	8.8	27.1	20.5	17.5	19.1	100.0	266	38.4
Kayonza	5.7	9.6	30.5	23.0	12.2	18.9	100.0	196	38.8
Kirehe	3.1	11.6	21.9	25.1	20.2	18.1	100.0	179	40.9
Ngoma	5.3	9.1	21.5	23.6	18.2	22.4	100.0	229	42.8
Bugesera	2.8	8.8	25.1	27.2	15.2	20.9	100.0	203	41.4

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Table D5.7 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by district, Rwanda 2014-15

District	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Nyarugenge	5.2	1.5	6.3
Gasabo	9.0	0.7	10.8
Kicukiro	5.8	0.5	8.0
Nyanza	11.8	0.6	12.0
Gisagara	7.8	1.0	10.7
Nyaruguru	13.7	1.7	14.4
Huye	13.4	1.5	17.2
Nyamagabe	13.9	1.4	14.8
Ruhango	12.2	0.4	12.9
Muhanga	10.0	0.7	10.7
Kamonyi	10.5	1.4	11.7
Karongi	11.0	0.5	12.9
Rutsiro	14.2	1.4	14.8
Rubavu	10.3	1.4	16.9
Nyabihu	10.4	0.5	11.1
Ngororero	11.9	0.5	13.2
Rusizi	10.4	1.0	13.2
Nyamasheke	11.1	0.6	12.1
Rulindo	9.4	1.4	9.5
Gakenke	11.2	1.5	12.5
Musanze	10.1	0.7	14.6
Burera	10.8	1.1	10.9
Gicumbi	8.5	0.4	9.8
Rwamagana	6.1	1.3	6.4
Nyagatare	7.7	1.3	8.0
Gatsibo	6.4	1.0	9.7
Kayonza	5.8	1.9	10.1
Kirehe	12.0	1.5	12.2
Ngoma	10.7	1.7	11.7
Bugesera	9.5	2.3	9.9

Note: Medians are based on status at the time of the survey (current status).
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

Table D5.10 Median age at first birth

Median age at first birth among women age 25-49 and 30-49, by district, Rwanda 2014-15

District	Women age 25-49	Women age 30-49
Nyarugenge	22.9	22.8
Gasabo	23.6	23.7
Kicukiro	23.9	23.4
Nyanza	23.4	23.8
Gisagara	23.1	23.2
Nyaruguru	22.4	22.5
Huye	24.5	24.6
Nyamagabe	22.5	22.3
Ruhango	23.8	24.1
Muhanga	23.5	23.5
Kamonyi	24.5	24.8
Karongi	23.1	22.8
Rutsiro	22.2	21.9
Rubavu	21.6	21.0
Nyabihu	21.6	21.7
Ngororero	22.1	21.8
Rusizi	22.9	22.6
Nyamasheke	23.3	23.1
Rulindo	23.2	22.7
Gakenke	22.9	22.4
Musanze	21.8	21.7
Burera	21.7	21.3
Gicumbi	21.8	21.4
Rwamagana	22.2	22.3
Nyagatare	21.5	21.2
Gatsibo	22.2	21.9
Kayonza	22.3	22.2
Kirehe	22.2	22.0
Ngoma	22.0	21.7
Bugesera	22.2	21.8

Table D5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by district, Rwanda 2014-15

District	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Nyarugenge	5.2	3.6	8.8	91
Gasabo	8.3	4.2	12.5	175
Kicukiro	4.5	2.6	7.1	91
Nyanza	1.4	4.0	5.4	64
Gisagara	1.2	1.3	2.5	83
Nyaruguru	4.3	2.6	6.9	69
Huye	8.4	1.2	9.5	87
Nyamagabe	1.4	2.3	3.8	111
Ruhango	7.0	1.2	8.2	86
Muhanga	4.6	0.0	4.6	77
Kamonyi	4.4	0.0	4.4	88
Karongi	5.7	0.0	5.7	82
Rutsiro	4.4	0.0	4.4	60
Rubavu	3.5	1.4	4.9	95
Nyabihu	5.1	1.2	6.3	73
Ngororero	4.6	1.5	6.1	78
Rusizi	7.0	0.8	7.8	134
Nyamasheke	1.9	1.5	3.5	71
Rulindo	3.0	0.0	3.0	78
Gakenke	5.8	1.0	6.7	83
Musanze	5.3	0.6	5.9	131
Burera	3.5	2.8	6.3	118
Gicumbi	2.5	0.0	2.5	115
Rwamagana	10.5	1.4	11.9	93
Nyagatare	5.1	2.1	7.2	113
Gatsibo	11.0	4.8	15.8	126
Kayonza	8.5	1.4	9.9	81
Kirehe	6.5	0.0	6.5	52
Ngoma	7.9	3.3	11.2	93
Bugesera	5.7	3.4	9.1	71

Table D6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, by district, Rwanda 2014-15

District	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Nyarugenge	0.0	4.4	32.6	59.0	72.3	84.8	77.8	44.7
Gasabo	0.0	0.0	18.3	56.6	85.1	96.3	93.4	44.3
Kicukiro	0.0	1.2	30.9	59.3	62.5	76.9	91.8	41.7
Nyanza	0.0	0.0	21.5	59.1	82.7	92.7	89.0	49.5
Gisagara	0.0	0.0	24.3	48.7	85.4	89.1	100.0	50.8
Nyaruguru	0.0	9.7	12.4	41.8	63.0	79.1	87.5	50.9
Huye	0.0	5.5	32.4	65.8	78.5	87.1	100.0	50.9
Nyamagabe	0.0	5.1	31.4	54.5	87.1	93.1	97.2	58.4
Ruhango	0.0	3.2	35.2	58.5	83.8	100.0	100.0	54.7
Muhanga	0.0	3.9	21.7	64.6	83.2	88.7	97.5	51.6
Kamonyi	0.0	7.9	41.4	59.4	91.8	84.1	84.0	54.3
Karongi	20.9	4.4	28.3	47.2	62.3	65.4	90.4	44.6
Rutsiro	0.0	0.0	35.6	41.2	75.1	75.2	96.9	49.5
Rubavu	0.0	6.3	23.0	67.4	66.6	69.7	86.5	51.4
Nyabihu	0.0	3.5	28.5	68.3	80.5	88.7	90.8	56.1
Ngororero	0.0	0.0	18.2	38.4	64.9	89.8	89.5	40.7
Rusizi	0.0	0.0	20.4	35.2	38.8	75.0	85.0	44.7
Nyamasheke	0.0	0.5	14.3	38.5	49.7	77.1	95.6	43.3
Rulindo	0.0	9.3	19.7	81.9	84.4	89.3	85.8	51.8
Gakenke	12.8	5.6	19.4	58.4	88.5	90.8	96.2	49.4
Musanze	0.0	4.6	22.9	57.8	83.2	78.1	96.6	50.8
Burera	0.0	3.3	9.0	51.1	72.7	76.2	87.9	48.9
Gicumbi	0.0	6.4	28.8	52.3	72.0	88.3	95.2	53.4
Rwamagana	0.0	1.8	28.9	67.3	73.2	96.5	100.0	55.1
Nyagatare	0.0	1.8	22.0	48.2	78.0	91.6	91.8	49.9
Gatsibo	0.0	0.0	16.0	47.2	79.9	88.2	92.5	48.8
Kayonza	0.0	1.7	15.2	47.1	55.6	91.1	82.2	43.1
Kirehe	0.0	0.0	21.1	29.6	82.1	96.5	96.0	44.7
Ngoma	0.0	6.7	22.8	54.3	79.2	92.3	98.7	49.1
Bugesera	0.0	0.0	11.3	40.6	76.3	76.8	86.0	39.8

Note: Women who have been sterilized are considered to want no more children.
[1] The number of living children includes the current pregnancy.

Table D6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, by district, Rwanda 2014-15

District	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Nyarugenge	0.0	8.2	44.9	31.7	74.7	81.7	83.3	50.2
Gasabo	0.0	3.7	36.3	78.2	81.4	90.4	94.5	54.9
Kicukiro	0.0	5.6	32.1	69.7	72.1	91.9	93.8	55.4
Nyanza	0.0	0.0	32.4	46.2	72.1	100.0	100.0	58.5
Gisagara	0.0	0.0	36.9	68.3	89.9	100.0	100.0	60.6
Nyaruguru	0.0	0.0	23.1	33.4	78.6	89.6	93.6	60.8
Huye	0.0	0.0	27.8	53.2	90.6	89.4	76.3	54.8
Nyamagabe	0.0	0.0	62.7	74.4	100.0	100.0	100.0	75.0
Ruhango	0.0	0.0	45.1	81.9	94.1	100.0	100.0	67.4
Muhanga	0.0	4.9	46.9	77.8	82.9	91.3	93.2	61.7
Kamonyi	27.0	6.3	44.1	74.3	79.2	100.0	92.1	66.6
Karongi	0.0	5.6	36.9	39.8	86.8	67.7	90.0	55.8
Rutsiro	0.0	1.1	26.2	43.7	52.2	82.3	92.8	52.4
Rubavu	0.0	10.8	26.3	58.3	50.9	67.0	93.2	53.6
Nyabihu	0.0	7.4	25.9	76.4	68.3	100.0	100.0	56.7
Ngororero	0.0	7.3	28.2	44.9	90.5	91.9	91.8	50.1
Rusizi	0.0	5.8	36.2	34.2	30.7	70.5	93.4	56.9
Nyamasheke	0.0	0.0	40.1	35.9	65.4	78.2	84.0	50.4
Rulindo	0.0	5.6	36.4	61.5	83.7	100.0	100.0	60.4
Gakenke	0.0	6.2	19.5	59.3	71.2	100.0	90.7	54.2
Musanze	0.0	5.1	28.5	67.8	74.1	78.2	96.4	58.3
Burera	0.0	0.0	7.4	19.0	74.8	81.5	94.8	52.1
Gicumbi	0.0	0.0	26.2	56.4	61.2	74.8	87.5	48.8
Rwamagana	0.0	0.0	28.7	41.5	85.9	90.0	93.2	48.8
Nyagatare	0.0	5.0	17.5	56.9	76.4	90.0	88.1	56.4
Gatsibo	0.0	5.1	26.9	59.8	95.5	61.9	84.7	56.8
Kayonza	0.0	0.0	26.3	55.5	74.3	76.1	95.2	59.1
Kirehe	0.0	0.0	25.2	53.6	87.3	92.2	100.0	50.1
Ngoma	0.0	11.9	36.7	52.8	83.9	90.8	95.4	58.8
Bugesera	0.0	9.1	21.6	64.6	59.1	90.9	100.0	49.6

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children.

[1] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table D6.4 Mean ideal number of children

Mean ideal number of children for all women age 15-49, by district, Rwanda 2014-15

District	Mean	Number of women[1]
Nyarugenge	3.2	450
Gasabo	3.2	858
Kicukiro	3.2	479
Nyanza	3.2	375
Gisagara	3.4	415
Nyaruguru	3.7	303
Huye	3.3	422
Nyamagabe	3.2	416
Ruhango	2.9	402
Muhanga	3.2	403
Kamonyi	3.2	456
Karongi	3.2	402
Rutsiro	3.2	337
Rubavu	3.5	486
Nyabihu	3.3	320
Ngororero	3.2	425
Rusizi	3.8	542
Nyamasheke	3.8	414
Rulindo	3.3	375
Gakenke	2.9	422
Musanze	3.6	502
Burera	4.0	418
Gicumbi	3.5	484
Rwamagana	3.1	455
Nyagatare	3.8	597
Gatsibo	3.7	579
Kayonza	3.5	402
Kirehe	3.4	356
Ngoma	3.0	482
Bugesera	3.5	395

[1] Number of women who gave a numeric response

Table D6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by district, Rwanda 2014-15

District	Total wanted fertility rates	Total fertility rate
Nyarugenge	2.7	3.7
Gasabo	3.0	4.0
Kicukiro	2.3	2.8
Nyanza	3.1	4.2
Gisagara	3.1	4.4
Nyaruguru	3.2	4.6
Huye	3.0	4.0
Nyamagabe	2.7	3.6
Ruhango	2.9	4.1
Muhanga	2.8	3.5
Kamonyi	3.1	3.9
Karongi	2.8	3.9
Rutsiro	3.1	5.2
Rubavu	3.1	4.9
Nyabihu	2.7	3.9
Ngororero	3.0	4.2
Rusizi	2.8	4.7
Nyamasheke	3.9	5.0
Rulindo	3.3	4.2
Gakenke	2.2	3.1
Musanze	2.8	3.5
Burera	2.9	4.0
Gicumbi	2.9	3.8
Rwamagana	3.3	4.4
Nyagatare	4.2	4.9
Gatsibo	3.5	4.8
Kayonza	3.4	4.5
Kirehe	3.3	4.2
Ngoma	3.1	4.6
Bugesera	3.4	4.8

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table D5.2.

Table D7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by district, Rwanda 2014-15

	Women			Men		
District	Heard of any method	Heard of any modern method[1]	Number	Heard of any method	Heard of any modern method[1]	Number
Nyarugenge	100.0	100.0	215	100.0	100.0	105
Gasabo	100.0	100.0	436	100.0	100.0	211
Kicukiro	100.0	100.0	191	100.0	100.0	95
Nyanza	100.0	100.0	204	100.0	100.0	93
Gisagara	100.0	100.0	212	100.0	100.0	99
Nyaruguru	100.0	100.0	167	100.0	100.0	81
Huye	100.0	100.0	197	100.0	100.0	90
Nyamagabe	100.0	100.0	192	100.0	100.0	99
Ruhango	100.0	100.0	200	100.0	100.0	101
Muhanga	100.0	100.0	211	100.0	100.0	103
Kamonyi	100.0	100.0	224	100.0	100.0	117
Karongi	100.0	100.0	197	100.0	100.0	104
Rutsiro	100.0	100.0	200	100.0	100.0	92
Rubavu	100.0	100.0	253	100.0	100.0	131
Nyabihu	100.0	100.0	175	100.0	100.0	80
Ngororero	100.0	100.0	234	100.0	100.0	113
Rusizi	100.0	100.0	253	100.0	100.0	121
Nyamasheke	100.0	100.0	231	100.0	100.0	110
Rulindo	100.0	100.0	198	100.0	100.0	96
Gakenke	100.0	100.0	218	100.0	100.0	113
Musanze	100.0	100.0	249	100.0	100.0	124
Burera	100.0	100.0	217	100.0	100.0	109
Gicumbi	100.0	100.0	247	100.0	100.0	121
Rwamagana	100.0	100.0	232	100.0	100.0	111
Nyagatare	99.8	99.8	346	100.0	100.0	170
Gatsibo	99.4	99.4	332	100.0	100.0	154
Kayonza	100.0	100.0	224	100.0	100.0	102
Kirehe	100.0	100.0	220	100.0	100.0	106
Ngoma	100.0	100.0	271	100.0	100.0	120
Bugesera	100.0	100.0	238	100.0	100.0	97

[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), emergency contraception, and standard days method

Table D7.4 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, by district, Rwanda 2014-15

			Modern method											Traditional method				
District	Any method	Any modern method	Female sterili-zation	Male steriliz-ation	Pill	IUD	Inject-ables	Implants	Male condom	Female condom	LAM	Standard days method	Any tradi-tional method	Rhythm	With-drawal	Not currently using	Total	Number of women
Nyarugenge	55.5	51.2	2.9	0.0	10.4	2.5	19.3	10.2	4.4	0.3	0.0	1.1	4.3	2.4	1.9	44.5	100.0	215
Gasabo	57.1	50.6	1.0	0.0	10.3	2.9	15.4	11.8	5.6	0.0	1.2	2.3	6.4	2.9	3.6	42.9	100.0	436
Kicukiro	47.5	46.0	1.6	0.0	7.9	7.4	15.9	8.3	3.4	0.0	0.0	1.6	1.4	0.7	0.7	52.5	100.0	191
Nyanza	47.5	43.5	0.3	0.0	5.5	0.6	24.0	6.5	6.5	0.0	0.0	0.0	4.0	2.6	1.3	52.5	100.0	204
Gisagara	52.9	49.8	1.1	0.0	10.6	0.8	26.2	9.0	2.1	0.0	0.0	0.0	3.1	0.7	2.4	47.1	100.0	212
Nyaruguru	36.0	33.8	0.6	0.0	1.2	0.6	25.1	5.6	0.8	0.0	0.0	0.0	2.2	1.6	0.6	64.0	100.0	167
Huye	51.9	47.0	0.0	0.7	7.8	1.6	26.6	7.9	2.2	0.0	0.0	0.2	4.9	0.9	4.0	48.1	100.0	197
Nyamagabe	63.6	56.5	0.0	0.0	7.1	0.0	29.7	16.6	1.5	0.0	0.0	1.7	7.1	3.2	4.0	36.4	100.0	192
Ruhango	51.5	49.0	1.7	1.1	7.0	3.1	21.4	10.4	3.0	0.0	0.0	1.1	2.5	1.0	1.6	48.5	100.0	200
Muhanga	58.5	53.0	0.9	0.5	14.3	2.1	25.0	4.5	5.1	0.0	0.0	0.8	5.5	2.9	2.6	41.5	100.0	211
Kamonyi	56.8	50.5	2.0	0.0	10.7	1.1	25.7	7.0	3.0	0.0	0.0	1.1	6.3	4.0	2.3	43.2	100.0	224
Karongi	50.3	39.7	2.5	0.0	5.6	0.0	16.9	7.8	4.6	0.0	1.0	1.3	10.6	4.9	5.7	49.7	100.0	197
Rutsiro	48.7	42.2	0.5	0.0	4.6	0.9	25.4	8.7	2.2	0.0	0.0	0.1	6.5	3.0	3.5	51.3	100.0	200
Rubavu	51.2	44.2	0.9	0.0	5.1	0.0	28.4	6.8	2.7	0.0	0.0	0.4	6.9	3.8	3.1	48.8	100.0	253
Nyabihu	48.5	47.2	0.5	0.5	4.2	0.0	29.9	8.1	3.2	0.0	0.0	0.8	1.3	1.3	0.0	51.5	100.0	175
Ngororero	49.1	44.8	0.6	0.0	11.2	0.0	25.8	4.4	2.1	0.0	0.0	0.7	4.3	2.1	2.3	50.9	100.0	234
Rusizi	41.6	37.2	4.2	0.4	6.4	0.9	16.9	3.1	5.2	0.0	0.0	0.0	4.5	3.0	1.5	58.4	100.0	253
Nyamasheke	41.3	34.2	4.3	0.1	1.5	0.0	16.7	6.0	3.3	0.0	1.0	1.5	7.1	3.5	3.6	58.7	100.0	231
Rulindo	55.2	50.6	0.5	0.6	13.6	0.1	21.7	8.2	5.5	0.0	0.5	0.0	4.6	2.6	2.0	44.8	100.0	198
Gakenke	63.9	57.6	1.5	0.0	9.1	0.7	35.3	5.6	3.4	0.0	0.5	1.6	6.2	2.6	3.6	36.1	100.0	218
Musanze	70.6	66.5	1.2	0.0	9.8	0.5	36.6	13.4	2.4	0.0	0.0	2.7	4.1	1.8	2.4	29.4	100.0	249
Burera	54.7	44.2	1.4	0.0	8.6	0.5	26.3	4.9	1.5	0.0	0.0	1.0	10.5	4.6	5.9	45.3	100.0	217
Gicumbi	58.1	54.0	0.5	0.5	6.1	1.5	26.4	11.6	6.5	0.0	0.5	0.5	4.1	2.2	2.0	41.9	100.0	247
Rwamagana	57.6	47.5	0.5	1.0	7.4	0.4	24.0	8.0	5.4	0.0	0.0	0.8	10.1	5.0	5.1	42.4	100.0	232
Nyagatare	54.5	47.8	1.0	0.0	7.2	0.0	26.0	7.1	5.4	0.0	0.0	1.1	6.7	2.5	4.2	45.5	100.0	346
Gatsibo	47.6	44.9	0.6	1.2	10.2	0.0	23.1	5.4	3.9	0.0	0.2	0.4	2.7	0.0	2.7	52.4	100.0	332
Kayonza	56.2	47.1	0.7	0.3	11.5	0.8	20.8	7.0	5.6	0.0	0.0	0.4	9.0	5.1	3.9	43.8	100.0	224
Kirehe	58.8	50.2	0.9	0.0	9.0	1.3	30.4	4.7	3.8	0.0	0.0	0.0	8.6	3.8	4.9	41.2	100.0	220
Ngoma	57.2	47.2	1.6	0.0	10.6	1.7	23.1	5.4	4.8	0.0	0.0	0.0	10.0	3.7	6.3	42.8	100.0	271
Bugesera	45.6	41.4	0.5	0.0	11.4	1.0	20.2	6.3	1.3	0.0	0.0	0.9	4.1	1.7	2.5	54.4	100.0	238

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method

Table D7.12.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by district, Rwanda 2014-15

	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]					
District	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
Nyarugenge	10.6	8.3	19.0	28.5	27.0	55.5	39.1	35.3	74.5	74.5	68.7	215
Gasabo	9.8	6.5	16.3	31.1	26.0	57.1	40.9	32.5	73.4	77.8	69.0	436
Kicukiro	12.0	7.3	19.3	24.5	23.0	47.5	36.6	30.2	66.8	71.1	68.9	191
Nyanza	9.4	11.8	21.1	23.2	24.3	47.5	32.6	36.0	68.6	69.2	63.4	204
Gisagara	9.5	7.6	17.1	25.2	27.7	52.9	34.7	35.3	70.0	75.6	71.2	212
Nyaruguru	17.2	12.3	29.5	18.7	17.3	36.0	35.9	29.6	65.6	55.0	51.6	167
Huye	12.9	6.3	19.1	24.5	27.5	51.9	37.3	33.7	71.1	73.1	66.2	197
Nyamagabe	5.4	7.8	13.2	22.0	41.6	63.6	27.3	49.5	76.8	82.8	73.6	192
Ruhango	8.8	13.9	22.7	21.5	30.0	51.5	30.3	43.9	74.2	69.4	66.0	200
Muhanga	7.8	8.9	16.6	25.6	32.9	58.5	33.3	41.8	75.1	77.8	70.5	211
Kamonyi	7.9	8.5	16.4	23.4	33.4	56.8	31.3	41.9	73.2	77.6	69.0	224
Karongi	11.6	6.5	18.1	24.8	25.5	50.3	36.4	32.0	68.4	73.5	58.0	197
Rutsiro	12.1	8.6	20.7	22.4	26.4	48.7	34.5	35.0	69.5	70.2	60.8	200
Rubavu	15.0	7.1	22.1	24.0	27.2	51.2	39.0	34.3	73.3	69.9	60.4	253
Nyabihu	13.6	4.9	18.5	19.3	29.2	48.5	32.9	34.1	67.0	72.4	70.5	175
Ngororero	10.8	9.1	19.9	29.3	19.8	49.1	40.1	28.9	69.0	71.2	64.9	234
Rusizi	16.9	10.6	27.5	21.5	20.1	41.6	38.4	30.7	69.1	60.3	53.8	253
Nyamasheke	20.7	9.7	30.3	19.4	21.9	41.3	40.1	31.6	71.7	57.7	47.7	231
Rulindo	11.3	8.1	19.4	24.1	31.1	55.2	35.4	39.2	74.6	74.0	67.9	198
Gakenke	6.1	5.5	11.6	29.0	34.8	63.9	35.1	40.3	75.4	84.6	76.4	218
Musanze	6.0	4.9	10.9	33.1	37.5	70.6	39.2	42.4	81.6	86.6	81.5	249
Burera	9.8	7.8	17.6	24.5	30.2	54.7	34.3	38.0	72.3	75.7	61.1	217
Gicumbi	7.6	8.5	16.1	26.1	32.0	58.1	33.7	40.4	74.2	78.3	72.8	247
Rwamagana	8.0	10.0	18.0	25.7	32.0	57.6	33.7	42.0	75.7	76.2	62.8	232
Nyagatare	10.7	6.5	17.2	27.3	27.1	54.5	38.1	33.6	71.7	76.0	66.7	346
Gatsibo	13.1	8.9	22.0	21.2	26.5	47.6	34.3	35.3	69.6	68.5	64.5	332
Kayonza	8.7	9.2	17.9	33.8	22.4	56.2	42.5	31.6	74.1	75.8	63.6	224
Kirehe	8.0	7.4	15.5	29.3	29.5	58.8	37.4	36.9	74.3	79.2	67.6	220
Ngoma	6.2	10.8	16.9	31.8	25.4	57.2	38.0	36.2	74.2	77.2	63.7	271
Bugesera	13.9	7.7	21.5	26.6	19.0	45.6	40.4	26.7	67.1	67.9	61.7	238

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, standard days method, and lactational amenorrhea method (LAM).

Table D7.12.2 Need and demand for family planning for all women

Percentage of all women and women not currently married age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by district, Rwanda 2014-15

	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]					
District	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
Nyarugenge	7.3	4.7	12.0	15.9	14.6	30.6	23.2	19.4	42.6	71.8	66.9	452
Gasabo	6.2	3.9	10.2	18.3	14.7	32.9	24.5	18.6	43.1	76.4	68.9	863
Kicukiro	7.6	3.3	10.9	11.4	10.8	22.2	18.9	14.1	33.1	67.1	65.4	484
Nyanza	6.1	8.8	14.9	13.5	16.2	29.8	19.7	25.0	44.7	66.7	61.8	375
Gisagara	5.8	5.1	10.9	13.9	16.4	30.3	19.7	21.5	41.2	73.5	69.7	418
Nyaruguru	12.7	7.5	20.1	12.1	9.8	21.9	24.8	17.3	42.1	52.1	49.3	304
Huye	7.6	4.4	11.9	12.7	14.8	27.6	20.3	19.2	39.5	69.8	64.0	423
Nyamagabe	5.2	4.6	9.8	11.5	21.8	33.4	16.7	26.4	43.2	77.3	67.5	416
Ruhango	7.6	8.4	15.9	12.4	17.9	30.4	20.0	26.3	46.3	65.6	62.5	402
Muhanga	5.6	6.3	11.9	13.5	18.8	32.3	19.1	25.1	44.2	73.1	66.8	415
Kamonyi	6.1	5.4	11.4	11.9	18.5	30.4	17.9	23.8	41.8	72.7	65.3	460
Karongi	7.7	3.6	11.2	12.0	15.5	27.5	19.7	19.0	38.7	71.0	56.4	412
Rutsiro	9.6	6.2	15.8	15.6	17.4	32.9	25.2	23.5	48.7	67.6	59.1	339
Rubavu	8.4	4.1	12.6	13.5	15.9	29.4	22.0	20.1	42.0	70.0	61.5	488
Nyabihu	8.2	2.8	11.0	10.5	18.1	28.6	18.7	20.8	39.5	72.2	70.5	327
Ngororero	6.6	5.7	12.3	16.3	13.6	30.0	22.9	19.3	42.2	70.9	65.3	428
Rusizi	10.7	5.1	15.8	11.1	10.1	21.3	21.8	15.2	37.0	57.5	51.8	543
Nyamasheke	13.5	6.2	19.7	11.5	13.3	24.8	25.0	19.6	44.5	55.7	46.6	428
Rulindo	7.4	4.7	12.1	13.5	18.1	31.6	20.9	22.8	43.8	72.2	66.7	377
Gakenke	5.3	3.6	9.0	15.8	20.1	35.9	21.1	23.7	44.8	80.0	71.8	422
Musanze	4.1	3.3	7.4	16.9	19.7	36.6	20.9	23.0	44.0	83.2	78.6	505
Burera	6.2	5.0	11.3	13.1	16.8	29.9	19.3	21.8	41.1	72.6	59.4	421
Gicumbi	4.6	4.4	9.1	14.8	18.4	33.2	19.4	22.8	42.3	78.6	73.3	485
Rwamagana	6.4	5.8	12.2	17.0	18.1	35.1	23.4	23.9	47.3	74.2	61.3	455
Nyagatare	8.6	3.7	12.3	17.9	17.4	35.3	26.5	21.1	47.6	74.1	65.9	597
Gatsibo	10.7	5.6	16.2	13.4	16.5	29.9	24.1	22.1	46.2	64.9	60.9	600
Kayonza	7.6	5.6	13.2	20.3	13.6	33.9	28.0	19.2	47.1	72.0	61.7	416
Kirehe	5.6	5.3	10.9	19.5	19.8	39.3	25.0	25.1	50.2	78.3	67.1	356
Ngoma	6.0	6.8	12.8	20.4	17.2	37.6	26.4	24.0	50.4	74.6	63.4	482
Bugesera	11.2	5.4	16.6	16.5	12.3	28.8	27.7	17.7	45.4	63.4	58.0	401

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, standard days method, and lactational amenorrhea method (LAM).

Table D7.14 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio, television, or in a newspaper in the past few months, by district, Rwanda 2014-15

	Women					Men				
District	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of women	Radio	Television	Newspaper/ magazine	None of these three media sources	Number of men
Nyarugenge	45.9	14.7	4.7	49.6	452	57.0	27.4	11.5	37.2	219
Gasabo	52.5	15.5	9.8	43.0	863	68.2	14.6	14.4	30.8	421
Kicukiro	62.5	33.9	12.8	32.0	484	82.9	25.7	19.1	16.6	223
Nyanza	53.7	2.6	6.8	46.1	375	63.9	1.6	1.3	35.2	182
Gisagara	56.3	4.9	6.0	43.1	418	58.3	4.3	6.7	41.1	179
Nyaruguru	58.0	2.8	6.1	41.9	304	46.7	1.5	2.8	52.6	149
Huye	44.0	11.3	6.9	54.1	423	87.8	9.4	10.8	11.5	210
Nyamagabe	52.0	4.3	8.1	46.9	416	59.3	3.1	2.3	40.0	196
Ruhango	37.6	1.5	2.6	61.7	402	55.8	3.7	0.6	44.2	197
Muhanga	60.3	11.9	13.1	37.2	415	69.4	7.9	11.1	27.5	191
Kamonyi	56.6	14.3	12.3	41.4	460	79.9	11.2	10.3	18.7	217
Karongi	54.0	3.1	9.4	44.5	412	60.3	8.8	10.0	38.2	199
Rutsiro	41.1	1.9	2.1	57.5	339	58.8	2.3	4.1	41.2	156
Rubavu	34.5	5.8	5.6	64.8	488	65.7	14.1	13.1	32.0	242
Nyabihu	17.7	0.2	0.2	82.3	327	60.6	0.7	2.7	39.4	129
Ngororero	35.2	1.9	3.7	64.4	428	51.0	10.5	9.9	49.0	178
Rusizi	54.2	5.8	5.6	45.2	543	69.6	12.9	8.7	29.7	250
Nyamasheke	42.2	4.3	8.6	55.5	428	29.4	0.8	6.4	70.6	169
Rulindo	42.6	4.7	5.2	55.4	377	72.7	5.1	9.5	26.6	157
Gakenke	63.8	4.8	13.4	35.5	422	83.7	6.4	16.5	15.7	175
Musanze	68.5	16.1	25.0	28.9	505	67.5	13.6	15.2	31.0	218
Burera	59.8	6.3	9.8	39.0	421	56.4	4.7	7.2	43.6	168
Gicumbi	60.8	6.2	6.6	38.7	485	58.9	5.8	8.2	40.4	231
Rwamagana	52.5	5.2	4.5	44.9	455	59.3	4.7	3.8	38.7	207
Nyagatare	62.3	5.1	3.2	37.3	597	65.9	3.9	10.1	34.1	287
Gatsibo	58.2	4.3	5.7	41.5	600	54.8	3.2	2.6	44.9	278
Kayonza	63.1	6.0	7.5	36.5	416	91.6	18.8	19.4	6.8	195
Kirehe	50.8	0.9	7.1	48.9	356	83.2	14.9	16.3	13.9	185
Ngoma	45.3	7.3	5.8	53.1	482	66.3	18.7	8.6	30.4	222
Bugesera	39.3	3.5	4.6	60.2	401	53.2	4.8	3.7	46.4	187

Table D7.15 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the last 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, and the percentage who did not discuss family planning either with a fieldworker or at a health facility, by district, Rwanda 2014-15

District	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who discussed family planning	Percentage of women who did not discuss family planning either with fieldworker or at a health facility	Number of women
Nyarugenge	7.3	16.1	80.1	314
Gasabo	10.8	11.6	81.0	579
Kicukiro	6.0	5.6	89.5	377
Nyanza	11.8	21.1	73.1	264
Gisagara	12.5	15.1	76.8	292
Nyaruguru	16.6	21.0	68.0	237
Huye	13.7	8.3	81.9	307
Nyamagabe	18.4	15.7	73.3	277
Ruhango	13.3	24.1	70.2	280
Muhanga	12.6	13.3	79.2	281
Kamonyi	14.1	19.3	73.1	320
Karongi	12.2	18.7	76.5	299
Rutsiro	13.9	19.0	73.3	228
Rubavu	9.2	11.2	83.7	344
Nyabihu	20.6	11.5	78.0	234
Ngororero	11.0	15.7	78.7	300
Rusizi	10.2	20.1	74.7	428
Nyamasheke	14.1	12.8	76.5	322
Rulindo	13.9	15.6	75.6	258
Gakenke	17.9	13.5	74.7	271
Musanze	13.2	10.8	79.3	321
Burera	20.2	12.6	74.7	296
Gicumbi	16.0	16.5	77.5	324
Rwamagana	18.0	31.3	63.2	295
Nyagatare	17.9	18.4	73.8	386
Gatsibo	15.4	22.3	68.7	421
Kayonza	24.9	20.5	67.3	275
Kirehe	12.7	33.2	62.5	216
Ngoma	16.7	22.7	69.2	301
Bugesera	14.8	24.1	68.2	286

Table D8.2 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by district, Rwanda 2014-15

District	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
Nyarugenge	20	9	29	18	46
Gasabo	7	21	27	15	41
Kicukiro	16	17	32	8	40
Nyanza	31	9	40	22	62
Gisagara	13	39	52	55	104
Nyaruguru	29	23	52	27	77
Huye	23	17	40	22	61
Nyamagabe	15	6	21	31	52
Ruhango	36	18	54	9	62
Muhanga	18	2	20	21	41
Kamonyi	32	6	38	20	58
Karongi	32	10	43	23	65
Rutsiro	23	26	49	31	79
Rubavu	23	30	53	25	77
Nyabihu	20	15	35	28	62
Ngororero	38	18	56	23	78
Rusizi	31	10	41	21	61
Nyamasheke	6	5	12	6	17
Rulindo	25	13	38	22	59
Gakenke	34	9	43	22	64
Musanze	21	26	47	21	67
Burera	17	9	26	27	52
Gicumbi	22	14	37	23	58
Rwamagana	23	19	42	33	74
Nyagatare	20	29	49	49	95
Gatsibo	8	48	56	45	99
Kayonza	35	26	61	38	96
Kirehe	28	35	63	25	87
Ngoma	23	19	42	34	75
Bugesera	23	24	47	22	68

[1] Computed as the difference between the infant and neonatal mortality rates

Table D9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, by district, Rwanda 2014-15

	Antenatal care provider								
District	Doctor	Nurse/ medical assistant	Midwife	Traditional birth attendant	Other	Missing	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
Nyarugenge	4.4	90.5	3.2	0.0	0.0	0.4	98.5	98.1	192
Gasabo	15.3	82.7	0.6	0.0	0.0	0.0	98.5	98.5	371
Kicukiro	12.2	86.9	0.0	0.0	0.0	0.0	99.1	99.1	160
Nyanza	2.7	94.2	0.0	0.0	0.0	1.1	97.9	96.8	180
Gisagara	35.7	64.3	0.0	0.0	0.0	0.0	100.0	100.0	206
Nyaruguru	0.2	99.2	0.0	0.0	0.0	0.0	99.4	99.4	140
Huye	8.5	90.8	0.0	0.0	0.0	0.0	99.4	99.4	181
Nyamagabe	2.5	95.7	0.6	0.0	0.0	0.0	98.9	98.9	160
Ruhango	0.6	99.0	0.0	0.0	0.0	0.0	99.6	99.6	177
Muhanga	5.0	93.8	0.0	0.0	0.0	0.0	98.9	98.9	169
Kamonyi	2.8	97.2	0.0	0.0	0.0	0.0	100.0	100.0	193
Karongi	2.9	95.9	0.0	0.0	0.0	0.0	98.8	98.8	168
Rutsiro	0.8	94.9	4.2	0.0	0.0	0.0	100.0	100.0	176
Rubavu	2.4	95.4	0.0	0.0	0.0	0.4	98.2	97.8	243
Nyabihu	0.0	99.5	0.0	0.0	0.0	0.0	99.5	99.5	140
Ngororero	3.0	95.2	0.0	0.0	0.0	0.0	98.2	98.2	192
Rusizi	1.4	96.2	1.5	0.0	0.0	0.0	99.1	99.1	228
Nyamasheke	1.6	95.3	3.1	0.0	0.0	0.0	100.0	100.0	218
Rulindo	1.4	97.8	0.0	0.0	0.0	0.0	99.2	99.2	163
Gakenke	7.9	90.9	0.0	0.0	0.0	0.0	98.8	98.8	148
Musanze	4.6	92.6	1.7	0.0	0.0	1.2	100.0	98.8	193
Burera	2.6	96.8	0.0	0.0	0.0	0.6	100.0	99.4	174
Gicumbi	1.1	97.7	1.1	0.0	0.0	0.0	100.0	100.0	207
Rwamagana	1.3	96.1	1.4	0.0	0.0	0.6	99.4	98.8	212
Nyagatare	0.5	98.5	0.0	0.5	0.5	0.0	100.0	99.0	312
Gatsibo	3.4	95.3	0.4	0.0	0.0	0.4	99.6	99.1	303
Kayonza	2.5	97.5	0.0	0.0	0.0	0.0	100.0	100.0	200
Kirehe	0.5	96.9	0.0	0.0	0.0	0.0	97.4	97.4	200
Ngoma	2.9	95.2	0.0	0.0	0.0	0.0	98.1	98.1	249
Bugesera	0.9	99.1	0.0	0.0	0.0	0.0	100.0	100.0	206

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, medical assistant, and midwife.

Table D9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, by district, Rwanda 2014-15

	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:			Among women who received antenatal care for their most recent birth in the past five years, the percentage with selected services				
District	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past five years	Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women with ANC for their most recent birth
Nyarugenge	81.5	45.0	192	79.7	96.0	82.8	98.7	189
Gasabo	77.4	55.4	371	85.6	97.0	69.0	99.6	366
Kicukiro	82.8	48.8	160	85.8	91.6	88.7	98.6	158
Nyanza	82.5	66.0	180	87.3	85.8	29.3	99.1	176
Gisagara	92.6	66.2	206	83.6	92.8	59.2	97.9	206
Nyaruguru	78.7	42.7	140	85.4	94.0	45.3	97.4	139
Huye	83.3	40.8	181	74.7	87.6	54.4	98.7	180
Nyamagabe	87.5	63.6	160	77.7	88.4	27.9	98.2	158
Ruhango	89.2	39.2	177	89.2	96.0	68.9	100.0	176
Muhanga	78.8	46.0	169	81.4	90.8	84.1	97.3	168
Kamonyi	76.3	56.3	193	77.3	89.1	81.9	99.0	193
Karongi	83.7	67.4	168	89.1	96.3	89.0	97.4	166
Rutsiro	76.5	38.6	176	71.3	89.0	51.2	96.1	176
Rubavu	79.3	57.1	243	62.8	81.5	71.9	92.3	239
Nyabihu	70.3	50.2	140	42.8	79.5	65.9	84.4	139
Ngororero	50.8	16.0	192	63.9	71.6	55.2	87.9	189
Rusizi	88.1	62.0	228	70.3	82.3	60.2	94.5	226
Nyamasheke	86.3	61.9	218	76.9	84.4	65.7	99.5	218
Rulindo	82.8	43.8	163	89.1	83.0	60.7	99.4	161
Gakenke	93.8	52.3	148	80.4	89.5	81.9	91.4	147
Musanze	85.2	37.7	193	82.5	78.8	75.1	92.9	193
Burera	95.0	63.8	174	87.9	82.5	61.3	98.2	174
Gicumbi	93.2	57.9	207	89.4	85.8	74.9	94.5	207
Rwamagana	71.7	63.4	212	70.1	87.5	46.2	98.4	210
Nyagatare	72.2	27.4	312	73.5	34.8	24.3	98.3	312
Gatsibo	65.3	37.9	303	73.8	79.2	50.3	97.3	300
Kayonza	77.5	47.9	200	75.2	96.5	33.6	98.1	200
Kirehe	86.4	59.8	200	93.4	95.9	49.9	99.1	195
Ngoma	72.5	51.6	249	94.1	78.2	37.9	99.5	244
Bugesera	67.3	21.1	206	74.1	68.9	31.1	92.3	206

Table D9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, by district, Rwanda 2014-15

District	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
Nyarugenge	31.9	76.0	192
Gasabo	40.3	86.0	371
Kicukiro	44.5	88.5	160
Nyanza	23.1	83.3	180
Gisagara	34.5	85.0	206
Nyaruguru	28.7	90.0	140
Huye	46.0	84.0	181
Nyamagabe	22.7	80.5	160
Ruhango	34.3	90.1	177
Muhanga	33.6	80.5	169
Kamonyi	37.8	87.6	193
Karongi	41.3	90.9	168
Rutsiro	30.9	82.7	176
Rubavu	43.8	74.7	243
Nyabihu	48.8	81.4	140
Ngororero	29.2	77.7	192
Rusizi	34.0	74.9	228
Nyamasheke	32.5	83.9	218
Rulindo	27.9	76.8	163
Gakenke	30.7	84.2	148
Musanze	38.9	76.1	193
Burera	44.3	89.9	174
Gicumbi	20.4	80.9	207
Rwamagana	37.3	92.5	212
Nyagatare	17.7	64.7	312
Gatsibo	44.4	80.8	303
Kayonza	36.1	88.9	200
Kirehe	28.0	92.7	200
Ngoma	29.6	83.0	249
Bugesera	16.5	78.3	206

[1] Includes mothers with two injections during the pregnancy of their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth

Table D9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, by district, Rwanda 2014-15

District	Health facility		Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector						
Nyarugenge	90.2	1.9	6.7	1.2	0.0	100.0	92.1	247
Gasabo	92.0	3.1	4.1	0.8	0.0	100.0	95.1	491
Kicukiro	89.4	5.3	4.8	0.4	0.0	100.0	94.8	205
Nyanza	84.8	0.3	15.0	0.0	0.0	100.0	85.0	253
Gisagara	88.1	0.0	8.8	3.0	0.0	100.0	88.1	267
Nyaruguru	81.2	0.0	14.7	4.2	0.0	100.0	81.2	198
Huye	94.8	0.3	3.1	1.8	0.0	100.0	95.1	233
Nyamagabe	88.2	0.0	11.3	0.5	0.0	100.0	88.2	215
Ruhango	94.2	0.0	5.4	0.4	0.0	100.0	94.2	220
Muhanga	93.8	1.1	2.4	2.7	0.0	100.0	94.8	210
Kamonyi	91.5	0.9	5.8	1.8	0.0	100.0	92.4	240
Karongi	86.7	0.0	11.0	2.3	0.0	100.0	86.7	219
Rutsiro	91.4	0.2	7.5	0.9	0.0	100.0	91.6	245
Rubavu	92.5	1.6	5.3	0.3	0.3	100.0	94.1	351
Nyabihu	90.6	0.0	9.4	0.0	0.0	100.0	90.6	191
Ngororero	75.8	0.1	23.7	0.4	0.0	100.0	75.9	268
Rusizi	95.6	0.0	3.0	1.4	0.0	100.0	95.6	320
Nyamasheke	96.2	0.0	3.8	0.0	0.0	100.0	96.2	327
Rulindo	90.0	0.6	8.3	1.1	0.0	100.0	90.6	212
Gakenke	89.9	0.0	5.5	4.6	0.0	100.0	89.9	184
Musanze	93.6	1.0	4.5	1.0	0.0	100.0	94.6	237
Burera	90.6	0.1	6.5	2.9	0.0	100.0	90.6	215
Gicumbi	94.6	0.7	3.3	1.4	0.0	100.0	95.3	259
Rwamagana	92.3	0.5	6.8	0.4	0.0	100.0	92.8	282
Nyagatare	82.8	0.4	14.8	2.0	0.0	100.0	83.2	404
Gatsibo	87.3	0.2	10.8	1.1	0.6	100.0	87.5	389
Kayonza	91.5	0.3	6.0	2.2	0.0	100.0	91.8	271
Kirehe	85.2	0.0	10.9	3.9	0.0	100.0	85.2	252
Ngoma	87.3	1.1	9.1	2.5	0.0	100.0	88.4	321
Bugesera	94.4	1.3	3.8	0.4	0.0	100.0	95.7	276

Table D9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and percentage delivered by cesarean section, by district, Rwanda 2014-15

	Person providing assistance during delivery											
District	Doctor	Nurse/ medical assistant	Midwife	Other health worker	Traditional birth attendant	Relative/ Other	No one	Don't know/ missing	Total	Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
Nyarugenge	25.2	52.5	14.1	1.5	0.0	2.7	1.8	2.2	100.0	91.8	22.5	247
Gasabo	28.3	62.3	5.1	0.6	0.3	1.8	0.3	1.4	100.0	95.7	19.8	491
Kicukiro	23.9	70.6	0.3	0.0	0.0	1.2	1.5	2.5	100.0	94.8	22.0	205
Nyanza	22.1	58.6	4.4	3.4	0.0	5.0	4.8	1.9	100.0	85.0	14.5	253
Gisagara	40.8	47.3	0.0	2.7	1.4	0.5	5.4	1.9	100.0	88.1	12.7	267
Nyaruguru	5.6	75.6	0.5	3.4	0.0	9.7	2.2	3.1	100.0	81.6	2.9	198
Huye	24.3	71.8	0.0	0.0	0.0	2.1	0.6	1.2	100.0	96.1	14.2	233
Nyamagabe	11.0	75.1	2.1	1.8	0.0	5.0	4.5	0.4	100.0	88.2	8.6	215
Ruhango	32.4	62.3	0.0	1.0	0.0	2.1	1.4	0.9	100.0	94.7	22.1	220
Muhanga	24.5	66.8	3.6	0.9	0.5	2.6	0.0	1.2	100.0	94.8	19.0	210
Kamonyi	21.6	68.8	2.0	1.4	0.9	2.0	1.4	1.9	100.0	92.4	18.5	240
Karongi	18.8	67.0	0.0	0.9	0.4	3.6	8.3	0.9	100.0	85.9	13.5	219
Rutsiro	19.8	68.0	3.8	2.4	0.0	4.1	0.8	1.1	100.0	91.6	14.7	245
Rubavu	8.8	85.0	0.0	1.6	0.0	1.6	1.6	1.5	100.0	93.8	10.3	351
Nyabihu	5.8	84.3	0.0	0.9	0.0	4.0	4.1	0.9	100.0	90.1	6.6	191
Ngororero	15.9	60.1	0.0	2.0	0.0	6.4	14.5	1.2	100.0	75.9	9.3	268
Rusizi	14.2	78.8	2.6	1.1	0.0	2.0	0.6	0.7	100.0	95.6	13.0	320
Nyamasheke	13.8	70.7	11.7	1.1	0.0	0.6	1.1	1.0	100.0	96.2	13.1	327
Rulindo	20.9	70.0	0.1	2.8	0.0	3.3	1.0	1.8	100.0	91.0	13.4	212
Gakenke	16.5	72.8	0.0	1.7	0.0	5.4	1.8	1.7	100.0	89.3	4.6	184
Musanze	12.0	74.8	7.7	1.0	0.0	1.9	2.5	0.0	100.0	94.6	8.0	237
Burera	13.7	71.5	5.5	3.5	0.0	1.5	4.4	0.0	100.0	90.6	9.1	215
Gicumbi	14.2	79.2	0.9	1.0	0.0	1.4	0.9	2.4	100.0	94.3	10.7	259
Rwamagana	19.8	64.3	9.0	1.6	0.3	2.0	1.1	1.9	100.0	93.2	18.7	282
Nyagatare	11.0	72.2	0.0	1.1	0.0	10.5	2.9	2.3	100.0	83.2	7.1	404
Gatsibo	12.4	73.9	1.2	2.7	1.4	3.6	0.7	4.1	100.0	87.5	9.7	389
Kayonza	16.5	75.3	0.0	3.1	0.6	2.3	1.9	0.4	100.0	91.8	10.7	271
Kirehe	13.6	72.0	0.0	4.7	0.0	5.0	0.4	4.3	100.0	85.6	7.8	252
Ngoma	24.0	63.7	0.8	2.7	0.0	3.5	4.2	1.2	100.0	88.4	16.5	321
Bugesera	17.5	76.1	2.3	0.8	0.0	0.2	3.0	0.0	100.0	95.9	10.9	276

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, medical assistant, and midwife.

Table D9.7 Timing of first postnatal checkup

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, by district, Rwanda 2014-15

	Time after delivery of mother's first postnatal checkup									
District	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing	No postnatal checkup[1]	Total	Percentage of women with a postnatal checkup in the first two days after birth	Number of women
Nyarugenge	36.4	6.8	5.9	0.0	2.1	0.0	48.8	100.0	49.1	102
Gasabo	30.2	10.5	5.6	0.0	1.4	0.0	52.2	100.0	46.4	204
Kicukiro	34.9	5.3	4.7	0.0	0.8	0.0	54.4	100.0	44.9	89
Nyanza	9.3	4.4	7.3	0.0	0.0	0.0	79.1	100.0	20.9	94
Gisagara	18.8	5.9	3.6	0.0	0.0	0.0	71.7	100.0	28.3	103
Nyaruguru	55.8	5.4	5.3	0.0	1.2	0.0	32.2	100.0	66.6	77
Huye	35.4	9.9	0.0	2.5	3.4	0.0	48.8	100.0	45.3	96
Nyamagabe	9.6	6.8	4.3	1.8	0.0	0.0	77.6	100.0	20.7	81
Ruhango	81.3	6.2	2.9	0.0	0.0	0.0	9.6	100.0	90.4	96
Muhanga	26.9	19.2	6.9	2.5	0.0	3.4	41.2	100.0	53.0	80
Kamonyi	39.7	26.6	1.1	0.0	0.0	0.0	32.6	100.0	67.4	103
Karongi	28.1	6.8	5.9	4.7	4.2	0.0	50.3	100.0	40.8	95
Rutsiro	64.2	19.7	4.7	0.9	0.0	1.0	9.5	100.0	88.6	99
Rubavu	21.2	0.9	4.7	0.0	2.4	0.0	70.7	100.0	26.9	144
Nyabihu	2.5	0.0	1.3	0.0	0.0	0.0	96.2	100.0	3.8	70
Ngororero	13.1	4.8	0.0	1.5	2.2	0.0	78.5	100.0	17.8	102
Rusizi	20.0	6.3	2.6	0.9	2.8	0.0	67.4	100.0	28.9	124
Nyamasheke	45.5	12.9	3.4	0.9	1.7	0.0	35.7	100.0	61.8	128
Rulindo	39.6	8.2	8.7	0.0	1.1	0.0	42.4	100.0	56.5	86
Gakenke	15.5	12.4	11.2	2.8	1.5	0.0	56.7	100.0	39.1	73
Musanze	18.4	2.4	9.2	1.2	3.4	0.0	65.4	100.0	30.0	99
Burera	14.6	4.7	8.7	2.1	4.8	0.0	65.0	100.0	28.0	95
Gicumbi	55.5	1.3	2.9	0.6	0.6	0.6	38.4	100.0	59.8	100
Rwamagana	78.6	11.4	6.4	0.0	0.0	0.0	3.7	100.0	96.3	119
Nyagatare	13.1	2.1	0.7	0.0	0.0	0.0	84.1	100.0	15.9	182
Gatsibo	20.9	9.4	6.2	0.8	3.3	0.0	59.4	100.0	36.5	165
Kayonza	18.6	9.8	4.2	2.9	1.6	0.0	62.8	100.0	32.7	105
Kirehe	40.2	14.9	2.6	0.0	0.0	0.0	42.3	100.0	57.7	94
Ngoma	23.3	13.2	5.6	1.2	1.0	0.0	55.7	100.0	42.1	118
Bugesera	2.0	5.7	3.1	0.7	1.0	0.0	87.5	100.0	10.9	112

[1] Includes women who received a checkup after 41 days

Table D9.8 Type of provider of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check in the two days after the last live birth, by district, Rwanda 2014-15

	Type of health provider of mother's first postnatal checkup					
District	Doctor/nurse/ medical assistant	Midwife	Community health worker	No postnatal checkup in the first two days after birth[1]	Total	Number of women
Nyarugenge	36.0	13.1	0.0	50.9	100.0	102
Gasabo	44.4	2.0	0.0	53.6	100.0	204
Kicukiro	44.1	0.8	0.0	55.1	100.0	89
Nyanza	17.9	3.0	0.0	79.1	100.0	94
Gisagara	27.2	0.0	1.1	71.7	100.0	103
Nyaruguru	65.4	0.0	1.2	33.4	100.0	77
Huye	45.3	0.0	0.0	54.7	100.0	96
Nyamagabe	20.7	0.0	0.0	79.3	100.0	81
Ruhango	88.6	0.0	1.8	9.6	100.0	96
Muhanga	53.0	0.0	0.0	47.0	100.0	80
Kamonyi	67.4	0.0	0.0	32.6	100.0	103
Karongi	40.8	0.0	0.0	59.2	100.0	95
Rutsiro	82.0	6.6	0.0	11.4	100.0	99
Rubavu	26.9	0.0	0.0	73.1	100.0	144
Nyabihu	3.8	0.0	0.0	96.2	100.0	70
Ngororero	15.7	0.0	2.2	82.2	100.0	102
Rusizi	26.1	2.8	0.0	71.1	100.0	124
Nyamasheke	56.6	5.2	0.0	38.2	100.0	128
Rulindo	55.3	1.3	0.0	43.5	100.0	86
Gakenke	37.6	0.0	1.4	60.9	100.0	73
Musanze	28.6	1.3	0.0	70.0	100.0	99
Burera	26.7	1.3	0.0	72.0	100.0	95
Gicumbi	58.6	1.1	0.0	40.2	100.0	100
Rwamagana	87.4	9.0	0.0	3.7	100.0	119
Nyagatare	15.9	0.0	0.0	84.1	100.0	182
Gatsibo	36.5	0.0	0.0	63.5	100.0	165
Kayonza	32.7	0.0	0.0	67.3	100.0	105
Kirehe	55.6	2.0	0.0	42.3	100.0	94
Ngoma	42.1	0.0	0.0	57.9	100.0	118
Bugesera	10.9	0.0	0.0	89.1	100.0	112

[1] Includes women who received a checkup after 41 days

Table D9.9 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the two days after birth, by district, Rwanda 2014-15

	Time after birth of newborn's first postnatal checkup									
District	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know/ missing	No postnatal checkup[1]	Total	Percentage of births with a postnatal checkup in the first two days after birth	Number of births
Nyarugenge	2.1	1.2	1.2	3.6	0.0	0.0	91.9	100.0	8.1	102
Gasabo	1.3	1.5	0.7	0.0	0.0	0.0	96.5	100.0	3.5	204
Kicukiro	7.6	15.3	1.9	3.4	0.0	0.0	71.8	100.0	28.2	89
Nyanza	0.0	3.1	2.7	2.3	0.7	0.0	91.3	100.0	8.1	94
Gisagara	0.1	1.0	2.6	0.0	0.0	0.0	96.2	100.0	3.8	103
Nyaruguru	50.1	3.0	3.7	1.2	2.4	0.0	39.5	100.0	58.0	77
Huye	2.9	22.3	3.6	1.1	1.1	0.0	69.1	100.0	29.8	96
Nyamagabe	1.0	1.2	0.0	1.3	1.2	0.0	95.2	100.0	3.6	81
Ruhango	74.0	3.1	2.9	0.9	0.9	0.0	18.1	100.0	81.0	96
Muhanga	4.7	2.6	3.6	0.0	0.0	1.2	87.9	100.0	10.9	80
Kamonyi	7.1	9.5	10.7	1.1	0.0	0.0	71.6	100.0	28.4	103
Karongi	1.0	0.0	0.0	1.0	0.0	0.0	97.9	100.0	2.1	95
Rutsiro	24.2	42.6	16.1	5.7	1.9	1.0	8.4	100.0	88.7	99
Rubavu	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	144
Nyabihu	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	70
Ngororero	1.1	6.3	2.2	2.2	0.3	0.0	87.9	100.0	11.8	102
Rusizi	0.9	0.0	0.0	0.8	0.9	0.0	97.4	100.0	1.7	124
Nyamasheke	0.9	0.0	0.0	1.8	0.0	0.0	97.3	100.0	2.7	128
Rulindo	3.5	1.3	1.1	1.1	0.0	0.0	93.1	100.0	6.9	86
Gakenke	2.8	9.2	5.8	4.8	1.5	0.0	76.0	100.0	22.6	73
Musanze	1.2	2.4	1.3	1.1	1.1	0.0	93.0	100.0	5.9	99
Burera	0.0	1.1	0.0	0.0	0.0	0.0	98.9	100.0	1.1	95
Gicumbi	24.7	5.8	1.3	3.7	1.2	0.0	63.3	100.0	35.5	100
Rwamagana	64.4	15.6	10.8	6.3	0.8	0.0	2.0	100.0	97.2	119
Nyagatare	3.3	1.5	0.0	0.8	0.9	0.0	93.5	100.0	5.6	182
Gatsibo	1.7	6.1	0.0	0.9	0.8	0.0	90.6	100.0	8.6	165
Kayonza	1.0	1.1	0.0	0.0	0.0	0.0	97.9	100.0	2.1	105
Kirehe	17.4	18.3	13.3	1.1	1.5	0.0	48.3	100.0	50.2	94
Ngoma	4.4	1.3	1.3	0.9	0.0	0.0	92.0	100.0	8.0	118
Bugesera	0.6	0.0	3.4	2.0	0.0	0.0	93.9	100.0	6.1	112

[1] Includes newborns who received a checkup after the first week

Table D9.10 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by type of provider of the newborn's first postnatal health check during the two days after the last live birth, by district, Rwanda 2014-15

	Type of health provider of newborn's first postnatal checkup						
District	Doctor/nurse/ medical assistant	Midwife	Community health worker	Traditional birth attendant	No postnatal checkup in the first two days after birth	Total	Number of births
Nyarugenge	6.5	0.8	0.0	0.8	91.9	100.0	102
Gasabo	3.5	0.0	0.0	0.0	96.5	100.0	204
Kicukiro	28.2	0.0	0.0	0.0	71.8	100.0	89
Nyanza	8.1	0.0	0.0	0.0	91.9	100.0	94
Gisagara	2.8	0.0	1.0	0.0	96.2	100.0	103
Nyaruguru	54.5	1.1	2.4	0.0	42.0	100.0	77
Huye	29.8	0.0	0.0	0.0	70.2	100.0	96
Nyamagabe	3.6	0.0	0.0	0.0	96.4	100.0	81
Ruhango	80.1	0.0	0.8	0.0	19.0	100.0	96
Muhanga	10.9	0.0	0.0	0.0	89.1	100.0	80
Kamonyi	28.4	0.0	0.0	0.0	71.6	100.0	103
Karongi	2.1	0.0	0.0	0.0	97.9	100.0	95
Rutsiro	83.0	5.7	0.0	0.0	11.3	100.0	99
Rubavu	0.0	0.0	0.0	0.0	100.0	100.0	144
Nyabihu	0.0	0.0	0.0	0.0	100.0	100.0	70
Ngororero	10.8	0.0	1.0	0.0	88.2	100.0	102
Rusizi	1.7	0.0	0.0	0.0	98.3	100.0	124
Nyamasheke	1.8	0.9	0.0	0.0	97.3	100.0	128
Rulindo	6.9	0.0	0.0	0.0	93.1	100.0	86
Gakenke	21.2	0.0	1.4	0.0	77.4	100.0	73
Musanze	5.9	0.0	0.0	0.0	94.1	100.0	99
Burera	1.1	0.0	0.0	0.0	98.9	100.0	95
Gicumbi	34.3	1.1	0.0	0.0	64.5	100.0	100
Rwamagana	84.2	12.9	0.0	0.0	2.8	100.0	119
Nyagatare	5.6	0.0	0.0	0.0	94.4	100.0	182
Gatsibo	8.6	0.0	0.0	0.0	91.4	100.0	165
Kayonza	2.1	0.0	0.0	0.0	97.9	100.0	105
Kirehe	49.3	0.9	0.0	0.0	49.8	100.0	94
Ngoma	8.0	0.0	0.0	0.0	92.0	100.0	118
Bugesera	6.1	0.0	0.0	0.0	93.9	100.0	112

Table D9.11 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, by district, Rwanda 2014-15

	Problems in accessing health care					
District	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Nyarugenge	2.7	52.4	11.8	8.9	57.9	452
Gasabo	1.4	33.3	13.2	13.5	44.2	863
Kicukiro	1.1	16.6	3.3	1.8	19.1	484
Nyanza	1.1	65.9	30.8	14.2	73.7	375
Gisagara	0.9	70.0	28.7	8.5	80.0	418
Nyaruguru	1.1	65.5	14.4	15.9	73.8	304
Huye	2.1	51.2	8.1	9.3	54.8	423
Nyamagabe	4.5	63.5	48.6	21.9	74.1	416
Ruhango	0.7	62.8	15.3	17.8	70.7	402
Muhanga	6.8	44.3	19.8	24.6	57.0	415
Kamonyi	1.8	41.0	23.3	22.6	52.1	460
Karongi	5.1	59.6	31.8	41.2	76.9	412
Rutsiro	3.4	50.7	24.9	33.6	65.2	339
Rubavu	3.8	52.7	17.2	14.9	58.5	488
Nyabihu	0.4	62.6	21.5	17.9	64.3	327
Ngororero	2.2	50.7	29.6	11.6	61.5	428
Rusizi	4.5	51.7	27.5	28.5	65.0	543
Nyamasheke	5.3	61.7	31.4	36.4	74.2	428
Rulindo	0.9	60.0	28.0	9.8	66.2	377
Gakenke	0.7	21.3	11.7	10.8	31.4	422
Musanze	9.1	43.2	14.5	23.8	55.2	505
Burera	7.7	43.4	24.9	22.5	58.9	421
Gicumbi	1.7	64.9	15.0	15.0	71.1	485
Rwamagana	0.8	41.2	29.1	21.8	52.0	455
Nyagatare	1.9	60.3	24.2	14.4	67.0	597
Gatsibo	2.4	38.1	12.5	7.8	40.1	600
Kayonza	2.3	43.5	17.5	9.1	52.0	416
Kirehe	0.3	31.0	11.3	6.4	39.8	356
Ngoma	1.9	58.3	31.7	29.2	69.4	482
Bugesera	0.3	46.3	39.0	22.4	60.8	401

Table D10.1 Child's weight and size at birth

Percentage of live births in the five years preceding the survey with a reported birth weight; among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, by district, Rwanda 2014-15

	Percent distribution of all live births by size of child at birth					Percentage of all births that have a reported birth weight[1]	Number of births	Births with a reported birth weight[1]	
District	Very small	Smaller than average	Average or larger	Don't know/ missing	Total			Percentage less than 2.5 kg	Number of births
Nyarugenge	2.7	12.2	84.0	1.1	100.0	93.7	247	5.8	232
Gasabo	2.3	11.8	85.6	0.3	100.0	96.0	491	3.1	471
Kicukiro	1.4	8.1	89.6	0.9	100.0	96.7	205	4.8	198
Nyanza	4.5	17.3	78.0	0.3	100.0	83.8	253	11.5	212
Gisagara	4.3	12.8	80.2	2.8	100.0	92.5	267	10.3	247
Nyaruguru	4.1	16.0	79.9	0.0	100.0	89.7	198	7.3	178
Huye	3.2	10.6	84.1	2.1	100.0	97.0	233	7.5	226
Nyamagabe	2.8	19.2	77.0	1.0	100.0	87.7	215	7.7	189
Ruhango	3.0	12.2	84.8	0.0	100.0	96.7	220	6.6	213
Muhanga	4.8	15.8	79.4	0.0	100.0	99.0	210	4.3	208
Kamonyi	7.6	15.8	76.6	0.0	100.0	96.9	240	10.4	232
Karongi	3.1	18.4	78.5	0.0	100.0	90.0	219	6.1	197
Rutsiro	3.1	16.5	80.4	0.0	100.0	89.4	245	7.6	219
Rubavu	3.5	8.2	86.5	1.8	100.0	89.8	351	2.5	315
Nyabihu	4.5	11.2	84.2	0.0	100.0	94.6	191	5.7	181
Ngororero	2.2	11.8	86.1	0.0	100.0	72.9	268	8.5	195
Rusizi	2.1	12.6	85.0	0.3	100.0	95.3	320	4.1	305
Nyamasheke	0.8	17.6	81.6	0.0	100.0	93.1	327	6.1	304
Rulindo	3.6	10.2	84.8	1.5	100.0	92.1	212	5.6	196
Gakenke	3.1	15.1	81.9	0.0	100.0	95.5	184	3.2	176
Musanze	2.5	11.4	86.1	0.0	100.0	95.4	237	3.0	226
Burera	5.3	12.1	82.6	0.0	100.0	95.9	215	8.6	206
Gicumbi	2.7	6.9	87.7	2.7	100.0	94.4	259	6.4	245
Rwamagana	1.0	14.8	84.2	0.0	100.0	96.0	282	6.2	271
Nyagatare	1.6	7.9	90.3	0.2	100.0	82.9	404	6.3	335
Gatsibo	1.6	11.2	86.6	0.6	100.0	92.3	389	7.8	359
Kayonza	1.6	13.9	84.4	0.0	100.0	97.1	271	7.2	263
Kirehe	6.3	19.8	73.9	0.0	100.0	89.8	252	5.9	226
Ngoma	2.7	12.7	84.2	0.4	100.0	90.6	321	9.0	291
Bugesera	1.8	10.5	87.7	0.0	100.0	96.0	276	4.3	265

[1] Based on either a written record or the mother's recall

Table D10.5 Prevalence of ARI

Among children under age 5, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, by district, Rwanda 2014-15

	Among children under age 5:	
District	Percentage with symptoms of ARI[1]	Number of children
Nyarugenge	8.1	240
Gasabo	4.0	481
Kicukiro	0.8	199
Nyanza	9.9	242
Gisagara	3.4	249
Nyaruguru	5.4	191
Huye	4.7	226
Nyamagabe	9.0	206
Ruhango	5.6	207
Muhanga	6.7	204
Kamonyi	14.7	231
Karongi	8.2	209
Rutsiro	4.8	229
Rubavu	1.6	335
Nyabihu	0.0	185
Ngororero	2.3	251
Rusizi	14.2	308
Nyamasheke	4.5	325
Rulindo	6.3	203
Gakenke	4.0	176
Musanze	6.5	231
Burera	7.8	211
Gicumbi	4.3	251
Rwamagana	5.9	274
Nyagatare	5.4	387
Gatsibo	2.0	377
Kayonza	1.2	254
Kirehe	2.3	238
Ngoma	12.0	310
Bugesera	2.9	263

[1] Symptoms of ARI (cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related) are considered a proxy for pneumonia.

Table D10.6 Prevalence of fever

Among children under age 5, the percentage who had a fever in the two weeks preceding the survey, by district, Rwanda 2014-15

	Among children under age 5:	
District	Percentage with fever	Number of children
Nyarugenge	25.0	240
Gasabo	14.6	481
Kicukiro	10.7	199
Nyanza	19.7	242
Gisagara	25.2	249
Nyaruguru	22.4	191
Huye	23.0	226
Nyamagabe	13.2	206
Ruhango	19.8	207
Muhanga	19.9	204
Kamonyi	25.1	231
Karongi	28.7	209
Rutsiro	17.8	229
Rubavu	10.9	335
Nyabihu	3.4	185
Ngororero	8.9	251
Rusizi	32.9	308
Nyamasheke	14.4	325
Rulindo	14.7	203
Gakenke	15.3	176
Musanze	17.2	231
Burera	16.2	211
Gicumbi	8.4	251
Rwamagana	17.9	274
Nyagatare	19.9	387
Gatsibo	23.1	377
Kayonza	18.3	254
Kirehe	10.8	238
Ngoma	41.4	310
Bugesera	14.8	263

Table D10.7 Prevalence of diarrhea

Percentage of children under age 5 who had diarrhea in the two weeks preceding the survey, by district, Rwanda 2014-15

	Diarrhea in the two weeks preceding the survey		
District	All diarrhea	Diarrhea with blood	Number of children
Nyarugenge	12.9	1.7	240
Gasabo	6.9	2.0	481
Kicukiro	5.2	1.3	199
Nyanza	7.8	3.0	242
Gisagara	16.6	2.7	249
Nyaruguru	14.2	0.6	191
Huye	17.6	3.1	226
Nyamagabe	11.8	2.2	206
Ruhango	7.6	1.4	207
Muhanga	10.2	1.0	204
Kamonyi	12.0	1.4	231
Karongi	23.2	1.7	209
Rutsiro	16.9	0.6	229
Rubavu	15.7	2.6	335
Nyabihu	6.1	1.7	185
Ngororero	8.3	1.7	251
Rusizi	23.8	2.6	308
Nyamasheke	8.4	0.8	325
Rulindo	12.2	0.9	203
Gakenke	8.9	0.9	176
Musanze	19.4	2.5	231
Burera	9.5	1.9	211
Gicumbi	4.8	1.4	251
Rwamagana	9.5	0.8	274
Nyagatare	9.4	1.1	387
Gatsibo	13.9	1.5	377
Kayonza	11.0	0.9	254
Kirehe	4.0	0.9	238
Ngoma	24.8	4.2	310
Bugesera	8.2	0.0	263

Table D10.10 Knowledge of ORS packets or pre-packaged liquids

Percentage of women age 15-49 with a live birth in the five years preceding the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhea, by district, Rwanda 2014-15

District	Percentage of women who know about ORS packets or ORS pre-packaged liquids	Number of women
Nyarugenge	96.9	192
Gasabo	93.7	371
Kicukiro	93.6	160
Nyanza	93.0	180
Gisagara	95.8	206
Nyaruguru	87.1	140
Huye	90.1	181
Nyamagabe	75.4	160
Ruhango	93.9	177
Muhanga	84.6	169
Kamonyi	90.8	193
Karongi	76.5	168
Rutsiro	77.9	176
Rubavu	87.8	243
Nyabihu	94.4	140
Ngororero	66.8	192
Rusizi	95.1	228
Nyamasheke	88.8	218
Rulindo	82.0	163
Gakenke	88.7	148
Musanze	81.3	193
Burera	85.0	174
Gicumbi	93.0	207
Rwamagana	86.3	212
Nyagatare	92.5	312
Gatsibo	87.4	303
Kayonza	93.8	200
Kirehe	95.8	200
Ngoma	89.5	249
Bugesera	90.7	206

ORS = Oral rehydration salts

Table D10.11 Disposal of children's stools

Percent distribution of youngest children under age 5 living with their mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, by district, Rwanda 2014-15

	Manner of disposal of children's stools										
District	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing	Total	Percentage of children whose stools are disposed of safely[1]	Number of children
Nyarugenge	15.3	74.0	0.0	7.1	2.4	1.2	0.0	0.0	100.0	89.3	178
Gasabo	13.3	78.2	0.0	3.0	2.0	3.6	0.0	0.0	100.0	91.5	347
Kicukiro	18.9	55.1	0.0	25.5	0.5	0.0	0.0	0.0	100.0	74.0	149
Nyanza	24.5	69.5	0.9	1.7	1.7	1.7	0.0	0.0	100.0	94.9	172
Gisagara	17.2	69.3	0.0	2.4	0.5	10.6	0.0	0.0	100.0	86.5	196
Nyaruguru	17.1	64.8	0.7	12.1	2.8	2.6	0.0	0.0	100.0	82.5	134
Huye	12.3	70.9	2.5	8.0	2.1	3.1	1.1	0.0	100.0	85.7	175
Nyamagabe	21.8	64.0	2.7	3.8	1.3	5.8	0.7	0.0	100.0	88.4	154
Ruhango	10.5	80.8	0.0	6.9	1.2	0.6	0.0	0.0	100.0	91.3	169
Muhanga	10.7	74.5	0.6	11.4	0.5	2.4	0.0	0.0	100.0	85.8	165
Kamonyi	7.1	80.8	0.0	11.1	0.4	0.0	0.0	0.6	100.0	87.9	189
Karongi	13.8	72.1	1.6	3.7	3.5	5.4	0.0	0.0	100.0	87.5	165
Rutsiro	6.3	69.1	1.1	13.3	9.1	0.5	0.5	0.0	100.0	76.5	172
Rubavu	5.7	80.4	3.6	1.4	0.0	8.8	0.0	0.0	100.0	89.8	236
Nyabihu	4.8	85.1	2.2	0.0	0.7	6.7	0.0	0.6	100.0	92.0	138
Ngororero	20.2	54.6	2.3	15.7	6.5	0.6	0.2	0.0	100.0	77.1	189
Rusizi	16.0	78.6	0.0	2.1	0.0	1.0	2.3	0.0	100.0	94.6	223
Nyamasheke	31.1	60.9	0.0	3.4	2.0	1.5	0.9	0.0	100.0	92.0	216
Rulindo	16.2	62.9	2.0	9.6	0.0	8.1	0.6	0.6	100.0	81.1	158
Gakenke	23.2	59.3	3.2	4.1	1.3	9.0	0.0	0.0	100.0	85.6	143
Musanze	11.4	66.3	8.2	9.1	2.5	1.9	0.0	0.6	100.0	85.9	187
Burera	11.7	74.4	3.9	6.7	2.7	0.6	0.0	0.0	100.0	90.0	170
Gicumbi	5.5	86.9	0.6	0.3	0.6	4.9	0.0	1.2	100.0	93.0	197
Rwamagana	14.2	73.0	0.5	8.5	3.3	0.5	0.0	0.0	100.0	87.7	203
Nyagatare	4.0	92.9	1.1	0.0	0.0	1.5	0.0	0.5	100.0	98.0	297
Gatsibo	22.4	57.8	0.0	18.4	0.0	0.9	0.0	0.5	100.0	80.2	296
Kayonza	14.9	79.9	1.1	3.0	0.6	0.6	0.0	0.0	100.0	95.8	190
Kirehe	22.4	65.0	0.0	0.8	3.8	7.0	1.1	0.0	100.0	87.4	192
Ngoma	19.1	69.1	0.5	1.7	1.1	8.5	0.0	0.0	100.0	88.7	237
Bugesera	22.0	64.1	0.0	9.5	2.3	2.2	0.0	0.0	100.0	86.1	199

[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the fecal matter was put or rinsed into a toilet or latrine, or if it was buried.

Table D11.1 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by district, Rwanda 2014-15

	Height-for-age[1]			Weight-for-height				Weight-for-age				
District	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Nyarugenge	4.5	28.7	(1.2)	1.4	2.0	2.7	0.3	1.8	6.5	0.0	(0.4)	113
Gasabo	4.9	22.3	(1.0)	0.7	2.8	11.7	0.5	2.9	6.4	2.5	(0.2)	203
Kicukiro	6.8	17.0	(0.6)	0.0	1.7	14.2	0.6	0.0	2.0	6.3	0.1	103
Nyanza	8.7	33.3	(1.4)	0.7	1.5	6.9	0.5	2.3	10.3	1.4	(0.5)	128
Gisagara	10.1	37.5	(1.4)	0.0	4.7	2.6	0.1	2.7	14.3	0.9	(0.8)	124
Nyaruguru	15.0	41.7	(1.8)	0.0	2.7	5.1	0.4	1.8	11.6	1.5	(0.7)	94
Huye	19.5	42.6	(1.7)	1.0	1.0	9.9	0.4	2.7	12.6	0.9	(0.7)	109
Nyamagabe	21.8	51.8	(2.0)	0.9	4.2	7.2	0.5	2.6	10.0	0.4	(0.8)	108
Ruhango	13.9	41.1	(1.7)	0.0	1.7	8.8	0.5	2.5	9.2	0.8	(0.6)	124
Muhanga	12.4	41.6	(1.7)	0.0	2.6	6.7	0.5	2.5	9.2	0.0	(0.6)	112
Kamonyi	11.8	36.6	(1.5)	0.0	1.0	6.9	0.5	1.0	7.1	1.2	(0.5)	110
Karongi	18.1	49.1	(1.7)	0.0	0.0	9.4	0.5	2.3	8.4	0.0	(0.7)	93
Rutsiro	16.9	45.8	(1.9)	0.0	2.7	3.6	0.4	2.7	11.6	0.8	(0.8)	109
Rubavu	24.3	46.3	(1.8)	0.6	2.0	10.9	0.6	4.0	11.5	2.0	(0.7)	172
Nyabihu	28.6	59.0	(2.2)	2.8	3.6	9.7	0.7	2.8	6.2	0.0	(0.7)	97
Ngororero	26.4	55.5	(2.2)	0.9	3.7	4.7	0.3	4.7	18.8	0.0	(1.1)	114
Rusizi	9.6	34.7	(1.4)	0.8	2.7	6.8	0.2	1.5	9.2	0.7	(0.6)	154
Nyamasheke	10.8	34.0	(1.6)	0.0	1.3	7.1	0.4	1.3	5.6	1.5	(0.6)	155
Rulindo	10.8	33.8	(1.5)	0.0	3.4	9.5	0.5	2.4	9.0	0.0	(0.5)	106
Gakenke	18.3	46.0	(1.9)	0.0	0.0	7.2	0.4	4.2	11.1	0.0	(0.8)	90
Musanze	11.2	37.8	(1.6)	0.0	1.0	13.6	0.8	1.0	6.7	0.0	(0.3)	120
Burera	10.8	42.9	(1.7)	0.0	1.8	8.5	0.5	0.9	9.4	2.0	(0.6)	113
Gicumbi	16.3	36.6	(1.6)	0.5	2.7	9.1	0.5	0.5	10.7	1.6	(0.5)	111
Rwamagana	10.4	25.3	(1.3)	0.6	2.0	3.2	0.3	2.6	6.8	0.7	(0.5)	148
Nyagatare	11.7	36.8	(1.4)	0.9	1.3	10.9	0.7	0.0	3.7	1.3	(0.3)	177
Gatsibo	14.0	31.7	(1.4)	1.6	2.9	9.6	0.4	3.5	8.1	0.6	(0.5)	199
Kayonza	20.1	42.4	(1.8)	0.0	0.9	9.2	0.7	2.7	10.0	1.1	(0.5)	113
Kirehe	10.0	29.4	(1.6)	0.0	1.9	1.3	0.3	3.1	12.1	0.0	(0.7)	128
Ngoma	10.1	40.9	(1.6)	2.5	4.1	6.8	0.1	1.4	16.4	1.2	(0.8)	155
Bugesera	8.7	39.4	(1.5)	0.0	1.3	3.4	0.3	1.6	8.9	0.9	(0.7)	128

Note: Table is based on children who stayed in the household on the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO child growth standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight..

[1] Recumbent length was measured for children under age 2, or in the few cases when the age of the child was unknown and the child was less than 85 cm; standing height was measured for all other children.

[2] Includes children who are below -3 standard deviations (SD) from the WHO child growth standards population median

Table D11.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth, and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by district, Rwanda 2014-15

	Among last-born children born in the past two years:				Among last-born children born in the past two years who were ever breastfed:	
District	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Nyarugenge	98.1	56.3	92.1	102	13.4	100.1
Gasabo	100.0	79.5	98.1	204	6.1	203.6
Kicukiro	98.4	82.7	94.7	89	5.2	87.6
Nyanza	96.0	76.5	95.0	94	1.1	90.0
Gisagara	99.9	78.1	96.6	103	6.0	103.0
Nyaruguru	100.0	88.6	96.7	77	4.0	77.1
Huye	100.0	83.0	98.6	96	1.3	96.1
Nyamagabe	98.7	89.2	98.7	81	1.8	79.7
Ruhango	98.1	80.6	95.9	96	0.8	93.9
Muhanga	99.0	77.9	89.9	80	2.4	79.2
Kamonyi	97.9	81.3	93.8	103	4.2	100.8
Karongi	97.5	77.5	93.3	95	5.3	92.7
Rutsiro	99.0	67.7	96.2	99	2.8	98.5
Rubavu	99.3	86.2	95.4	144	0.8	142.8
Nyabihu	100.0	88.6	96.8	70	0.0	69.9
Ngororero	99.0	84.4	96.9	102	13.7	101.3
Rusizi	97.6	60.2	92.3	124	3.4	120.9
Nyamasheke	100.0	87.4	98.8	128	4.1	128.1
Rulindo	98.8	82.8	95.8	86	7.6	84.8
Gakenke	95.4	79.4	92.8	73	1.5	69.9
Musanze	98.9	73.5	90.9	99	4.8	98.2
Burera	100.0	71.0	91.1	95	2.2	95.0
Gicumbi	96.5	89.8	96.5	100	0.6	96.1
Rwamagana	99.1	72.8	98.3	119	5.3	118.3
Nyagatare	100.0	93.1	98.4	182	5.7	182.4
Gatsibo	99.2	84.2	98.0	165	5.0	163.6
Kayonza	96.6	87.6	95.6	105	1.0	101.3
Kirehe	99.1	87.5	96.9	94	3.9	93.2
Ngoma	98.8	72.6	93.6	118	4.1	116.5
Bugesera	98.9	89.9	95.6	112	9.8	111.0

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children are living or dead at the time of the interview.
[1] Includes children who started breastfeeding within one hour of birth
[2] Children given something other than breast milk during the first three days of life

Table D11.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by district, Rwanda 2014-15

	Median duration (months) of breastfeeding among children born in the past three years[1]		
District	Any breastfeeding	Exclusive breastfeeding	Predominant breast-feeding[2]
Nyarugenge	25.7	5.2	5.3
Gasabo	26.7	5.3	5.6
Kicukiro	21.5	4.3	5.0
Nyanza	27.4	0.6	5.9
Gisagara	a	5.0	5.1
Nyaruguru	31.7	7.1	7.3
Huye	30.1	7.2	8.0
Nyamagabe	a	6.5	7.2
Ruhango	29.2	3.7	4.3
Muhanga	a	4.8	5.2
Kamonyi	a	3.2	4.4
Karongi	30.9	4.9	5.2
Rutsiro	28.1	4.8	5.8
Rubavu	23.1	6.1	7.2
Nyabihu	27.0	5.9	7.2
Ngororero	24.4	2.6	7.1
Rusizi	a	4.4	5.4
Nyamasheke	28.5	4.0	6.0
Rulindo	25.9	5.6	6.1
Gakenke	a	6.3	6.4
Musanze	26.8	5.3	5.7
Burera	25.9	5.0	5.7
Gicumbi	26.4	6.7	7.2
Rwamagana	30.1	5.1	5.5
Nyagatare	25.7	6.8	7.6
Gatsibo	28.5	5.5	6.1
Kayonza	26.0	5.4	5.4
Kirehe	29.4	5.1	5.1
Ngoma	30.6	6.4	7.2
Bugesera	24.7	4.1	5.9

Note: Median durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
a = Omitted because more than 50 percent of the children continued to breastfeed after reaching 36 months
[1] It is assumed that non-last-born children and last-born children not currently living with their mother are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

Table D11.7 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by district, Rwanda 2014-15

	Anemia status by hemoglobin level				
District	Any anemia (<11.0 g/dl)	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (<7.0 g/dl)	Number of children
Nyarugenge	28.2	22.4	5.8	0.0	103
Gasabo	29.5	19.9	8.9	0.8	187
Kicukiro	35.7	21.6	14.0	0.0	91
Nyanza	45.2	24.3	20.1	0.8	119
Gisagara	39.9	22.7	17.2	0.0	110
Nyaruguru	36.5	19.0	17.5	0.0	84
Huye	46.5	14.4	29.0	3.1	106
Nyamagabe	44.6	19.2	23.9	1.5	98
Ruhango	33.6	18.5	15.1	0.0	113
Muhanga	29.0	19.9	7.4	1.6	103
Kamonyi	38.7	23.3	14.3	1.1	108
Karongi	36.8	20.4	15.2	1.2	83
Rutsiro	18.2	14.9	3.2	0.0	98
Rubavu	30.1	19.9	10.2	0.0	160
Nyabihu	33.2	28.0	3.4	1.9	92
Ngororero	41.2	23.8	13.5	3.9	103
Rusizi	38.1	23.0	14.3	0.8	142
Nyamasheke	41.4	24.2	17.2	0.0	150
Rulindo	36.6	24.0	12.6	0.0	96
Gakenke	20.9	12.9	7.9	0.0	84
Musanze	29.2	20.1	9.1	0.0	113
Burera	37.9	24.1	12.9	1.0	106
Gicumbi	41.4	22.2	19.2	0.0	103
Rwamagana	23.9	14.5	9.4	0.0	136
Nyagatare	34.0	18.4	15.6	0.0	166
Gatsibo	44.5	20.2	22.8	1.5	182
Kayonza	48.9	27.1	19.9	2.0	110
Kirehe	38.0	20.6	17.4	0.0	113
Ngoma	52.9	22.1	30.7	0.0	146
Bugesera	35.0	17.9	15.0	2.0	117

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anemia. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Hemoglobin is in grams per deciliter (g/dl).

Table D11.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children age 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the past seven days, and who were given deworming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by district, Rwanda 2014-15

	Among youngest children age 6-23 months living with the mother:			Among all children age 6-59 months:			Among children age 6-59 months living in households tested for iodized salt	
District	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given vitamin A supplements in last 6 months	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households with iodized salt[4]	Number of children
Nyarugenge	84.5	42.7	68	81.6	78.0	213	99.7	196
Gasabo	80.2	36.9	150	88.3	85.1	431	99.7	403
Kicukiro	76.3	30.6	62	81.7	78.5	176	100.0	171
Nyanza	75.3	14.9	67	92.4	82.5	218	100.0	211
Gisagara	79.6	9.4	72	81.6	78.3	224	98.8	190
Nyaruguru	65.8	10.9	54	90.2	82.4	169	99.4	162
Huye	68.3	9.1	71	83.6	79.7	202	100.0	177
Nyamagabe	60.7	8.5	58	90.8	83.1	187	100.0	168
Ruhango	79.2	12.9	69	88.9	87.4	186	100.0	181
Muhanga	76.2	30.7	58	90.9	81.0	182	100.0	173
Kamonyi	81.3	26.1	83	79.6	71.1	214	100.0	199
Karongi	82.2	22.1	70	88.2	77.2	187	100.0	173
Rutsiro	74.4	16.2	76	91.3	83.0	208	98.0	202
Rubavu	45.9	11.0	104	90.8	84.9	303	100.0	227
Nyabihu	42.1	0.0	58	90.2	83.7	174	99.4	156
Ngororero	66.6	7.3	76	83.9	77.7	227	98.5	215
Rusizi	79.1	42.3	95	86.4	79.5	281	100.0	258
Nyamasheke	82.9	23.3	104	89.5	82.0	300	100.0	259
Rulindo	79.8	11.4	67	84.1	73.3	185	99.0	173
Gakenke	91.8	15.2	49	88.8	83.6	155	100.0	145
Musanze	78.5	8.4	79	94.0	80.3	214	99.4	197
Burera	81.7	22.2	76	91.6	77.4	194	100.0	183
Gicumbi	70.6	8.0	74	89.6	82.7	230	100.0	209
Rwamagana	81.0	41.8	90	86.2	83.2	251	100.0	251
Nyagatare	58.8	12.1	143	67.9	64.2	351	100.0	310
Gatsibo	75.3	22.3	125	91.9	85.6	343	100.0	315
Kayonza	82.4	15.9	76	92.4	88.2	231	100.0	229
Kirehe	78.2	28.6	65	80.7	71.5	214	100.0	191
Ngoma	70.1	15.4	90	81.4	80.4	284	100.0	257
Bugesera	64.8	26.6	81	82.5	75.9	233	100.0	218

Note: Information on vitamin A supplementation is based on both mother's recall and the immunization card (where available). Information on deworming medication is based on the mother's recall. Total includes 20 cases in which information on breastfeeding status is missing.

[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil.

[2] Includes meat (and organ meat), fish, poultry, and eggs

[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.

[4] Excludes children in households in which salt was not tested

Table D11.9 Presence of iodized salt in household

Among all households, the percentage with salt tested for iodine content and the percentage with no salt in the household, and among households with salt tested, the percentage with iodized salt, by district, Rwanda 2014-15

District	Among all households, the percentage			Among households with tested salt:	
	With salt tested	With no salt in the household	Number of households	Percentage with iodized salt	Number of households
Nyarugenge	89.5	10.5	374	99.5	335
Gasabo	90.5	9.5	742	99.8	671
Kicukiro	95.2	4.8	380	99.8	362
Nyanza	95.0	5.0	401	100.0	380
Gisagara	84.4	15.6	403	99.7	340
Nyaruguru	95.2	4.8	291	99.3	277
Huye	87.8	12.2	407	100.0	358
Nyamagabe	91.2	8.8	378	100.0	345
Ruhango	94.8	5.2	416	99.8	395
Muhanga	91.9	8.1	385	100.0	354
Kamonyi	90.9	9.1	422	99.8	384
Karongi	88.2	11.8	391	100.0	344
Rutsiro	95.5	4.5	352	98.9	336
Rubavu	76.1	23.9	457	99.4	348
Nyabihu	88.8	11.2	319	99.7	284
Ngororero	93.3	6.7	419	99.5	391
Rusizi	88.9	11.1	438	99.7	389
Nyamasheke	83.8	16.2	413	99.6	346
Rulindo	91.4	8.6	379	98.0	346
Gakenke	91.7	8.3	408	100.0	374
Musanze	91.8	8.2	457	99.5	419
Burera	90.4	9.6	384	99.7	347
Gicumbi	90.5	9.5	463	99.7	418
Rwamagana	95.4	4.6	409	99.4	390
Nyagatare	89.3	10.7	605	100.0	541
Gatsibo	90.9	9.1	568	100.0	516
Kayonza	96.0	4.0	401	100.0	385
Kirehe	88.9	11.1	385	100.0	342
Ngoma	89.6	10.4	439	100.0	394
Bugesera	88.7	11.3	414	100.0	367

Table D11.10 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by district, Rwanda 2014-15

	Height		Body mass index[1]								
District	Percentage below 145 cm	Number of women	Mean body mass index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Nyarugenge	1.7	230	24.0	63.3	5.5	3.7	1.7	31.2	19.6	11.6	204
Gasabo	1.7	430	24.0	61.3	4.0	3.3	0.7	34.7	26.1	8.6	391
Kicukiro	0.6	239	24.1	56.9	7.8	5.5	2.3	35.3	24.8	10.5	223
Nyanza	3.3	174	21.7	71.5	14.3	10.8	3.5	14.2	11.9	2.3	158
Gisagara	4.4	228	21.4	76.3	13.2	9.6	3.6	10.5	10.4	0.1	214
Nyaruguru	3.5	159	22.0	76.5	9.9	7.6	2.4	13.5	12.6	1.0	141
Huye	3.1	218	22.4	71.9	9.2	7.7	1.6	18.9	15.2	3.7	198
Nyamagabe	2.6	189	22.5	78.2	6.7	6.2	0.6	15.0	12.5	2.5	174
Ruhango	3.7	190	22.5	77.8	6.8	4.7	2.0	15.4	10.6	4.8	175
Muhanga	5.0	212	22.3	75.4	7.8	5.8	2.1	16.8	14.3	2.5	197
Kamonyi	4.6	231	22.6	71.4	6.8	4.6	2.2	21.7	16.9	4.8	205
Karongi	1.0	194	22.4	82.7	2.3	1.2	1.0	15.1	14.4	0.6	170
Rutsiro	1.3	170	22.7	81.0	4.4	3.8	0.6	14.5	11.6	2.9	152
Rubavu	1.3	251	23.8	68.0	3.8	3.3	0.6	28.1	22.2	5.9	237
Nyabihu	3.7	155	23.8	69.9	1.8	1.8	0.0	28.3	24.7	3.5	142
Ngororero	6.5	219	22.3	83.1	3.9	3.9	0.0	13.0	12.0	1.0	207
Rusizi	3.1	255	22.5	68.8	9.9	7.9	1.9	21.3	20.3	1.0	228
Nyamasheke	4.3	202	22.0	79.3	6.6	5.9	0.7	14.1	14.0	0.1	178
Rulindo	2.7	176	22.9	72.0	5.3	5.2	0.2	22.7	20.3	2.4	155
Gakenke	4.2	201	23.1	77.4	2.4	2.4	0.0	20.2	18.8	1.5	193
Musanze	1.8	258	23.1	72.3	4.2	3.8	0.4	23.6	21.2	2.3	242
Burera	1.4	218	23.2	73.2	3.7	3.2	0.5	23.2	20.3	2.9	201
Gicumbi	1.0	236	22.4	78.7	6.9	6.4	0.5	14.4	11.2	3.2	226
Rwamagana	2.0	237	22.5	69.2	8.8	6.2	2.7	22.0	19.1	2.9	214
Nyagatare	1.2	280	22.6	75.4	6.0	5.4	0.6	18.6	16.0	2.5	252
Gatsibo	2.9	289	22.7	71.3	7.0	5.7	1.3	21.7	15.4	6.3	251
Kayonza	4.3	214	22.5	76.0	7.7	6.2	1.5	16.3	13.7	2.7	187
Kirehe	2.7	177	22.9	76.7	4.1	3.0	1.1	19.2	14.3	4.9	158
Ngoma	4.6	240	22.2	71.4	10.9	6.9	4.0	17.7	15.4	2.4	220
Bugesera	4.5	209	22.7	71.0	6.6	4.5	2.1	22.4	19.1	3.3	192

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Table D11.11 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by district, Rwanda 2014-15

District	Anemia status by hemoglobin level				
	Any anemia	Mild anemia	Moderate anemia	Severe anemia	Number of women
Nyarugenge	16.7	13.9	2.8	0.0	230
Gasabo	11.3	9.9	1.4	0.0	430
Kicukiro	19.2	13.6	5.0	0.6	240
Nyanza	29.4	19.8	7.9	1.7	174
Gisagara	36.6	26.7	10.0	0.0	228
Nyaruguru	20.2	17.5	2.4	0.3	159
Huye	29.4	22.4	7.0	0.0	219
Nyamagabe	22.6	18.4	4.2	0.0	189
Ruhango	14.2	12.2	2.0	0.0	191
Muhanga	17.9	15.3	2.5	0.0	213
Kamonyi	12.0	9.1	3.0	0.0	231
Karongi	16.6	13.1	3.5	0.0	192
Rutsiro	14.5	13.4	1.2	0.0	170
Rubavu	19.3	17.1	1.8	0.5	252
Nyabihu	17.8	16.4	1.4	0.0	154
Ngororero	15.1	11.2	2.4	1.5	219
Rusizi	24.2	23.7	0.5	0.0	255
Nyamasheke	15.4	12.5	3.0	0.0	200
Rulindo	22.8	20.0	2.8	0.0	176
Gakenke	14.4	13.7	0.7	0.0	202
Musanze	11.9	10.1	1.8	0.0	257
Burera	14.1	10.8	3.3	0.0	219
Gicumbi	15.6	14.6	1.1	0.0	233
Rwamagana	14.2	11.5	2.7	0.0	237
Nyagatare	17.9	16.0	1.9	0.0	280
Gatsibo	22.4	20.4	1.4	0.6	291
Kayonza	21.8	18.8	2.6	0.5	214
Kirehe	31.2	18.6	12.5	0.0	177
Ngoma	30.3	19.7	10.7	0.0	239
Bugesera	17.0	15.5	1.1	0.4	208

Note: Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC, 1998. Women with a hemoglobin level below 7.0 g/dl have severe anemia, women with a level of 7.0-9.9 g/dl have moderate anemia, and pregnant women with a level of 10.0-10.9 g/dl and nonpregnant women with a level of 10.0-11.9 g/dl have mild anemia.

Table D11.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, and the percentages who, during the pregnancy of the last child born in the five years prior to the survey, took iron tablets or syrup for specific numbers of days and took deworming medication, and among women age 15-49 with a child born in the past five years and who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by district, Rwanda 2014-15

District	Percentage who received vitamin A dose postpartum[1]	Number of days women took iron tablets or syrup during pregnancy of last birth					Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Among women with a child born in the last five years who live in households that were tested for iodized salt	
		None	<60	60-89	90+	Don't know/ missing			Percentage living in house-holds with iodized salt[2]	Number of women
Nyarugenge	50.1	18.5	67.6	7.8	3.3	2.7	45.0	192	99.7	177
Gasabo	44.2	22.6	65.8	9.5	1.7	0.4	55.4	371	99.6	351
Kicukiro	58.4	17.2	79.4	2.0	1.3	0.0	48.8	160	100.0	155
Nyanza	32.2	17.5	58.4	11.0	13.2	0.0	66.0	180	100.0	174
Gisagara	63.2	7.4	83.1	2.9	3.2	3.3	66.2	206	99.4	173
Nyaruguru	64.9	21.3	75.3	1.2	2.1	0.0	42.7	140	99.3	135
Huye	47.4	16.7	71.3	9.4	1.7	1.0	40.8	181	100.0	160
Nyamagabe	61.4	12.5	67.2	12.0	8.4	0.0	63.6	160	100.0	145
Ruhango	71.4	10.8	83.9	3.0	2.3	0.0	39.2	177	100.0	170
Muhanga	41.6	20.6	62.1	12.9	3.8	0.5	46.0	169	100.0	162
Kamonyi	47.3	23.7	62.3	12.0	1.5	0.6	56.3	193	100.0	179
Karongi	56.0	16.3	75.2	2.1	0.6	5.9	67.4	168	100.0	152
Rutsiro	39.2	23.5	70.7	2.4	1.1	2.2	38.6	176	98.2	169
Rubavu	31.0	20.7	77.4	1.3	0.5	0.0	57.1	243	100.0	186
Nyabihu	35.1	29.7	70.3	0.0	0.0	0.0	50.2	140	99.3	126
Ngororero	51.5	49.2	46.4	1.4	2.5	0.6	16.0	192	98.8	182
Rusizi	44.2	11.9	68.3	8.9	7.9	2.9	62.0	228	100.0	211
Nyamasheke	48.1	13.7	69.1	12.9	3.8	0.5	61.9	218	100.0	188
Rulindo	48.7	17.2	64.3	5.1	9.8	3.6	43.8	163	98.2	153
Gakenke	59.1	6.2	36.4	36.6	20.7	0.0	52.3	148	100.0	140
Musanze	71.0	14.2	75.1	6.4	3.0	1.3	37.7	193	99.3	175
Burera	71.4	5.0	75.7	15.6	3.6	0.0	63.8	174	100.0	163
Gicumbi	65.6	6.8	92.6	0.6	0.0	0.0	57.9	207	100.0	193
Rwamagana	39.8	28.3	69.0	2.0	0.6	0.0	63.4	212	99.5	212
Nyagatare	44.8	27.8	70.7	0.5	1.0	0.0	27.4	312	100.0	282
Gatsibo	46.3	33.8	55.4	5.5	4.1	1.3	37.9	303	100.0	282
Kayonza	42.2	22.5	65.0	7.9	2.5	2.1	47.9	200	100.0	196
Kirehe	55.2	13.6	56.1	24.4	5.8	0.0	59.8	200	100.0	180
Ngoma	47.3	27.5	68.9	1.6	0.0	2.0	51.6	249	100.0	223
Bugesera	27.4	32.7	58.1	6.4	1.7	1.1	21.1	206	100.0	194

[1] In the first two months after delivery of last birth
[2] Excludes women in households where salt was not tested

Table D12.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), insecticide-treated net (ITN), and long-lasting insecticidal net (LLIN); average number of nets, ITNs, and LLINs per household; and percentage of households with at least one net, ITN, and LLIN per two persons who stayed in the household last night, by district, Rwanda 2014-15

District	Percentage of households with at least one mosquito net			Number of households	Percentage of households with at least one net for every two persons who stayed in the household last night[1]			Number of households with at least one person who stayed in the household last night
	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)		Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	
Nyarugenge	86.8	86.5	86.5	374	50.4	50.0	49.9	374
Gasabo	87.2	87.2	87.2	742	57.5	57.5	57.3	741
Kicukiro	84.5	83.1	82.8	380	56.4	55.0	54.7	380
Nyanza	83.1	83.1	83.1	401	41.4	41.4	41.4	398
Gisagara	88.4	88.4	88.4	403	40.8	40.8	40.8	403
Nyaruguru	74.1	74.1	74.1	291	25.0	25.0	25.0	291
Huye	82.9	82.9	82.9	407	49.1	48.6	48.6	407
Nyamagabe	75.8	75.8	75.8	378	34.7	34.7	34.7	377
Ruhango	89.9	89.9	89.9	416	46.7	46.7	46.7	416
Muhanga	90.3	90.3	90.3	385	61.2	61.0	61.0	383
Kamonyi	93.3	93.1	92.8	422	57.6	56.8	56.5	421
Karongi	89.0	88.7	88.5	391	51.6	51.4	51.1	391
Rutsiro	58.3	58.3	58.3	352	18.9	18.9	18.9	352
Rubavu	44.2	44.2	44.0	457	17.6	17.6	17.6	457
Nyabihu	31.8	31.8	31.8	319	10.2	10.2	10.2	319
Ngororero	65.1	64.6	64.6	419	25.2	25.2	25.2	419
Rusizi	95.6	95.3	95.0	438	56.0	55.5	55.5	438
Nyamasheke	91.2	90.7	90.5	413	45.6	45.3	45.3	412
Rulindo	92.6	92.6	92.6	379	54.1	54.1	54.1	379
Gakenke	90.3	90.0	90.0	408	59.9	59.5	59.5	404
Musanze	64.6	63.7	63.4	457	30.2	30.0	29.7	455
Burera	61.0	61.0	61.0	384	21.5	21.5	21.5	382
Gicumbi	88.3	87.8	87.8	463	52.1	51.1	51.1	461
Rwamagana	83.4	83.4	83.4	409	39.3	39.3	39.3	408
Nyagatare	82.0	82.0	82.0	605	38.6	38.6	38.6	605
Gatsibo	90.5	90.5	90.5	568	49.7	49.7	49.7	566
Kayonza	97.3	97.3	97.3	401	48.5	48.3	48.3	401
Kirehe	80.3	80.1	80.1	385	35.3	35.1	35.1	385
Ngoma	80.1	80.1	80.1	439	39.4	39.4	39.4	439
Bugesera	82.0	82.0	82.0	414	45.2	45.2	45.2	414

[1] De facto household members
[2] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

Table D12.3 Use of mosquito nets by persons in the household

Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months, and among the de facto household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by district, Rwanda 2014-15

	Household population					Household population in households with at least one ITN[1]	
District	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number	Percentage who slept under an ITN[1] last night	Number
Nyarugenge	73.8	73.4	73.3	73.4	1,574	81.0	1,426
Gasabo	75.5	75.5	75.4	75.5	2,918	81.6	2,700
Kicukiro	75.2	74.2	74.0	74.2	1,547	84.2	1,364
Nyanza	70.1	70.1	70.1	70.1	1,569	82.1	1,339
Gisagara	68.2	68.2	68.2	68.2	1,681	76.5	1,498
Nyaruguru	50.3	50.3	50.3	50.3	1,389	65.0	1,075
Huye	65.5	65.2	65.2	65.2	1,711	77.7	1,437
Nyamagabe	52.5	52.5	52.5	52.5	1,670	68.0	1,288
Ruhango	73.4	73.4	73.4	73.4	1,695	80.0	1,554
Muhanga	71.9	71.4	71.4	71.4	1,557	77.2	1,440
Kamonyi	76.0	75.4	75.4	75.4	1,803	79.5	1,712
Karongi	63.7	63.6	63.6	63.6	1,666	70.2	1,510
Rutsiro	36.7	36.7	36.7	36.7	1,510	59.5	932
Rubavu	33.4	33.4	33.1	33.4	2,138	70.3	1,016
Nyabihu	23.5	23.5	23.5	23.5	1,313	74.8	413
Ngororero	46.1	45.8	45.8	45.8	1,732	70.2	1,128
Rusizi	69.3	69.1	68.9	69.1	2,131	71.8	2,051
Nyamasheke	69.8	69.7	69.6	69.7	1,825	74.5	1,706
Rulindo	67.4	67.4	67.4	67.4	1,462	71.3	1,381
Gakenke	72.6	72.3	72.3	72.3	1,603	77.8	1,489
Musanze	34.8	34.6	34.3	34.6	1,968	51.4	1,324
Burera	36.2	36.2	36.2	36.2	1,701	55.6	1,106
Gicumbi	72.3	71.7	71.7	71.7	1,990	78.6	1,814
Rwamagana	58.7	58.7	58.7	58.7	1,765	67.2	1,541
Nyagatare	62.3	62.3	62.3	62.3	2,525	72.7	2,163
Gatsibo	74.1	74.0	74.0	74.0	2,516	80.6	2,310
Kayonza	74.9	74.7	74.7	74.7	1,718	76.4	1,680
Kirehe	60.5	60.3	60.3	60.3	1,575	72.4	1,310
Ngoma	54.2	54.0	54.0	54.0	1,904	66.2	1,554
Bugesera	67.7	67.7	67.7	67.7	1,687	79.4	1,437

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Table D12.4 Use of existing ITNs

Percentage of insecticide-treated nets (ITNs) that were used by anyone the night before the survey, by district, Rwanda 2014-15

District	Percentage of existing ITNs[1] used last night	Number of ITNs[1]
Nyarugenge	81.5	700
Gasabo	80.5	1,407
Kicukiro	86.5	746
Nyanza	88.3	582
Gisagara	78.3	633
Nyaruguru	74.7	390
Huye	82.9	692
Nyamagabe	73.5	550
Ruhango	84.8	699
Muhanga	69.9	807
Kamonyi	77.4	857
Karongi	70.1	731
Rutsiro	75.4	309
Rubavu	89.4	376
Nyabihu	93.7	146
Ngororero	85.2	434
Rusizi	68.9	989
Nyamasheke	73.8	760
Rulindo	69.3	705
Gakenke	70.0	806
Musanze	59.7	565
Burera	67.6	411
Gicumbi	81.7	868
Rwamagana	75.4	649
Nyagatare	78.7	920
Gatsibo	78.7	1,104
Kayonza	83.3	717
Kirehe	80.8	513
Ngoma	72.9	667
Bugesera	82.6	657

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.

Table D12.5 Use of mosquito nets by children

Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months, and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by district, Rwanda 2014-15

	Children under age 5 in all households					Children under age 5 in households with at least one ITN[1]	
District	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of children	Percentage who slept under an ITN[1] last night	Number of children
Nyarugenge	79.1	79.1	79.1	79.1	238	85.6	220
Gasabo	81.5	81.5	81.5	81.5	471	85.4	450
Kicukiro	84.1	84.1	84.1	84.1	198	91.3	182
Nyanza	79.5	79.5	79.5	79.5	254	88.6	228
Gisagara	73.3	73.3	73.3	73.3	257	82.1	229
Nyaruguru	55.0	55.0	55.0	55.0	198	73.2	149
Huye	66.4	66.0	66.0	66.0	232	78.7	194
Nyamagabe	58.6	58.6	58.6	58.6	204	76.4	156
Ruhango	77.9	77.9	77.9	77.9	227	86.0	206
Muhanga	74.6	73.7	73.7	73.7	204	78.1	192
Kamonyi	85.5	85.0	85.0	85.0	246	88.8	235
Karongi	68.6	68.6	68.6	68.6	217	77.8	191
Rutsiro	48.1	48.1	48.1	48.1	237	72.9	156
Rubavu	38.9	38.9	38.9	38.9	344	78.0	172
Nyabihu	31.1	31.1	31.1	31.1	193	77.8	77
Ngororero	58.1	58.1	58.1	58.1	263	78.9	193
Rusizi	73.1	73.1	72.9	73.1	320	76.3	307
Nyamasheke	74.4	74.4	74.4	74.4	330	79.9	307
Rulindo	74.6	74.6	74.6	74.6	208	79.3	195
Gakenke	76.0	75.4	75.4	75.4	177	83.3	160
Musanze	41.8	40.8	40.8	40.8	240	57.2	171
Burera	45.6	45.6	45.6	45.6	231	66.5	158
Gicumbi	75.9	75.5	75.5	75.5	268	83.7	242
Rwamagana	70.0	70.0	70.0	70.0	286	76.7	261
Nyagatare	66.4	66.4	66.4	66.4	402	75.7	352
Gatsibo	80.7	80.7	80.7	80.7	389	88.6	354
Kayonza	81.0	81.0	81.0	81.0	268	82.0	264
Kirehe	71.8	71.8	71.8	71.8	241	82.7	209
Ngoma	55.6	55.6	55.6	55.6	321	69.6	257
Bugesera	72.4	72.4	72.4	72.4	271	87.8	223

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN) or (2) a pretreated net obtained within the past 12 months or (3) a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Table D12.7 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with a fever in the two weeks preceding the survey, by district, Rwanda 2014-15

District	Among children under age 5: Percentage with fever in the two weeks preceding the survey	Number of children
Nyarugenge	25.0	240
Gasabo	14.6	481
Kicukiro	10.7	199
Nyanza	19.7	242
Gisagara	25.2	249
Nyaruguru	22.4	191
Huye	23.0	226
Nyamagabe	13.2	206
Ruhango	19.8	207
Muhanga	19.9	204
Kamonyi	25.1	231
Karongi	28.7	209
Rutsiro	17.8	229
Rubavu	10.9	335
Nyabihu	3.4	185
Ngororero	8.9	251
Rusizi	32.9	308
Nyamasheke	14.4	325
Rulindo	14.7	203
Gakenke	15.3	176
Musanze	17.2	231
Burera	16.2	211
Gicumbi	8.4	251
Rwamagana	17.9	274
Nyagatare	19.9	387
Gatsibo	23.1	377
Kayonza	18.3	254
Kirehe	10.8	238
Ngoma	41.4	310
Bugesera	14.8	263

Table D12.10 Hemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with hemoglobin lower than 8.0 g/dl, by district, Rwanda 2014-15

District	Hemoglobin <8.0 g/dl	Number of children
Nyarugenge	0.0	103
Gasabo	0.8	187
Kicukiro	1.2	91
Nyanza	3.9	119
Gisagara	3.9	110
Nyaruguru	3.2	84
Huye	9.6	106
Nyamagabe	5.4	98
Ruhango	2.0	113
Muhanga	2.6	103
Kamonyi	1.1	108
Karongi	2.4	83
Rutsiro	0.0	98
Rubavu	0.0	160
Nyabihu	1.9	92
Ngororero	6.5	103
Rusizi	1.5	142
Nyamasheke	2.8	150
Rulindo	0.0	96
Gakenke	0.9	84
Musanze	0.0	113
Burera	2.0	106
Gicumbi	1.1	103
Rwamagana	0.7	136
Nyagatare	2.7	166
Gatsibo	2.4	182
Kayonza	3.8	110
Kirehe	2.9	113
Ngoma	2.7	146
Bugesera	3.7	117

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anemia is based on hemoglobin levels and is adjusted for altitude using CDC formulas (CDC, 1998). Hemoglobin is measured in grams per deciliter (g/dl).

Table D12.12 Prevalence of malaria in children

Percentage of children age 6-59 months classified as having malaria by microscopic test, by district, Rwanda 2014-15

District	Percentage positive	Number
Nyarugenge	0.0	104
Gasabo	0.0	187
Kicukiro	0.0	91
Nyanza	4.8	119
Gisagara	6.7	110
Nyaruguru	1.0	85
Huye	15.0	106
Nyamagabe	1.8	99
Ruhango	0.9	113
Muhanga	0.8	103
Kamonyi	3.0	108
Karongi	0.0	84
Rutsiro	0.0	98
Rubavu	0.0	160
Nyabihu	1.0	92
Ngororero	1.0	103
Rusizi	1.8	142
Nyamasheke	0.0	150
Rulindo	0.0	96
Gakenke	0.0	84
Musanze	0.0	116
Burera	0.0	108
Gicumbi	0.0	102
Rwamagana	2.3	136
Nyagatare	1.0	166
Gatsibo	2.8	184
Kayonza	4.6	110
Kirehe	6.4	114
Ngoma	7.7	146

Table D12.14 Prevalence of malaria in women

Percentage of women age 15-49 classified as having malaria by microscopic test, by district, Rwanda 2014-15

District	Percentage positive	Number
Nyarugenge	0.0	229
Gasabo	0.0	424
Kicukiro	0.3	238
Nyanza	3.2	173
Gisagara	0.0	225
Nyaruguru	0.0	159
Huye	1.4	217
Nyamagabe	1.6	187
Ruhango	1.0	191
Muhanga	0.0	212
Kamonyi	0.5	230
Karongi	0.0	193
Rutsiro	0.4	169
Rubavu	0.4	249
Nyabihu	0.0	154
Ngororero	0.5	218
Rusizi	0.9	254
Nyamasheke	0.0	201
Rulindo	0.0	176
Gakenke	0.6	202
Musanze	0.0	257
Burera	0.0	219
Gicumbi	0.0	235
Rwamagana	1.0	234
Nyagatare	0.5	280
Gatsibo	1.1	286
Kayonza	0.7	213
Kirehe	2.6	175
Ngoma	0.0	238
Bugesera	1.1	209

Table D13.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by district, Rwanda 2014-15

District	Women		Men	
	Has heard of AIDS	Number of respondents	Has heard of AIDS	Number of respondents
Nyarugenge	100.0	452	100.0	219
Gasabo	100.0	863	100.0	421
Kicukiro	100.0	484	100.0	223
Nyanza	100.0	375	100.0	182
Gisagara	100.0	418	100.0	179
Nyaruguru	100.0	304	99.4	149
Huye	100.0	423	100.0	210
Nyamagabe	99.8	416	100.0	196
Ruhango	100.0	402	100.0	197
Muhanga	99.8	415	100.0	191
Kamonyi	99.8	460	100.0	217
Karongi	99.8	412	99.5	199
Rutsiro	99.7	339	100.0	156
Rubavu	99.8	488	100.0	242
Nyabihu	100.0	327	100.0	129
Ngororero	100.0	428	100.0	178
Rusizi	99.9	543	100.0	250
Nyamasheke	99.7	428	100.0	169
Rulindo	100.0	377	100.0	157
Gakenke	99.6	422	100.0	175
Musanze	99.8	505	100.0	218
Burera	100.0	421	100.0	168
Gicumbi	100.0	485	99.5	231
Rwamagana	100.0	455	100.0	207
Nyagatare	100.0	597	100.0	287
Gatsibo	100.0	600	100.0	278
Kayonza	100.0	416	100.0	195
Kirehe	100.0	356	100.0	185
Ngoma	100.0	482	100.0	222
Bugesera	100.0	401	100.0	187

Table D13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, by district, Rwanda 2014-15

District	Women				Men			
	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Nyarugenge	95.0	91.7	87.4	452	95.1	82.6	78.7	219
Gasabo	95.5	97.1	92.9	863	99.3	99.7	99.0	421
Kicukiro	95.1	89.8	86.8	484	99.7	98.4	98.1	223
Nyanza	87.0	97.3	85.9	375	95.9	98.5	94.9	182
Gisagara	95.7	91.3	88.2	418	100.0	99.4	99.4	179
Nyaruguru	97.0	98.1	95.4	304	96.5	77.8	75.0	149
Huye	92.0	89.6	84.0	423	93.9	96.1	90.4	210
Nyamagabe	91.0	94.5	87.8	416	90.6	85.8	79.3	196
Ruhango	91.3	93.6	89.8	402	98.9	94.0	92.9	197
Muhanga	88.7	89.2	81.5	415	97.1	92.0	90.6	191
Kamonyi	92.1	88.8	82.5	460	97.1	93.8	91.4	217
Karongi	87.3	87.5	78.6	412	90.8	88.9	82.2	199
Rutsiro	89.7	86.8	80.2	339	93.1	95.8	90.0	156
Rubavu	83.2	69.9	60.6	488	90.0	91.7	83.0	242
Nyabihu	75.5	68.7	57.1	327	98.7	97.9	96.5	129
Ngororero	85.7	84.8	75.9	428	96.6	96.7	94.0	178
Rusizi	91.1	80.8	74.3	543	90.9	78.7	74.6	250
Nyamasheke	85.4	87.5	75.6	428	94.4	95.8	92.1	169
Rulindo	94.4	90.8	85.9	377	96.2	86.6	83.5	157
Gakenke	94.4	71.5	69.5	422	98.8	85.4	84.2	175
Musanze	96.7	88.1	85.8	505	82.4	87.6	72.5	218
Burera	96.1	98.3	95.1	421	92.7	99.3	92.0	168
Gicumbi	92.9	97.1	91.4	485	81.8	84.8	69.2	231
Rwamagana	94.4	96.1	90.9	455	98.1	99.5	98.1	207
Nyagatare	94.1	97.4	92.6	597	96.0	73.7	71.3	287
Gatsibo	93.3	89.7	85.9	600	99.0	98.0	97.0	278
Kayonza	88.8	90.6	81.3	416	95.7	97.3	93.0	195
Kirehe	98.1	70.1	69.2	356	98.8	95.5	95.0	185
Ngoma	83.3	89.3	75.9	482	96.9	87.8	86.3	222
Bugesera	88.9	93.1	83.7	401	99.1	98.7	98.7	187

[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Table D13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with comprehensive knowledge about AIDS, by district, Rwanda 2014-15

	Percentage of respondents who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local mis-conceptions[1]		
District	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS		Percentage with comprehen sive knowledge about AIDS[2]	Number of women
Nyarugenge	92.0	89.4	97.6	95.7	79.6	70.3	452
Gasabo	96.5	97.4	98.8	97.9	93.0	87.6	863
Kicukiro	95.8	96.1	96.1	97.2	91.1	82.4	484
Nyanza	93.8	88.1	95.0	93.5	81.1	71.7	375
Gisagara	91.8	91.0	96.3	94.2	79.8	72.5	418
Nyaruguru	95.3	96.7	99.3	98.4	90.4	87.1	304
Huye	92.2	93.0	97.6	95.6	83.0	70.7	423
Nyamagabe	89.8	81.1	94.5	89.6	69.8	62.3	416
Ruhango	96.3	94.7	98.7	96.9	89.2	81.8	402
Muhanga	89.3	86.1	94.8	93.0	75.0	63.1	415
Kamonyi	93.7	90.3	95.6	95.2	82.1	69.8	460
Karongi	83.0	82.6	89.6	89.4	64.1	52.5	412
Rutsiro	79.4	67.3	83.6	81.1	47.2	39.1	339
Rubavu	88.6	90.1	97.5	96.3	78.9	50.7	488
Nyabihu	86.6	97.5	99.4	98.3	82.9	52.3	327
Ngororero	91.9	80.1	90.3	88.5	69.3	54.7	428
Rusizi	82.6	83.8	95.1	93.7	66.9	50.6	543
Nyamasheke	86.6	86.3	94.1	90.3	70.0	54.5	428
Rulindo	94.6	86.9	94.3	92.8	79.6	69.1	377
Gakenke	94.0	85.8	96.8	92.3	77.7	54.4	422
Musanze	93.0	85.4	95.9	94.8	76.5	64.9	505
Burera	92.1	89.5	98.8	96.8	81.6	78.2	421
Gicumbi	91.3	94.7	95.2	95.5	84.8	79.6	485
Rwamagana	87.5	84.9	95.3	92.3	69.9	63.2	455
Nyagatare	96.3	93.1	94.9	95.7	88.0	84.9	597
Gatsibo	83.9	89.0	95.3	91.7	73.0	65.3	600
Kayonza	91.7	89.0	97.4	97.7	81.5	68.0	416
Kirehe	97.6	94.6	98.9	97.7	91.9	65.5	356
Ngoma	80.8	79.9	92.6	91.7	61.6	49.0	482
Bugesera	92.8	88.9	95.9	95.0	79.8	68.0	401

[1] Two most common local misconceptions: the AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has the AIDS virus.

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table D13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with comprehensive knowledge about AIDS, by district, Rwanda 2014-15

	Percentage of respondents who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local mis-conceptions[1]		
District	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS		Percentage with comprehen sive knowledge about AIDS[2]	Number of men
Nyarugenge	95.5	90.1	96.2	95.8	84.3	64.2	219
Gasabo	98.7	96.8	97.4	98.3	94.4	93.4	421
Kicukiro	99.0	94.7	97.4	95.7	91.6	90.7	223
Nyanza	92.9	88.9	92.2	89.6	77.3	73.6	182
Gisagara	97.8	86.9	97.2	96.9	83.9	83.2	179
Nyaruguru	91.9	96.2	98.2	98.1	88.1	66.1	149
Huye	94.8	91.8	96.0	97.2	84.3	76.6	210
Nyamagabe	85.6	79.6	92.5	91.0	63.1	51.3	196
Ruhango	97.4	98.5	99.0	96.3	93.2	87.2	197
Muhanga	96.0	82.7	99.0	95.0	75.6	68.2	191
Kamonyi	96.5	89.9	99.2	97.6	85.3	79.7	217
Karongi	86.0	78.1	88.8	86.1	58.9	49.2	199
Rutsiro	91.1	74.8	92.5	86.9	64.1	59.9	156
Rubavu	86.3	80.2	92.3	90.8	65.9	57.3	242
Nyabihu	96.5	95.5	98.7	96.2	90.0	87.9	129
Ngororero	84.8	73.8	95.9	88.9	59.6	59.1	178
Rusizi	83.3	81.0	92.0	89.8	62.5	47.4	250
Nyamasheke	90.4	83.9	93.2	91.3	73.5	71.7	169
Rulindo	79.6	77.6	92.2	89.0	60.4	53.1	157
Gakenke	95.2	77.0	90.7	85.0	67.5	57.0	175
Musanze	83.7	78.8	91.1	92.7	65.4	51.1	218
Burera	83.3	81.0	93.9	93.3	65.9	62.2	168
Gicumbi	84.5	88.9	98.9	96.3	75.2	55.2	231
Rwamagana	95.3	83.9	94.9	90.8	77.4	76.6	207
Nyagatare	93.5	93.4	98.0	96.0	85.1	60.4	287
Gatsibo	98.4	84.0	98.5	93.8	80.0	77.0	278
Kayonza	83.8	92.9	99.5	93.5	79.7	76.0	195
Kirehe	98.8	80.6	94.6	89.2	76.9	73.2	185
Ngoma	92.3	75.0	90.4	89.6	65.0	58.9	222
Bugesera	95.8	82.5	95.6	94.0	78.6	78.6	187

[1]Two most common local misconceptions: the AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has the AIDS virus.

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table D13.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by district, Rwanda 2014-15

	Women				Men			
District	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Nyarugenge	93.1	80.2	97.3	452	85.8	58.7	94.1	219
Gasabo	97.6	62.0	96.9	863	96.0	77.9	97.5	421
Kicukiro	94.5	53.6	96.0	484	94.9	85.5	97.5	223
Nyanza	95.1	69.0	98.0	375	90.5	55.6	92.9	182
Gisagara	97.0	63.3	96.2	418	95.0	65.3	97.8	179
Nyaruguru	92.9	57.9	96.1	304	94.8	22.3	97.8	149
Huye	95.7	54.8	95.7	423	97.3	78.0	94.6	210
Nyamagabe	95.4	74.8	95.4	416	86.0	65.2	89.1	196
Ruhango	94.2	68.0	98.2	402	94.7	21.8	99.5	197
Muhanga	92.1	69.9	94.9	415	81.9	62.5	92.1	191
Kamonyi	91.7	64.9	96.0	460	83.1	61.2	95.1	217
Karongi	93.1	66.1	96.6	412	86.3	50.8	91.0	199
Rutsiro	90.6	79.3	92.6	339	92.2	73.5	87.1	156
Rubavu	94.4	80.9	90.8	488	91.9	79.0	94.5	242
Nyabihu	96.4	92.7	94.0	327	100.0	93.5	99.6	129
Ngororero	94.9	77.0	95.8	428	86.6	60.4	92.4	178
Rusizi	91.7	65.5	90.1	543	90.4	55.6	94.1	250
Nyamasheke	88.9	61.6	91.4	428	87.2	47.3	91.0	169
Rulindo	91.4	73.3	95.0	377	86.6	48.5	97.2	157
Gakenke	91.1	73.1	95.6	422	86.6	55.2	87.7	175
Musanze	91.7	68.1	93.0	505	84.6	60.6	92.6	218
Burera	95.1	72.3	94.2	421	90.5	64.9	94.8	168
Gicumbi	94.9	62.7	96.3	485	65.2	40.2	84.8	231
Rwamagana	92.9	79.9	97.0	455	91.0	63.7	96.8	207
Nyagatare	98.2	45.2	98.0	597	75.4	28.2	96.9	287
Gatsibo	85.0	63.9	90.2	600	87.4	72.3	95.5	278
Kayonza	93.6	66.7	96.6	416	86.8	82.3	92.9	195
Kirehe	96.7	53.5	97.2	356	93.4	45.1	92.0	185
Ngoma	91.0	68.0	94.4	482	93.4	65.2	93.2	222
Bugesera	96.2	64.7	98.2	401	96.6	58.8	95.9	187

Table D13.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by district, Rwanda 2014-15

District	Percentage of respondents who: Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
Nyarugenge	98.7	92.6	93.5	51.5	45.6	452
Gasabo	98.2	97.3	96.9	44.2	41.7	863
Kicukiro	98.5	95.9	95.8	62.4	57.9	484
Nyanza	97.6	85.9	89.4	78.9	64.5	375
Gisagara	96.0	85.4	87.2	73.1	53.0	418
Nyaruguru	95.0	92.0	92.7	80.4	69.3	304
Huye	97.1	95.0	89.7	70.7	62.7	423
Nyamagabe	95.4	83.2	86.9	72.9	55.0	416
Ruhango	98.5	95.0	96.3	74.8	69.1	402
Muhanga	96.7	91.2	92.3	64.0	53.5	414
Kamonyi	98.1	89.1	91.0	53.2	43.4	459
Karongi	96.6	86.8	84.3	73.8	56.4	411
Rutsiro	91.7	76.1	75.9	59.9	36.0	338
Rubavu	93.6	86.6	88.7	51.0	38.7	487
Nyabihu	97.1	86.6	94.3	46.5	39.8	327
Ngororero	92.6	77.9	75.2	72.3	45.8	428
Rusizi	95.4	86.8	88.7	66.1	50.5	543
Nyamasheke	96.7	89.6	90.3	60.5	48.8	427
Rulindo	97.9	89.7	88.3	57.5	49.6	377
Gakenke	99.0	90.3	92.6	51.1	43.3	420
Musanze	93.7	88.2	88.1	41.8	33.1	504
Burera	95.8	85.0	87.7	58.9	43.5	421
Gicumbi	93.8	86.6	88.9	46.9	34.6	485
Rwamagana	98.4	92.4	95.1	59.0	53.0	455
Nyagatare	96.1	85.5	91.0	53.8	45.1	597
Gatsibo	95.6	88.4	83.7	70.3	53.2	600
Kayonza	98.4	95.9	94.4	54.6	50.4	416
Kirehe	99.3	97.2	95.3	77.9	73.3	356
Ngoma	96.1	83.6	79.1	78.9	55.9	482
Bugesera	98.1	92.0	84.4	79.1	65.0	401

Table D13.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by district, Rwanda 2014-15

District	Percentage of respondents who:				Percentage expressing accepting attitudes on all four indicators	Number of respondents who have heard of AIDS
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus		
Nyarugenge	97.3	96.9	96.3	72.7	66.9	219
Gasabo	100.0	98.7	99.3	74.9	72.9	421
Kicukiro	97.4	97.2	97.9	82.5	78.8	223
Nyanza	97.5	92.7	87.8	75.1	66.2	182
Gisagara	98.3	95.7	86.4	88.2	74.8	179
Nyaruguru	97.7	92.6	89.0	90.6	78.0	149
Huye	98.1	93.7	97.0	81.9	77.7	210
Nyamagabe	97.4	89.5	81.5	82.5	62.1	196
Ruhango	99.5	95.6	97.0	94.3	88.8	197
Muhanga	99.5	94.1	86.0	68.0	56.5	191
Kamonyi	99.5	94.0	93.8	63.7	57.2	217
Karongi	97.1	90.4	86.7	75.9	60.8	198
Rutsiro	94.4	84.5	83.2	74.3	58.1	156
Rubavu	97.3	92.1	90.0	76.8	64.9	242
Nyabihu	99.4	98.6	97.3	80.9	79.5	129
Ngororero	97.1	80.0	86.6	62.1	43.4	178
Rusizi	96.9	84.7	82.9	77.0	58.6	250
Nyamasheke	97.2	95.1	95.0	79.3	72.3	169
Rulindo	99.4	89.9	82.5	61.8	49.9	157
Gakenke	96.3	90.9	90.8	77.2	64.3	175
Musanze	98.0	82.2	87.0	65.1	46.0	218
Burera	97.3	89.4	87.4	63.4	50.6	168
Gicumbi	95.0	92.1	95.2	25.4	19.6	229
Rwamagana	99.4	94.0	88.2	80.3	68.2	207
Nyagatare	97.0	96.0	95.1	83.0	73.8	287
Gatsibo	99.5	94.2	94.2	74.3	69.3	278
Kayonza	98.2	90.1	91.6	52.2	47.0	195
Kirehe	97.5	90.0	86.9	89.5	71.7	185
Ngoma	94.7	86.8	80.5	86.4	64.0	222
Bugesera	99.4	89.5	92.1	78.7	64.5	187

Table D13.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by district, Rwanda 2014-15

	Women			Men		
District	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Nyarugenge	83.4	98.9	452	84.3	99.7	219
Gasabo	90.0	99.5	863	95.0	100.0	421
Kicukiro	84.9	99.2	484	94.4	98.4	223
Nyanza	78.9	93.9	375	85.7	98.9	182
Gisagara	90.5	98.7	418	90.4	98.8	179
Nyaruguru	85.2	99.5	304	93.0	98.2	149
Huye	87.8	99.0	423	90.1	99.5	210
Nyamagabe	80.8	95.7	416	82.7	97.0	196
Ruhango	87.1	99.7	402	97.3	100.0	197
Muhanga	71.0	95.0	415	85.9	95.4	191
Kamonyi	71.8	97.3	460	88.8	98.7	217
Karongi	82.2	96.2	412	84.4	96.6	199
Rutsiro	66.2	90.8	339	87.1	98.8	156
Rubavu	82.9	98.7	488	89.3	100.0	242
Nyabihu	88.4	100.0	327	98.6	100.0	129
Ngororero	84.0	95.6	428	81.2	96.9	178
Rusizi	76.8	97.8	543	80.0	96.7	250
Nyamasheke	81.7	94.8	428	93.6	99.4	169
Rulindo	83.9	97.8	377	75.3	99.4	157
Gakenke	56.4	95.7	422	83.4	98.7	175
Musanze	76.0	96.0	505	74.4	94.8	218
Burera	65.6	96.2	421	87.9	94.4	168
Gicumbi	88.0	96.2	485	86.8	96.9	231
Rwamagana	62.1	98.3	455	82.9	97.9	207
Nyagatare	90.5	97.6	597	64.1	100.0	287
Gatsibo	72.5	96.9	600	96.6	100.0	278
Kayonza	83.6	98.1	416	79.6	98.8	195
Kirehe	58.5	99.5	356	87.7	98.6	185
Ngoma	75.1	98.1	482	89.6	98.7	222
Bugesera	86.1	97.0	401	93.3	100.0	187

Table D13.7 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 should be taught about using a condom to avoid AIDS, by district, Rwanda 2014-15

District	Women		Men	
	Percentage who agree	Number	Percentage who agree	Number
Nyarugenge	92.0	394	86.4	200
Gasabo	94.6	757	97.5	388
Kicukiro	95.7	432	91.7	214
Nyanza	85.5	331	92.1	152
Gisagara	97.0	362	97.8	153
Nyaruguru	93.4	266	80.7	118
Huye	91.9	369	94.9	185
Nyamagabe	82.6	350	89.6	166
Ruhango	95.5	342	97.5	160
Muhanga	86.3	366	81.9	164
Kamonyi	91.1	395	85.8	195
Karongi	89.5	363	86.5	173
Rutsiro	82.4	303	92.3	129
Rubavu	87.0	434	92.8	220
Nyabihu	95.1	280	97.3	112
Ngororero	85.0	390	90.0	151
Rusizi	90.7	461	90.5	209
Nyamasheke	88.9	383	93.9	153
Rulindo	91.8	330	90.2	130
Gakenke	89.0	370	89.6	156
Musanze	87.1	429	82.6	188
Burera	87.5	338	79.8	142
Gicumbi	85.6	404	93.8	198
Rwamagana	91.1	392	96.9	184
Nyagatare	88.5	525	93.2	243
Gatsibo	94.1	522	90.5	240
Kayonza	93.8	366	90.6	164
Kirehe	96.3	322	89.0	159
Ngoma	91.6	422	96.3	202
Bugesera	85.9	353	90.1	161

Table D13.8.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by district, Rwanda 2014-15

	All women		Among women who ever had sexual intercourse[1]:	
District	Percentage who had 2+ partners in the past 12 months	Number of women	Mean number of sexual partners in lifetime	Number of women
Nyarugenge	1.6	452	2.3	344
Gasabo	1.8	863	1.8	652
Kicukiro	1.6	484	1.8	348
Nyanza	0.5	375	1.5	298
Gisagara	0.2	418	1.3	309
Nyaruguru	1.6	304	1.5	216
Huye	0.3	423	1.4	297
Nyamagabe	0.6	416	1.4	277
Ruhango	1.2	402	1.6	304
Muhanga	0.7	415	1.5	295
Kamonyi	0.7	460	1.6	339
Karongi	0.2	412	1.4	280
Rutsiro	0.5	339	1.3	262
Rubavu	0.3	488	1.3	359
Nyabihu	0.0	327	1.3	233
Ngororero	0.8	428	1.9	322
Rusizi	0.8	543	1.3	368
Nyamasheke	0.8	428	1.4	312
Rulindo	0.2	377	1.4	273
Gakenke	0.5	422	1.3	296
Musanze	1.1	505	1.4	342
Burera	0.2	421	1.3	292
Gicumbi	0.0	485	1.3	337
Rwamagana	0.3	455	1.6	343
Nyagatare	0.0	597	1.3	459
Gatsibo	1.4	600	1.5	478
Kayonza	1.4	416	1.5	315
Kirehe	0.3	356	1.4	291
Ngoma	0.3	482	1.6	392
Bugesera	0.2	401	1.4	318

[1] Means are calculated excluding respondents who gave non-numeric responses.

Table D13.8.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by district, Rwanda 2014-15

	All men		Among men who ever had sexual intercourse[1]:	
District	Percentage who had 2+ partners in the past 12 months	Number of men	Mean number of sexual partners in lifetime	Number of men
Nyarugenge	9.9	219	6.1	175
Gasabo	7.3	421	3.4	306
Kicukiro	3.3	223	3.0	172
Nyanza	2.8	182	2.8	139
Gisagara	3.3	179	1.9	140
Nyaruguru	1.2	149	2.2	94
Huye	2.4	210	2.7	145
Nyamagabe	5.7	196	2.4	134
Ruhango	1.0	197	2.0	138
Muhanga	5.3	191	2.5	147
Kamonyi	3.3	217	2.5	178
Karongi	5.9	199	2.4	144
Rutsiro	8.9	156	2.4	125
Rubavu	6.9	242	2.9	187
Nyabihu	6.8	129	2.0	91
Ngororero	9.5	178	3.2	132
Rusizi	3.1	250	2.8	161
Nyamasheke	5.4	169	2.2	127
Rulindo	3.5	157	2.4	117
Gakenke	3.3	175	2.4	140
Musanze	5.6	218	2.2	171
Burera	3.2	168	1.8	127
Gicumbi	0.5	231	2.8	155
Rwamagana	9.7	207	4.0	171
Nyagatare	4.4	287	2.2	199
Gatsibo	2.4	278	1.9	209
Kayonza	3.4	195	2.3	141
Kirehe	4.0	185	2.4	130
Ngoma	5.1	222	2.8	189
Bugesera	4.5	187	3.0	138

[1] Means are calculated excluding respondents who gave non-numeric responses.

Table D13.9 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all women and men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence), and percentage of all women and all men age 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence), by district, Rwanda 2014-15

District	Among all respondents: Point prevalence of concurrent sexual partners	Cumulative prevalence of concurrent sexual partners	Number of respondents
	WOMEN		
Nyarugenge	0.1	1.3	452
Gasabo	0.5	1.2	863
Kicukiro	0.5	1.1	484
Nyanza	0.0	0.3	375
Gisagara	0.0	0.0	418
Nyaruguru	0.3	0.9	304
Huye	0.0	0.0	423
Nyamagabe	0.2	0.5	416
Ruhango	0.2	0.9	402
Muhanga	0.0	0.2	415
Kamonyi	0.2	0.4	460
Karongi	0.2	0.2	412
Rutsiro	0.0	0.0	339
Rubavu	0.0	0.0	488
Nyabihu	0.0	0.0	327
Ngororero	0.5	0.8	428
Rusizi	0.1	0.4	543
Nyamasheke	0.3	0.5	428
Rulindo	0.0	0.2	377
Gakenke	0.0	0.5	422
Musanze	0.0	0.7	505
Burera	0.0	0.2	421
Gicumbi	0.0	0.0	485
Rwamagana	0.0	0.3	455
Nyagatare	0.0	0.0	597
Gatsibo	0.0	0.7	600
Kayonza	0.3	0.9	416
Kirehe	0.0	0.3	356
Ngoma	0.0	0.1	482
Bugesera	0.0	0.2	401
	MEN		
Nyarugenge	0.0	0.0	219
Gasabo	0.0	0.0	421
Kicukiro	0.0	0.0	223
Nyanza	0.0	0.0	182
Gisagara	0.0	0.0	179
Nyaruguru	0.0	0.0	149
Huye	0.0	0.0	210
Nyamagabe	0.0	0.0	196
Ruhango	0.0	0.0	197
Muhanga	0.0	0.0	191
Kamonyi	0.0	0.0	217
Karongi	0.0	0.0	199
Rutsiro	0.0	0.0	156
Rubavu	0.0	0.0	242
Nyabihu	0.0	0.0	129
Ngororero	0.0	0.0	178
Rusizi	0.0	0.0	250
Nyamasheke	0.0	0.0	169
Rulindo	0.0	0.0	157
Gakenke	0.0	0.0	175
Musanze	0.0	0.0	218
Burera	0.0	0.0	168
Gicumbi	0.0	0.0	231
Rwamagana	0.0	0.0	207
Nyagatare	0.0	0.0	287
Gatsibo	0.0	0.0	278
Kayonza	0.0	0.0	195
Kirehe	0.0	0.0	185
Ngoma	0.0	0.0	222
Bugesera	0.0	0.0	187

Table D13.10 Payment for sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, Rwanda 2014-15

	Among all men:		
District	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men
Nyarugenge	20.5	5.1	219
Gasabo	4.3	2.6	421
Kicukiro	2.8	0.8	223
Nyanza	6.3	2.5	182
Gisagara	0.7	0.7	179
Nyaruguru	3.3	0.6	149
Huye	4.7	1.0	210
Nyamagabe	2.6	0.5	196
Ruhango	0.6	0.0	197
Muhanga	4.9	0.8	191
Kamonyi	5.0	0.0	217
Karongi	4.9	2.7	199
Rutsiro	1.9	0.0	156
Rubavu	5.2	2.4	242
Nyabihu	0.0	0.0	129
Ngororero	9.4	1.3	178
Rusizi	4.1	0.5	250
Nyamasheke	3.0	1.4	169
Rulindo	4.7	0.0	157
Gakenke	1.3	0.0	175
Musanze	4.1	1.7	218
Burera	2.6	1.9	168
Gicumbi	4.1	1.0	231
Rwamagana	8.6	3.0	207
Nyagatare	2.5	0.0	287
Gatsibo	0.7	0.0	278
Kayonza	5.0	0.9	195
Kirehe	6.2	0.2	185
Ngoma	5.5	2.1	222
Bugesera	4.7	0.0	187

Table D13.11.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, by district, Rwanda 2014-15

		Percent distribution of women by testing status and by whether they received the results of the last test						
District	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
Nyarugenge	99.7	85.9	0.5	13.6	100.0	86.4	43.8	452
Gasabo	100.0	90.1	0.5	9.4	100.0	90.6	45.3	863
Kicukiro	99.5	85.2	1.5	13.3	100.0	86.7	36.2	484
Nyanza	100.0	77.7	2.5	19.9	100.0	80.1	36.0	375
Gisagara	99.4	79.8	1.7	18.5	100.0	81.5	34.3	418
Nyaruguru	99.7	86.7	2.4	11.0	100.0	89.0	40.6	304
Huye	98.8	80.2	2.9	16.9	100.0	83.1	33.9	423
Nyamagabe	99.1	76.2	2.9	20.9	100.0	79.1	39.1	416
Ruhango	99.8	82.0	1.6	16.3	100.0	83.7	39.4	402
Muhanga	98.7	85.0	2.5	12.5	100.0	87.5	40.2	415
Kamonyi	99.8	86.3	0.9	12.8	100.0	87.2	38.8	460
Karongi	98.3	88.0	1.4	10.6	100.0	89.4	43.8	412
Rutsiro	99.7	87.7	1.1	11.2	100.0	88.8	45.0	339
Rubavu	96.6	80.2	0.5	19.3	100.0	80.7	34.9	488
Nyabihu	98.8	81.8	0.7	17.5	100.0	82.5	42.3	327
Ngororero	99.1	81.5	1.0	17.5	100.0	82.5	33.3	428
Rusizi	98.4	81.1	4.3	14.5	100.0	85.5	37.6	543
Nyamasheke	98.7	84.4	3.9	11.8	100.0	88.2	40.4	428
Rulindo	98.8	80.8	1.3	17.9	100.0	82.1	37.4	377
Gakenke	98.8	86.5	3.9	9.6	100.0	90.4	45.0	422
Musanze	98.2	81.2	1.7	17.1	100.0	82.9	44.7	505
Burera	99.5	77.1	2.2	20.7	100.0	79.3	29.8	421
Gicumbi	98.8	83.7	3.2	13.1	100.0	86.9	39.7	485
Rwamagana	100.0	87.9	2.5	9.6	100.0	90.4	39.2	455
Nyagatare	99.2	82.1	0.7	17.2	100.0	82.8	31.0	597
Gatsibo	99.6	83.8	2.5	13.7	100.0	86.3	43.1	600
Kayonza	99.7	83.0	1.5	15.5	100.0	84.5	42.0	416
Kirehe	99.5	87.9	1.1	11.0	100.0	89.0	37.7	356
Ngoma	99.5	86.0	0.6	13.5	100.0	86.5	34.9	482
Bugesera	99.2	87.2	1.5	11.3	100.0	88.7	36.0	401

[1] Includes “don’t know/missing”

Table D13.11.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, by district, Rwanda 2014-15

		Percent distribution of men by testing status and by whether they received the results of the last test						
District	Percentage who know where to get an HIV test	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Nyarugenge	98.9	82.5	1.4	16.1	100.0	83.9	40.1	219
Gasabo	100.0	82.8	1.7	15.5	100.0	84.5	41.7	421
Kicukiro	98.3	79.6	2.6	17.8	100.0	82.2	27.1	223
Nyanza	99.5	72.8	4.2	23.1	100.0	76.9	39.1	182
Gisagara	99.0	73.1	3.8	23.1	100.0	76.9	28.9	179
Nyaruguru	99.2	71.1	10.8	18.1	100.0	81.9	25.9	149
Huye	99.5	78.2	3.5	18.3	100.0	81.7	33.2	210
Nyamagabe	98.1	70.7	1.0	28.3	100.0	71.7	38.3	196
Ruhango	98.5	71.5	3.4	25.0	100.0	75.0	30.2	197
Muhanga	99.5	77.3	3.0	19.7	100.0	80.3	32.1	191
Kamonyi	99.0	80.0	1.1	19.0	100.0	81.0	31.2	217
Karongi	97.2	74.7	6.2	19.1	100.0	80.9	31.9	199
Rutsiro	99.3	73.9	0.0	26.1	100.0	73.9	41.7	156
Rubavu	97.7	81.8	0.4	17.7	100.0	82.3	50.4	242
Nyabihu	96.9	82.7	0.0	17.3	100.0	82.7	53.2	129
Ngororero	96.3	72.9	3.6	23.5	100.0	76.5	32.9	178
Rusizi	97.3	78.8	3.8	17.4	100.0	82.6	28.3	250
Nyamasheke	100.0	83.5	5.3	11.2	100.0	88.8	45.5	169
Rulindo	100.0	76.1	2.2	21.8	100.0	78.2	29.2	157
Gakenke	99.3	86.2	3.4	10.4	100.0	89.6	40.4	175
Musanze	97.9	72.8	4.1	23.1	100.0	76.9	37.9	218
Burera	97.0	76.2	2.4	21.4	100.0	78.6	36.2	168
Gicumbi	99.0	77.1	6.5	16.4	100.0	83.6	30.0	231
Rwamagana	100.0	86.6	0.5	12.8	100.0	87.2	41.3	207
Nyagatare	100.0	72.2	5.1	22.8	100.0	77.2	24.5	287
Gatsibo	99.0	78.1	5.6	16.3	100.0	83.7	38.4	278
Kayonza	98.9	77.3	2.6	20.1	100.0	79.9	33.5	195
Kirehe	100.0	73.1	1.9	25.0	100.0	75.0	32.4	185
Ngoma	96.2	80.8	3.5	15.7	100.0	84.3	37.0	222
Bugesera	98.2	77.8	4.8	17.5	100.0	82.5	34.0	187

[1] Includes “don’t know/missing”

Table D13.12 Pregnant women counseled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV pretest counseling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counseling, and the percentage who received an HIV test at the time of delivery for their most recent birth by whether they received their test results, by district, Rwanda 2014-15

District	Percentage who received counseling on HIV during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who:			Percentage who received counseling on HIV and an HIV test during ANC, and the results	Percentage who had an HIV test during ANC or labor and who:[2]		Number of women who gave birth in the past two years[3]
		Received results and received post-test counseling	Received results and did not receive post-test counseling	Did not receive results		Received results	Did not receive results	
Nyarugenge	97.1	94.3	3.5	0.0	96.3	97.8	0.0	102
Gasabo	92.5	86.5	11.5	0.0	92.5	98.7	0.0	204
Kicukiro	97.2	96.4	2.7	0.0	97.2	99.2	0.0	89
Nyanza	96.4	96.7	1.4	0.0	96.4	98.1	0.0	94
Gisagara	92.7	89.5	9.5	1.0	91.6	99.0	1.0	103
Nyaruguru	96.4	93.2	3.4	2.4	94.0	96.6	2.4	77
Huye	88.8	93.9	2.3	1.1	87.7	96.2	1.1	96
Nyamagabe	95.2	96.5	1.3	0.0	95.2	98.8	0.0	81
Ruhango	94.5	99.0	0.0	0.0	94.5	99.0	0.0	96
Muhanga	93.9	94.3	5.7	0.0	93.9	100.0	0.0	80
Kamonyi	96.2	94.0	4.3	0.6	94.5	98.3	0.6	103
Karongi	97.0	90.2	7.7	1.0	96.0	97.8	1.0	95
Rutsiro	96.9	94.3	2.8	0.0	95.0	97.1	0.0	99
Rubavu	88.4	90.2	6.1	0.0	87.7	96.2	0.0	144
Nyabihu	98.9	95.3	1.2	1.2	96.5	96.5	1.2	70
Ngororero	89.1	81.3	12.1	0.0	88.1	93.4	0.3	102
Rusizi	86.9	88.0	8.6	1.7	84.3	97.5	1.7	124
Nyamasheke	86.1	89.4	10.5	0.0	86.1	99.9	0.1	128
Rulindo	95.1	92.5	7.2	0.0	95.1	100.0	0.0	86
Gakenke	81.2	89.6	7.5	0.0	81.2	98.5	0.0	73
Musanze	88.5	87.3	11.4	0.0	87.2	98.7	0.0	99
Burera	98.9	98.9	0.0	0.0	98.9	98.9	0.0	95
Gicumbi	95.1	85.9	12.9	0.0	95.1	98.8	0.0	100
Rwamagana	97.2	94.4	1.7	0.0	94.4	96.1	0.0	119
Nyagatare	86.3	95.5	3.2	0.0	86.3	98.8	0.0	182
Gatsibo	91.6	84.7	12.0	0.8	90.8	97.5	0.8	165
Kayonza	94.3	85.0	12.5	1.5	93.3	97.5	1.5	105
Kirehe	95.7	95.5	0.0	0.0	93.5	95.5	0.0	94
Ngoma	97.8	96.3	0.9	0.0	96.8	97.1	0.0	118
Bugesera	96.4	94.3	3.6	0.9	95.4	97.9	0.9	112

[1] In this context, "pretest counseling" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Women are asked whether they received an HIV test during labor only if they were not tested for HIV during ANC.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

Table D13.14 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by district, Rwanda 2014-15

	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
District	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling/ abnormal discharge from penis	Genital sore/ulcer	STI/ abnormal discharge from penis/ sore or ulcer	Number of men who ever had sexual intercourse
Nyarugenge	2.7	12.1	15.9	20.0	345	3.1	2.6	5.8	7.3	175
Gasabo	2.4	7.3	6.9	11.5	652	1.4	0.5	2.6	2.6	306
Kicukiro	4.9	6.6	7.9	9.9	348	1.3	1.3	1.6	2.5	172
Nyanza	8.0	8.0	10.4	11.4	298	3.9	6.7	16.3	17.8	139
Gisagara	2.3	10.6	14.8	20.3	309	0.0	2.3	1.5	2.3	140
Nyaruguru	1.5	6.0	12.3	16.8	217	0.0	0.0	0.0	0.0	94
Huye	4.1	7.0	9.0	11.2	297	0.0	0.0	0.8	0.8	145
Nyamagabe	2.3	5.2	5.7	6.7	277	0.8	1.5	2.3	3.1	134
Ruhango	2.1	1.5	8.9	9.8	303	0.0	0.0	0.0	0.0	138
Muhanga	1.6	6.8	9.1	12.0	295	2.8	2.4	6.0	7.3	147
Kamonyi	1.8	6.6	9.0	12.2	339	0.0	0.0	2.6	2.6	178
Karongi	2.1	10.8	11.3	16.2	280	3.3	1.9	8.1	10.0	145
Rutsiro	2.4	8.9	9.9	12.6	262	0.8	1.6	4.0	4.7	125
Rubavu	2.2	5.9	4.4	8.5	359	1.2	1.8	1.8	2.4	187
Nyabihu	0.5	2.2	2.5	3.4	233	0.0	0.0	0.0	0.0	91
Ngororero	2.3	3.7	3.0	6.0	322	1.0	0.8	0.8	1.9	132
Rusizi	5.2	27.7	29.1	38.6	368	2.7	0.7	4.7	6.1	161
Nyamasheke	2.0	11.9	17.0	22.6	312	1.6	0.2	3.5	3.6	127
Rulindo	4.9	10.5	9.5	12.5	273	2.9	2.2	1.7	4.7	118
Gakenke	2.8	7.9	9.3	13.9	296	0.4	0.8	0.0	1.2	140
Musanze	2.5	17.0	11.0	22.7	342	3.7	3.6	3.3	6.0	171
Burera	1.9	17.1	16.3	26.5	292	1.6	1.6	2.5	3.3	127
Gicumbi	6.7	2.7	8.6	8.6	336	2.3	0.8	3.1	3.1	153
Rwamagana	7.6	12.2	18.4	18.8	343	2.9	1.9	8.5	8.5	172
Nyagatare	6.1	4.7	16.1	16.5	459	3.0	0.8	1.5	3.0	201
Gatsibo	3.3	9.4	8.0	13.4	479	3.1	2.4	6.9	8.0	210
Kayonza	2.5	4.1	6.7	7.7	318	4.4	3.1	8.8	8.8	141
Kirehe	4.7	5.6	10.0	11.4	291	1.8	1.1	1.6	1.8	130
Ngoma	5.2	18.4	19.7	26.6	392	3.2	1.9	8.0	9.8	189
Bugesera	0.6	1.0	0.7	1.2	318	0.0	0.0	1.7	1.7	138

Table D13.15 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by district, Rwanda 2014-15

	Women					Men				
District	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of respon-dents	For last injection, syringe and needle taken from a new, unopened package	Number of respon-dents receiving medical injections in the last 12 months	Percentage who received a medical injection in the last 12 months	Average number of medical injections per person in the last 12 months	Number of respon-dents	For last injection, syringe and needle taken from a new, unopened package	Number of respon-dents receiving medical injections in the last 12 months
Nyarugenge	68.1	1.9	452	100.0	308	50.4	1.4	219	100.0	110
Gasabo	65.8	1.7	863	99.0	568	53.6	0.9	421	99.1	226
Kicukiro	54.5	1.3	484	99.7	264	24.4	0.4	223	100.0	54
Nyanza	66.0	2.5	375	99.6	248	58.2	0.7	182	100.0	106
Gisagara	64.1	1.7	418	100.0	268	43.5	0.5	179	100.0	78
Nyaruguru	59.6	1.3	304	98.7	181	40.1	0.5	149	91.7	60
Huye	50.7	1.5	423	99.6	215	13.7	0.4	210	100.0	29
Nyamagabe	64.7	1.8	416	99.3	269	51.4	1.2	196	99.2	101
Ruhango	60.7	1.4	402	98.8	244	43.2	0.5	197	93.8	85
Muhanga	52.8	1.7	415	99.2	219	47.3	0.6	191	99.0	90
Kamonyi	72.5	2.1	460	98.6	333	44.7	0.6	217	100.0	97
Karongi	64.6	1.5	412	98.0	266	46.2	0.9	199	96.9	92
Rutsiro	63.6	2.0	339	98.5	216	54.1	0.9	156	100.0	84
Rubavu	46.7	1.1	488	99.0	228	62.2	1.2	242	99.3	151
Nyabihu	57.8	1.5	327	99.3	189	64.2	0.9	129	100.0	83
Ngororero	53.3	1.6	428	99.5	228	44.3	0.8	178	100.0	79
Rusizi	63.4	2.4	543	100.0	344	36.3	1.4	250	100.0	91
Nyamasheke	56.7	1.4	428	100.0	243	47.1	1.3	169	100.0	79
Rulindo	56.8	1.4	377	99.4	214	47.3	0.8	157	100.0	74
Gakenke	62.0	1.7	422	99.5	262	41.5	0.6	175	100.0	73
Musanze	61.3	1.5	505	98.8	310	44.8	0.6	218	100.0	97
Burera	60.0	1.9	421	100.0	253	46.2	0.7	168	99.8	78
Gicumbi	47.5	1.4	485	97.4	231	30.2	0.7	231	97.3	70
Rwamagana	74.0	2.3	455	99.1	337	59.0	1.2	207	99.2	122
Nyagatare	50.8	1.3	597	100.0	303	34.6	0.7	287	100.0	99
Gatsibo	55.9	1.4	600	96.9	335	46.8	0.8	278	99.1	130
Kayonza	59.1	1.8	416	98.0	246	55.1	0.8	195	100.0	107
Kirehe	65.6	1.7	356	99.5	234	44.9	0.7	185	100.0	83
Ngoma	71.9	2.0	482	100.0	347	49.1	1.4	222	98.7	109
Bugesera	63.7	2.2	401	99.3	256	44.3	1.1	187	99.1	83

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker.

Table D13.16 Comprehensive knowledge about AIDS and of a source of condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by district, Rwanda 2014-15

	Women			Men		
District	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of respondents	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of respondents
Nyarugenge	64.8	96.0	181	65.7	99.4	79
Gasabo	89.4	98.6	363	90.2	99.1	145
Kicukiro	80.3	97.2	196	93.6	99.1	75
Nyanza	71.4	95.0	116	63.0	98.9	69
Gisagara	74.1	90.7	161	85.4	97.8	66
Nyaruguru	88.9	97.1	122	55.1	97.0	60
Huye	68.5	90.8	158	80.0	100.0	79
Nyamagabe	59.3	78.0	179	45.1	93.0	85
Ruhango	83.5	98.5	143	86.5	100.0	71
Muhanga	63.8	84.7	139	67.0	95.4	65
Kamonyi	63.2	88.3	168	74.4	98.3	62
Karongi	44.1	78.4	182	41.0	90.8	72
Rutsiro	36.6	82.0	133	49.9	91.7	58
Rubavu	44.9	69.4	207	57.6	94.2	95
Nyabihu	52.5	70.6	129	90.5	94.6	55
Ngororero	54.6	88.9	162	53.6	89.3	72
Rusizi	52.2	79.8	227	43.3	84.6	113
Nyamasheke	52.0	68.1	146	66.9	86.6	49
Rulindo	63.7	88.4	143	48.5	100.0	56
Gakenke	52.5	93.0	159	52.6	95.9	52
Musanze	61.1	81.4	215	37.1	92.7	92
Burera	78.3	91.3	182	65.4	84.0	58
Gicumbi	80.1	88.6	186	49.1	95.8	86
Rwamagana	60.3	98.2	164	73.0	100.0	67
Nyagatare	78.3	87.6	220	47.0	100.0	100
Gatsibo	64.3	86.4	247	76.3	98.6	97
Kayonza	63.4	95.3	159	70.3	97.1	80
Kirehe	61.0	96.0	122	70.7	96.2	65
Ngoma	43.0	88.6	184	52.7	98.3	77
Bugesera	63.5	83.9	129	80.7	97.2	76

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention of the AIDS virus. The components of comprehensive knowledge are presented in Tables D13.2, D13.3.1, and D13.3.2.
[2] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Table D13.22 Practice of circumcision

Percentage of men age 15-49 who are circumcised, and percent distribution of circumcised men by type of practitioner who performed the circumcision, by district, Rwanda 2014-15

District	Percentage circumcised	Number of men
Nyarugenge	50.4	219
Gasabo	47.0	421
Kicukiro	53.0	223
Nyanza	14.7	182
Gisagara	8.8	179
Nyaruguru	7.3	149
Huye	29.0	210
Nyamagabe	11.0	196
Ruhango	14.2	197
Muhanga	14.6	191
Kamonyi	20.3	217
Karongi	20.9	199
Rutsiro	16.0	156
Rubavu	50.4	242
Nyabihu	33.4	129
Ngororero	12.5	178
Rusizi	73.9	250
Nyamasheke	37.6	169
Rulindo	11.4	157
Gakenke	6.2	175
Musanze	30.4	218
Burera	22.1	168
Gicumbi	14.0	231
Rwamagana	30.9	207
Nyagatare	25.0	287
Gatsibo	25.6	278
Kayonza	18.7	195
Kirehe	20.5	185
Ngoma	27.7	222
Bugesera	29.9	187

Table D14.5 HIV prevalence

Percentage HIV positive among women and men age 15-49 who were tested, by district, Rwanda 2014-15

District	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Nyarugenge	9.0	222	6.0	218	7.5	440
Gasabo	7.4	416	4.4	419	5.9	836
Kicukiro	8.1	243	4.9	222	6.6	464
Nyanza	5.1	200	3.1	181	4.2	381
Gisagara	2.8	191	1.2	178	2.1	369
Nyaruguru	2.3	144	1.0	149	1.6	292
Huye	3.2	202	2.5	209	2.9	411
Nyamagabe	2.4	225	1.2	195	1.8	421
Ruhango	5.0	210	4.6	196	4.8	407
Muhanga	2.6	201	2.2	190	2.4	391
Kamonyi	1.8	228	1.4	216	1.6	444
Karongi	3.3	213	1.9	198	2.6	411
Rutsiro	2.9	169	2.0	155	2.5	324
Rubavu	4.1	235	1.9	241	3.0	476
Nyabihu	3.2	171	3.2	128	3.2	300
Ngororero	1.7	207	1.5	178	1.6	385
Rusizi	3.4	287	1.7	248	2.6	535
Nyamasheke	3.2	225	0.8	168	2.2	393
Rulindo	1.4	200	4.2	156	2.6	356
Gakenke	1.7	219	2.4	174	2.0	393
Musanze	3.2	244	2.3	217	2.7	461
Burera	1.1	201	0.7	168	0.9	369
Gicumbi	4.6	244	2.3	230	3.5	474
Rwamagana	3.3	217	3.7	206	3.5	423
Nyagatare	2.1	316	1.3	286	1.7	601
Gatsibo	3.3	307	2.0	276	2.7	583
Kayonza	5.0	202	2.5	194	3.8	396
Kirehe	3.1	179	1.7	185	2.4	363
Ngoma	1.7	242	1.8	221	1.7	463
Bugesera	2.0	191	1.1	186	1.5	377

Table D14.8 HIV prevalence among young people

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by district, Rwanda 2014-15

District	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Nyarugenge	2.6	82	3.4	78	3.0	161
Gasabo	3.0	171	1.0	145	2.1	316
Kicukiro	5.0	94	1.2	76	3.3	171
Nyanza	4.4	66	0.0	69	2.2	135
Gisagara	1.7	65	0.0	65	0.8	130
Nyaruguru	0.0	55	0.0	60	0.0	115
Huye	1.0	72	0.0	79	0.5	151
Nyamagabe	0.0	110	0.0	85	0.0	195
Ruhango	2.4	80	1.4	70	1.9	151
Muhanga	1.4	71	0.0	65	0.7	135
Kamonyi	1.0	73	1.8	62	1.4	135
Karongi	0.5	97	0.0	73	0.3	169
Rutsiro	0.0	66	0.0	58	0.0	124
Rubavu	0.0	89	0.0	96	0.0	185
Nyabihu	0.0	70	0.0	55	0.0	124
Ngororero	0.0	73	0.0	72	0.0	145
Rusizi	0.6	128	0.0	113	0.3	241
Nyamasheke	1.4	85	0.0	49	0.9	134
Rulindo	0.0	79	1.9	56	0.8	135
Gakenke	2.3	82	0.0	52	1.4	133
Musanze	0.0	103	1.4	91	0.7	194
Burera	0.2	82	0.0	58	0.1	140
Gicumbi	1.4	85	0.0	85	0.7	169
Rwamagana	4.4	76	0.0	67	2.3	143
Nyagatare	0.0	116	0.0	100	0.0	215
Gatsibo	0.0	124	0.6	95	0.3	219
Kayonza	3.9	74	0.0	79	1.9	153
Kirehe	1.7	63	1.6	65	1.6	128
Ngoma	0.4	94	0.9	77	0.6	171
Bugesera	1.2	61	2.6	75	2.0	136

Table D14.13 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, by district, Rwanda 2014-15

District	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative[1]	Total	Number
Nyarugenge	5.5	5.3	5.6	83.6	100.0	95
Gasabo	5.2	1.6	4.4	88.8	100.0	186
Kicukiro	2.1	4.7	6.3	86.8	100.0	71
Nyanza	1.8	1.3	1.2	95.7	100.0	83
Gisagara	0.0	1.2	0.0	98.8	100.0	89
Nyaruguru	2.2	0.0	0.0	97.8	100.0	68
Huye	3.8	0.0	0.0	96.2	100.0	75
Nyamagabe	0.0	0.7	2.2	97.1	100.0	83
Ruhango	4.7	2.6	0.0	92.7	100.0	81
Muhanga	0.7	1.9	1.1	96.2	100.0	88
Kamonyi	0.0	1.2	2.3	96.6	100.0	98
Karongi	3.6	0.0	1.3	95.1	100.0	78
Rutsiro	0.0	2.4	0.0	97.6	100.0	83
Rubavu	3.3	1.0	1.2	94.5	100.0	110
Nyabihu	4.0	1.4	1.0	93.5	100.0	76
Ngororero	1.2	1.0	0.0	97.8	100.0	103
Rusizi	1.9	2.2	2.2	93.7	100.0	104
Nyamasheke	0.1	1.1	0.0	98.7	100.0	103
Rulindo	2.2	2.5	0.0	95.3	100.0	86
Gakenke	0.6	2.3	0.2	96.9	100.0	101
Musanze	2.2	1.2	1.1	95.5	100.0	108
Burera	1.2	0.0	1.0	97.7	100.0	97
Gicumbi	2.6	1.1	1.0	95.4	100.0	113
Rwamagana	2.7	3.1	3.4	90.8	100.0	101
Nyagatare	1.5	0.5	1.0	97.0	100.0	148
Gatsibo	3.6	0.0	0.0	96.4	100.0	138
Kayonza	1.1	2.4	0.0	96.5	100.0	93
Kirehe	1.1	1.1	0.3	97.4	100.0	92
Ngoma	0.0	1.4	0.7	97.9	100.0	107
Bugesera	0.0	0.0	0.8	99.2	100.0	91

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners.

Table D15.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, by district, Rwanda 2014-15

	Person who decides how the wife's cash earnings are used:					Wife's cash earnings compared with husband's cash earnings:						
District	Mainly wife	Wife and husband jointly	Mainly husband	Missing	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of women
Nyarugenge	24.0	71.5	4.5	0.0	100.0	16.4	68.2	11.9	2.2	1.2	100.0	150
Gasabo	18.7	72.3	8.6	0.4	100.0	8.5	76.6	14.1	0.4	0.4	100.0	353
Kicukiro	16.3	76.6	7.1	0.0	100.0	18.6	51.6	26.0	2.6	1.3	100.0	131
Nyanza	11.0	61.5	27.5	0.0	100.0	11.7	48.9	39.4	0.0	0.0	100.0	72
Gisagara	12.8	62.1	25.1	0.0	100.0	6.7	46.4	43.6	3.3	0.0	100.0	151
Nyaruguru	24.1	68.0	6.7	1.2	100.0	11.2	63.1	22.1	1.5	2.1	100.0	106
Huye	25.9	67.0	6.3	0.8	100.0	31.6	34.5	28.6	4.5	0.8	100.0	125
Nyamagabe	26.7	58.9	14.4	0.0	100.0	23.8	51.9	24.3	0.0	0.0	100.0	55
Ruhango	11.4	81.9	6.7	0.0	100.0	9.2	65.0	25.3	0.6	0.0	100.0	153
Muhanga	19.3	63.1	14.1	3.4	100.0	20.0	67.3	6.8	1.2	4.6	100.0	144
Kamonyi	20.3	62.9	16.2	0.6	100.0	6.6	78.1	14.3	0.6	0.4	100.0	187
Karongi	10.8	77.2	12.0	0.0	100.0	3.6	68.2	25.5	2.7	0.0	100.0	152
Rutsiro	17.1	66.9	16.0	0.0	100.0	5.9	53.5	35.0	5.0	0.6	100.0	160
Rubavu	24.0	73.4	2.7	0.0	100.0	5.2	78.0	13.2	2.6	1.0	100.0	128
Nyabihu	7.3	89.7	2.7	0.4	100.0	5.7	61.6	29.2	3.1	0.4	100.0	134
Ngororero	43.4	47.9	8.7	0.0	100.0	18.6	72.0	9.4	0.0	0.0	100.0	45
Rusizi	12.9	71.9	13.5	1.7	100.0	7.7	66.6	19.4	3.3	2.9	100.0	137
Nyamasheke	10.9	75.8	12.0	1.4	100.0	9.1	80.8	8.1	0.6	1.4	100.0	181
Rulindo	19.3	77.2	3.0	0.5	100.0	7.3	57.0	30.2	5.1	0.5	100.0	184
Gakenke	37.3	61.7	1.0	0.0	100.0	16.9	57.8	17.7	7.6	0.0	100.0	61
Musanze	35.2	49.1	15.7	0.0	100.0	9.9	63.1	23.7	3.3	0.0	100.0	141
Burera	34.2	56.8	9.0	0.0	100.0	4.0	68.7	24.3	3.0	0.0	100.0	121
Gicumbi	15.9	52.2	28.4	3.4	100.0	6.5	73.0	16.4	0.3	3.8	100.0	210
Rwamagana	14.6	79.2	6.1	0.0	100.0	4.0	50.2	42.5	3.3	0.0	100.0	209
Nyagatare	43.6	45.1	10.3	1.0	100.0	3.8	66.9	27.6	0.6	1.0	100.0	266
Gatsibo	12.0	58.3	28.1	1.6	100.0	13.2	65.2	17.9	1.8	1.9	100.0	187
Kayonza	8.3	80.7	11.0	0.0	100.0	8.0	68.3	23.6	0.0	0.0	100.0	189
Kirehe	26.4	70.9	0.6	2.1	100.0	7.3	49.0	31.3	8.0	4.3	100.0	49
Ngoma	7.9	68.6	23.5	0.0	100.0	7.2	61.8	30.4	0.5	0.0	100.0	214
Bugesera	36.3	53.7	10.0	0.0	100.0	13.2	75.7	10.2	1.0	0.0	100.0	77

Table D15.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, by district, Rwanda 2014-15

	Men						Women					
District	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Number
Nyarugenge	2.0	76.6	21.4	0.0	100.0	96	5.5	78.0	16.4	0.0	100.0	212
Gasabo	0.0	82.6	17.4	0.0	100.0	211	3.3	69.7	26.3	0.7	100.0	434
Kicukiro	1.9	77.6	20.5	0.0	100.0	92	4.1	78.1	17.4	0.4	100.0	188
Nyanza	2.0	85.3	12.8	0.0	100.0	87	6.3	60.9	32.3	0.4	100.0	204
Gisagara	0.0	93.1	6.9	0.0	100.0	90	4.4	63.5	32.1	0.0	100.0	207
Nyaruguru	3.6	72.8	23.6	0.0	100.0	26	7.5	68.6	23.1	0.8	100.0	165
Huye	0.0	78.6	21.4	0.0	100.0	84	5.9	70.8	20.7	2.6	100.0	191
Nyamagabe	1.6	77.7	20.7	0.0	100.0	90	10.3	55.9	33.3	0.5	100.0	192
Ruhango	1.8	96.3	1.9	0.0	100.0	50	2.0	79.9	18.1	0.0	100.0	199
Muhanga	2.0	73.1	24.9	0.0	100.0	102	6.9	59.9	31.8	1.4	100.0	210
Kamonyi	2.9	67.9	29.1	0.0	100.0	116	6.0	67.4	26.6	0.0	100.0	223
Karongi	5.3	79.5	15.3	0.0	100.0	77	1.6	70.0	27.8	0.6	100.0	193
Rutsiro	0.0	86.6	13.4	0.0	100.0	91	2.3	77.2	20.5	0.0	100.0	192
Rubavu	2.6	84.5	12.9	0.0	100.0	127	1.3	81.9	16.8	0.0	100.0	249
Nyabihu	2.8	91.1	6.1	0.0	100.0	80	1.9	89.0	8.9	0.3	100.0	171
Ngororero	9.6	73.4	17.0	0.0	100.0	97	4.7	61.3	33.5	0.5	100.0	234
Rusizi	2.6	81.0	13.6	2.7	100.0	85	3.6	75.1	20.3	1.0	100.0	248
Nyamasheke	2.6	93.1	4.4	0.0	100.0	102	4.2	70.6	22.8	2.4	100.0	230
Rulindo	6.8	72.5	20.7	0.0	100.0	94	4.7	81.8	13.4	0.0	100.0	189
Gakenke	0.5	86.8	12.7	0.0	100.0	44	2.2	71.0	26.3	0.5	100.0	213
Musanze	3.1	78.8	18.1	0.0	100.0	109	2.9	64.7	31.5	1.0	100.0	245
Burera	4.5	59.1	36.4	0.0	100.0	104	2.8	61.9	35.4	0.0	100.0	213
Gicumbi	0.0	75.8	24.2	0.0	100.0	78	8.7	65.5	24.3	1.5	100.0	246
Rwamagana	0.0	89.6	10.4	0.0	100.0	111	3.9	82.4	13.7	0.0	100.0	225
Nyagatare	0.9	69.3	29.4	0.4	100.0	169	6.6	60.6	32.0	0.8	100.0	344
Gatsibo	0.9	62.7	35.5	1.0	100.0	150	3.8	65.8	27.5	2.9	100.0	329
Kayonza	6.1	58.3	35.6	0.0	100.0	102	3.1	76.7	20.2	0.0	100.0	224
Kirehe	0.0	81.5	18.5	0.0	100.0	21	3.8	76.8	19.3	0.0	100.0	216
Ngoma	2.6	83.5	13.9	0.0	100.0	113	1.0	68.7	30.3	0.0	100.0	270
Bugesera	3.5	82.4	14.1	0.0	100.0	95	8.7	60.3	30.0	0.9	100.0	237

Table D15.6.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either alone or jointly with their husband, by district, Rwanda 2014-15

District	Specific decisions			All three decisions	None of the three decisions	Number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives			
Nyarugenge	90.5	81.8	89.1	74.7	2.5	215
Gasabo	86.3	73.3	88.3	65.2	4.2	436
Kicukiro	94.9	88.7	89.2	81.8	1.7	191
Nyanza	75.8	67.1	78.3	56.4	13.0	204
Gisagara	85.0	60.4	77.4	53.3	7.8	212
Nyaruguru	82.7	75.2	87.1	64.0	3.9	167
Huye	81.0	78.2	85.4	71.0	8.2	197
Nyamagabe	81.3	56.9	79.1	54.1	11.0	192
Ruhango	85.9	81.0	91.6	75.0	4.6	200
Muhanga	77.9	67.9	78.2	53.7	9.0	211
Kamonyi	79.2	65.9	86.1	61.9	9.4	224
Karongi	73.0	63.5	81.0	48.9	8.5	197
Rutsiro	88.6	80.4	94.7	76.4	3.4	200
Rubavu	92.0	78.7	95.1	77.4	2.7	253
Nyabihu	97.6	84.8	98.7	83.9	0.3	175
Ngororero	75.0	68.8	83.7	60.7	11.7	234
Rusizi	60.9	65.8	71.6	43.7	15.6	253
Nyamasheke	70.7	67.2	81.3	54.5	10.6	231
Rulindo	95.4	90.0	93.3	88.4	2.7	198
Gakenke	91.9	78.8	91.0	75.5	3.3	218
Musanze	81.4	66.6	83.8	56.6	6.3	249
Burera	71.9	57.9	78.5	49.8	14.2	217
Gicumbi	79.3	74.3	81.2	68.2	13.5	247
Rwamagana	99.2	87.0	93.3	85.2	0.0	232
Nyagatare	76.8	77.5	89.9	64.6	4.2	346
Gatsibo	87.1	78.6	81.2	70.3	8.7	332
Kayonza	89.3	62.2	85.5	56.8	5.0	224
Kirehe	98.7	91.2	95.3	89.4	0.5	220
Ngoma	83.6	58.6	75.3	49.3	7.9	271
Bugesera	75.4	71.4	79.4	59.9	10.8	238

Table D15.7.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by district, Rwanda 2014-15

	Husband is justified in hitting or beating his wife if she:						
District	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Nyarugenge	1.4	12.2	12.8	16.7	8.6	21.2	452
Gasabo	0.6	1.7	4.5	5.6	5.4	11.3	863
Kicukiro	0.3	1.1	1.8	2.7	1.5	3.7	484
Nyanza	17.7	35.1	45.3	49.6	30.0	61.0	375
Gisagara	15.5	24.8	24.0	38.8	19.8	46.0	418
Nyaruguru	9.5	28.0	31.5	42.0	32.9	52.5	304
Huye	13.6	33.6	36.2	39.2	37.8	54.5	423
Nyamagabe	18.3	36.1	46.2	45.8	44.5	63.0	416
Ruhango	1.3	3.0	5.7	11.9	10.9	21.9	402
Muhanga	13.7	32.4	37.8	42.8	37.2	58.9	415
Kamonyi	6.6	18.4	30.9	34.3	21.1	47.6	460
Karongi	25.9	45.4	48.7	56.7	48.1	65.6	412
Rutsiro	16.8	27.7	31.7	42.6	35.1	58.9	339
Rubavu	9.7	33.1	24.4	31.0	34.2	47.9	488
Nyabihu	3.5	19.9	5.2	9.5	27.8	30.1	327
Ngororero	14.8	26.7	32.3	41.0	32.9	54.0	428
Rusizi	14.9	31.3	29.4	37.9	34.9	47.4	543
Nyamasheke	9.8	22.7	23.1	38.5	33.1	56.7	428
Rulindo	18.2	35.5	42.8	60.9	27.9	70.1	377
Gakenke	9.6	28.7	24.8	35.2	21.9	42.6	422
Musanze	17.5	34.8	40.2	48.0	38.3	61.0	505
Burera	7.3	17.0	22.9	32.4	22.6	47.5	421
Gicumbi	2.8	13.8	15.3	16.4	33.8	44.1	485
Rwamagana	0.2	4.0	7.1	14.7	6.8	22.4	455
Nyagatare	4.3	17.3	18.2	24.2	31.7	52.8	597
Gatsibo	5.3	15.5	14.1	28.1	16.4	34.4	600
Kayonza	11.8	17.4	14.6	21.0	24.6	34.4	416
Kirehe	0.0	0.0	1.0	11.1	2.2	12.7	356
Ngoma	0.5	3.7	3.5	6.7	10.8	16.4	482
Bugesera	9.5	18.0	20.6	33.6	22.4	39.9	401

Table D15.7.2 Attitudes toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by district, Rwanda 2014-15

	Husband is justified in hitting or beating his wife if she:						
District	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Nyarugenge	0.3	1.8	6.0	8.8	0.3	12.0	219
Gasabo	0.0	1.2	1.9	3.6	0.4	4.3	421
Kicukiro	0.4	0.7	2.0	1.9	0.7	2.8	223
Nyanza	3.0	10.8	10.9	18.2	10.7	23.2	182
Gisagara	2.3	13.4	14.4	23.9	8.6	30.5	179
Nyaruguru	2.9	2.9	1.7	5.3	5.5	11.4	149
Huye	1.1	2.4	14.5	16.2	4.4	23.4	210
Nyamagabe	2.1	10.7	16.2	18.5	10.0	24.5	196
Ruhango	0.0	0.0	0.0	0.0	0.0	0.0	197
Muhanga	0.5	2.0	3.4	8.7	2.5	10.7	191
Kamonyi	0.0	0.6	3.4	2.8	0.0	4.8	217
Karongi	4.2	12.0	9.3	23.6	12.7	34.5	199
Rutsiro	1.1	3.1	7.7	15.8	4.9	21.0	156
Rubavu	8.7	15.7	17.0	33.5	15.0	39.3	242
Nyabihu	0.0	3.4	6.5	8.9	2.0	10.8	129
Ngororero	0.6	1.8	6.0	9.6	2.4	13.4	178
Rusizi	1.2	3.4	8.3	13.1	5.8	18.4	250
Nyamasheke	0.7	2.0	1.3	4.2	0.2	7.0	169
Rulindo	1.4	19.9	9.9	18.0	9.2	28.7	157
Gakenke	1.0	3.2	2.4	7.1	1.6	8.7	175
Musanze	5.6	14.0	11.9	23.6	12.1	31.7	218
Burera	2.0	7.4	15.1	16.3	7.1	20.1	168
Gicumbi	4.7	8.4	3.8	10.0	32.3	39.2	231
Rwamagana	0.5	2.8	7.8	17.7	3.8	19.0	207
Nyagatare	0.0	2.6	2.2	5.4	6.6	11.7	287
Gatsibo	0.0	1.0	3.5	1.0	2.2	5.2	278
Kayonza	4.0	9.7	9.3	12.9	26.4	34.2	195
Kirehe	0.6	1.3	2.9	13.4	1.1	13.9	185
Ngoma	1.0	1.9	1.5	3.4	3.6	8.6	222
Bugesera	0.0	1.8	3.2	13.3	3.0	15.1	187

SURVEY PERSONNEL

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Jean BIZIMANA
Jacqueline MUJEJIMANA
Sylvestre NIYITEGEKA
Sylvie TUYISHIME
Amede TUYISENGE
Etienne KWIZERA
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Robert BIZIMANA
Hyacinthe MUKAZIGAMA
Dative KABATSI
Epimaque HABIMANA
Muramira LUC MICHEL
Illuminée MUKAMWIZA
Etienne KWIZERA
Vestine UWAMAHORO
Jean BIZIMANA
Monique NYIRAMANA
Sylvain NIYIBIZI
Odette UWABYAYE
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Liliane UMUTESI
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Liliane UWINGABIRE
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J. William SHUMBUSHO
Michel MUTANGUHA
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J. Baptiste TWAGIRUMUKIZA
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Richard GAKWAYA
Richard MUHIRE
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Euphrosine NYIRAZITONI
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Beatrice NIYITEGEKA
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Ms. Dara WALSH
Ms. Bakunda KAMA
Dr. Peter AKA
Ms. Lady Ortiz PARRA
Mr. Richard JOSEPH
Ms. Anne CROSS
Ms. Nancy JOHNSON
Ms. Natalie LA ROCHE
Mr. Christopher GRAMER
Mr. Matt PAGAN
Ms. Sally ZWEIMULLER

QUESTIONNAIRES

Appendix **F**

RWANDA DEMOGRAPHIC AND HEALTH SURVEYS 2014-15
HOUSEHOLD QUESTIONNAIRE

MINECOFIN | MINISTRY OF HEALTH

NATIONAL INSTITUTE OF STATISTICS

IDENTIFICATION

PROVINCE: _____ DISTRICT: _____ SECTOR: _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD STRUCTURE NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ]

HOUSEHOLD SELECTED FOR ANTHROPOMETRY, ANEMIA/MALARIA FOR CHILDREN & WOMEN	YES = 1; NO = 2	[ ]
HOUSEHOLD SELECTED FOR MALE SURVEY AND HIV TESTING FOR ADULTS	YES = 1; NO = 2	[ ]
. . . . HOUSEHOLD SELECTED FOR HIV TESTING FOR CHILDREN	YES = 1; NO = 2	[ ]
. . . . HOUSEHOLD SELECTED FOR DOMESTIC VIOLENCE FOR WOMEN	YES = 1; NO = 2	[ ]
. . . . HOUSEHOLD SELECTED FOR DOMESTIC VIOLENCE FOR MEN	YES = 1; NO = 2	[ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR 2 0 1 [ ]
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD [ ][ ]

TOTAL ELIGIBLE WOMEN [ ][ ]

TOTAL ELIGIBLE MEN [ ][ ]

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE [ ][ ]

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]

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INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with National Institute of Statistics of Rwanda. We are conducting a survey about health all over Rwanda. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.
In case you need more information about the survey, you may contact the person listed on this card.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER:_____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY			
1	2	3	4	5	6	7	8	9	10	11	11A
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-23 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD 95'.	What is (NAME'S) current marital status? 1 = MARRIED 2- LIVING TOGETHER 3 = DIVORCED 4=SEPARATED 5 = WIDOWED 6 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-14
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01	01
02			1 2	1 2	1 2			02	02	02	02
03			1 2	1 2	1 2			03	03	03	03
04			1 2	1 2	1 2			04	04	04	04
05			1 2	1 2	1 2			05	05	05	05
06			1 2	1 2	1 2			06	06	06	06
07			1 2	1 2	1 2			07	07	07	07
08			1 2	1 2	1 2			08	08	08	08
09			1 2	1 2	1 2			09	09	09	09
10			1 2	1 2	1 2			10	10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/STEPCHILD
11 = NOT RELATED
12 = DOMESTIC WORKER
98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS		IF AGE 0-4 YEARS			IF AGE 7+ YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION	INSURANCE		
	12	13	14	15	16	17	18	19	20	21	22	23
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2014 - 2015/ 2014/ 2015) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Is (NAME) covered by any health insurance?	What is (NAME) main type of health insu-rance?	Does (NAME) currently smoke 1=YES 2=NO 8=DK
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE		Y N DK		
01	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
02	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
03	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
04	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
05	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
06	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
07	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
08	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
09	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
10	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL
1 = PRIMARY
2 = POST-PRIMARY/VOCATIONAL
3 = SECONDARY
4 = TERTIARY
6 = PRE-PRIMARY
8 = DON'T KNOW

GRADE
00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19)
98 = DON'T KNOW

CODE FOR Q. 22
1= MUTUELLE / COMMUNITY HEALTH INSURANCE
2= RAMA
3= MMI
4=PRIVATE/ COMMERCIAL
5=OTHER
8= DON'T KNOW

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY			
1	2	3	4	5	6	7	8	9	10	11	11A
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-23 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD 95'.	What is (NAME'S) current marital status? 1 = MARRIED 2- LIVING TOGETHER 3 = DIVORCED 4=SEPARATED 5 = WIDOWED 6 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-14
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		11	11	11	11
12			1 2	1 2	1 2			12	12	12	12
13			1 2	1 2	1 2			13	13	13	13
14			1 2	1 2	1 2			14	14	14	14
15			1 2	1 2	1 2			15	15	15	15
16			1 2	1 2	1 2			16	16	16	16
17			1 2	1 2	1 2			17	17	17	17
18			1 2	1 2	1 2			18	18	18	18
19			1 2	1 2	1 2			19	19	19	19
20			1 2	1 2	1 2			20	20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? YES ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/ STEPCHILD
11 = NOT RELATED
12 = DOMESTIC WORKER
98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 3 YEARS OR OLDER		IF AGE 3-24 YEARS		IF AGE 0-4 YEARS			IF AGE 7+ YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION	INSURANCE		
	12	13	14	15	16	17	18	19	20	21	22	23
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2014 - 2015/ 2014/ 2015) school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Is (NAME) covered by any health insurance?	What is (NAME) main type of health insu-rance?	Does (NAME) currently smoke 1=YES 2=NO 8=DK
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE		Y N DK		
11	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
12	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
13	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
14	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
15	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
16	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
17	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
18	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
19	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		
20	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 GO TO 20		1 2 GO TO 20			1 2 8 GO TO 23		

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3= MMI
4=PRIVATE/ COMMERCIAL
5=OTHER
8= DON'T KNOW

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less than monthly, or never?	DAILY . . . . . 1 WEEKLY . . . . . 2 MONTHLY . . . . . 3 LESS THAN MONTHLY . . . . . 4 NEVER 5	
102	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	105 105
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	105
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
104A	What is the distance from your home to that water source?	LESS THAN 200 M . . . . . 1 200 M - 500 M . . . . . 2 MORE THAN 500 M . . . . . 3 DON'T KNOW 8	
105	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	106A
106	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
106A	Is the water this household uses for drinking stored?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106B	ASK TO SEE THE CONTAINER(S) IN WHICH WATER IS STORED. RECORD OBSERVATION.	JERRY CAN . . . . . 1 POT . . . . . 2 BOTTLE . . . . . 3 COOKING POT . . . . . 4 OTHER _____ 6 SPECIFY NOT AVAILABLE TO BE OBSERVED 8	
106C	How many times per week does your household wash these containers?	NO. OF TIMES PER WEEK IF LESS THAN 7 . . . . . [ ] 7 OR MORE TIMES PER WEEK . . . . . 7 DON'T KNOW 8	
107	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 110
108	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 109A
109	How many households (including this household) use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
109A	CLEANLINESS OF THE TOILET FACILITY RECORD OBSERVATION.	TOILET'S PLATE FORM IS DRY AND CLEAN . . . . . A WITH URINE OR EXCRETA . . . . . B WITH FLIES C	
110	Does your household have:	YES NO	
	Electricity?	ELECTRICITY 1 2	
	A radio?	RADIO 1 2	
	A television?	TELEVISION 1 2	
	A mobile telephone?	MOBILE TELEPHONE 1 2	
	A non-mobile telephone?	NON-MOBILE TELEPHONE . . . 1 2	
	A refrigerator?	REFRIGERATOR 1 2	
	A computer?	COMPUTER 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 NATURAL GAS . . . . . 03 BIOGAS . . . . . 04 KEROSENE . . . . . 05 CHARCOAL . . . . . 07 WOOD . . . . . 08 STRAW/SHRUBS/GRASS . . . . . 09 AGRICULTURAL CROP . . . . . 10 ANIMAL DUNG . . . . . 11 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 114
112	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 114
113	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
114	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 DUNG . . . . . 12 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
115	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 THATCH/PALM LEAF/LEAF . . . . . 12 SOD . . . . . 13 RUDIMENTARY ROOFING RUSTIC MAT/PLASTIC . . . . . 21 PALM/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 FINISHED ROOFING METAL/IRON SHEET . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER . . . . . 33 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 DIRT . . . . . 13 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 UNCOVERED ADOBE . . . . . 23 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 REUSED WOOD . . . . . 26 FINISHED WALLS CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
117	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
118	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck? A boat without a motor? A boat with a motor?	YES NO WATCH . . . . . 1 2 BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 ANIMAL-DRAWN CART . . . . . 1 2 CAR/TRUCK . . . . . 1 2 BOAT WITHOUT MOTOR . . . 1 2 BOAT WITH MOTOR 1 2	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many hectares of agricultural land do members of this household own? IF 95 OR MORE, CIRCLE '95.0'	HECTARES [ ][ ] . [ ] 95 OR MORE HECTARES . . . . . 95.0 DON'T KNOW 99.8	
121	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 123

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	How many of the following animals does this household own? IF NONE, ENTER '00'. IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'.		
	Cows (traditional)?	COWS . . . . . [ ][ ]	
	Milk cows (modern)?	MILK COWS . . . . . [ ][ ]	
	Bulls?	BULLS . . . . . [ ][ ]	
	Goats?	GOATS . . . . . [ ][ ]	
	Sheep?	SHEEP . . . . . [ ][ ]	
	Chickens?	CHICKENS . . . . . [ ][ ]	
	Pigs?	PIGS . . . . . [ ][ ]	
	Rabbits?	RABBITS . . . . . [ ][ ]	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES . . . . . [ ][ ]	
123	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
123A	CHECK 21: AT LEAST ONE "NO" [ ] ALL "YES" [ ]		→ 126
123E	Does your household plan to obtain health insurance for members that are currently not covered?	YES . . . . . 1 NO 2	
126	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 137
127	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . . [ ]	

		NET #1	NET #2	NET #3
128	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD.	OBSERVED . . . . . 1 NOT OBSERVED 2	OBSERVED . . . . . 1 NOT OBSERVED 2	OBSERVED . . . . . 1 NOT OBSERVED 2
129	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98
130	OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET. IF BRAND IS UNKNOWN AND YOU CANNOT OBSERVE THE NET, SHOW PICTURES OF TYPICAL NET TYPES/BRANDS TO RESPONDENT.	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98
131	When you got the net, was it already treated with an insecticide to kill or repel mosquitoes?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8
132	Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8
133	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98
		NET #1	NET #2	NET #3

133A	How did you obtain the net?	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY
133B	**OBSERVE CONDITION OF MOSQUITO NET:** DOES IT HAVE HOLES THAT ARE EQUAL TO OR LARGER THAN THE TIP OF YOUR THUMB?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
133C	OBSERVE OR ASK THE SHAPE OF THE MOSQUITO NET.	CONICAL . . . . . 1 RECTANGLE 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
134	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8
135	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.

		NET #4	NET #5	NET #6
128	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD.	OBSERVED . . . . . 1 NOT OBSERVED 2	OBSERVED . . . . . 1 NOT OBSERVED 2	OBSERVED . . . . . 1 NOT OBSERVED 2
129	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 36 MONTHS AGO . . . 95 NOT SURE 98
130	OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET. IF BRAND IS UNKNOWN AND YOU CANNOT OBSERVE THE NET, SHOW PICTURES OF TYPICAL NET TYPES/BRANDS TO RESPONDENT.	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98	TUZANET: LONG-LASTING INSECTICIDE-TREATED NET (LLIN) PERMANET/ OLYSET/ NET PROTECT 11 OTHER LLIN DK BRAND . . . 16 (SKIP TO 133A) 'PRETREATED' NET BUT NOT PERMANENT . . . 22 (SKIP TO 132) OTHER . . . . . 96 DK BRAND 98
131	When you got the net, was it already treated with an insecticide to kill or repel mosquitoes?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8
132	Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 133A) NOT SURE 8
133	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] MORE THAN 24 MONTHS AGO . . . 95 NOT SURE 98
		NET #4	NET #5	NET #6

133A	How did you obtain the net?	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY	DURING IMMUNIZATION OF CHILDREN . . . 11 DURING IMMUNIZATION CAMPAIGN 12 DURING ANC VISIT 13 FROM A COMMUNITY HEALTH WORKER . . . . . 14 FROM PHARMACY 15 FROM SHOP 16 HOUSEHOLD HEALTH PROGRAM . . . . . 17 OTHER _____ 96 SPECIFY
133B	**OBSERVE CONDITION OF MOSQUITO NET:** DOES IT HAVE HOLES THAT ARE EQUAL TO OR LARGER THAN THE TIP OF YOUR THUMB?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
133C	OBSERVE OR ASK THE SHAPE OF THE MOSQUITO NET.	CONICAL . . . . . 1 RECTANGLE 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
134	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 136) ←┤ NOT SURE 8
135	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]	NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ] NAME_____ LINE NO. . . . . [ ][ ]
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 137.	GO TO 128 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 137.

137	Please show me where members of your household most often wash their hands.	OBSERVED . . . . . 1 NOT OBSERVED, NOT IN DWELLING/YARD/PLOT . . . . . 2 NOT OBSERVED, NO PERMISSION TO SEE . . . . . 3 NOT OBSERVED, OTHER REASON . . . . . 4 (SKIP TO 140)
138	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE SPECIFIC PLACE FOR HANDWASHING.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2
139	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B NONE C
140	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HOUSEHOLD . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)

141m

CHECK THE COVER PAGE OF THIS QUESTIONNAIRE. USE THIS TABLE ONLY IF THE HOUSEHOLD WAS SELECTED FOR MALE DOMESTIC VIOLENCE.

LOOK AT THE LAST DIGIT OF THE HOUSEHOLD STRUCTURE NUMBER ON THE COVER PAGE. THIS IS THE **COLUMN** NUMBER YOU SHOULD CIRCLE. CHECK THE TOTAL NUMBER OF ELIGIBLE **MEN** ON THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. THIS IS THE **ROW** NUMBER YOU SHOULD CIRCLE. FIND THE BOX WHERE THE CIRCLED ROW AND THE CIRCLED COLUMN MEET AND CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS IS THE NUMBER OF THE ELIGIBLE **MAN** WHO WILL BE ASKED THE DOMESTIC VIOLENCE QUESTIONS. THEN, GO TO COLUMN (10) IN THE HOUSEHOLD SCHEDULE AND PUT A * NEXT TO THE HOUSEHOLD LINE NUMBER OF THE SELECTED ELIGIBLE **MAN** AND RECORD THIS HOUSEHOLD LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

FOR EXAMPLE, IF THE HOUSEHOLD STRUCTURE NUMBER IS ‘716’, GO TO COLUMN 6 AND CIRCLE THE COLUMN NUMBER ('6'). IF THERE ARE TWO ELIGIBLE MEN IN THE HOUSEHOLD, GO TO ROW 2 AND CIRCLE THE ROW NUMBER ('2'). DRAW LINES FROM COLUMN 6 AND ROW 2 AND FIND THE BOX WHERE THE TWO MEET, AND CIRCLE THE NUMBER IN IT (‘1'). THIS MEANS YOU HAVE TO SELECT THE FIRST ELIGIBLE MAN. SUPPOSE THE HOUSEHOLD LINE NUMBERS OF THE TWO ELIGIBLE MEN ARE ‘02', AND ‘03'; THEN THE ELIGIBLE MAN FOR THE HOUSEHOLD RELATIONS QUESTIONS IS THE FIRST ELIGIBLE MAN, I.E., THE MAN WITH HOUSEHOLD LINE NUMBER ‘02'. PUT A '*' NEXT TO THIS MAN'S LINE NUMBER IN COLUMN (10) OF THE HOUSEHOLD SCHEDULE AND ALSO ENTER THE TWO DIGIT LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

Total number of eligible men	Last digit of the household structure number									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**
1	1	1	1	1	1	1	1	1	1	1
2	2	1	2	1	2	1	2	1	2	1
3	1	2	3	1	2	3	1	2	3	1
4	1	2	3	4	1	2	3	4	1	2
5	4	5	1	2	3	4	5	1	2	3
6	4	5	6	1	2	3	4	5	6	1
7	3	4	5	6	7	1	2	3	4	5
8	3	4	5	6	7	8	1	2	3	4
9	2	3	4	5	6	7	8	9	1	2
10	1	2	3	4	5	6	7	8	9	10

HOUSEHOLD LINE NUMBER OF MAN SELECTED FOR DOMESTIC VOLENCE MODULE [ ][ ]

141w

CHECK THE COVER PAGE OF THIS QUESTIONNAIRE. USE THIS TABLE ONLY IF THE HOUSEHOLD WAS SELECTED FOR FEMALE DOMESTIC VIOLENCE.

LOOK AT THE LAST DIGIT OF THE HOUSEHOLD STRUCTURE NUMBER ON THE COVER PAGE. THIS IS THE COLUMN NUMBER YOU SHOULD CIRCLE. CHECK THE TOTAL NUMBER OF ELIGIBLE **WOMEN** ON THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. THIS IS THE **ROW** NUMBER YOU SHOULD CIRCLE. FIND THE BOX WHERE THE CIRCLED ROW AND THE CIRCLED COLUMN MEET AND CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS IS THE NUMBER OF THE ELIGIBLE **WOMAN** WHO WILL BE ASKED THE DOMESTIC VIOLENCE QUESTIONS. THEN, GO TO COLUMN (9) IN THE HOUSEHOLD SCHEDULE AND PUT A * NEXT TO THE HOUSEHOLD LINE NUMBER OF THE SELECTED ELIGIBLE **WOMAN** AND RECORD THIS HOUSEHOLD LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

FOR EXAMPLE, IF THE HOUSEHOLD STRUCTURE NUMBER IS ‘716’, GO TO COLUMN 6 AND CIRCLE THE COLUMN NUMBER ('6'). IF THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO ROW 3 AND CIRCLE THE ROW NUMBER ('3'). DRAW LINES FROM COLUMN 6 AND ROW 3 AND FIND THE BOX WHERE THE TWO MEET, AND CIRCLE THE NUMBER IN IT (‘3'). THIS MEANS YOU HAVE TO SELECT THE THIRD ELIGIBLE WOMAN. SUPPOSE THE HOUSEHOLD LINE NUMBERS OF THE THREE ELIGIBLE WOMEN ARE ‘02', '3', AND ‘07'; THEN THE ELIGIBLE WOMAN FOR THE DOMESTIC VIOLENCE QUESTIONS IS THE THIRD ELIGIBLE WOMAN, I.E., THE WOMAN WITH HOUSEHOLD LINE NUMBER ‘07'. PUT A '*' NEXT TO THIS WOMAN'S LINE NUMBER IN COLUMN (9) OF THE HOUSEHOLD SCHEDULE AND ALSO ENTER THE TWO DIGIT LINE NUMBER IN THE TWO BOXES AT THE BOTTOM OF THIS TABLE.

Total number of eligible women	Last digit of the household structure number									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**
1	1	1	1	1	1	1	1	1	1	1
2	2	1	2	1	2	1	2	1	2	1
3	1	2	3	1	2	3	1	2	3	1
4	1	2	3	4	1	2	3	4	1	2
5	4	5	1	2	3	4	5	1	2	3
6	4	5	6	1	2	3	4	5	6	1
7	3	4	5	6	7	1	2	3	4	5
8	3	4	5	6	7	8	1	2	3	4
9	2	3	4	5	6	7	8	9	1	2
10	1	2	3	4	5	6	7	8	9	10

HOUSEHOLD LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VOLENCE MODULE [ ][ ]

CHECK HOUSEHOLD COVER PAGE TO SEE IF HOUSEHOLD IS SELECTED FOR ANTHROPOMETRY, ANEMIA, AND MALARIA FOR CHILDREN (0-5) AND WOMEN (15-49)

201	CHECK COLUMN 11 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
204	CHECK 203: CHILD BORN IN JANUARY 2009 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
207A	EDEMA OF BOTH FEET	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
210	READ **ANEMIA** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
211	RECORD HEMOGLOBIN LEVEL HERE AND IN THE **ANEMIA** PAMPHLET.	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
212	READ **MALARIA** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2
212A	RECORD RESULT CODE OF **MALARIA** TEST	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENTS, AND MALARIA TESTING FOR CHILDREN AGE 0-5

212B	BAR CODE LABEL PUT THE 2ND BAR CODE ON THE SLIDE AND THE 3RD ON TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE	PUT THE 1ST BAR CODE HERE	PUT THE 1ST BAR CODE HERE
212C	RESULT OF **MALARIA** TEST	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6
212D	READ INFORMATION FOR **MALARIA** TREATMENT AND CONSENT STATEMENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR THE CHILD. ASK ABOUT ANY TREATMENT THE CHILD HAS ALREADY RECEIVED.	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENTS, AND MALARIA TESTING FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
204	CHECK 203: CHILD BORN IN JANUARY 2009 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
207A	EDEMA OF BOTH FEET	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
210	READ **ANEMIA** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
211	RECORD HEMOGLOBIN LEVEL HERE AND IN THE **ANEMIA** PAMPHLET.	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL [ ][ ] . [ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
212	READ **MALARIA** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2
212A	RECORD RESULT CODE OF **MALARIA** TEST	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214)

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENTS, AND MALARIA TESTING FOR CHILDREN AGE 0-5

212B	BAR CODE LABEL PUT THE 2ND BAR CODE ON THE SLIDE AND THE 3RD ON TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE	PUT THE 1ST BAR CODE HERE	PUT THE 1ST BAR CODE HERE
212C	RESULT OF **MALARIA** TEST	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 (GO TO 203 FOR NEXT CHILD OR IF NO MORE CHILDREN, GO TO 214) OTHER 6
212D	MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR THE CHILD. ASK ABOUT ANY TREATMENT THE CHILD HAS ALREADY RECEIVED.	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6	ACCEPTED MEDICINE 1 _____ (SIGN) REFUSED . . . . . 2 ALREADY HAS ACT . 3 NOT ELIGIBLE . . . . . 4 OTHER 6
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

CONSENT STATEMENT FOR ANEMIA TEST

As part of this survey, we are asking people all over the country to take an **anemia** test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

We ask that all children born in 2009 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you allow (NAME OF CHILD/NAMES OF CHILDREN) to participate in the anemia test?

CONSENT STATEMENT FOR MALARIA TEST

As part of this survey, we are asking that children all over the country take a test to see if they have **malaria**. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will help the government to develop programs to prevent malaria.

We request that all children born in 2009 or later participate in the malaria testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for malaria immediately and the result will be told to you right away. The result will be kept confidential.

Do you have any questions about the malaria test?

You can say yes to the test or you can say no. It is up to you to decide.
Will you allow (NAME(S) OF CHILD(REN) to participate in the malaria test?

TREATMENT FOR CHINDREN AND WOMEN WITH POSITIVE MALARIA TESTS

IF MALARIA TEST IS POSITIVE: The malaria test shows that (your child/you) has malaria. We can give you free medicine. The medicine is called ACT. ACT is very effective and in a few days it should get rid of the fever and other symptoms.

BEFORE PROVIDING ACT, FIRST ASK IF THE CHILD OR WOMAN IS ALREADY TAKING OTHER DRUGS AND IF SO, ASK TO SEE THEM. IF SHE/HE IS ALREADY TAKING ACT, CHECK ON THE DOSE ALREADY AVAILABLE. BE CAREFUL NOT TO OVERTREAT.

You do not have to (give the child/take) the medicine. This is up to you. Please tell me whether you accept the medicine or not.

TREATMENT WITH ACT
Arthemeter (20mg)+Lumefantrine(120mg)
A 3-day treatment schedule with a total of 6 doses is recommended as below

Weight (in Kg)	Treatment
05.0-14.9 kg	One tablet as an initial dose, 1 tablet again after 8 hours and then 1 tablet twice daily (morning and evening) for the following two days (total course of 6 tablets).
15.0-24.9 kg	Two tablets as an initial dose, 2 tablets again after 8 hours and then 2 tablets twice daily (morning and evening) for the following two days (total course of 12 tablets).
25.0-34.9 kg	Three tablets as an initial dose, 3 tablets again after 8 hours and then 3 tablets twice daily (morning and evening) for the following two days (total course of 18 tablets).
35 kg and above	Four tablets as a single initial dose, 4 tablets again after 8 hours and then 4 tablets twice daily (morning and evening) for the following two days (total course of 24 tablets).

WEIGHT, HEIGHT MEASUREMENT, HEMOGLOBIN MEASUREMENTS, AND MALARIA TESTING FOR WOMEN AGE 15-49

CHECK HOUSEHOLD COVER PAGE TO SEE IF HOUSEHOLD IS SELECTED FOR ANTHROPOMETRY, ANEMIA, AND MALARIA FOR CHILDREN (0-5) AND WOMEN (15-49)

214	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 215. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
215	LINE NUMBER FROM COLUMN 9 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
216	WEIGHT IN KILOGRAMS	KG. [ ][ ][ ] . [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ] . [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ] . [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
217	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
218	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵
219	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 4 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 4 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 223) ↵
220	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPON-SIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]
221	ASK CONSENT FOR **ANEMIA** TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of this survey, we are asking people all over the country to take an **anemia** test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the anemia test?		
222	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 224D)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 224D)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 224D)
223	ASK CONSENT FOR **ANEMIA** TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take an **anemia** test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the anemia test?		

		WOMAN 1	WOMAN 2	WOMAN 3
224	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)
224A	AGE: CHECK 218.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 224F)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 224F)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 224F)
224B	**MARITAL** STATUS: CHECK 219.	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 224F)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 224F)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 224F)
	LINE NUMBER FROM COLUMN 9 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
224D	ASK CONSENT FOR **MALARIA** TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of this survey, we are asking people all over the country to take a **Malaria** test. Malaria is a serious health problem that caused by a parasite transmitted by a mosquito bite This survey will assist the government to develop programs to prevent and treat Malaria. For the Malaria testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for Malaria immediately, and the result will be told to you and to (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the Malaria test?		
224E	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)
224F	ASK CONSENT FOR **MALARIA** TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take a **Malaria** test. Malaria is a serious health problem that caused by a parasite transmitted by a mosquito bite This survey will assist the government to develop programs to prevent and treat Malaria. For the Malaria testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for Malaria immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the Malaria test?		
224G	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)
225	PREGNANCY STATUS: CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
226	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
227	RECORD HEMO-GLOBIN LEVEL HERE AND IN **ANEMIA** PAMPHLET.	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . [ ][ ].[ ] NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996

		WOMAN 1	WOMAN 2	WOMAN 3
228	RECORD RESULT CODE OF **MALARIA** RAPID TEST	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (SKIP TO 231)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (SKIP TO 231)	TESTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER . . . . . 6 (SKIP TO 231)
229	RESULT OF **MALARIA** RAPID TEST	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 OTHER 6	POSITIVE . . . . . 1 NEGATIVE . . . . . 2 OTHER 6
230	RECORD RESULT CODE OF BLOOD SLIDE COLLECTION	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
231	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE BLOOD SLIDE FOR **MALARIA** TEST AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE BLOOD SLIDE FOR MALARIA TEST AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE BLOOD SLIDE FOR MALARIA TEST AND THE 3RD ON THE TRANSMITTAL FORM.
232	GO BACK TO 216 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN,			

HIV TESTING FOR WOMEN AGE 15-49

CHECK HOUSEHOLD COVER PAGE TO SEE IFSELECTED FOR MALE SURVEY AND HIV TESTING FOR ADULTS				
301	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 302. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
302	LINE NUMBER FROM COLUMN 9 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
303	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 308)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 308)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 308)
304	MARITAL STATUS: CHECK COLUMN 8.	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 308)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 308)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 308)
305	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPON-SIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]
306	ASK CONSENT FOR **DBS** COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 305 AS RESPONSIBLE FOR NERVER IN UNION WOMEN AGE 15-17.	As part of the survey we also are asking people all over the country to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Rwanda. For the HIV test, we need a few (more) drops of blood from a finger. Again the equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know (NAME OF ADOLESCENT's) test results either. If (NAME OF ADOLESCENT) wants to know her HIV status, I can provide a list of [nearby] facilities offering counseling and testing for HIV. I will also give her a voucher for free services that can be used at any of these facilities. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the HIV test?		
307	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 310)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 310)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 310)
308	ASK CONSENT FOR **DBS** COLLECTION FROM RESPONDENT.	As part of the survey we also are asking people all over the country to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Rwanda. For the HIV test, we need a few (more) drops of blood from a finger. Again the equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the HIV test?		
309	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) [ ][ ][ ] (IF REFUSED, GO TO 310)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) [ ][ ][ ] (IF REFUSED, GO TO 310)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) [ ][ ][ ] (IF REFUSED, GO TO 310)

310	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
311	RECORD RESULT CODE OF **DBS** COLLECTION	COLLECTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER 6	COLLECTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER 6	COLLECTED ..... 1 NOT PRESENT ..... 2 REFUSED ..... 3 OTHER 6
312	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ..... 99994 REFUSED ..... 99995 OTHER ..... 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ..... 99994 REFUSED ..... 99995 OTHER ..... 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT ..... 99994 REFUSED ..... 99995 OTHER ..... 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
313	GO BACK TO 303 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, GO 343			

WEIGHT, HEIGHT MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

CHECK HOUSEHOLD COVER PAGE TO SEE IFSELECTED FOR MALE SURVEY AND HIV TESTING FOR ADULTS

343	CHECK COLUMN 10 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN 344. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		MAN 1	MAN 2	MAN 3
344	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
345	WEIGHT IN KILOGRAMS	KG. [ ][ ][ ]. [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ]. [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ]. [ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
346	HEIGHT IN CENTIMETERS	CM. . . . . [ ][ ][ ]. [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . [ ][ ][ ]. [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . [ ][ ][ ]. [ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
347	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 358)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 358)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 358)
348	MARITAL STATUS: CHECK COLUMN 8.	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 358)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 358)	CODE 6 (NEVER IN UNION) . . . 1 OTHER . . . . . 2 (GO TO 358)
349	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT [ ][ ]
356	ASK CONSENT FOR **DBS** COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 349 AS RESPONSIBLE FOR NEVER IN UNION MEN AGE 15-17.	As part of the survey we also are asking people all over the country to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Rwanda. For the HIV test, we need a few (more) drops of blood from a finger. Again the equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know (NAME OF ADOLESCENT)'s test results either. If (NAME OF ADOLESCENT) wants to know his HIV status, I can provide him with a list of [nearby] facilities offering counseling and testing for HIV. I will also give him a voucher for free services that can be used at any of these facilities. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the HIV test?		
357	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 367)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 367)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 367)

358	ASK CONSENT FOR **DBS** COLLECTION FROM RESPONDENT	As part of the survey we also are asking people all over the country to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Rwanda. For the HIV test, we need a few more drops of blood from a finger. Again the equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the HIV test?		
359	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 367)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 367)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 367)
367	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
369	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . .99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . .99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . .99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
370	GO BACK TO 345 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE MEN, GO TO 401			

CHECK HOUSEHOLD COVER PAGE TO SEE IF SELECTED FOR HIV TESTING FOR CHILDREN (0-14)

401	CHECK COLUMN 11A IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-14 YEARS IN QUESTION 402. IF MORE THAN NINE CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
402	LINE NUMBER FROM COLUMN 11A NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
403	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
404	CHECK 403: CHILD BORN IN JANUARY 2000 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)
405	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
406	READ **HIV** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
407	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
408	RECORD RESULT CODE OF **DBS** COLLECTION	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
409	BAR CODE LABEL	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
410	GO BACK TO 403 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD.			

HIV TESTING FOR CILDREN AGE 0-14

		CHILD 4	CHILD 5	CHILD 6
402	LINE NUMBER FROM COLUMN 11A NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
403	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
404	CHECK 403: CHILD BORN IN JANUARY 2000 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)
405	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
406	READ **HIV** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
407	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
408	RECORD RESULT CODE OF DBS COLLECTION	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
409	BAR CODE LABEL	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
410	GO BACK TO 403 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD.			

HIV TESTING FOR CILDREN AGE 0-14

		CHILD 7	CHILD 8	CHILD 9
402	LINE NUMBER FROM COLUMN 11A NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
403	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
404	CHECK 403: CHILD BORN IN JANUARY 2000 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)	YES . . . . . 1 NO . . . . . 2 (GO TO 403 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD)
405	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
406	READ **HIV** CONSENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
407	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
408	RECORD RESULT CODE OF **DBS** COLLECTION	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	COLLECTED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
409	BAR CODE LABEL	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE HERE NOT PRESENT . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
410	GO BACK TO 403 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO THE NEXT HOUSEHOLD.			

CONSENT STATEMENT FOR HIV TEST

As part of the survey we also are asking people all over the country to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Rwanda.

We ask that all children born in 2000 or later take part in HIV testing in this survey and give a few drops of blood from a finger or heel. the equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know (NAME OF CHILD) test results either. If you want to know (NAME OF CHILD) HIV status, I can provide a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services that can be used at any of these facilities.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you allow (NAME OF CHILD/NAMES OF CHILDREN) to participate in the anemia test?

RWANDA DEMOGRAPHIC AND HEALTH SURVEYS 2014-15
WOMAN'S QUESTIONNAIRE

MINECOFIN | MINISTRY OF HEALTH

NATIONAL INSTITUTE OF STATISTICS

IDENTIFICATION

PROVINCE: _____ DISTRICT: _____ SECTOR: _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD STRUCTURE NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ]

NAME AND LINE NUMBER OF WOMAN _____ [ ][ ]

CHECK COVER PAGE OF THE HOUSEHOLD QUESTIONNAIRE: HOUSEHOLD SELECTED FOR FEMALE DOMESTIC MODULE	YES = 1 NO = 2	[ ]
CHECK Q. 141w IN HOUSEHOLD QUESTIONNAIRE: IS THIS WOMAN SELECTED FOR FEMALE DOMESTIC VIOLENCE MODULE ?	YES = 1 NO = 2	[ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR 2 0 1 [ ]
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF INTERVIEW:

KINYARWANDA 1

OTHER _____ 6
SPECIFY

TRANSLATOR USED?

YES 1

NO 2

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____. I am working with the National Institute of Statistics of Rwanda. We are conducting a survey about health all over Rwanda. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.
Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, post-primary, secondary, or higher?	PRIMARY . . . . . 1 POST-PRIMARY/VOCATIONAL . . . . . 2 SECONDARY . . . . . 3 TERTIARY . . . . . 4 PRE-PRIMARY 6	
106	What is the highest (grade/form/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE/FORM/YEAR . . . . . [ ][ ]	
107	CHECK 105: PRIMARY OR LESS [ ] ↓ POST-PRIMARY/ VOCATIONAL SECONDARY OR TERTIARY [ ]		→ 110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ↓ CODE '1' OR '5' CIRCLED →		111
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT . . . . . 2 ADVENTIST . . . . . 3 MUSLIM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 6 SPECIFY NO RELIGION 7	
115	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . [ ][ ] NONE 00	→ 201
116	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . [ ][ ]	
205C	Where do your sons or daughters who do not live with you live? CIRCLE ALL MENTIONED.	BOARDING SCHOOL . . . . . A RELATIVE . . . . . B IN THE STREET . . . . . C WORK _____ D SPECIFY MARRIED . . . . . E OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL BIRTHS . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS [ ] ↓ NO BIRTHS [ ] →		226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

212 What name was given to your next baby? RECORD NAME. BIRTH HISTORY NUMBER	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . 1 NO . . . 2 → 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

212 What name was given to your (first/next) babv? RECORD NAME. BIRTH HISTORY NUMBER	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2
223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME [ ] ↓ NUMBERS ARE DIFFERENT [ ] → (PROBE AND RECONCILE)	
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2009 OR LATER.	NUMBER OF BIRTHS . . . . . [ ] NONE . . . . . 0 → 226

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	**C** FOR EACH BIRTH SINCE JANUARY 2009, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 230
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. **C** ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
228	When you got pregnant, did you want to get pregnant at that time?	YES . . . . . 1 NO 2	→ 230
229	Did you want to have a baby later on or did you not want any (more) children?	LATER . . . . . 1 NO MORE 2	
230	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 238
231	When did the last such pregnancy end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
232	CHECK 231: LAST PREGNANCY ENDED IN JAN. 2009 OR LATER ↓ LAST PREGNANCY ENDED BEFORE JAN. 2009 → 238		
233	How many months pregnant were you when the last such pregnancy ended? **C** RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
234	Since January 2009, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 236
235	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2009. **C** ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
236	Did you have any miscarriages, abortions or stillbirths that ended before 2009?	YES . . . . . 1 NO 2	→ 238
237	When did the last such pregnancy that terminated before 2009 end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
238	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
239	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
240	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female Sterilization**. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	**Male Sterilization**. PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
03	**IUD** PROBE: Women can have a loop or coil placed inside them (uterus) by a doctor or a nurse.	YES . . . . . 1 NO 2	
04	**Injectables**. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
05	**Implants/Jadelle**. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
06	**Pill**. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
07	**Condom**. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	
08	**Female Condom**. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Lactational Amenorrhea Method** (LAM)	YES . . . . . 1 NO 2	
10	**Rhythm Method**. PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	
11	**Standard Days Methods (SDM).** PROBE: The woman know days of the month when she can get pregnant by using beads or calendar	YES . . . . . 1 NO 2	
12	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
13	**Emergency Contraception**. PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2	
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	
302	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ → 311		
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 311

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS/JADELLE . . . . . E PILL . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L STANDARD DAYS METHOD . . . . . M WITHDRAWAL . . . . . N OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . Y	→ 307 → 308A → 306 → 308A
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	MICROGYNON . . . . . 01 LOFEMENAL . . . . . 02 OVRETTE . . . . . 03 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	PRUDENCE PLUS . . . . . 01 PLEASURE . . . . . 02 GENERIC CONDOM . . . . . 03 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 OTHER PUBLIC HEALTH FACILITY _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
308	In what month and year was the sterilization performed?		
308A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
309	CHECK 308/308A, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308/308A — YES ☐ NO ☐ GO BACK TO 308/308A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		
310	CHECK 308/308A: YEAR IS 2009 OR LATER ☐ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. YEAR IS 2008 OR EARLIER ☐ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2009. THEN SKIP TO → 322		
311	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2009. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **C** **IN COLUMN 1**, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then? **IN COLUMN 2**, ENTER CODES FOR DISCONTINUATION NEXT TO THE LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 2 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: * Why did you stop using the (METHOD)? Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason? * IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER ‘0’ IN EACH SUCH MONTH IN COLUMN 1.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ↓ ANY METHOD USED ☐ →		314
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 324
314	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS/JADELLE . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 STANDARD DAYS METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 324 → 317A → 326 → 315A → 326
315	You first started using (CURRENT METHOD) in (DATE FROM 308/308A). Where did you get it at that time?	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER . . . 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY)	
315A	Where did you learn how to use the rhythm/lactational amenorhea method/standard days method?	PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY)	
	PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 YOUTH CENTER . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS/JADELLE . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 STANDARD DAYS METHOD 13	→ 323 → 320 → 326
317	At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 319
317A	When you got sterilized, were you told about side effects or problems you might have with the method?		
318	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	 → 320
319	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
320	CHECK 317: CODE '1' CIRCLED → At that time, were you told about other methods of family planning that you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD FROM 314) from (SOURCE OF METHOD FROM 307 OR 315), were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 322
321	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
322	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS/JADELLE . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 STANDARD DAYS METHOD . . . . . 13 WITHDRAWAL . . . . . 14 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD . . . 96	→ 326 → 326

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
323	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER . . . 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 YOUTH CENTER . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 326
324	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 326
325	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
326	In the last 12 months, were you visited by a fieldworker who talked to you about family planning?	YES . . . . . 1 NO 2	
327	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
328	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2009 OR LATER ☐ ↓	NO BIRTHS IN 2009 OR LATER ☐		→ 556
402	CHECK 215: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2005 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask some questions about your children born in the last five years. (We will talk about each separately.)			
403	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER ☐☐	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES . . . . . 1 (SKIP TO 408) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 408) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←
407	How much longer did you want to wait?	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW . . . 998
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ←		
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MED. ASST B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL HEALER D COMMUNITY HEALTH WORKER E COMMUNITY HEALTH MOTHER AND CHILD . . . F OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S). IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . A OTHER HOME . . . B PUBLIC/AGREE SECTOR REF. HOSPITAL C PROV/DIST. HOSPITAL D HEALTH CENTER . . . . . E HEALTH POST . . . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J OTHER PRIVATE MED. FACILITY _____ K (SPECIFY) OTHER_____ X (SPECIFY)		
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES [ ][ ] DON'T KNOW . . . . . 98 (SKIP TO 413)		
412A	CHECK 412:	2 OR MORE TIMES [ ] LESS THAN 2 TIMES [ ] (SKIP TO 413)		
412B	How many months pregnant were you when you received your second antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98		
412C	CHECK 412:	3 OR MORE TIMES [ ] LESS THAN 3 TIMES [ ] (SKIP TO 413)		
412D	How many months pregnant were you when you received your third antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98		
412E	CHECK 412:	4 OR MORE TIMES [ ] LESS THAN 4 TIMES [ ] (SKIP TO 413)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
412F	How many months pregnant were you when you received your fourth antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98		
413	As part of your antenatal care during this pregnancy, were any of the following done at least once: Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD . . . 1 2		
414	During (any of) your antenatal care visit(s), were you told about things to look out for that might suggest problems with the pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) ← DON'T KNOW 8		
416	During this pregnancy, how many times did you get a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8		
417	CHECK 416:	2 OR MORE TIMES [ ] ↓ (SKIP TO 421) OTHER [ ] ↓		
418	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) ← DON'T KNOW . . . 8		
419	Before this pregnancy, how many times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8		
420	How many years ago did you receive the last tetanus injection before this pregnancy?	YEARS AGO . . . . . [ ][ ]		
421	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) ← DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
422	During the whole pregnancy, for how many days did you take the iron tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS [ ][ ][ ] DON'T KNOW . . . 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
424	During this pregnancy, did you take any antimalarial drugs?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 430) ←┤ DON'T KNOW 8		
425	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	COARTEM . . . . . A QUININE . . . . . B OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z		
425A	Where did you get the antimalarial drug? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REF. HOSPITAL . A PROV/DIST. HOSPITAL B HEALTH CENTER C HEALTH POST . . . D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY . . . J PHARMACY . . . K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK . . . . . M TRADITIONAL HEALER N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
430	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
431	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) ←┤ DON'T KNOW 8
432	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99.998	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99.998	KG FROM CARD 1 [ ] . [ ][ ][ ] KG FROM RECALL 2 [ ] . [ ][ ][ ] DON'T KNOW 99.998
433	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MED. ASST B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL HEALER D COMMUNITY HEALTH WORKER E COMMUNITY HEALTH MOTHER AND CHILD . . . F OTHER_____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MED. ASST B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL HEALER D COMMUNITY HEALTH WORKER E COMMUNITY HEALTH MOTHER AND CHILD . . . F OTHER_____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MED. ASST B MIDWIFE . . . . . C OTHER PERSON TRADITIONAL HEALER D COMMUNITY HEALTH WORKER E COMMUNITY HEALTH MOTHER AND CHILD . . . F OTHER_____ X (SPECIFY) NO ONE . . . . . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
434	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . 11 (SKIP TO 438) ← OTHER HOME . . . 12 PUBLIC/AGREE SECTOR REF. HOSPITAL 21 PROV./DIST. HOSPITAL 22 HEALTH CENTER 23 HEALTH POST 24 OTHER PUBLIC FACILITY _____ 26 (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC 31 CLINIC . . . . . 32 DISPENSARY 33 OTHER PRIVATE MED. FACILITY _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 438) ←	HOME YOUR HOME . . . 11 (SKIP TO 448) ← OTHER HOME . . . 12 PUBLIC/AGREE SECTOR REF. HOSPITAL 21 PROV./DIST. HOSPITAL 22 HEALTH CENTER 23 HEALTH POST 24 OTHER PUBLIC FACILITY _____ 26 (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC 31 CLINIC . . . . . 32 DISPENSARY 33 OTHER PRIVATE MED. FACILITY _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←	HOME YOUR HOME . . . 11 (SKIP TO 448) ← OTHER HOME . . . 12 PUBLIC/AGREE SECTOR REF. HOSPITAL 21 PROV./DIST. HOSPITAL 22 HEALTH CENTER 23 HEALTH POST 24 OTHER PUBLIC FACILITY _____ 26 (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC 31 CLINIC . . . . . 32 DISPENSARY 33 OTHER PRIVATE MED. FACILITY _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←
435	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 436) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 448) ←	YES . . . . . 1 NO . . . . . 2 (SKIP TO 448) ←
435A	How did you travel to the health facility to deliver (NAME) by caesarean?	AMBULANCE . . . . . 1 PRIVATE CAR . . . 2 OTHER _____ 6 SPECIFY	AMBULANCE . . . . . 1 PRIVATE CAR . . . 2 OTHER _____ 6 SPECIFY	AMBULANCE . . . . . 1 PRIVATE CAR . . . 2 OTHER _____ 6 SPECIFY
436	After you gave birth to (NAME), did anyone check on your health while you were still in the facility?	YES . . . . . 1 (SKIP TO 439) ← NO 2		
437	Did anyone check on your health after you left the facility?	YES . . . . . 1 (SKIP TO 439) ← NO . . . . . 2 (SKIP TO 446) ←		
438	After you gave birth to (NAME), did anyone check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442) ←		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
439	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MED. ASST 12 MIDWIFE . . . . . 13 OTHER PERSON TRADITIONAL HEALER 21 COMMUNITY HEALTH WORKER 22 COMMUNITY HEALTH MOTHER AND CHILD . . . 23 OTHER_____ 96 (SPECIFY)		
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW . . . 998		
441	CHECK 437:	YES ☐ → (SKIP TO 446) NOT ASKED ☐ →		
442	In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 446) ← DON'T KNOW 8		
443	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH . . 1 DAYS AFTER BIRTH . . 2 WKS AFTER BIRTH . . 3 DON'T KNOW . . . 998		
444	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MED. ASST 12 MIDWIFE . . . . . 13 OTHER PERSON TRADITIONAL HEALER 21 COMMUNITY HEALTH WORKER 22 COMMUNITY HEALTH MOTHER AND CHILD . . . 23 OTHER_____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
445	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . 11 OTHER HOME . . . 12 PUBLIC/AGREE SECTOR REF. HOSPITAL 21 PROV./DIST. HOSPITAL 22 HEALTH CENTER 23 HEALTH POST 24 OTHER PUBLIC FACILITY _____ 26 (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC 31 CLINIC . . . . . 32 DISPENSARY 33 OTHER PRIVATE MED. FACILITY _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)		
446	In the first two months after delivery, did you receive a vitamin A dose (like this/any of these)? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
447	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 450)		
448	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)
449	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
450	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 452)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
451	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	DAYS . . . 1 [ ][ ] MONTHS. . . 2 [ ][ ] DON'T KNOW 98	DAYS . . . 1 [ ][ ] MONTHS. . . 2 [ ][ ] DON'T KNOW 98	DAYS . . . 1 [ ][ ] MONTHS. . . 2 [ ][ ] DON'T KNOW 98
453	Did you ever breastfeed (NAME)?	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
454	CHECK 404: IS CHILD LIVING?	LIVING [ ] (SKIP TO 460) DEAD [ ] (GO TO 460A)		
455	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . 000 HOURS 1 [ ][ ] DAYS 2 [ ][ ]		
456	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 458)		
457	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) A PLAIN WATER . . . B SUGAR OR GLUCOSE WATER . . . C GRIPE WATER . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA G TEA/INFUSIONS . . . H COFFEE . . . . . I HONEY . . . . . J OTHER _____ X (SPECIFY)		
458	CHECK 404: IS CHILD LIVING?	LIVING [ ] DEAD [ ] (GO TO 460A)	LIVING [ ] DEAD [ ] (GO TO 460A)	LIVING [ ] DEAD [ ] (GO TO 460A)
459	Are you still breastfeeding (NAME)?	YES . . . . . 1 NO 2		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
460	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
460A	CHECK 434: WAS CHILD DELIVERED AT HOME?	YES ☐ ↓ NO ☐ → (SKIP TO 461)	YES ☐ ↓ NO ☐ → (SKIP TO 461)	YES ☐ ↓ NO ☐ → (SKIP TO 461)
460B	Why you did not deliver (NAME) at a health facility?	FACILITY COST TOO MUCH . . . . . 01 TOO FAR/NO TRANSPORT . . . 02 DON'T TRUST FACILITY . . . . . 03 NO FEMALE PROVIDER . . . . . 04 HUSBAND FAMILY DON'T ALLOW . 05 NOT NECESSARY/ EASY TO DELI-VERY/COMFOR-TABLE POSITION . 06 CUSTOMARY TO DELIVER AT HOME . . . . . 07 OTHER _____ 96 SPECIFY	FACILITY COST TOO MUCH . . . . . 01 TOO FAR/NO TRANSPORT . . . 02 DON'T TRUST FACILITY . . . . . 03 NO FEMALE PROVIDER . . . . . 04 HUSBAND FAMILY DON'T ALLOW . 05 NOT NECESSARY/ EASY TO DELI-VERY/COMFOR-TABLE POSITION . 06 CUSTOMARY TO DELIVER AT HOME . . . . . 07 OTHER _____ 96 SPECIFY	FACILITY COST TOO MUCH . . . . . 01 TOO FAR/NO TRANSPORT . . . 02 DON'T TRUST FACILITY . . . . . 03 NO FEMALE PROVIDER . . . . . 04 HUSBAND FAMILY DON'T ALLOW . 05 NOT NECESSARY/ EASY TO DELI-VERY/COMFOR-TABLE POSITION . 06 CUSTOMARY TO DELIVER AT HOME . . . . . 07 OTHER _____ 96 SPECIFY
461		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION, HEALTH AND NUTRITION

501	ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2009 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]
503	FROM 212 AND 216	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME_____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 553)
504	Do you have a card where (NAME)'s vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2

506 (1) COPY DATES FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR		NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR		SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG				BCG				BCG			
POLIO 0 (POLIO GIVEN AT BIRTH)				P0				P0			
POLIO 1				P1				P1			
POLIO 2				P2				P2			
POLIO 3				P3				P3			
PENTAVALENT 1				D1				D1			
PENTAVALENT 2				D2				D2			
PENTAVALENT 3				D3				D3			
PNEUMO. 1				PC1				PC1			
PNEUMO. 2				PC2				PC2			
PNEUMO. 3				PC3				PC3			
ROTAVIRUS 1				RV1				RV1			
ROTAVIRUS 2				RV2				RV2			
ROTAVIRUS 3				RV3				RV3			
MEASLES & RUBELLA				MR				MR			
MEASLES				MEA				MEA			
VITAMIN A (MOST RECENT)				VIT A				VIT A			

507	CHECK 506:	BCG TO MEASLES ALL RECORDED [ ] → (GO TO 511) OTHER [ ] ↓	BCG TO MEASLES ALL RECORDED [ ] → (GO TO 511) OTHER [ ] ↓	BCG TO MEASLES ALL RECORDED [ ] → (GO TO 511) OTHER [ ] ↓

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
508	Has (NAME) had any vaccinations that are not recorded on this card, including vaccinations given in a national immunization day campaign? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 506 THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
509	Did (NAME) ever have any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
510	Please tell me if (NAME) had any of the following vaccinations:			
510A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8
510C	Was the first polio vaccine given in the first two weeks after birth or later?	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2
510D	How many times was the polio vaccine given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510E	A Pentavalent vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8
510F	How many times was the Pentavalent vaccination given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510G	A Pneumococcal vaccination, that is, an injection given in the thigh, sometimes at the same time as polio or pentavalent vaccines?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8
510H	How many times was the Pneumococcal vaccination given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510I	A Rotavirus vaccine. That is a vaccine given by mouth to protect diarrhea due to Rotavirus.It is given at the same time with pentavalence, polio, and pneumococcal vaccines.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510K) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
510J	How many times was the Rotavirus vaccination given?	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]
510K	A measles and rubella vaccine - that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles and rubella?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
510L	A measles injection that is, a shot in the arm at the age of 15 months or older - to prevent him/her from getting measles?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
511	Within the last six months, was (NAME) given a vitamin A dose like (this/any of these)? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
513	Was (NAME) given any drug for intestinal worms in the last six months?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
514	Has (NAME) had diarrhea in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 525) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 525) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 525) ←┤ DON'T KNOW 8
515	Was there any blood in the stools?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
516	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW 8
517	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE ..... 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8
517A	CHECK 453: EVER BREASTFED [ ] ↓ NEVER BREASTFED [ ] ↓ SKIP TO 518			

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
517B	When (NAME) had diarrhea, did you continue to breastfeed him/her?	YES . . . . . 1 NO 2		
518	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)
519	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REF. HOSPITAL A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)	PUBLIC/AGREE SECTOR REF. HOSPITAL A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)	PUBLIC/AGREE SECTOR REF. HOSPITAL A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)
520	CHECK 519:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
521	Where did you first seek advice or treatment? USE LETTER CODE FROM 519.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special packet called ORS PACKET? b) A government-recommended homemade fluid?	YES NO DK FLUID FROM ORS PKT 1 2 8 HOMEMADE FLUID . . . 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8 HOMEMADE FLUID . . . 1 2 8	YES NO DK FLUID FROM ORS PKT 1 2 8 HOMEMADE FLUID . . . 1 2 8
523	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . C UNKNOWN PILL OR SYRUP . . . D INJECTION ANTIBIOTIC . . . . . E NON-ANTIBIOTIC F UNKNOWN INJECTION . . . G (IV) INTRAVENOUS H HOME REMEDY/ HERBAL MED-ICINE . . . . . I OTHER _____ X (SPECIFY)
525	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 527) DON'T KNOW 8
526	At any time during the illness, did (NAME) have blood taken from his/her finger or heel for testing?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
527	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
528	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8
529	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)
530	CHECK 525: HAD FEVER OR COUGH?	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ NO OR DK ☐ (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ NO OR DK ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)
531	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
532	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE . . . . . 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8
533	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
534	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REF. HOSPITAL . A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST . . . D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)	PUBLIC/AGREE SECTOR REF. HOSPITAL . A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST . . . D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)	PUBLIC/AGREE SECTOR REF. HOSPITAL . A PROV./DIST. HOSPITAL B HEALTH CENTER C HEALTH POST . . . D OUTREACH . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC FACILITY _____ G (SPECIFY) PRIVATE MED. SECTOR POLYCLINIC . . . H CLINIC . . . . . I DISPENSARY J PHARMACY K OTHER PRIVATE MED. FACILITY _____ L (SPECIFY) OTHER SOURCE KIOSK/SHOP . . . M TRADITIONAL HEALER . . . . . N CHURCH . . . . . O FRIEND/RELATIVE P OTHER _____ X (SPECIFY)
535	CHECK 534:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)
536	Where did you first seek advice or treatment? USE LETTER CODE FROM 534.	FIRST PLACE . . .	FIRST PLACE . . .	FIRST PLACE . . .
537	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
538	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS COARTEM . . . A PRIMO . . . B QUININE . . . . . C OTHER ANTI-MALARIAL _____ . . . D (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . E INJECTION . . . F OTHER DRUGS ASPIRIN . . . . . G ACETA-MINOPHEN . . . H IBUPROFEN . . . I OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS COARTEM . . . A PRIMO . . . B QUININE . . . . . C OTHER ANTI-MALARIAL _____ . . . D (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . E INJECTION . . . F OTHER DRUGS ASPIRIN . . . . . G ACETA-MINOPHEN . . . H IBUPROFEN . . . I OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS COARTEM . . . A PRIMO . . . B QUININE . . . . . C OTHER ANTI-MALARIAL _____ . . . D (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP . . . E INJECTION . . . F OTHER DRUGS ASPIRIN . . . . . G ACETA-MINOPHEN . . . H IBUPROFEN . . . I OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
539	CHECK 538: ANY CODE A-D CIRCLED?	YES ☐ ↓ NO ☐ → (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ ↓ NO ☐ → (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES ☐ ↓ NO ☐ → (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)
540	CHECK 538: COARTEM ('A') GIVEN	CODE 'A' CIRCLED ☐ ↓ CODE 'A' NOT CIRCLED ☐ → (SKIP TO 542)	CODE 'A' CIRCLED ☐ ↓ CODE 'A' NOT CIRCLED ☐ → (SKIP TO 542)	CODE 'A' CIRCLED ☐ ↓ CODE 'A' NOT CIRCLED ☐ → (SKIP TO 542)
541	How long after the fever started did (NAME) first take Coartem?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8
542	CHECK 538: PRIMO ('B') GIVEN	CODE 'B' CIRCLED ☐ ↓ CODE 'B' NOT CIRCLED ☐ → (SKIP TO 544)	CODE 'B' CIRCLED ☐ ↓ CODE 'B' NOT CIRCLED ☐ → (SKIP TO 544)	CODE 'B' CIRCLED ☐ ↓ CODE 'B' NOT CIRCLED ☐ → (SKIP TO 544)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
543	How long after the fever started did (NAME) first take Primo?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8
544	CHECK 538: QUININE ('C') GIVEN	CODE 'C' CIRCLED CODE 'C' NOT CIRCLED (SKIP TO 550)	CODE 'C' CIRCLED CODE 'C' NOT CIRCLED (SKIP TO 550)	CODE 'C' CIRCLED CODE 'C' NOT CIRCLED (SKIP TO 550)
545	How long after the fever started did (NAME) first take quinine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8
550	CHECK 538: OTHER ANTIMALARIAL ('D') GIVEN	CODE 'D' CIRCLED CODE 'D' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	CODE 'D' CIRCLED CODE 'D' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	CODE 'D' CIRCLED CODE 'D' NOT CIRCLED (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)
551	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE OR MORE DAYS AFTER FEVER . . . . . 3 DON'T KNOW . . . 8
552		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
553	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2009 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ → 556 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 554 _____ (NAME)		
554	The last time (NAME FROM 553) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY)	
555	CHECK 522(a) AND 522(b), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET OR HOMEMADE FLUID ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET OR HOMEMADE FLUID ☐ → 557		
556	Have you ever heard of a special product called ORS PACKET you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
557	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2012 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ → 563 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 558 _____ (NAME)		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
558	Now I would like to ask you about liquids or foods that (NAME FROM 557) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods.					
	Did (NAME FROM 557) (drink/eat):		YES	NO	DK	
	a) Plain water?	**a)**	1	2	8	
	b) Juice or juice drinks?	**b)**	1	2	8	
	c) Soup?	**c)**	1	2	8	
	d) Milk such as tinned, powdered, or fresh animal milk?	**d)**	1	2	8	
	IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK MILK			[ ]	
	e) Infant formula?	**e)**	1	2	8	
	IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK FORMULA			[ ]	
	f) Any other liquids?	**f)**	1	2	8	
	g) Yogurt?	**g)**	1	2	8	
	IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE YOGURT			[ ]	
	h) Any [BRAND NAME OF COMMERCIALLY FORTIFIED BABY FOOD, E.G., Cerelac]? **(17)**	**h)**	1	2	8	
	i) Bread, rice, noodles, porridge, or other foods made from grains?	**i)**	1	2	8	
	j) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	**j)**	1	2	8	
	k) White potatoes, white yams, manioc, cassava, or any other foods made from roots?	**k)**	1	2	8	
	l) Any dark green, leafy vegetables?	**l)**	1	2	8	
	m) Ripe mangoes, papayas or [INSERT ANY OTHER LOCALLY AVAILABLE VITAMIN A-RICH FRUITS]?	**m)**	1	2	8	
	n) Any other fruits or vegetables?	**n)**	1	2	8	
	o) Liver, kidney, heart or other organ meats?	**o)**	1	2	8	
	p) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	**p)**	1	2	8	
	q) Eggs?	**q)**	1	2	8	
	r) Fresh or dried fish or shellfish?	**r)**	1	2	8	
	s) Any foods made from beans, peas, lentils, or nuts?	**s)**	1	2	8	
	t) Cheese or other food made from milk?	**t)**	1	2	8	
	u) Any other solid, semi-solid, or soft food?	**u)**	1	2	8	
559	CHECK 558 (CATEGORIES "g" THROUGH "u"):					
	ALL "NO" [ ] ↓	AT LEAST ONE "YES" OR ALL DKs [ ] →				561

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
560	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	YES . . . . . 1 (GO BACK TO 558 TO RECORD FOOD EATEN YESTERDAY) NO 2	→ 561A
561	How many times did (NAME FROM 557) eat solid, semisolid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . [ ] DON'T KNOW 8	
561A	Have you ever heard of any counseling or education on nutrition?	YES . . . . . 1 NO 2	→ 563
561B	Where did you hear about counseling or education on nutrition?	A HEALTH FACILITY . . . . . A COMMUNITY HEALTH WORKER . . . . . B FRIENDS/RELATIVE . . . . . C MAGAZINE/PAPER/RADIO/TV . . . . . D OTHER _____ X SPECIFY	

NO.	QUESTIONS AND FILTERS	CODINGS CATEGORIES	SKIP
563	CHECK Q.217 AND Q.218, ALL ROW: AT LEAST ONE CHILD AGED 0-5 YEARS OLD AND LIVE WITH THE RESPONDENT YES ☐ NO ☐		→ 601
564	CHECK Q.217 SELECT THE YOUNGEST CHILD AGED 0-5 YEARS OLD, RECORD THE CHILD NAME AND LINE NUMBER NAME OF THE YOUNGEST CHILD FROM Q.212 _____	LINE NUMBER OF THE YOUNGEST CHILD (Q.219) ☐☐	
565	Now I would like to ask you about (NAME); your youngest child that is 0-5 years old		
566	How many children's books or picture books do you have for (NAME)?	NONE . . . . . 00 NUMBER OF CHILDREN'S BOOKS . . 0 ☐ TEN OR MORE BOOKS 10	
567	I am interested in learning about the things that (name) plays with when he/she is at home. Does he/she play with: a) Homemade toys (such as dolls, cars, or other toys made at home)? b) Toys from a shop or manufactured toys? c) Household objects (such as bowls or pots) or objects found outside (such as sticks, rocks, animal shells or leaves)? IF THE RESPONDENT SAYS "YES" TO THE CATEGORIES ABOVE, THEN PROBE TO LEARN SPECIFICALLY WHAT THE CHILD PLAYS WITH TO ASCERTAIN THE RESPONSE.	YES NO DK HOMEMADE TOYS . . . . . 1 2 8 TOYS FROM SHOP . . . . . 1 2 8 HOUSEHOLD OBJECTS OR OUTSIDE OBJECTS 1 2 8	
568	Sometimes adults taking care of children have to leave the house to go shopping, wash clothes, or for other reasons and have to leave young children. On how many days in the past week was (name): a) Left alone for more than an hour? b) Left in the care of another child, that is, someone less than 10 years old, for more than an hour? IF 'NONE' ENTER' 0'. IF 'DON'T KNOW' ENTER'8'	NUMBER OF DAYS LEFT ALONE MORE THAN AN HOUR . ☐ NUMBER OF DAYS LEFT WITH ANOTHER CHILD FOR MORE THAN AN HOUR ☐	
569	CHECK Q.217 ET 218: A CHILD AGED 3, 4 OR 5 YEARS OLD; LIVE IN THIS HOUSEHOLD WITH THE MOTHER (Q.217=3 , 4, OR 5 AND Q.218=1)? YES ☐ NO ☐		→ 601
570	CHECK Q.217: SELECT THE YOUNGEST CHILD AGED 3 , 4 OR 5 YEARS OLD. RECORD THE CHILD'S NAME AND LINE NUMBER NAME OF THE YOUGEST CHILD 3, 4 OR 5 YEARS OLD (Q.212) _____	LINE NUMBER OF THE YOUNGEST CHILD (Q.219) ☐☐	
571	Now I would to ask some questions regarding (NAME), your youngest child aged 3-5 years old.		

572	Does (NAME) attend any organized learning or early childhood education programme, such as a private or government facility, including kindergarten or community child care?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→574
573	In the past 7 days, about how many hours did (NAME) go to that place:	NUMBER OF HOURS . . . . . [ ][ ]	
574	In the past 3 days, did you or any household member age 15 or over engage in any of the following activities with (NAME): RECORD ALL MENTIONED.	MOM / DAD / OTHER / NO ONE	
	a) Read books to or looked at picture with (NAME)?	READ BOOKS . . . . . A B X Y	
	b) Told stories to (NAME)?	TOLD STORIES . . . . . A B X Y	
	c) Sang songs to (NAME) or with (NAME), including lullabies?	SANG SONGS . . . . . A B X Y	
	d) Took (NAME) outside the home, compound, yard or enclosure?	TOOK OUTSIDE . . . . . A B X Y	
	e) Played with (NAME)	PLAYED . . . . . A B X Y	
	f) Named, counted, or drew things to or with (NAME)?	NAMED/COUNTED . . . A B X Y	
575	I would like to ask you some questions about the health and development of (NAME). Children do not all develop and learn at the same rate. For example, some walk earlier than others. These questions are related to several aspects of (NAME)'s development. Can (NAME) identify or name at least ten letters of the alphabet?	YES . . . . . 1 NO . . . . . 2 DK 8	
576	Can (NAME) read at least four simple, popular words?	YES . . . . . 1 NO . . . . . 2 DK 8	
577	Does (NAME) know the name and recognize the symbol of all numbers from 1 to 10?	YES . . . . . 1 NO . . . . . 2 DK 8	
578	Can (NAME) pick up a small object with two fingers, like a stick or a rock from the ground?	YES . . . . . 1 NO . . . . . 2 DK 8	
579	Is (NAME) sometimes too sick to play?	YES . . . . . 1 NO . . . . . 2 DK 8	
580	Does (NAME) follow simple directions on how to do something correctly?	YES . . . . . 1 NO . . . . . 2 DK 8	
581	When given something to do, is (NAME) able to do it independently?	YES . . . . . 1 NO . . . . . 2 DK 8	
582	Does (NAME) get along well with other children?	YES . . . . . 1 NO . . . . . 2 DK 8	
583	Does (NAME) kick, bite, or hit other children or adults?	YES . . . . . 1 NO . . . . . 2 DK 8	
584	Does (NAME) get distracted easily?	YES . . . . . 1 NO . . . . . 2 DK 8	

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 612
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 609
604	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
606	Does your (husband/partner) have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 609
607	Including yourself, in total, how many wives or live-in partners does he have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ] DON'T KNOW 98	
608	Are you the first, second, ... wife?	RANK . . . . . [ ][ ]	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
610	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your (husband/partner)? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about your first (husband/partner). In what month and year did you start living with him?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 612
611	How old were you when you first started living with him?	AGE . . . . . [ ][ ]	
612	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
613	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . .00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 628

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
614	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
615	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	→ 616 → 627

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
616	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3
617	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)
618	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
619	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)
620	CHECK 609:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)
621	CHECK 613:	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)
622	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
623	How many times during the <u>last 12 months</u> did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
623A	How many times during the <u>last month</u> did you have sexual intercourse with this person?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
624	How old is this person?	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98	AGE OF PARTNER DON'T KNOW 98

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
625	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	
626	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . [ ][ ] DON'T KNOW . . . 98
626A	In total, with how many different people have you had sexual intercourse in the last month? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST MONTH . . . [ ][ ] DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
627	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . [ ][ ] DON'T KNOW 98	
628	PRESENCE OF OTHERS DURING THIS SECTION	YES NO CHILDREN <10 . . . . . 1 2 MALE ADULTS . . . . . 1 2 FEMALE ADULTS 1 2	
629	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 632
630	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	
631	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
632	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 701

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
633	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	
634	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 304: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐		→ 712
702	CHECK 226: PREGNANT ☐ NOT PREGNANT OR UNSURE ☐		→ 704
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 705 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT 3 UNDECIDED/DON'T KNOW 8	 → 707 → 712 → 710
705	CHECK 226: NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 710 → 712 → 710
706	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 711
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐ CURRENTLY USING ☐		→ 712
708	CHECK 705: NOT ASKED ☐ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ 00-23 MONTHS OR 00-01 YEAR ☐		→ 711

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
709	CHECK 703 AND 704: WANTS TO HAVE A/ANOTHER CHILD ☐ You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? WANTS NO MORE/ NONE ☐ You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY D CAN'T GET PREGNANT . . . . . E NOT MENSTRUATED SINCE LAST BIRTH . . . . . F BREASTFEEDING . . . . . G UP TO GOD/FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS SIDE EFFECTS/HEALTH CONCERNS . . . . . O LACK OF ACCESS/TOO FAR . . . . . P COSTS TOO MUCH . . . . . Q PREFERRED METHOD NOT AVAILABLE . . . . . R NO METHOD AVAILABLE . . . . . S INCONVENIENT TO USE . . . . . T INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . U OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
710	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ NO, NOT CURRENTLY USING ☐ YES, CURRENTLY USING ☐ → 712		
711	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712	CHECK 216: HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 714 → 714

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	
714	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in a brochure/pamphlet?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2 BROCHURE OR PAMPHLET 1 2	
716	CHECK 601: YES, CURRENTLY MARRIED ☐ YES, LIVING WITH A MAN ☐ NO, NOT IN UNION ☐ → 801		
717	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ NOT CURRENTLY USING OR NOT ASKED ☐ → 720		
718	Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
719	CHECK 304: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐ → 801		
720	Does your (husband/partner) want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ NEVER MARRIED AND NEVER LIVED WITH A MAN ☐		803 807
802	How old was your (husband/partner) on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) (husband/partner) ever attend school?	YES . . . . . 1 NO 2	 806
804	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY . . . . . 1 POST-PRIMARY/VOCATIONAL . . . . . 2 SECONDARY . . . . . 3 TERTIARY . . . . . 4 PRE-PRIMARY . . . . . 6 DON'T KNOW 8	 806
805	What was the highest (grade/form/year) he completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE . . . . . ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ What is your (husband's/ partner's) occupation? That is, what kind of work does he mainly do? What was your (last) (husband's/ partner's) occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	811
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	811
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other such reason?	YES . . . . . 1 NO 2	811
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	 815
811	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
812	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
814	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
815	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN ☐	NOT IN UNION ☐	→ 823
816	CHECK 814: CODE 1 OR 2 CIRCLED ☐	OTHER ☐	→ 819
817	Who usually decides how the money you earn will be used: mainly you, mainly your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
818	Would you say that the money that you earn is more than what your (husband/partner) earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 820
819	Who usually decides how your (husband's/partner's) earnings will be used: you, your (husband/partner), or you and your (husband/partner) jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
820	Who usually makes decisions about health care for yourself: you, your (husband/partner), you and your (husband/partner) jointly, or someone else?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE IN FAMILY . . . . . 4 OTHER 6	
821	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE IN FAMILY . . . . . 4 OTHER 6	
822	Who usually makes decisions about visits to your family, relatives and friends?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 SOMEONE ELSE HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE IN FAMILY . . . . . 4 OTHER 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
824	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
825	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES . . . 1 2 3	
826	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES / NO / DK	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she has sex with someone else?	SEX WITH SOMEONE 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	
827	In your opinion, is a parent justified in hitting or beating his children for the following reasons:	YES / NO / DK	
	If he disobeys?	DISOBEY 1 2 8	
	If he impolite?	IMPOLITE 1 2 8	
	If he has embarrassed the family?	EMBARR. FAMILY . . . 1 2 8	

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 937
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907A	Can men reduce their chance of getting the AIDS virus by getting circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
909	CHECK 908: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐		→ 911
910	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
910A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
910B	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus for prenuptial purposes?	YES . . . . . 1 NO 2	
910C	CHECK 601, 602, and 603: CURRENTLY MARRIED OR LIVING WITH A MAN ☐ ↓ FORMERLY MARRIED OR LIVING WITH A MAN ☐ ↓ NEVER MARRIED OR NEVER LIVED WITH A MAN ☐		→ 911
910D	I don't want to know the results, but have you ever been tested as couple with your husband/partner to see if you and/or him have the AIDS virus?	YES . . . . . 1 NO 2	→ 911

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
910E	I don't want to know the results, but have you and your husband told each other the results of your tests?	YES . . . . . 1 NO 2	
911	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2012 ☐ LAST BIRTH BEFORE JANUARY 2012 ☐		926 926
912	CHECK 408 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		920
913	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
914	During any of the antenatal visits for your last birth were you given any information about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO 1 2 8 TESTED FOR AIDS 1 2 8	
915	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
916	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	920
917	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 TRADITIONAL HEALER . . . . . 32 FRIEND/RELATIVE . . . . . 33 YOUTH CENTER . . . . . 34 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
918	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	924
919	All women are supposed to receive counseling after being tested. After you were tested, did you receive counseling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	924

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
920	CHECK 434 FOR LAST BIRTH: ANY CODE 21-36 CIRCLED → [ ] OTHER [ ]		→ 926
921	Between the time you went for delivery but before the baby was born, were you offered a test for the AIDS virus?	YES . . . . . 1 NO 2	
922	I don't want to know the results, but were you tested for the AIDS virus at that time?	YES . . . . . 1 NO 2	→ 926
923	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
924	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 927
925	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . [ ][ ] TWO OR MORE YEARS 96	→ 932
926	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 930
927	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . [ ][ ] TWO OR MORE YEARS 96	
928	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
929	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 TRADITIONAL HEALER . . . . . 32 FRIEND/RELATIVE . . . . . 33 YOUTH CENTER . . . . . 34 CORRECTIONAL FACILITY . . . . . 35 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 932

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
930	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 932
931	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q CORRECTIONAL FACILITY . . . . . R OTHER _____ X (SPECIFY)	
932	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
933	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
934	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
935	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
936	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
937	CHECK 901: HEARD ABOUT AIDS ☐ → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
938	CHECK 613: HAS HAD SEXUAL INTERCOURSE ↓ NEVER HAD SEXUAL INTERCOURSE	☐ → 946	
939	CHECK 937: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ↓ NO	☐ → 941	
940	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
941	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
942	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
943	CHECK 940, 941, AND 942: HAS HAD AN INFECTION (ANY 'YES') ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW	☐ → 946	
944	The last time you had (PROBLEM FROM 940/941/942), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 946
945	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVICIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	
946	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that he use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
947	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
948	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		1001
949	Can you say no to your (husband/partner) if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
950	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	 1004
1002	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	 1004
1003	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	 1006
1005	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES . . . . . [ ][ ]	
1006	Do you currently smoke or use any (other) type of tobacco?	YES . . . . . 1 NO 2	 1008
1007	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
1008	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	Getting permission to go to the doctor?	PERMISSION TO GO . . . 1 2	
	Getting money needed for advice or treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
1009	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	 → 1011
1010	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN, COUGHING SNEEZING OR SPEAKING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH SHARING FOOD OR DRINK WITH A PERSON WITH TB . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1011	Do you currently have the following symptoms?		
	a. Cough	YES, TWO WEEKS OR LONGER . . . 1 YES, LESS THAN TWO WEEKS . . . . . 2 NO 3	
	b. Fever	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	c. Drenching night sweats	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	d. Unexpected weight lost	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	e. General fatigue or malaise	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	f. Chest pain	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
1012	CHECK 1011: IF AT LEAST ONE SYMPTOM "YES" CODE "1" OR "2" CIRCLED IF "NO" TO ALL SYMPTOMS		→ 1015
1013	Have you ever sought care or help?	YES . . . . . 1 NO 2	→ 1015
1014	(IF "YES") Where did you seek care or help? RECORD ALL MENTIONNED	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	
1015	GO TO THE NEXT SECTION (11)		

SECTION 11. ADULT MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER . . . . . [ ][ ]	
1102	CHECK 1101: TWO OR MORE BIRTHS [ ] ↓ ; ONLY ONE BIRTH (RESPONDENT ONLY) [ ] →		DV01A
1103	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS . . . . . [ ][ ]	

		(1)	(2)	(3)	(4)	(5)	(6)
1104	What was the name given to your oldest (next oldest) brother or sister?	_____	_____	_____	_____	_____	_____
1105	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (2)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (3)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (4)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (5)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (6)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (7)
1107	How old is (NAME)?	[ ][ ] GO TO (2)	[ ][ ] GO TO (3)	[ ][ ] GO TO (4)	[ ][ ] GO TO (5)	[ ][ ] GO TO (6)	[ ][ ] GO TO (7)
1108	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1109	How old was (NAME) when he/she died?	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1110	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

GO BACK TO 1104 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, GO TO THE NEXT SECTION.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
1104	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1105	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (8)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (9)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (10)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (11)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (12)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (13)
1107	How old is (NAME)?	[ ][ ] GO TO (8)	[ ][ ] GO TO (9)	[ ][ ] GO TO (10)	[ ][ ] GO TO (11)	[ ][ ] GO TO (12)	[ ][ ] GO TO (13)
1108	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1109	How old was (NAME) when he/she died?	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (8)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1110	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
1114	GO BACK TO 1104 IN NEXT COLUMN, OR, IF NO MORE BROTHERS OR SISTERS, GO TO THE NEXT SECTION.						

FEMALE DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV01A	CHECK THE COVER PAGE IF THIS HOUSEHOLD SELECTED FOR FEMALE DV QUESTIONNAIRE	HOUSEHOLD SELECTED ☐ ↓ HOUSEHOLD NOT SELECTED ☐	→ DV33
DV01B	CHECK THE COVER PAGE IF THIS WOMAN SELECTED FOR FEMALE DV QUESTIONNAIRE	WOMAN SELECTED FOR THIS SECTION ☐ ↓ WOMAN NOT SELECTED ☐	→ DV33
DV01C	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED.	PRIVACY OBTAINED . . . . . 1 ↓ PRIVACY NOT POSSIBLE 2	→ DV32
	READ TO THE RESPONDENT Now I would like to ask you questions about some other important aspects of a woman's life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of women in Rwanda. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else in your household will know that you were asked these questions.		
DV02	CHECK 601 AND 602:	CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ FORMERLY MARRIED/ LIVED WITH A MAN (READ IN PAST TENSE AND USE 'LAST' WITH HUSBAND/PARTNER') ☐ ↓ NEVER MARRIED/ NEVER LIVED WITH A MAN ☐	→ DV16

DV03 First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) (husband/partner)?

	YES	NO	DK
a) He (is/was) jealous or angry if you (talk/talked) to other men? JEALOUS	1	2	8
b) He frequently (accuses/accused) you of being unfaithful? ACCUSES	1	2	8
c) He (does/did) not permit you to meet your female friends? NOT MEET FRIENDS . . .	1	2	8
d) He (tries/tried) to limit your contact with your family? NO FAMILY	1	2	8
e) He (insists/insisted) on knowing where you (are/were) at all times? WHERE YOU ARE	1	2	8

DV04 Now I need to ask some more questions about your relationship with your (last) (husband/partner).

A Did your (last) (husband/partner) ever:

B How often did this happen during the last 12 months: often, only sometimes, or not at all?

	EVER		OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS
a) say or do something to humiliate you in front of others?	YES	1 →	1	2	3
	NO	2 ↓			
b) threaten to hurt or harm you or someone you care about?	YES	1 →	1	2	3
	NO	2 ↓			
c) insult you or make you feel bad about yourself?	YES	1 →	1	2	3
	NO	2 ↓			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV05	A Did your (last) (husband/partner) ever do any of the following things to you:	B How often did this happen during the last 12 months: often, only sometimes, or not at all?	

		EVER		OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS
a)	push you, shake you, or throw something at you?	YES	1 →	1	2	3
		NO	2 ↓			
b)	slap you?	YES	1 →	1	2	3
		NO	2 ↓			
c)	twist your arm or pull your hair?	YES	1 →	1	2	3
		NO	2 ↓			
d)	punch you with his fist or with something that could hurt you?	YES	1 →	1	2	3
		NO	2 ↓			
e)	kick you, drag you, or beat you up?	YES	1 →	1	2	3
		NO	2 ↓			
f)	try to choke you or burn you on purpose?	YES	1 →	1	2	3
		NO	2 ↓			
g)	threaten or attack you with a knife, gun, or other weapon?	YES	1 →	1	2	3
		NO	2 ↓			
h)	physically force you to have sexual intercourse with him when you did not want to?	YES	1 →	1	2	3
		NO	2 ↓			
i)	physically force you to perform any other sexual acts you did not want to?	YES	1 →	1	2	3
		NO	2 ↓			
j)	force you with threats or in any other way to perform sexual acts you did not want to?	YES	1 →	1	2	3
		NO	2 ↓			

DV06	CHECK DV05A (a-j): AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ → DV09		
DV07	How long after you first (got married/started living together) with your (last) (husband/partner) did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.	NUMBER OF YEARS . . . . . ☐☐ BEFORE MARRIAGE/BEFORE LIVING TOGETHER 95	
DV08	Did the following ever happen as a result of what your (last) (husband/partner) did to you:		
	a) You had cuts, bruises, or aches?	YES . . . . . 1 NO 2	
	b) You had eye injuries, sprains, dislocations, or burns?	YES . . . . . 1 NO 2	
	c) You had deep wounds, broken bones, broken teeth, or any other serious injury?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV09	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) (husband/partner) at times when he was not already beating or physically hurting you?	YES . . . . . 1 NO 2	→ DV11
DV10	In the last 12 months, how often have you done this to your (last) (husband/partner): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
DV11	Does (did) your (last) (husband/partner) drink alcohol?	YES . . . . . 1 NO 2	→ DV13
DV12	How often does (did) he get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
DV13	Are (Were) you afraid of your (last) (husband/partner): most of the time, sometimes, or never?	MOST OF THE TIME AFRAID . . . . . 1 SOMETIMES AFRAID . . . . . 2 NEVER AFRAID 3	
DV14	CHECK 609: MARRIED MORE THAN ONCE ↓ MARRIED ONLY ONCE →		DV16
DV15	A So far we have been talking about the behavior of your (current/last) (husband/partner). Now I want to ask you about the behavior of any previous (husband/partner).	B How long ago did this last happen?	

EVER		0 - 11 MONTHS AGO	12+ MONTHS AGO	DON'T REMEMBER
a) Did any previous (husband/partner) ever hit, slap, kick, or do anything else to hurt you physically?	YES 1 →	1	2	3
	NO 2 ↓			
b) Did any previous (husband/partner) physically force you to have intercourse or perform any other sexual acts against your will?	YES 1 →	1	2	3
	NO 2			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV16	CHECK 601 AND 602: EVER MARRIED/EVER LIVED WITH A MAN → From the time you were 15 years old has anyone other than (your/any) (husband/partner) hit you, slapped you, kicked you, or done anything else to hurt you physically? NEVER MARRIED/NEVER LIVED WITH A MAN → From the time you were 15 years old has anyone hit you, slapped you, kicked you, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV19
DV17	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E CURRENT BOYFRIEND . . . . . F FORMER BOYFRIEND . . . . . G MOTHER-IN-LAW . . . . . H FATHER-IN-LAW . . . . . I OTHER IN-LAW . . . . . J TEACHER . . . . . K EMPLOYER/SOMEONE AT WORK . . . . . L POLICE/SOLDIER . . . . . M OTHER _____ X (SPECIFY)	
DV18	Has (this person/have these persons) physically hurt you in the last 12 months, ?	YES . . . . . 1 NO 2	→ DV19
DV18A	How often has (this person/have these persons) physically hurt you in the last 12 months: often or only sometimes?	OFTEN . . . . . 1 SOMETIME 2	
DV18B	CHECK DV17 MORE THAN ONE RESPONSE SELECTED → ↓ ONLY ONE RESPONSE SELECTED →		→ DV19
DV18C	Who is the main person that has hurt you in this way in the last 12 months?	MOTHER/STEP-MOTHER . . . . . 01 FATHER/STEP-FATHER . . . . . 02 SISTER/BROTHER . . . . . 03 DAUGHTER/SON . . . . . 04 OTHER RELATIVE . . . . . 05 CURRENT BOYFRIEND . . . . . 06 FORMER BOYFRIEND . . . . . 07 MOTHER-IN-LAW . . . . . 08 FATHER-IN-LAW . . . . . 09 OTHER IN-LAW . . . . . 10 TEACHER . . . . . 11 EMPLOYER/SOMEONE AT WORK . . . . . 12 POLICE/SOLDIER . . . . . 13 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV19	CHECK 201, 226, AND 230: EVER BEEN PREGNANT (YES ON 201 OR 226 OR 230) ↓ NEVER BEEN PREGNANT →		DV22
DV20	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES . . . . . 1 NO 2	→ DV22
DV21	Who has done any of these things to physically hurt you while you were pregnant? Anyone else? RECORD ALL MENTIONED.	CURRENT HUSBAND/PARTNER . . . . . A MOTHER/STEP-MOTHER . . . . . B FATHER/STEP-FATHER . . . . . C SISTER/BROTHER . . . . . D DAUGHTER/SON . . . . . E OTHER RELATIVE . . . . . F FORMER HUSBAND/PARTNER . . . . . G CURRENT BOYFRIEND . . . . . H FORMER BOYFRIEND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER IN-LAW . . . . . L TEACHER . . . . . M EMPLOYER/SOMEONE AT WORK . . . . . N POLICE/SOLDIER . . . . . O OTHER _____ X (SPECIFY)	
DV22	CHECK 601 AND 602: EVER MARRIED/EVER LIVED WITH A MAN ↓ NEVER MARRIED/NEVER LIVED WITH A MAN →		DV22B
DV22A	Now I want to ask you about things that may have been done to you by someone other than (your/any) (husband/partner). At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV23 → DV24B
DV22B	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV26
DV23	Who was the person who was forcing you the very first time this happened?	CURRENT HUSBAND/PARTNER . . . . . 01 FORMER HUSBAND/PARTNER . . . . . 02 CURRENT/FORMER BOYFRIEND . . . 03 FATHER/STEP-FATHER . . . . . 04 BROTHER/STEP-BROTHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV24	CHECK 601 AND 602: EVER MARRIED/EVER LIVED WITH A MAN ☐ → In the last 12 months, has anyone other than (your/any) (husband/partner) physically forced you to have sexual intercourse when you did not want to? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ → In the last 12 months has anyone physically forced you to have sexual intercourse when you did not want to?	YES . . . . . 1 NO 2	→ DV25
DV24A	Who was the person who was forcing you the very first time this happened in the last 12 months?	CURRENT/FORMER BOYFRIEND . . . 03 FATHER/STEP-FATHER . . . . . 04 BROTHER/STEP-BROTHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	
DV24B	CHECK DV05A (h-j) and DV15A(b), DV22A, DV22B AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		DV26
DV25	CHECK 601 AND 602: EVER MARRIED/EVER LIVED WITH A MAN ☐ → How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts by anyone, including (your/any) husband/partner? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ → How old were you the first first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS ☐☐ DON'T KNOW 98	
DV26	CHECK DV05A (a-j), DV15A (a,b), DV16, DV20, DV22A, AND DV22B: AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		DV30
DV27	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help?	YES . . . . . 1 NO 2	→ DV29

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV28	From whom have you sought help? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A HUSBAND'S/PARTNER'S FAMILY . . . . . B CURRENT/FORMER HUSBAND/PARTNER . . . . . C CURRENT/FORMER BOYFRIEND . . . . . D FRIEND . . . . . E NEIGHBOR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . . . . . H POLICE . . . . . I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION . . . . . K OTHER _____ X (SPECIFY)	→ DV30
DV29	Have you ever told any one about this?	YES . . . . . 1 NO 2	
DV30	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE DOMESTIC VIOLENCE MODULE ONLY.

DV31	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?		YES ONCE	YES, MORE THAN ONCE	NO
		HUSBAND	1	2	3
		OTHER MALE ADULT . . .	1	2	3
		FEMALE ADULT	1	2	3
DV32	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE _____ _____				
DV33	RECORD THE TIME	HOUR . . . . . [ ][ ] MINUTE . . . . . [ ][ ]			

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
COLUMN 1 REQUIRES A CODE IN EVERY MONTH.

INFORMATION TO BE CODED FOR EACH COLUMN

COLUMN 1: BIRTHS, PREGNANCIES, CONTRACEPTIVE USE

B BIRTHS
P PREGNANCIES
T TERMINATIONS

0 NO METHOD
1 FEMALE STERILIZATION
2 MALE STERILIZATION
3 IUD
4 INJECTABLES
5 IMPLANTS/JADELLE
6 PILL
7 CONDOM
8 FEMALE CONDOM
9 DIAPHRAGM
J FOAM OR JELLY
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD
M STANDARD DAYS METHOD
N WITHDRAWAL
X OTHER MODERN METHOD
Y OTHER TRADITIONAL METHOD

COLUMN 2: DISCONTINUATION OF CONTRACEPTIVE USE

0 INFREQUENT SEX/HUSBAND AWAY
1 BECAME PREGNANT WHILE USING
2 WANTED TO BECOME PREGNANT
3 HUSBAND/PARTNER DISAPPROVED
4 WANTED MORE EFFECTIVE METHOD
5 SIDE EFFECTS/HEALTH CONCERNS
6 LACK OF ACCESS/TOO FAR
7 COSTS TOO MUCH
8 INCONVENIENT TO USE
F UP TO GOD/FATALISTIC
A DIFFICULT TO GET PREGNANT/MENOPAUSAL
D MARITAL DISSOLUTION/SEPARATION
X OTHER _____
(SPECIFY)
Z DON'T KNOW

				1	2	
	06	JUN	01			
2	05	MAY	02			2
0	04	APR	03			0
1	03	MAR	04			1
5	02	FEB	05			5
	01	JAN	06			
	12	DEC	07			
	11	NOV	08			
	10	OCT	09			
	09	SEP	10			
2	08	AUG	11			2
0	07	JUL	12			0
1	06	JUN	13			1
4	05	MAY	14			4
	04	APR	15			
	03	MAR	16			
	02	FEB	17			
	01	JAN	18			
	12	DEC	19			
	11	NOV	20			
	10	OCT	21			
	09	SEP	22			
2	08	AUG	23			2
0	07	JUL	24			0
1	06	JUN	25			1
3	05	MAY	26			3
	04	APR	27			
	03	MAR	28			
	02	FEB	29			
	01	JAN	30			
	12	DEC	31			
	11	NOV	32			
	10	OCT	33			
	09	SEP	34			
2	08	AUG	35			2
0	07	JUL	36			0
1	06	JUN	37			1
2	05	MAY	38			2
	04	APR	39			
	03	MAR	40			
	02	FEB	41			
	01	JAN	42			
	12	DEC	43			
	11	NOV	44			
	10	OCT	45			
	09	SEP	46			
2	08	AUG	47			2
0	07	JUL	48			0
1	06	JUN	49			1
1	05	MAY	50			1
	04	APR	51			
	03	MAR	52			
	02	FEB	53			
	01	JAN	54			
	12	DEC	55			
	11	NOV	56			
	10	OCT	57			
	09	SEP	58			
2	08	AUG	59			2
0	07	JUL	60			0
1	06	JUN	61			1
0	05	MAY	62			0
	04	APR	63			
	03	MAR	64			
	02	FEB	65			
	01	JAN	66			
	12	DEC	67			
	11	NOV	68			
	10	OCT	69			
	09	SEP	70			
2	08	AUG	71			2
0	07	JUL	72			0
0	06	JUN	73			0
9	05	MAY	74			9
	04	APR	75			
	03	MAR	76			
	02	FEB	77			
	01	JAN	78			

RWANDA DEMOGRAPHIC AND HEALTH SURVEYS 2014-15
MAN'S QUESTIONNAIRE

MINECOFIN | MINISTRY OF HEALTH

NATIONAL INSTITUTE OF STATISTICS

IDENTIFICATION

PROVINCE: _____ DISTRICT: _____ SECTOR: _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD STRUCTURE NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ]

NAME AND LINE NUMBER OF MAN _____ [ ][ ]

CHECK COVER PAGE OF THE HOUSEHOLD QUESTIONNAIRE: HOUSEHOLD SELECTED FOR MALE DOMESTIC VIOLENCE MODULE	YES = 1 NO = 2	[ ]
CHECK Q. 141m IN HOUSEHOLD QUESTIONNAIRE: IS THIS MAN SELECTED FOR MALE DOMESTIC VIOLENCE MODULE ?	YES = 1 NO = 2	[ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR [ ][ ][ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF INTERVIEW:		TRANSLATOR USED?	
KINYARWANDA	1	YES	1
OTHER _____ SPECIFY	6	NO	2

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____. I am working with the National Institute of Statistics of Rwanda. We are conducting a survey about health all over Rwanda.. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.
Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER:_____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 POST-PRIMARY/VOCATIONAL . . . . . 2 SECONDARY . . . . . 3 TERTIARY . . . . . 4 PRE-PRIMARY 6	
106	What is the highest (grade/form/year) you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE/FORM/YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	CHECK 105: PRIMARY OR LESS ☐ ↓ POST-PRIMARY/VOCATIONAL SECONDARY OR HIGHER ☐ → 110		
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ → 111		
110	Do you read a newspaper or magazine, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	CATHOLIC . . . . . 1 PROTESTANT . . . . . 2 ADVENTIST . . . . . 3 MUSLIM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 6 SPECIFY NO RELIGION 7	
115	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
116	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . [ ][ ]	
205C	Where do your sons or daughters who do not live with you live?	BOARDING SCHOOL . . . . . A RELATIVE . . . . . B IN THE STREET . . . . . C WORK _____ D SPECIFY MARRIED . . . . . E OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD → ↓ HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ☐ ↓ NO LIVING CHILDREN ☐ → 301		
214	How old is your (youngest) child?	AGE IN YEARS . . . . . ☐☐	
215	CHECK 214: (YOUNGEST) CHILD IS AGE 0-2 YEARS ☐ ↓ OTHER ☐ → 301		
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 219
218	Were you ever present during any of those antenatal check-ups?	PRESENT . . . . . 1 NOT PRESENT 2	
219	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, about the same as usual, less than usual, or nothing to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female Sterilization**. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	**Male Sterilization**. PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
03	**IUD**. PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
04	**Injectables**. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
05	**Implants/Jadelle**. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
06	**Pill**. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
07	**Condom**. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	
08	**Female Condom**. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Lactational Amenorrhea Method** (LAM)	YES . . . . . 1 NO 2	
10	**Rhythm Method**. PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	
11	**Standard Days Methods (SDM).** PROBE: The woman know days of the month when she can get pregnant by using beads or calendar	YES . . . . . 1 NO 2	
12	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
13	**Emergency Contraception**. PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2	
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
302	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in a brochure/pamphlet?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2 BROCHURE OR PAMPHLET 1 2	
303	In the last few months, have you discussed family planning with a health worker or health professional?	YES . . . . . 1 NO 2	
304	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant when she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 306
305	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
306	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is a woman's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	AGREE DIS-AGREE DK CONTRACEPTION WOMAN'S BUSINESS 1 2 8 WOMEN MAY BECOME PROMISCUOUS 1 2 8	
307	CHECK 301 (07) KNOWS MALE CONDOM: YES ☐ NO ☐		→ 311
308	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 311
309	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
310	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	
311	CHECK 301 (08) KNOWS FEMALE CONDOM: YES ☐ NO ☐ → 401		
312	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 401
313	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	
314	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO 2	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your (wife/partner) living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have other wives or do you live with other women as if married?	YES (MORE THAN ONE) . . . . . 1 NO (ONLY ONE) 2	→ 407
406	Altogether, how many wives or live-in partners do you have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . [ ][ ]	
407	CHECK 405: ONE WIFE/ PARTNER ☐ → Please tell me the name of your wife (the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER ☐ → Please tell me the name of each of your wives or each woman you are living with as if married. RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME / LINE NUMBER / 408 How old was (NAME) on her last birthday? AGE _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ]	
408	ASK 408 FOR EACH PERSON.		
409	CHECK 407: ONE WIFE/ PARTNER ☐ → ↓ MORE THAN ONE WIFE/ PARTNER ☐ →		→ 411A
410	Have you been married or lived with a woman only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 411A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
411	In what month and year did you start living with your (wife/partner)?	MONTH . . . . . [ ][ ]	
411A	Now I would like to ask about your first (wife/partner). In what month and year did you start living with her?	DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 413
412	How old were you when you first started living with her?	AGE . . . . . [ ][ ]	
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues.	NEVER HAD SEXUAL INTERCOURSE 00	→ 501
	How old were you when you had sexual intercourse for the very first time?	AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	
415	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
416	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 417 → 434

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
417	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3
418	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)
419	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
420	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	WIFE . . . . . 1 LIVE-IN PARTNER . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 PROSTITUTE . . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)
421	CHECK 410:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR 410 NOT FILLED (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR 410 NOT FILLED (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR 410 NOT FILLED (SKIP TO 423)
422	CHECK 414:	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE (SKIP TO 424) OTHER
423	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
424	How many times during the <u>last 12 months</u> did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
424A	How many times during the <u>last month</u> did you have sexual intercourse with this person?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
425	How old is this person?	AGE OF PARTNER [ ][ ] DON'T KNOW 98	AGE OF PARTNER [ ][ ] DON'T KNOW 98	AGE OF PARTNER [ ][ ] DON'T KNOW 98
426	Apart from (this person/these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 428)	
427	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . [ ][ ] DON'T KNOW . . . 98
427A	In total, with how many different people have you had sexual intercourse in the last month? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST MONTH . . . [ ][ ] DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
428	CHECK 420 (ALL COLUMNS): AT LEAST ONE PARTNER IS A PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐ → 430		
429	CHECK 420 AND 418 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ → 433 OTHER ☐ → 434		
430	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 432
431	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 434
432	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 434
433	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
435	CHECK 418, MOST RECENT PARTNER (FIRST COLUMN): NOT ASKED ☐ → 438 CONDOM USED ☐ NO CONDOM USED ☐ → 438		
436	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time? IF BRAND NOT KNOWN, ASK TO SEE THE PACKAGE.	PRUDENCE PLUS . . . . . 01 PLEASURE . . . . . 02 GENERIC CONDOM . . . . . 03 OTHER _____ (SPECIFY) 96 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
437	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 YOUTH CENTER . . . . . 34 OTHER _____ 96 (SPECIFY)	
438	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 501
439	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS/JADELLE . . . . . E PILL . . . . . F FEMALE CONDOM . . . . . G DIAPHRAGM . . . . . H FOAM/JELLY . . . . . I LAM . . . . . J RHYTHM METHOD . . . . . K STANDARD DAYS METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐		→ 509
502	CHECK 439: MAN NOT STERILIZED ☐ MAN STERILIZED ☐		→ 509
503	(Is your (wife/partner)/Are any of your (wives/partners)) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 505
504	Now I have some questions about the future. After the (child/children) you and your (wife(wives)/partner(s)) are expecting now, would you like to have another child, or would you prefer not have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 506 → 509
505	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 509
506	CHECK 407: ONE WIFE/ PARTNER ☐ MORE THAN ONE WIFE/ PARTNER ☐		→ 508
507	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW ☐ How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 COUPLE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 509
508	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 HE/ALL HIS WIVES/PARTNERS ARE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
509	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ ↓ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ ↓ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 601 → 601
510	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 607
604	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
607	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐ →		612
608	CHECK 606: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐ →		610
609	Who usually decides how the money you earn will be used: mainly you, mainly your (wife (wives)/partner(s)), or you and your (wife (wives)/partner(s)) jointly?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	
610	Who usually makes decisions about health care for yourself: you, your (wife/partner), you and your (wife/partner) jointly, or someone else?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
611	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
612	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4				
613	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4				
614	In your opinion, is a husband justified in hitting or beating his wife in the following situations:		YES	NO	DK	
	If she goes out without telling him?	GOES OUT	1	2	8	
	If she neglects the children?	NEGL. CHILDREN . . .	1	2	8	
	If she argues with him?	ARGUES	1	2	8	
	If she refuses to have sex with him?	REFUSES SEX	1	2	8	
	If she has sex with someone else?	SEX WITH SOMEONE	1	2	8	
	If she burns the food?	BURNS FOOD	1	2	8	
615	In your opinion, is a parent justified in hitting or beating his son for the following reasons:		YES	NO	DK	
	If he disobeys?	DISOBEY	1	2	8	
	If he is impolite?	IMPOLITE	1	2	8	
	If he has embarrassed the family?	EMBARR. FAMILY . . .	1	2	8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 723
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707A	Can men reduce their chance of getting the AIDS virus by getting circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
709	CHECK 708: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 711
710	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
711	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
711A	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus for prenuptial purposes?	YES . . . . . 1 NO 2	
711B	CHECK 401 AND 402: CURRENTLY MARRIED OR LIVING WITH A WOMEN ☐ FORMERLY MARRIED OR LIVING WITH A WOMEN ☐ NEVER MARRIED OR NEVER LIVED WITH A WOMAN ☐		→ 712
711C	I don't want to know the results, but have you ever been tested as a couple with your wife/partner to see if you and/or him have the AIDS virus?	YES . . . . . 1 NO 2	→ 712

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711D	I don't want to know the results, but have you and your wife told each other the results of your tests?	YES . . . . . 1 NO 2	→ 713
712	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 716
713	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . [ ][ ] TWO OR MORE YEARS 96	
714	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
715	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . 11 PROVINCIAL/DISTRICT HOSPITAL 12 HEALTH CENTER . . . . . 13 HEALTH POST . . . . . 14 OUTREACH . . . . . 15 COMMUNITY HEALTH WORKER 16 OTHER PUBLIC HEALTH FACILITY _____ 17 (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . 21 CLINIC . . . . . 22 DISPENSARY . . . . . 23 PHARMACY . . . . . 24 FAMILY PLANNING CLINIC . . . . . 25 OTHER PRIVATE HEALTH FACILITY _____ 26 (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . 31 TRADITIONAL HEALER . . . . . 32 FRIEND/RELATIVE . . . . . 33 CORRECTIONAL FACILITY . . . . . 34 YOUTH CENTER . . . . . 35 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 718
716	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 718

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P CORRECTIONAL FACILITY . . . . . Q YOUTH CENTER . . . . . R OTHER _____ X (SPECIFY)	
718	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
719	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
720	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
721	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
722	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
723	CHECK 701: HEARD ABOUT AIDS ☐ → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	CHECK 414: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NOT HAD SEXUAL INTERCOURSE ☐ → 732		
725	CHECK 723: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ → 727		
726	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
727	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
728	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
729	CHECK 726, 727, AND 728: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ → 732		
730	The last time you had (PROBLEM FROM 726/727/728), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 732
731	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANNING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP/BAR . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P YOUTH CENTER . . . . . Q OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
732	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
733	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Some men are circumcised, that is, the foreskin is completely removed from the penis. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 805
802	How old were you when you got circumcised?	AGE IN COMPLETED YEARS . . . . . [ ][ ] DURING CHILDHOOD (<5 YEARS) 95 DON'T KNOW 98	
803	Who did the circumcision?	TRADITIONAL PRACTITIONER/ FAMILY/FRIEND . . . . . 1 HEALTH WORKER/PROFESSIONAL 2 OTHER . . . . . 3 DON'T KNOW 8	
804	Where was it done?	HEALTH FACILITY . . . . . 1 HOME OF A HEALTH WORKER/ PROFESSIONAL . . . . . 2 CIRCUMCISION DONE AT HOME . . . 3 RITUAL SITE . . . . . 4 OTHER HOME/PLACE . . . . . 5 DON'T KNOW 8	
805	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 808
806	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 808
807	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 810
809	In the last 24 hours, how many cigarettes did you smoke?	NUMBER OF CIGARETTES . . . . . [ ][ ]	
810	Do you currently smoke or use any (other) type of tobacco?	YES . . . . . 1 NO 2	→ 812
811	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 814
813	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN, COUGHING SNEEZING OR SPEAKING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH SHARING FOOD OR DRINK WITH A PERSON WITH TB . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
814	Do you currently have the following symptoms?		
	a. Cough	YES, TWO WEEKS OR LONGER . . . 1 YES, LESS THAN TWO WEEKS . . . . . 2 NO 3	
	b. Fever	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	c. Drenching night sweats	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	d. Unexpected weight lost	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	e. General fatigue or malaise	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
	f. Chest pain	YES, ONE MONTH OR LONGER . . . 1 YES, LESS THAN ONE MONTH . . . . . 2 NO 3	
815	CHECK 814: IF AT LEAST ONE SYMPTOM "YES" CODE "1" OR "2" CIRCLED ↓ IF "NO" TO ALL SYMPTOMS		→ 818
816	Have you ever sought care or help?	YES . . . . . 1 NO 2	→ 818

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
817	(IF "YES") Where did you seek care or help? RECORD ALL MENTIONNED	PUBLIC/AGREE SECTOR REFERRAL HOSPITAL . . . . . A PROVINCIAL/DISTRICT HOSPITAL B HEALTH CENTER . . . . . C HEALTH POST . . . . . D OUTREACH . . . . . E COMMUNITY HEALTH WORKER F OTHER PUBLIC HEALTH FACILITY _____ G (SPECIFY) PRIVATE MEDICAL SECTOR POLYCLINIC . . . . . H CLINIC . . . . . I DISPENSARY . . . . . J PHARMACY . . . . . K FAMILY PLANING CLINIC . . . . . L OTHER PRIVATE HEALTH FACILITY _____ M (SPECIFY) OTHER SOURCES KIOSK/SHOP . . . . . N TRADITIONAL HEALER . . . . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	
818	GO TO THE NEXT SECTION (DV)		

MALE DOMESTIC VIOLENCE MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
DV01A	CHECK THE OVER PAGE IF THIS MAN SELECTED FOR MALE DV QUESTIONNAIRE MAN SELECTED FOR THIS SECTION ☐ ↓ MAN NOT SELECTED ☐ →		DV33
DV01B	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED. PRIVACY OBTAINED . . . . . 1 ↓ PRIVACY NOT POSSIBLE . . . . . 2 →		DV32
	READ TO THE RESPONDENT Now I would like to ask you questions about some other important aspects of a man's life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of men in Rwanda. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else in your household will know that you were asked these questions.		
DV02	CHECK 401 AND 402: CURRENTLY MARRIED/ LIVING WITH A WOMAN ☐ ↓ FORMERLY MARRIED/ LIVED WITH A WOMAN (READ IN PAST TENSE AND USE 'LAST' WITH WIFE/PARTNER') ☐ ↓ NEVER MARRIED/ NEVER LIVED WITH A WOMAN ☐ →		DV16
DV03	First, I am going to ask you about some situations which happen to some men. Please tell me if these apply to your relationship with your (last) (wife/partner)?	YES NO DK	
	a) She (is/was) jealous or angry if you (talk/talked) to other women?	JEALOUS 1 2 8	
	b) She frequently (accuses/accused) you of being unfaithful?	ACCUSES 1 2 8	
	c) She (does/did) not permit you to meet your friends?	NOT MEET FRIENDS . . . 1 2 8	
	d) She (tries/tried) to limit your contact with your family?	NO FAMILY 1 2 8	
	e) She (insists/insisted) on knowing where you (are/were) at all times?	WHERE YOU ARE 1 2 8	
DV04	Now I need to ask some more questions about your relationship with your (last) (wife/partner). A Did your (last) (wife/partner) ever:	B How often did this happen during the last 12 months: often, only sometimes, or not at all?	

	EVER	OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS
a) say or do something to humiliate you in front of others?	YES 1 → NO 2 ↓	1	2	3
b) threaten to hurt or harm you or someone you care about?	YES 1 → NO 2 ↓	1	2	3
c) insult you or make you feel bad about yourself?	YES 1 → NO 2 ↓	1	2	3

DV05	A Did your (last) (wife/partner) ever do any of the following things to you:	EVER		B How often did this happen during the last 12 months: often, only sometimes, or not at all? OFTEN	SOME-TIMES	NOT IN LAST 12 MONTHS
	a) push you, shake you, or throw something at you?	YES NO	1 → 2 ↓	1	2	3
	b) slap you?	YES NO	1 → 2 ↓	1	2	3
	c) twist your arm or pull your hair?	YES NO	1 → 2 ↓	1	2	3
	d) punch you with her fist or with something that could hurt you?	YES NO	1 → 2 ↓	1	2	3
	e) kick you, drag you, or beat you up?	YES NO	1 → 2 ↓	1	2	3
	f) try to choke you or burn you on purpose?	YES NO	1 → 2 ↓	1	2	3
	g) threaten or attack you with a knife, gun, or other weapon?	YES NO	1 → 2 ↓	1	2	3
	h) physically force you to have sexual intercourse with her when you did not want to?	YES NO	1 → 2 ↓	1	2	3
	i) physically force you to perform any other sexual acts you did not want to?	YES NO	1 → 2 ↓	1	2	3
	j) force you with threats or in any other way to perform sexual acts you did not want to?	YES NO	1 → 2 ↓	1	2	3

DV06	CHECK DV05A (a-j):		
	AT LEAST ONE 'YES' ☐ ↓	NOT A SINGLE 'YES' ☐	→ DV09

DV07	How long after you first (got married/started living together) with your (last) (wife/partner) did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.	NUMBER OF YEARS . . . . . ☐☐ BEFORE MARRIAGE/BEFORE LIVING TOGETHER 95
DV08	Did the following ever happen as a result of what your (last) (wife/partner) did to you:	
	a) You had cuts, bruises, or aches?	YES . . . . . 1 NO 2
	b) You had eye injuries, sprains, dislocations, or burns?	YES . . . . . 1 NO 2
	c) You had deep wounds, broken bones, broken teeth, or any other serious injury?	YES . . . . . 1 NO 2

DV09	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) (wife/partner) at times when she was not already beating or physically hurting you?	YES . . . . . 1 NO 2	→ DV11
DV10	In the last 12 months, how often have you done this to your (last) (wife/partner): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
DV11	Does (did) your (last) (wife/partner) drink alcohol?	YES . . . . . 1 NO 2	→ DV13
DV12	How often does (did) she get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
DV13	Are (Were) you afraid of your (last) (wife/partner): most of the time, sometimes, or never?	MOST OF THE TIME AFRAID . . . . . 1 SOMETIMES AFRAID . . . . . 2 NEVER AFRAID 3	
DV14	CHECK 409: MARRIED MORE THAN ONCE ↓ MARRIED ONLY ONCE → DV16		
DV15	A So far we have been talking about the behavior of your (current/last) (wife/partner). Now I want to ask you about the behavior of any previous (wife/partner).	B How long ago did this last happen?	

	EVER	0 - 11 MONTHS AGO	12+ MONTHS AGO	DON'T REMEMBER
a) Did any previous (wife/partner) ever hit, slap, kick, or do anything else to hurt you physically?	YES 1 →	1	2	3
	NO 2 ↓			
b) Did any previous (wife/partner) physically force you to have intercourse or perform any other sexual acts against your will?	YES 1 →	1	2	3
	NO 2			

DV16	CHECK 401 AND 402: EVER MARRIED/EVER LIVED WITH A WOMAN: From the time you were 15 years old has anyone other than (your/any) (wife/partner) hit you, slapped you, kicked you, or done anything else to hurt you physically? NEVER MARRIED/NEVER LIVED WITH A WOMAN: From the time you were 15 years old has anyone hit you, slapped you, kicked you, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV22

DV17	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E CURRENT GIRLFRIEND . . . . . F FORMER GIRLFRIEND . . . . . G MOTHER-IN-LAW . . . . . H FATHER-IN-LAW . . . . . I OTHER IN-LAW . . . . . J TEACHER . . . . . K EMPLOYER/SOMEONE AT WORK . . . . . L POLICE/SOLDIER . . . . . M OTHER _____ X (SPECIFY)	
DV18	Has (this person/have these persons) physically hurt you in the last 12 months ?	YES . . . . . 1 NO 2	→ DV22
DV18A	How often has (this person/have these persons) physically hurt you in the last 12 months: often or only sometimes?	OFTEN . . . . . 1 SOMETIME 2	
DV18B	CHECK DV17 MORE THAN ONE RESPONSE SELECTED ↓ ; ONLY ONE RESPONSE SELECTED →		DV22
DV18C	Who is the main person that has hurt you in this way in the last 12 months?	MOTHER/STEP-MOTHER . . . . . 01 FATHER/STEP-FATHER . . . . . 02 SISTER/BROTHER . . . . . 03 DAUGHTER/SON . . . . . 04 OTHER RELATIVE . . . . . 05 CURRENT GIRLFRIEND . . . . . 06 FORMER GIRLFRIEND . . . . . 07 MOTHER-IN-LAW . . . . . 08 FATHER-IN-LAW . . . . . 09 OTHER IN-LAW . . . . . 10 TEACHER . . . . . 11 EMPLOYER/SOMEONE AT WORK . . . . . 12 POLICE/SOLDIER . . . . . 13 OTHER _____ 96 (SPECIFY)	
DV22	CHECK 401 AND 402: EVER MARRIED/EVER LIVED WITH A WOMAN ↓ ; NEVER MARRIED/NEVER LIVED WITH A WOMAN →		DV22B
DV22A	Now I want to ask you about things that may have been done to you by someone other than (your/any) (wife/partner). At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV23 → DV24B
DV22B	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ DV26

DV23	Who was the person who was forcing you the very first time this happened?	CURRENT WIFE/PARTNER . . . . . 01 FORMER WIFE/PARTNER . . . . . 02 CURRENT/FORMER GIRLFRIEND . . . . . 03 MOTHER/STEP-MOTHER . . . . . 04 SISTER/STEP-SISTER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	
DV24	CHECK 401 AND 402: EVER MARRIED/EVER LIVED WITH A WOMAN In the last 12 months, has anyone other than (your/any) (wife/partner) physically forced you to have sexual intercourse when you did not want to? NEVER MARRIED/NEVER LIVED WITH A WOMAN In the last 12 months has anyone physically forced you to have sexual intercourse when you did not want to?	YES . . . . . 1 NO 2	→ DV25
DV24A	Who was the person who was forcing you the very first time this happened in the last 12 months?	CURRENT/FORMER GIRLFRIEND . . . 03 MOTHER/STEP-MOTHEF . . . . . 04 SISTER/STEP-SISTER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK . . . . . 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	
DV24B	CHECK DV05A (h-j), DV15A(b), DV22A, and DV22B AT LEAST ONE 'YES' NOT A SINGLE 'YES'		→ DV26

DV25	CHECK 401 AND 402: EVER MARRIED/EVER LIVED WITH A WOMAN ☐ How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts by anyone, including (your/any) wife/partner? NEVER MARRIED/NEVER LIVED WITH A WOMAN ☐ How old were you the first first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS ☐☐ DON'T KNOW 98	
DV26	CHECK DV05A (a-j), DV15A (a,b), DV16, DV22A, AND DV22B: AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐		→ DV30
DV27	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help?	YES . . . . . 1 NO 2	→ DV29
DV28	From whom have you sought help? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A WIFE'S/PARTNER'S FAMILY . . . . . B CURRENT/FORMER WIFE/PARTNER . . . . . C CURRENT/FORMER GIRLFRIEND . . . . . D FRIEND . . . . . E NEIGHBOR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . . . . . H POLICE . . . . . I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION . . . . . K OTHER _____ X (SPECIFY)	→ DV30
DV29	Have you ever told any one about this?	YES . . . . . 1 NO 2	
DV30	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE DOMESTIC VIOLENCE MODULE ONLY.

DV31	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?		YES ONCE	YES, MORE THAN ONCE	NO
		WIFE	1	2	3
		FEMALE ADULT	1	2	3
		OTHER MALE ADULT . . .	1	2	3
DV32	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE _____ _____ _____				
DV33	RECORD THE TIME	HOUR . . . . . ☐☐ MINUTE . . . . . ☐☐			

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____