Sierra Leone

Demographic and Health Survey

2013

Republic of Sierra Leone

Sierra Leone Demographic and Health Survey 2013

Statistics Sierra Leone
Freetown, Sierra Leone

Ministry of Health and Sanitation
Freetown, Sierra Leone

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FOREWORD

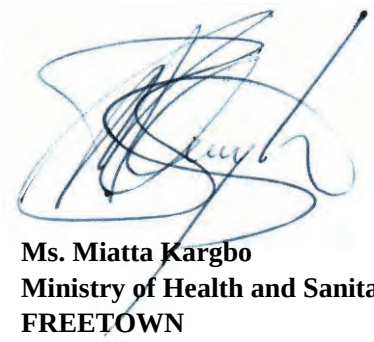
Sierra Leone is committed to improving its health care system to provide affordable, quality health care. The priorities of the government include combating malaria, improving maternal and child health, reducing teenage pregnancy, scaling up nutrition programs, and improving sanitation and hygiene. To assess progress, measure performance, and map the way forward, the 2013 Demographic and Health Survey (DHS) was conducted. This was the second DHS in Sierra Leone, and its primary objective was to assess indicators on fertility levels and preferences, marriage and sexual activity, family planning methods, breastfeeding practices, nutritional status of women, men, and young children, childhood and maternal mortality, maternal and child health, malaria and use of mosquito nets, domestic violence, and HIV/AIDS and other sexually transmitted infections (STIs).

Generally, the results presented in this report indicate improvement in some of the indicators (delivery by skilled birth attendants, child vaccination, and the use of bed nets among women and children). However, the government notes that accelerated progress is needed in other indicators (children under age 5 who are stunted, infant mortality, under-five mortality, and maternal mortality) for which additional actions/efforts are being taken to improve them.

The 2013 SLDHS was conducted by Statistics Sierra Leone in collaboration with the Ministry of Health and Sanitation and other stakeholders. The study was funded by the Sierra Leone Government, United Nations Population Fund (UNFPA), United Nations Development Programme, Department for International Development (United Kingdom), World Bank, KfW, United States Agency for International Development, and the World Health Organization. ICF International and the UNFPA Country Support Team provided technical support.

The Ministry of Health and Sanitation will collaborate with its health development partners in the implementation of the evidence-based interventions recommended by this report and use the information to improve policy formulation and program design.

The Ministry of Health and Sanitation appreciates the efforts of all organizations and individuals who contributed to the success of this project.



Ms. Miatta Kargbo
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PREFACE

Statistics Sierra Leone conducted the 2013 Sierra Leone Demographic and Health Survey (SLDHS) in its capacity as the national agency mandated to collect, analyse, and disseminate official statistics in Sierra Leone. The sample size for the 2013 SLDHS was much higher than for the 2008 SLDHS to allow for estimates from all 14 administrative districts, in addition to the national and regional estimates. A total of 13,006 households were targeted, involving 16,658 female and 7,262 male respondents.

The survey provides data on background characteristics of respondents and demographic and key public health indicators, including domestic violence. The target groups in the survey were women age 15 to 49 and men age 15 to 59 from randomly selected households. Information was also collected for children under age 5, including their weight and height.

Data collection took place from June to September, 2013, and tabulations were finalized in January 2014. The preliminary report was launched in January 2014. The main report was drafted in April 2014 by a team from Statistics Sierra Leone, the Ministry of Health and Sanitation, the National AIDS Secretariat, Njala University, Fouraby College, representatives from the DHS Technical Committee, the United Nations Population Fund, and the Joint United Nations Programme on HIV/AIDS. The report was compiled and finalized by ICF International.

I would like to thank the report writing team and ICF International for their efforts to ensure that the report has been completed on time.

Mohammed King Koroma
Statistician General
Statistics Sierra Leone
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ACKNOWLEDGEMENTS

The success of the 2013 Sierra Leone Demographic and Health Survey (SLDHS) results from the support of many institutions instrumental in the overall implementation.

First, on behalf of the Government of Sierra Leone, I wish to thank the United Nations Population Fund, UK Department for International Development, World Bank, United Nations Development Programme, United Nations Children's Fund, Joint United Nations Programme on HIV/AIDS, World Food Program of the United Nations, Food and Agriculture Organization of the United Nations, World Health Organization, and KfW for the financial and logistical support, without which, the survey would not have been possible.

I would like to recognize the support and leadership provided by the senior management of Statistics Sierra Leone and the technical guidance of the resident SLDHS advisor. I would also like to thank the Ministry of Health and Sanitation, especially the staff of the Central Public Health Reference Laboratory in Lakka, Freetown, who conducted HIV analysis of the dried blood samples. The active involvement of officials from the Ministry of Finance and Economic Development is highly appreciated, and I commend ICF International for the technical support provided throughout the survey process.

Similar sentiments are extended to the technical and steering committees, whose technical and policy guidance made possible the successful implementation of the entire process.

All field staff engaged in data collection, field coordinators and monitors, data processing staff and blood analysis laboratory personnel, worked assiduously and their effort is hereby acknowledged.

Finally, my appreciation goes to all household heads, men and women who were selected and responded to all the interviews. Without their participation and support, this project would have been futile.

Thank you to everyone.

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ABBREVIATIONS

A4P	Agenda for Prosperity
ACT	Artemisinin-based combination therapy
AD	Age at death
AIDS	Acquired immune deficiency syndrome
AL	Artmether+lumefantrine
ANC	Antenatal care
APC	All Peoples Congress
ARI	Acute respiratory infection
AS+AQ	Artesunate+amodiaquine
ASFR	Age-specific fertility rate
BCG	Bacille-Calmette-Guerin vaccine against tuberculosis
BMI	Body mass index
BPEH	Basic package of essential health
CBR	Crude birth rate
CDC	Centers for Disease Control and Prevention
CHC	Community Health Centres
CHP	Community Health Posts
CPR	Contraceptive prevalence rate
CSPro	Census and survey processing computer package
DBS	Dried blood spot
DfID	Department for International Development
DHS	Demographic and Health Survey
DPT	Diphtheria, pertussis, and tetanus vaccine
EA	Enumeration area
EIA2	Enzygnost Integral II
EIA1	Enzyme immunoassay
FAO	Food and Agricultural Organisation
FGC	Female Genital Cutting
GAR	Gross attendance ratio
GDP	Gross domestic product
GFR	General fertility rate
GPI	Gender parity index
Hib	Haemophilus influenzae type B
HIV	Human immunodeficiency virus
ICD-10	International Classification of Diseases
IDD	Iodine deficiency disorder
IPTp	Intermittent preventive treatment during pregnancy
IRS	Indoor residual spraying
ITN	Insecticide-treated net
IUD	Intrauterine device
IYCF	Infant and young child feeding

KfW	KfW Development Bank
LAM	Lactational amenorrhea method
LLIN	Long-lasting insecticide-treated bed net
MCH	Maternal and Child Health
MCHP	Maternal and Child Health Posts
MDGs	Millennium Development Goals
MMR	Maternal mortality ratio
MOHS	Ministry of Health and Sanitation
MTCT	Mother-to-child transmission
NAR	Net attendance ratio
NGO	Nongovernmental organization
NMCP	National Malaria Control Programme
NN	Neonatal mortality
NPRC	National Provisional Ruling Council
NSP	National Strategic Plan
ORS	Oral rehydration salts
ORT	Oral rehydration therapy
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission
PNN	Postneonatal mortality
PRSP	Poverty Reduction Strategy Papers
PSU	Primary sampling unit
RDT	Rapid diagnostic test
RHF	Recommended home fluid
SHS	Second-hand smoke
SLDHS	Sierra Leone Demographic and Health Survey
SLPP	Sierra Leone Peoples Party
SP	Sulphadoxine-pyrimethamine
SSL	Statistics Sierra Leone
STI	Sexually transmitted infection
SUN	Scaling Up Nutrition
TFR	Total fertility rate
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VAD	Vitamin A deficiency
VCT	Voluntary counselling and testing
WB	World Bank
WFP	World Food Program
WHO	World Health Organization
YSD	Years since death

MILLENNIUM DEVELOPMENT GOAL INDICATORS

Millennium Development Goal Indicators

Sierra Leone 2013

Goal	Value		
	Female	Male	Total
1. Eradicate extreme poverty and hunger			
1.8 Prevalence of underweight children under five years of age	15.4	17.6	16.4
2. Achieve universal primary education			
2.1 Net attendance ratio in primary education[1]	75.2	70.7	72.9
2.3 Literacy rate of 15-24 year olds[2]	61.8	76.2[a]	69.0[b]
3. Promote gender equality and empower women			
3.1a Ratio of girls to boys in primary education[3]	na	na	1.1
3.1b Ratio of girls to boys in secondary education[3]	na	na	0.9
4. Reduce child mortality			
4.1 Under-five mortality rate[4]	164	186	156
4.2 Infant mortality rate[4]	102	117	92
4.3 Proportion of 1 year-old children immunised against measles	79.0	78.1	78.6
5. Improve maternal health			
5.1 Maternal mortality ratio[5]	na	na	1,165
5.2 Percentage of births attended by skilled health personnel[6]	na	na	59.7
5.3 Contraceptive prevalence rate[7]	16.6	na	na
5.4 Adolescent birth rate[8]	125.1	na	na
5.5 Antenatal care coverage			
5.5a Antenatal care coverage: at least one visit[9]	97.1	na	na
5.5b Antenatal care coverage: four or more visits[10]	76.0	na	na
5.6 Unmet need for family planning	25.0	na	na
6. Combat HIV/AIDS, malaria, and other diseases			
6.1 HIV prevalence among the population aged 15-24 years	1.4	0.7	1.1
6.2 Condom use at last high-risk sex[11]	6.8	17.7	12.3
6.3 Percentage of the population age 15-24 years with comprehensive correct knowledge of HIV/AIDS[12]	28.8	30.0	29.4
6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	0.76	0.88	0.81
6.7 Percentage of children under age 5 sleeping under insecticide treated bed nets	48.8	49.3	49.0
6.8 Percentage of children under age 5 with fever who are treated with appropriate antimalarial drugs[13]	47.2	49.4	48.3
	Urban	Rural	Total
7. Ensure environmental sustainability			
7.8 Percentage of population using an improved drinking water source[14]	88.3	46.5	59.5
7.9 Percentage of population with access to improved sanitation[15]	21.9	5.4	10.6

na = Not applicable

[1] The ratio is based on reported attendance, not enrollment, in primary education among primary school age children (age 6-11). The rate also includes children of primary school age enrolled in secondary education. This is a proxy for MDG indicator 2.1, Net enrollment ratio.

[2] Refers to respondents who attended secondary school or higher or who could read a whole sentence or part of a sentence

[3] Based on reported net attendance, not gross enrollment, among children age 6-11 for primary and age 12-17 for secondary education

[4] Expressed in terms of deaths per 1,000 live births. Mortality by sex refers to a 10-year reference period preceding the survey. Mortality rates for males and females combined refer to the five-year period preceding the survey.

[5] Expressed in terms of maternal deaths per 100,000 live births in the seven-year period preceding the survey

[6] Among births in the five years preceding the survey

[7] Percentage of currently married women age 15-49 using any method of contraception

[8] Equivalent to the age-specific fertility rate for women age 15-19 for the three years preceding the survey, expressed in terms of births per 1,000 women age 15-19

[9] With a skilled provider

[10] With any health care provider

[11] Higher-risk sex refers to sexual intercourse with a non-marital, non-cohabitating partner. It is expressed as a percentage of men and women age 15-24 who had higher-risk sex in the past 12 months.

[12] 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 a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

[13] Measured as the percentage of children age 0-59 months who were ill with a fever in the two weeks preceding the interview and received any antimalarial drug

[a] Restricted to men in subsample of households selected for the male interview

[b] The total is calculated as the simple arithmetic mean of the percentages in the columns for male and females.

[14] Proportion whose main source of drinking water is a household connection (piped), public standpipe, borehole, protected dug well or spring, or rainwater collection.

[15] Improved sanitation technologies are a flush toilet, ventilated improved pit latrine, traditional pit latrine with a slab, or composting toilet.

SIERRA LEONE

INTRODUCTION 1

1.1 GEOGRAPHY, HISTORY, AND THE ECONOMY

1.1.1 Geography

Sierra Leone is located on the west coast of Africa and covers an area of about 72,000 square kilometres (28,000 square miles). It extends from latitude 7 degrees north to 10 degrees north, and from longitude 10 degrees west to 14 degrees west. The Republic of Guinea borders it on the north and northeast, and the Republic of Liberia borders it on the east and southeast. On the west and southwest, the Atlantic Ocean extends approximately 340 kilometres (211 miles).

Administratively, Sierra Leone is divided into four regions. Each region is subdivided into districts, and each district is divided into chiefdoms. Overall, there are 14 districts and 149 chiefdoms. Among the 14 districts, there are five city councils and 14 district councils, including Freetown, the capital, for a total of 19 local councils (SSL, 2006).

Sierra Leone has four main physical regions: the Freetown Peninsula's raised beaches and hills, the Coastal Plains, the Interior Lowlands, and the Interior Plateau. The Freetown Peninsula consists of three roughly parallel ranges of highlands that are narrow but extend about 30 kilometres south of Freetown.

The hills and mountains in these highlands rise impressively from 200 to 1,000 metres above the low-lying narrow coastal area. The Interior Lowlands region makes up about half of the country. Most of the area, which is largely swamp, is less than 150 metres above sea level. The Interior Plateau region makes up the eastern half of the country. It is the most extensive physical region and includes the greatest variety of land forms. It is 300 to 450 metres above sea level. The Interior Plateau is dissected by the main rivers flowing westward towards the sea. Rising above the general level of this region are a number of hills and mountains, including the Kambui, Nimini, and Gori hills in the south-eastern region, and the Sula, Kangari, Loma, Tingi, and Wara mountains in the northern region.

Climate in Sierra Leone is determined mainly by the seasonal movements of two air masses: the north-easterly Continental Tropical Winds (commonly called North-East Trade Winds) and the south-westerly Maritime Tropical Winds (commonly called South-West Monsoon). The country experiences two main seasons: the dry season, between November and May, and the wet/rainy season, from April/May to November.

The present distribution of vegetation in Sierra Leone has been influenced not only by factors of climate and soil but also by man. At present, the following vegetation communities can be distinguished: forest, savannah, grassland, and swamp.

The country has eight main river systems: the Great Scarcies, Little Scarcies, Rokel, Jong, Sewa, Wanjei, Moa, and Mano. The rivers typically flow from northeast to southwest, eventually reaching the Atlantic Ocean.

1.1.2 History

Sierra Leone's earliest known contact with Europe was in the 15th century during the Portuguese voyages of exploration. On one such voyage, to discover a sea route to India, the Portuguese reached the Sierra Leone Peninsula. Because the high coastal ranges resembled lions to the explorers, the area was called Sierra Lyoa, meaning Lion Mountains.

Contact stimulated trade, with manufactured goods coming from Europe in return for fruit, carvings, and gold from Sierra Leone. However, in the 16th century there was the added dimension of the introduction of the slave trade. In 1562 the earliest known shipment of slaves was taken from the country to the Americas. There was a further strengthening of the European link in 1789 with the founding of settlements for freed slaves. The first group of 411 freed slaves was settled on land bought from King Tom of the Sierra Leone Peninsula.

The settlement was under the administration of the Sierra Leone Company, which was founded in 1791 with the aim of re-establishing legitimate trade with the inhabitants. With the abolition of the slave trade and pressure from individuals and organizations in Britain, the British Government took direct responsibility for the new settlement. In 1808 the British Government declared the new settlement to be a Crown Colony. This move was intended to facilitate the enforcement of the Slave Trade Abolition Act. British rule covered only the colony, which was then the Freetown Peninsula and Bonthe Island. The largest part of the country, referred to as the hinterland, was in the hands of traditional rulers. However, in 1896 the rest of the country was declared a protectorate, followed two years later by the Hut Tax War.

Today, Sierra Leone is a republic within the British Commonwealth of Nations, having gained independence from Britain on 27 April 1961. It gained the status of republic in April 1971 and adopted a one-party system of government in 1978. In 1991, however, the country reverted to a multiparty state, with two main political parties: the Sierra Leone Peoples Party (SLPP) and the All Peoples Congress (APC). The country then went through a 10-year civil conflict that began in 1991 and ended in 2002. During the period of conflict, there was a military takeover from the then ruling APC Government in April 1992 by the National Provisional Ruling Council (NPRC). The country held democratic elections that ended military rule in 1996 and ushered in a multiparty system of government led by the SLPP. Since then the country has enjoyed multiparty democracy.

English is the official language of Sierra Leone, which has about 15 ethnic groups. The major tribes include the Mende, Temne, Limba, and Creole. The main religions are Christianity and Islam.

1.1.3 Economy

The Sierra Leonean economy is predominantly agricultural, which has accounted for about half of the real gross domestic product (GDP). However, the share of the GDP attributed to agriculture has been declining, from about 54 percent in 2009 to less than 53 percent in 2010 and 2011, and with a sharper decline from 47 percent in 2012 to 41 percent in 2013, mainly due to the mining activities in the country during this period.

Services are next to agriculture as a major percentage of GDP, at about 34 percent. The manufacturing sector, consisting mainly of import–substituting industries, accounts for only 2 percent of GDP. The mining sector accounted for less than 6 percent of GDP between 2001 and 2011 but increased to 12 percent of GDP in 2012 (SSL, 2012), due mainly to the discovery and mining of iron ore in 2011 in the Northern region. Coffee, cocoa, and fish are the major agricultural exports of the country.

The performance of the Sierra Leonean economy has been declining since the post-independence era, with its greatest decline during the 10-year civil conflict. Since the end of the conflict in 2002, several measures have been put in place to improve the economy and the quality of life of the people. These include the introduction of five-year development frameworks such as the Poverty Reduction Strategy Papers (PRSP), the Agenda for Change, and the Agenda for prosperity. The implementation of the Agenda for Change saw improvement in the overall economy, with emphasis in energy, infrastructure, agriculture, and social services.

The Agenda for Change enabled the economy to grow at an annual average of 6 percent between 2007 and 2012. One of the lessons learned during the implementation of the Agenda for Change was that infrastructural development and social services were effective strategies to create jobs for youth, including

the Cash for Work Programmes. In 2013 the Government of Sierra Leone launched the Agenda for Prosperity (A4P) to provide continuity by consolidating the gains made under the Agenda for Change. The goal was to transform Sierra Leone into a middle-income country by 2035.

1.2 POPULATION

According to the last Population and Housing Census, conducted in 2004, the population of Sierra Leone was 5.0 million (Table 1.1). The country's projected population for 2014 is 6.2 million. Results of previous censuses indicate an annual population growth rate of 1.8 percent during the 1985–2004 period, which is a decline from the 2.3 percent annual rate reported for the 1974–1985 period.

Table 1.1 Basic demographic indicators

Selected demographic indicators, Sierra Leone

Indicators	1963 Population and Housing Census	1974 Population and Housing Census	1985 Population and Housing Census	2004 Population and Housing Census
Population (millions)	2.2	2.7	3.5	5.0
Intercensal growth rate	1.1	2.0	2.3	1.8
Density (population/km^2)	30.3	38	49	69
Percent urban	na	27.6	32.2	36.7

na: not applicable
Source: Sierra Leone Population and Housing Census, 1963-2004

1.3 POPULATION AND FAMILY PLANNING POLICIES AND PROGRAMMES

Sierra Leone is characterised by a youthful population. About 42 percent of the people are under age 15. The country therefore faces the challenge of providing its youth with opportunities for a safe, healthy, and economically productive future.

In 2009 the Government of Sierra Leone launched its revised National Population Policy. The revised policy addressed many of the fundamental issues of population, health and sexual and reproductive rights, education, gender equality, equity and empowerment of women, the special needs of persons in especially difficult circumstances such as amputees, war widows, street children and other physically challenged persons and their interrelated development challenges.

In more specific terms, the goals of the National Population Policy include the following:

(a) To make development planning and policy more comprehensive and effective by the incorporation of the demographic dimension;

(b) To achieve a balance between the rate of population growth, available resources, and the social and economic development of the nation;

(c) To progress towards a complete demographic transition of a considerably reduced level of low birth and death rates and the resultant low population growth rates through the spread of voluntary family planning and small family norms so as to facilitate the attainment of national economic and social targets;

(d) To contribute towards meeting the basic needs of the people and enhancing the quality and utilisation of the nation's human resources;

(e) To promote the health, especially reproductive health of mothers and children, and welfare of all Sierra Leoneans at every stage of the life cycle;

(f) To further scale up and accelerate programme intervention towards progressively reducing the threat posed by HIV/AIDS and implement an immediate response to other related sexual and infectious diseases, and

(g) To guide rural-urban migration, so as to minimise socioeconomic problems and optimise benefits to migrants and non-migrants alike through the achievement of a balanced and integrated rural and urban development.

The national policy also outlined several strategies to achieve these goals, which included improvement of the demographic knowledge base on population and development interaction on a regular basis.

1.4 HEALTH PRIORITIES AND PROGRAMMES

Sierra Leone reviewed its 1993 National Health Policy in 2002. The current health policy seeks to maintain and improve the health of all Sierra Leoneans, and addresses the following challenges: malaria, sexually transmitted infections (STIs) including HIV/AIDS, TB, reproductive health including maternal and neonatal mortality, childhood diseases, nutrition-related diseases, water-, food-, and sanitation-borne diseases, disability, and mental illness.

The Ministry of Health and Sanitation is the major health care provider in Sierra Leone. The Ministry operates all government health facilities in the country. The public delivery system starts from the peripheral health units, which include the Community Health Centres (CHC) at chiefdom headquarter towns and Community Health Posts (CHP) and Maternal and Child Health Posts (MCHP) in other villages within chiefdoms. The next level comprises hospitals at the district headquarter towns. The third level of care is provided in hospitals at the regional headquarter towns. There are two national hospitals – the Connaught Hospital and the Princess Christian Maternal Health Hospital. However, there are several private clinics and hospital spread across the 14 districts of the country.

Making adequate health care services universally available requires striking a delicate balance between the health needs of the population and the country's available resources. It also requires an equitable and efficient allocation of resources. Without proper health care financing strategies, no government can hope to successfully meet the health needs of its citizens.

The National Health Sector Strategic Plan (2010–2015) aims to provide the framework that will guide the Ministry of Health and Sanitation and its partners over the next six years in attaining the health-related Millennium Development Goals (MDGs). It reflects the Ministry's fundamental belief that health is a basic human right. The health goals formulated in the strategic plan underline the need to strengthen the functions of the national health system of Sierra Leone, so as to improve the following:

(a) Access to health services
(b) Quality of health services
(c) Equity in health services
(d) Efficiency of service delivery
(e) Inclusiveness

In line with the government's Agenda for Change and Health Sector Strategic Plan, the Free Health Care Initiative was introduced in 2010 to provide free health care services for pregnant women, lactating mothers, and children under age 5. The Free Health Care Initiative focuses on an essential package of health care services that will be delivered free of charge at the point of service to ensure a significant improvement in maternal and child health.

The policies that the government has pursued over the years have had a direct impact on improving the health status of Sierra Leoneans. Nonetheless, much is yet to be done in reducing teenage pregnancies, which have a direct effect on maternal and child health and on infant and maternal mortality.

1.5 STRATEGIC FRAMEWORK TO COMBAT THE HIV/AIDS EPIDEMIC

To meet the challenge of the HIV/AIDS epidemic in the country, the Government of Sierra Leone has adopted a multi-sector approach. The National AIDS Council was established in 2002 to provide the overall policy guidance of HIV/AIDS response in Sierra Leone and is chaired by the President of the Republic of Sierra Leone. Within the Office of President, a National AIDS Secretariat was established in 2005 to coordinate the HIV/AIDS programmes.

The Government of Sierra Leone launched the first multisectoral National HIV/AIDS Strategic Plan, which was implemented for a five-year period between 2006 and 2010. This plan supported effective programmes to control the spread of HIV/AIDS, to protect the human rights of those with HIV or AIDS, and to provide care for those infected and affected by HIV/AIDS. At this plan's conclusion in 2010, a new National Strategic Plan (NSP) was developed for 2011–2015. The new NSP has clear and measurable goals, objectives, and priorities that will guide the country's future programmes and operational plan of the national response to HIV/AIDS.

The aim of the 2011–2015 NSP is to achieve zero new HIV infections, zero discrimination, and zero HIV-related deaths by 2015.

To achieve this, six impact and outcome level results are to be achieved by 2015:

1. Coordinating structures at national and decentralised levels effectively manage implementation
2. Laws and policies protecting the rights of people living with HIV (PLHIV) and orphans are widely applied
3. Incidence of HIV is reduced by 50 percent
4. Morbidity and mortality amongst the PLHIV are reduced
5. People infected and affected have the same opportunities as the general population
6. Research, monitoring, and evaluation systems are strengthened at all levels

1.6 OBJECTIVES OF THE 2013 SLDHS

The 2013 Sierra Leone Demographic and Health Survey (SLDHS) is the second population and health survey that Sierra Leone has conducted. It was designed to provide data to monitor the population and health situation in Sierra Leone and also to be used as a follow-up to the first SLDHS survey, conducted in 2008.

The 2013 SLDHS collected information on fertility levels; marriage; sexual activity; fertility preferences; awareness and use of family planning methods; breastfeeding practices; nutritional status of women and young children; childhood and maternal mortality; maternal and child health; and awareness and behaviour regarding HIV/AIDS and other STIs. The 2013 SLDHS is the first survey to collect data on domestic violence.

The specific objectives of the 2013 SLDHS were to:

- Provide reliable data, at the national, regional, and district levels, on health and demographic indicators in the areas of fertility, mortality, family planning, maternal and child health,

nutrition, malaria, and HIV/AIDS, which can be used by programme managers and policy makers to evaluate and improve existing programmes or develop new ones;

- Measure changes in fertility and contraceptive prevalence;
- Examine the basic indicators of maternal and child health in Sierra Leone, including nutritional status, use of antenatal and maternity services, treatment of recent episodes of childhood illness, use of immunisation services, use of mosquito nets and treatment of children and pregnant women for malaria;
- Describe the patterns of knowledge, attitudes, and behaviour related to the transmission of HIV/AIDS and other STIs;
- Ascertain the extent and pattern of domestic violence and female genital cutting in the country;
- Estimate the prevalence of HIV infection at the national, regional and district levels and by urban-rural residence.

The 2013 SLDHS provides data to assist policymakers and programme implementers as they monitor and evaluate existing programmes and design new strategies for demographic, social, and health policies in Sierra Leone. The data will be useful in many ways, including the monitoring of the country's achievement of the MDGs.

As in 2008, the 2013 SLDHS survey was designed to cover the entire country. However, unlike the 2008 survey, where disaggregation of data was limited to regional levels, the 2013 SLDHS went further to disaggregate data at the district level. The survey collected information on demographic and health issues from a sample of women of reproductive age 15-49, and also from a sample of men age 15-59 in a subsample of households.

1.7 Survey Organisation

Statistics Sierra Leone (SSL) implemented the 2013 SLDHS at the request of the Ministry of Health and Sanitation. HIV testing was performed by the National Reference Laboratory at Lakka in Freetown.

Financial support for the 2013 SLDHS was provided by the Government of Sierra Leone, the UK Department for International Development (DfID), the World Bank (WB), the United Nations Fund for Population Activities (UNFPA), KfW Development Bank (KfW), the United Nations Children's Fund (UNICEF), Food and Agricultural Organisation (FAO), World Food Programme (WFP), and World Health Organization (WHO).

The implementation of the survey was guided by a National Technical Committee and a National Steering Committee, which provided both technical and policy guidance through the implementation of the survey. As in the previous DHS survey in Sierra Leone, ICF International provided technical support, through the international MEASURE DHS Program.

1.8 Sample Design

The 2013 SLDHS sample was designed to produce reliable estimates for important variables for the country as a whole, for urban and rural areas, and for each of Sierra Leone's four regions and 14 districts. The sample was first stratified to provide adequate representation of urban and rural areas, as well as all regions and districts. Then, the sample was selected in two stages. The first stage involved selecting primary sampling units (PSUs), also called clusters, based on the list of enumeration areas (EAs) created in the 2004 Sierra Leone General Population and Housing Census. The enumeration areas provided the master frame for drawing 435 clusters (277 rural and 158 urban), selected with a probability proportional to their size. The

sampling frame excluded the population living in collective housing units, such as hotels, hospitals, work camps, prisons, or boarding schools. In the second stage of selection, 30 households were systematically selected from each cluster.

All women age 15-49 who were usual household members or who spent the night before the survey in the selected households were eligible for individual interviews. In addition, in a subsample of every second household selected for the survey, all men age 15-59 were selected for interview. In this subsample, all women and men eligible for the individual survey were also eligible for the HIV test. In addition, in this subsample of households, all women and men eligible for the survey and all children age 6-59 months were eligible for the anaemia test. Finally, in the same subsample of households, all women and men eligible for the survey and all children under the age 5 were eligible for anthropometric (height and weight) measurements to determine their nutritional status.

1.9 QUESTIONNAIRES

The 2013 SLDHS used three questionnaires, namely, a Household Questionnaire, a Woman's Questionnaire, and a Man's Questionnaire. These questionnaires were based on the models developed by the MEASURE DHS Program, but additions and modifications were made to the model questionnaires to adapt them to specific situations and the lexicon of Sierra Leone.

The Household Questionnaire was used to list all usual household members, as well as non-members who spent the night preceding the interview in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of household. The Household Questionnaire also included a module on child labour. In addition, several questions were included to determine the physical characteristics of the dwelling, such as source of water, presence of sanitation facilities, and availability of durable goods. The Household Questionnaire was also used to identify people eligible for the individual interview, that is, women age 15-49 and men age 15-59. In addition, the Household Questionnaire was used to register people eligible for anthropometric measurements and the collection of blood samples for anaemia and HIV testing.

The Woman's Questionnaire was used to collect information from all women of reproductive age (15-49). It covered a wide variety of topics, including:

- Background characteristics
- Birth history
- Knowledge, attitudes, and practice of family planning, as well as exposure to family planning messages
- Maternal health, including antenatal, delivery, and postnatal care
- Immunisation and health of children under age 5
- Breastfeeding and infant feeding practices
- Marriage, sexual activity, and husband's background characteristics
- Fertility preferences
- Employment and gender roles
- Knowledge of AIDS and other STIs
- Maternal mortality

- Female genital cutting
- Domestic violence

The set of questions on domestic violence sought to obtain information on women's experience of violence. The questions were administered to one woman per household in the subsample households that were not selected for the men's survey. In households with more eligible women, special procedures (use of a 'Kish grid') were followed to ensure that the woman interviewed about domestic violence was randomly selected.

The Man's Questionnaire was administered to all men age 15-59 living in every second household in the sample; it collected information from the man's perspective on the following topics:

- Background characteristics
- Reproduction
- Knowledge and attitudes related to family planning and exposure to family planning messages
- Marriage and sexual activity
- Fertility preferences
- Employment and gender roles
- Knowledge of HIV/AIDS and other STIs
- Miscellaneous health issues, including male circumcision
- Domestic violence

In every household selected for the Man's Questionnaire, one man was randomly selected to be administered the set of questions on domestic violence.

1.10 HIV TESTING

In the households selected for the Man's Questionnaire, all eligible women and men who were interviewed were asked to voluntarily provide some drops of blood for HIV testing. Blood specimens were collected in the field and tested in the laboratory. The protocol for blood specimen collection and analysis was based on the anonymous linked protocol developed by the MEASURE DHS Program. It was reviewed and approved by the Sierra Leone National Ethics Committee and the Institutional Review Board of ICF International. The protocol allowed for the linking of the HIV results to the socio-demographic data collected in the individual questionnaires, provided that the information that could potentially identify an individual was destroyed before the linking took place. This required that identification codes be deleted from the data file and that the part of the Household Questionnaire containing the barcode labels and names of respondents be destroyed prior to merging the HIV results with the individual data file.

Considerable care was necessary to prepare respondents for the blood sample, and for this reason one health technician was assigned to each of the 24 survey teams. To obtain informed consent for taking blood for HIV testing, the health technician explained the procedures, the confidentiality of the data, and the fact that test results could not be traced back to or made available to the respondent. For those who were interested in knowing their HIV status, the health technician provided information about how they could obtain it through voluntary counselling and testing (VCT) services. If consent was granted, the health technician then collected a dried blood spot (DBS) sample on a filter paper card from a finger prick, using a

single-use, spring-loaded, sterile lancet. Each DBS sample was given a barcode label, with a duplicate label attached to the Household Questionnaire on the line showing consent for that respondent. The health technician affixed a third copy of the same barcode label to a Blood Sample Transmittal Form in order to track the blood samples from the field to the laboratory. Filter papers were dried overnight in a plastic drying box, after which the health worker packed them in individual Ziploc bags with desiccant and a humidity indicator card and placed them in a larger Ziploc bag with other blood spots for that particular cluster. Blood samples were periodically collected in the field along with the completed questionnaires and transported to SSL headquarters in Freetown for logging in, after which they were taken to the Central Public Health Reference Laboratory at Lakka Hospital in Freetown for HIV testing. At the laboratory, the DBS samples were each assigned a laboratory number and kept frozen until testing started in early December 2013. The HIV testing did not start until the questionnaire data entry was completed, verified, and cleaned, all paper questionnaires were destroyed, and all unique identifiers were removed from the questionnaire data file, except the anonymous barcode number.

The HIV testing algorithm called for screening all samples on Vironostika Ag/Ab combination assay, a 4th generation enzyme immunoassay (EIA1). Samples that tested negative were recorded as negative. All samples that tested positive were confirmed on Enzygnost Integral II (EIA2), also a 4th generation assay. Samples that tested positive on both EIA1 and EIA2 were reported as positive; discordant samples were repeated on both EIA1 and EIA2 in parallel. If the samples remained discordant, discordance was resolved by Inno-Lia HIV I/II line immunoassay (Innogenetics) testing. The final result was recorded as positive if the line immunoassay confirmed the result to be positive and negative if the line immunoassay confirmed it to be negative. If the line immunoassay results were indeterminate, the sample was rendered indeterminate. As part of the internal quality control procedure, 10 percent of randomly selected negative samples on EIA1 were retested on EIA2.

Upon finishing HIV testing, the HIV test results were entered into a spreadsheet with a barcode as the unique identifier to the result. The barcode linked the HIV test results with the individual interview data.

As part of the external quality control procedure, 5 percent of the confirmed negative samples and all confirmed positive samples at the primary lab were selected for re-testing at the Laboratory of Bacteriology and Virology Aristide Le Dantec in Dakar, Senegal.

A total of 519 DBS samples (293 HIV negative and 226 HIV positive) were retested for HIV as part of the external quality assurance. Results from the Laboratory of Bacteriology and Virology showed a concordance rate of 98.3% with Central Public Health Reference Laboratory.

1.11 Training and Pretest

All field personnel were trained for the pretest for four weeks, between April and May 2013, at SSL's central office in Freetown. After the training, pretest fieldwork was conducted over a one-week period in two urban clusters and two rural clusters. Even though more than 150 men and women received training, only 10 were selected for the pretest exercise.

As part of the pretest, health technicians practiced weighing and measuring men, women, and children, as well as collecting and handling blood samples for anaemia and HIV testing. The training course consisted of instructions regarding interviewing techniques and field procedures, a detailed review of items on the questionnaires, instruction and practice in weighing and measuring children and in the collection of blood samples, mock interviews between participants in the classroom, and practice interviews. A two-week refresher training class was conducted between May and June 2013, prior to launching the fieldwork.

1.12 FIELDWORK

Fieldwork was launched in June 2013 and completed in October 2013. There were a total of 24 field teams, each consisting of one supervisor, one field editor, one health technician, two female interviewers, and one male interviewer. Each team was provided with a vehicle. After a few weeks of fieldwork, the SSL restructured the field personnel and reduced the number of teams from the initial 24 to 18.

SSL, through the Publicity Subcommittee, organised and implemented a series of publicity activities, including radio discussions across the country before the beginning of fieldwork. SSL also developed brochures on HIV/AIDS and anaemia, which were given to survey respondents during the fieldwork.

1.13 DATA PROCESSING

All questionnaires for 2013 SLDHS were sent to the SSL central office in Freetown, where office editors reviewed them and manually recorded the codes to the few questions without pre-coded answers. The data were processed using CSPro (Census and Survey Processing computer package). Data entry and editing were initiated almost immediately after the beginning of fieldwork. Data processing, consisting of editing, data entry, 100 percent double entry, final editing, and verification, was completed in November 2013.

1.14 RESPONSE RATES

Table 1.2 shows response rates for the 2013 SLDHS. A total of 13,006 households were selected for the sample, of which 12,724 were occupied. Of the occupied households, 12,629 were successfully interviewed, yielding a response rate of 99 percent.

In the interviewed households, 17,132 eligible women were identified for individual interview; of these, complete interviews were conducted with 16,658 women, yielding a response rate of 97 percent. In the subsample of households selected for the men's survey, 7,537 eligible men were identified and 7,262 were successfully interviewed, yielding a response rate of 96 percent.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Sierra Leone 2013

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	4,739	8,267	13,006
Households occupied	4,623	8,101	12,724
Households interviewed	4,569	8,060	12,629
Household response rate[1]	98.8	99.5	99.3
Interviews with women age 15-49			
Number of eligible women	6,996	10,136	17,132
Number of eligible women interviewed	6,773	9,885	16,658
Eligible women response rate[2]	96.8	97.5	97.2
Interviews with men age 15-59			
Number of eligible men	3,137	4,400	7,537
Number of eligible men interviewed	2,980	4,282	7,262
Eligible men response rate[2]	95.0	97.3	96.4

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

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION 2

Key Findings

- Three out of five households in Sierra Leone get drinking water from an improved source.
- Only 10 percent of households use an improved toilet facility that is not shared with other households.
- Fourteen percent of Sierra Leonean households have electricity, with 41 percent of urban households having electricity compared with only 1 percent of rural households.
- The most common cooking fuel in Sierra Leone is wood, used by more than three-quarters of households.
- The proportion of households with a mobile telephone has increased from 28 percent in 2008 to 55 percent in 2013.
- Nearly four out of every five children in Sierra Leone under age 5 have been registered with civil authorities, and about one-third have a birth certificate.
- More females than males have not attended school (51 percent versus 41 percent).
- Ten percent of children under age 18 in Sierra Leone have one or both parents deceased.
- Overall, 37 percent of children age 5-14 in Sierra Leone are involved in child labour (44 percent of children age 5-11 and 16 percent of children age 12-14).

This chapter summarises demographic and socioeconomic characteristics of the population in the households sampled in the 2013 Sierra Leone Demographic and Health Survey (SLDHS). It is helpful to understand that in the 2013 SLDHS a household was defined as a person or a group of persons, related or unrelated, who live together and who share a common source of food. Information was collected from all of the usual residents of each selected household and from visitors who had stayed in the selected household the night before the interview. Those persons who stayed in the selected household the night before the interview (whether usual residents or visitors) represent the de facto population; usual residents alone constitute the de jure population.

One focus of this chapter is to describe the environment in which women and children live. This description shows housing facilities (sources of water supply, sanitation facilities, dwelling characteristics and household possessions), household arrangements (headship, size), and general characteristics of the population, such as age-sex structure, literacy, and education. This chapter also presents information on child labour. Moreover, a distinction is made between urban and rural settings where many of these indicators usually differ.

Besides providing the background for better understanding of many social and demographic phenomena discussed in the following chapters, the information in this chapter is also useful for assessing the level of economic and social development of the population.

2.1 HOUSEHOLD ENVIRONMENT

The physical characteristics of the dwelling in which a household lives are important determinants of the health status of household members, especially children. They can also be used as indicators of the

socioeconomic status of households. Respondents in the 2013 SLDHS were asked a number of questions about their household environment, including questions on the source of drinking water; type of sanitation facility; type of flooring, walls, and roof; and number of rooms in the dwelling. The results are presented here in terms of households and of the de jure population.

2.1.1 Drinking Water

Increasing access to improved drinking water is one of the Millennium Development Goals (MDGs) that Sierra Leone along with other nations worldwide has adopted (United Nations General Assembly, 2002). Table 2.1 includes a number of indicators that are useful in monitoring household access to improved drinking water. The source of drinking water is an indicator of whether it is suitable for drinking. Sources that are likely to provide water suitable for drinking are identified as improved sources in Table 2.1. They include a piped source within the dwelling or plot, public tap, tube well or borehole, protected well or spring, and rainwater (WHO and UNICEF, 2010). Lack of ready access to a water source may limit the quantity of suitable drinking water that is available to a household. Moreover, even if the household obtains water from an improved source, water that must be fetched from a source that is not immediately accessible to the household may be contaminated during transport or storage. Another factor in considering the accessibility of water sources is that the burden of going for water often falls disproportionately on female members of the household. Finally, home water treatment can be effective in improving the quality of household drinking water.

Table 2.1 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, Sierra Leone 2013

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	89.0	47.5	60.6	88.3	46.5	59.5
Piped into dwelling	3.2	0.1	1.1	3.0	0.1	1.0
Piped to yard/plot	7.7	0.2	2.6	7.6	0.2	2.5
Public tap/standpipe	34.4	7.9	16.3	33.9	7.6	15.8
Tube well or borehole	7.5	20.6	16.4	8.0	19.8	16.1
Protected well	27.2	16.9	20.2	29.2	17.1	20.9
Protected spring	1.6	1.1	1.3	1.6	1.2	1.3
Rain water	0.3	0.5	0.4	0.3	0.5	0.4
Bottled water	7.1	0.2	2.4	4.8	0.1	1.6
Non-improved source	10.6	52.3	39.1	11.3	53.3	40.2
Unprotected well	5.5	9.9	8.5	6.0	10.0	8.7
Unprotected spring	1.5	17.1	12.2	1.7	17.0	12.2
Tanker truck/cart with drum	0.6	0.1	0.3	0.5	0.1	0.2
Surface water	3.0	25.2	18.2	3.1	26.2	19.0
Other	0.2	0.0	0.1	0.1	0.0	0.1
Missing	0.2	0.2	0.2	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises	20.5	4.3	9.4	21.1	4.5	9.7
Less than 30 minutes	47.9	69.1	62.4	46.7	68.1	61.4
30 minutes or longer	29.7	24.8	26.4	30.4	25.8	27.2
Don't know/missing	1.9	1.8	1.8	1.8	1.6	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[1]						
Boiled	1.9	0.6	1.0	2.0	0.7	1.1
Bleach/chlorine added	17.3	7.8	10.8	19.8	8.4	11.9
Strained through cloth	2.3	0.4	1.0	2.5	0.4	1.0
Ceramic, sand or other filter	0.3	0.2	0.2	0.4	0.2	0.2
Solar disinfection	0.1	0.0	0.1	0.1	0.1	0.1
Other	1.5	1.4	1.4	1.8	1.5	1.6
No treatment	76.3	89.0	85.0	73.8	88.2	83.7
Percentage using an appropriate treatment method[2]	19.3	8.5	11.9	21.9	9.2	13.1
Number	3,993	8,636	12,629	23,187	51,276	74,463

[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.

Table 2.1 shows that three out of five households in Sierra Leone (61 percent) get drinking water from an improved source. Disparities exist by residence, however, with a higher proportion of urban households (89 percent) having an improved source of drinking water compared with rural households (48 percent). Among the improved sources, protected wells account for the highest proportion (20 percent) of households, but mainly in urban areas (27 percent), while the most common improved category for rural households is a tube well or borehole (21percent).

Thirty-nine percent of Sierra Leonean households get their drinking water from a non-improved source, mainly surface water from lakes, streams, and rivers (18 percent) and unprotected springs (12 percent). Although only 11 percent of urban households use non-improved sources for drinking water, the proportion is far higher for rural households (52 percent).

Only 9 percent of households reported having water on their premises. Furthermore, disparities in accessing water in the household premises are pronounced between rural and urban areas. Twenty-one percent of urban households have water on their premises, compared with less than 5 percent of rural households.

Households without water on their premises were asked how long it takes to fetch water. Sixty-two percent of households are within 30 minutes of the source of their drinking water. Notably, 69 percent of rural households travel less than 30 minutes to obtain drinking water, compared with 48 percent of urban households. About a quarter of households (26 percent) travel 30 minutes or longer to obtain their drinking water (30 percent in urban areas and 25 percent in rural areas).

All households also were asked whether they treat their water prior to drinking. An overwhelming majority (85 percent) do not treat their drinking water. Urban households (19 percent) are more likely than rural households (9 percent) to use an appropriate treatment method to ensure that their water is safe for drinking.

2.1.2 Household Sanitation Facilities

Ensuring adequate sanitation facilities is an MDG goal that Sierra Leone shares with other countries. A household is classified as having an improved toilet if the toilet is used only by members of one household (i.e., it is not shared) and if the facility used by the household separates the waste from human contact (WHO and UNICEF, 2010).

As Table 2.2 shows, only 10 percent of households use an improved toilet facility that is not shared with other households. Urban households are much more likely than rural households to have an improved toilet facility (20 percent and 5 percent, respectively). The most common type of toilet facility in rural areas is an open pit latrine or one without a slab (34 percent of rural households), while in urban areas toilet facilities are mainly shared with other households (33 percent). Overall, 21 percent of households have no toilet facility at all; they are almost exclusively rural, accounting for 28 percent of rural households.

Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Sierra Leone 2013

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility						
Flush/pour flush to piped sewer system	0.6	0.0	0.2	0.6	0.0	0.2
Flush/pour flush to septic tank	7.8	0.1	2.5	7.6	0.1	2.4
Flush/pour flush to pit latrine	1.2	0.1	0.4	1.4	0.0	0.5
Ventilated improved pit (VIP) latrine	3.2	2.2	2.5	3.8	2.4	2.8
Pit latrine with slab	6.6	2.6	3.9	8.4	2.8	4.6
Composting toilet	0.0	0.0	0.0	0.0	0.1	0.0
Total	19.5	5.0	9.6	21.9	5.4	10.6
Shared facility[1]						
Flush/pour flush to piped sewer system	0.2	0.0	0.1	0.1	0.0	0.0
Flush/pour flush to septic tank	2.0	0.0	0.7	1.5	0.0	0.5
Flush/pour flush to pit latrine	1.6	0.1	0.6	1.5	0.1	0.6
Ventilated improved pit (VIP) latrine	19.4	14.4	16.0	17.8	13.8	15.0
Pit latrine with slab	33.0	16.5	21.7	32.8	16.7	21.7
Composting toilet	0.1	0.4	0.3	0.1	0.4	0.3
Total	56.4	31.6	39.4	53.9	31.1	38.2
Non-improved facility						
Flush/pour flush not to sewer/ septic tank/pit latrine	0.7	0.0	0.2	0.9	0.0	0.3
Pit latrine without slab/open pit	11.6	34.4	27.2	12.1	36.0	28.6
Bucket	0.4	0.0	0.1	0.3	0.0	0.1
Hanging toilet/hanging latrine	3.6	0.7	1.6	3.4	0.7	1.5
No facility/bush/field	6.8	28.1	21.4	6.5	26.4	20.2
Other	0.3	0.1	0.2	0.3	0.1	0.2
Missing	0.7	0.2	0.3	0.8	0.2	0.4
Total	24.2	63.4	51.0	24.2	63.5	51.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,993	8,636	12,629	23,187	51,276	74,463

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

2.1.3 Housing Characteristics

Table 2.3 presents characteristics of Sierra Leonean households. These characteristics reflect the household's socioeconomic situation. They also may influence environmental conditions—for example, in the case of the use of biomass fuels, exposure to indoor pollution—that have a direct bearing on the health and welfare of household members.

Table 2.3 shows that 14 percent of Sierra Leonean households have electricity, a slight increase from the 12 percent recorded in the 2008 SLDHS. There is a large imbalance between urban and rural areas, with 41 percent of urban households having electricity, compared with 1 percent of rural households.

More than half of Sierra Leonean households (57 percent) occupy dwellings with floors made of earth, sand, or dung. The next most common type of flooring material is cement, accounting for 35 percent of households. Most urban households have floors made of cement (67 percent), while rural households mainly have floors made from earth, sand, or dung (76 percent).

The number of rooms used for sleeping is an indicator of the extent of crowding in households. Overcrowding increases the risk of contracting diseases like acute respiratory infections, tuberculosis, and skin diseases. Overall, only 27 percent of Sierra Leonean households use only one room for sleeping, while 29 percent use two rooms, and the remainder use three or more rooms for sleeping. Urban households tend to have fewer rooms for sleeping; 36 percent use only one room for sleeping, compared with 22 percent of rural households.

With regard to cooking arrangements, Sierra Leonean households differ greatly between cooking in the house (4 percent) and cooking in a separate building (39 percent). Fifty-five percent of households do their cooking outdoors. There is little difference in the place of cooking by urban-rural residence—at 56 percent of rural households and 54 percent of urban households.

Cooking and heating with solid fuels can lead to high levels of indoor smoke, a complex mix of health-damaging pollutants that could increase the risks of acute respiratory diseases. Solid fuels are defined as coal, charcoal, wood, straw, shrubs, and agricultural crops. In the 2013 SLDHS, households were asked about their primary source of fuel for cooking. Their answers show that 98 percent of households use solid fuel for cooking. The use of solid fuel is nearly universal in households in rural areas (99 percent), compared with 96 percent in urban areas. The most common cooking fuel in Sierra Leone is wood, used by more than three-fourth (78 percent) of households. Although wood is widely used in rural areas (97 percent of households), urban households rely mainly on charcoal (60 percent).

The 2013 SLDHS collected information on smoking to assess the percentage of household members who are exposed to second-hand smoke (SHS), which is a risk factor for those who do not smoke. Pregnant women who are exposed to SHS have a higher risk of delivering a low-birth-weight baby (Windham et al., 1999). In addition, children who are exposed to SHS are at a higher risk of respiratory and ear infections and poor lung development (U.S. Department of Health and Human Services, 2006). Table 2.3 provides information on the frequency of smoking in the home, which is used as a proxy for level of SHS exposure. Overall, 38 percent of households in Sierra Leone are exposed daily to SHS, with rural households more frequently exposed daily to SHS than urban households (43 percent versus 26 percent).

Table 2.3 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, Sierra Leone 2013

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	41.4	0.7	13.5
No	58.5	99.3	86.4
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Flooring material			
Earth, sand	15.5	75.8	56.7
Dung	0.7	3.5	2.6
Wood/planks	0.3	0.0	0.1
Palm/bamboo	0.0	0.1	0.1
Parquet or polished wood	0.4	0.2	0.3
Vinyl or asphalt strips	0.2	0.0	0.1
Ceramic tiles	11.6	0.6	4.1
Cement	67.0	19.5	34.5
Carpet	2.4	0.1	0.8
Other	1.7	0.1	0.6
Missing	0.1	0.2	0.2
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	36.3	21.9	26.5
Two	29.7	29.2	29.4
Three or more	33.0	48.2	43.4
Missing	1.0	0.7	0.8
Total	100.0	100.0	100.0
Place for cooking			
In the house	5.6	2.9	3.8
In a separate building	36.8	40.3	39.2
Outdoors	53.9	55.6	55.0
No food cooked in household	2.9	0.8	1.5
Other	0.6	0.3	0.4
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Cooking fuel			
Electricity	0.0	0.0	0.0
LPG/natural gas/biogas	0.3	0.0	0.1
Kerosene	0.2	0.0	0.1
Coal/lignite	0.1	0.0	0.1
Charcoal	59.6	2.2	20.3
Wood	36.4	96.8	77.7
Straw/shrubs/grass	0.2	0.1	0.1
Agricultural crop	0.0	0.0	0.0
Other	0.0	0.0	0.0
No food cooked in household	2.9	0.8	1.5
Missing	0.2	0.1	0.1
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	96.3	99.1	98.2
Frequency of smoking in the home			
Daily	26.3	42.8	37.6
Weekly	1.3	0.7	0.9
Monthly	0.1	0.0	0.1
Less than monthly	0.2	0.2	0.2
Never	71.9	56.1	61.1
Missing	0.1	0.2	0.1
Total	100.0	100.0	100.0
Number	3,993	8,636	12,629

LPG = Liquid petroleum gas

[1] Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung.

2.1.4 HOUSEHOLD POSSESSIONS

The availability of durable consumer goods is a useful indicator of a household's socioeconomic status. Moreover, particular goods have specific benefits. For instance, having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport allows greater access to many services away from the local area. Table 2.4 shows the availability of selected consumer goods by residence.

Ownership of durable goods varies according to residence and the nature of the asset. Of the items asked about in the 2013 SLDHS, radio, television, mobile phone, agricultural land, and farm animals stand out as the assets most commonly owned by households. Fifty-nine percent of Sierra Leonean households own a radio, while 55 percent own a mobile phone and 51 percent own farm animals. Notably, 62 percent of households own agricultural land. Somewhat fewer households own a television set (14 percent), a bicycle (8 percent), a refrigerator (6 percent), or a motorcycle or scooter (6 percent).

Table 2.4 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence, Sierra Leone 2013

Possession	Residence		Total
	Urban	Rural	
Household effects			
Radio	75.1	51.3	58.8
Television	37.9	2.4	13.6
Mobile telephone	84.7	41.1	54.9
Non-mobile telephone	1.0	0.3	0.5
Refrigerator	19.6	0.3	6.4
Means of transport			
Bicycle	7.1	8.0	7.7
Animal drawn cart	0.2	0.1	0.1
Motorcycle/scooter	8.1	4.4	5.6
Car/truck	5.5	0.2	1.9
Boat with a motor	0.5	0.8	0.7
Ownership of agricultural land	22.9	79.5	61.6
Ownership of farm animals[1]	29.9	61.2	51.3
Number	3,993	8,636	12,629

[1] Cattle, cows, bulls, horses, donkeys, mules, goats, sheep, rabbits, rodents, chickens and other fowls.

There is noticeable variation between urban and rural areas in the proportion of households owning specific goods. Most of the electronic goods are considerably more prevalent in urban areas, but farm-oriented possessions are more commonly found in rural areas. For example, 20 percent of urban households own a refrigerator, compared with less than 1 percent of rural households. Similarly, 38 percent of urban households own a television, compared with 2 percent of rural households. Differentials in ownership of mobile phones are also apparent (85 percent for urban households and 41 percent for rural households). Radio possession is prevalent among both urban and rural households (75 percent and 51 percent, respectively). However, ownership of farm animals (cattle, cows, bulls, horses, donkeys, mules, goats, sheep, rabbits, rodents, chickens and other fowls) is more common in rural than urban areas (61 percent and 30 percent, respectively).

The percentage of households owning some of the items has increased since the 2008 SLDHS. The most dramatic increase has been in ownership of telephones. The proportion of households with a mobile telephone increased from 28 percent in 2008 to 55 percent in 2013. This increase could be a result of increased availability of affordable phones together with an increase in the number of service providers and the extent of geographical coverage. Ownership of other items increased minimally, while ownership of bicycles decreased from 11 percent in 2008 to 8 percent in 2013.

2.2 WEALTH INDEX

The wealth index used in the 2013 SLDHS has also been used in many other DHS surveys as well as other country-level surveys to indicate inequalities in household characteristics, in the use of health and other services, and in health outcomes (Rutstein et al., 2000). It serves as an indicator of wealth that is consistent with expenditure and income measures (Rutstein, 1999). It is based on the survey data about the household's ownership of consumer goods; dwelling characteristics; type of drinking water source; toilet facilities; and other characteristics that relate to a household's socioeconomic status.

The index was constructed through a principal components analysis. 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 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 examined using a principal components analysis to produce a common factor score for each household. In the 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.

Table 2.5 shows the distribution of the de jure household population into five wealth levels (quintiles) based on the wealth index, by residence. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas of Sierra Leone.

Table 2.5 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and region, Sierra Leone 2013

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	2.8	1.6	6.4	28.0	61.2	100.0	23,187	0.26
Rural	27.8	28.3	26.2	16.4	1.4	100.0	51,276	0.34
Region								
Eastern	24.4	24.6	18.4	19.3	13.3	100.0	17,045	0.28
Northern	18.4	24.6	27.2	23.5	6.2	100.0	29,113	0.22
Southern	31.8	20.5	20.5	19.0	8.2	100.0	16,468	0.27
Western	1.1	1.2	3.8	13.9	80.0	100.0	11,838	0.26
District								
Kailahun	27.5	30.9	24.0	15.4	2.1	100.0	4,897	0.19
Kenema	24.6	18.2	14.5	20.9	21.8	100.0	7,911	0.31
Kono	20.5	29.4	19.2	20.7	10.2	100.0	4,237	0.28
Bombali	20.7	23.1	21.0	21.4	13.7	100.0	6,171	0.29
Kambia	10.0	27.0	37.4	22.9	2.7	100.0	3,464	0.17
Koinadugu	30.4	27.7	21.8	15.5	4.6	100.0	3,591	0.20
Port Loko	11.6	23.8	32.5	27.3	4.8	100.0	8,822	0.20
Tonkolili	23.0	24.3	23.8	25.0	4.0	100.0	7,065	0.19
Bo	15.9	20.8	22.2	22.8	18.3	100.0	6,270	0.28
Bonthe	45.6	13.4	19.2	19.2	2.6	100.0	3,019	0.30
Moyamba	47.2	20.2	17.7	13.4	1.4	100.0	4,087	0.21
Pujehun	29.9	27.3	22.0	18.3	2.5	100.0	3,092	0.22
Western Area Rural	4.1	5.9	10.7	37.8	41.5	100.0	2,048	0.35
Western Area Urban	0.5	0.3	2.4	8.9	88.0	100.0	9,789	0.23
Total	20.0	20.0	20.0	20.0	20.0	100.0	74,463	0.33

Wealth is concentrated in the urban areas, with 61 percent of the urban population falling in the highest wealth quintile. In contrast, rural areas are poorer, with 28 percent of the population being in the lowest wealth quintile and only 1 percent in the highest quintile. In Western region, which is almost entirely urban, 80 percent of the population is in the highest quintile, while in Southern region 32 percent of its population is in the lowest quintile. Other regions have varying distributions of population in different wealth quintiles. Eastern and Northern regions show a substantial distribution across all the wealth quintiles. The Eastern, Northern, and Southern regions have most of their populations within the first three quintiles.

2.3 HAND WASHING

Washing hands with soap and water is the ideal hygienic practice. Research shows the substantial potential that hand washing with water and soap (or a non-soap cleansing agent such as ash or sand) has for reducing the transmission of diarrhoea, respiratory infections, and other illnesses (Ensink and Curtis, 2008;

Luby et al., 2005). To obtain information on hand washing, SLDHS interviewers asked to see the place where household members most often washed their hands and recorded information on the availability of water and soap and/or other cleansing agents at that place.

Table 2.6 shows that a place for hand washing was observed in 22 percent of households—33 percent urban and 17 percent rural. The main reason that interviewers were not able to observe the place where household members washed their hands was that the place was not in the dwelling (data not shown).

Table 2.6 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, Sierra Leone 2013

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:								Number of households with place for hand washing observed
			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	
Residence											
Urban	33.0	3,993	55.1	0.5	12.6	5.8	0.1	25.2	0.6	100.0	1,318
Rural	16.5	8,636	12.2	2.4	10.6	3.9	0.8	69.7	0.4	100.0	1,423
Region											
Eastern	21.3	3,041	35.3	2.7	7.6	7.5	0.3	46.6	0.0	100.0	648
Northern	20.3	4,556	9.8	2.1	10.3	2.5	1.1	73.3	0.9	100.0	925
Southern	10.6	2,874	15.4	0.2	16.8	3.2	0.3	63.7	0.3	100.0	305
Western	40.0	2,158	61.7	0.5	14.0	5.9	0.0	17.3	0.6	100.0	863
District											
Kailahun	2.9	939	(36.5)	(0.0)	(12.7)	(13.5)	(0.0)	(37.4)	(0.0)	100.0	27
Kenema	38.6	1,401	37.3	0.9	8.2	6.2	0.2	47.2	0.0	100.0	540
Kono	11.5	702	21.9	15.2	1.7	14.1	0.9	46.2	0.0	100.0	81
Bombali	32.0	1,022	1.6	0.0	6.4	0.0	0.0	90.5	1.5	100.0	327
Kambia	12.4	487	12.7	1.0	6.2	10.3	0.0	69.8	0.0	100.0	61
Koinadugu	19.2	584	5.3	0.0	2.5	11.4	7.6	73.2	0.0	100.0	112
Port Loko	11.1	1,355	25.8	0.2	27.1	0.6	0.0	43.9	2.4	100.0	150
Tonkolili	24.9	1,109	12.1	6.6	10.0	1.0	0.5	69.8	0.0	100.0	276
Bo	19.2	1,037	18.2	0.0	21.1	4.3	0.3	56.2	0.0	100.0	199
Bonthe	11.2	530	8.3	0.0	4.5	2.1	0.9	84.3	0.0	100.0	59
Moyamba	0.9	723	*	*	*	*	*	*	*	100.0	6
Pujehun	6.8	585	10.1	0.0	16.3	0.0	0.0	71.0	2.6	100.0	40
Western Area Rural	16.7	361	65.6	0.3	25.0	2.4	0.0	6.3	0.3	100.0	60
Western Area Urban	44.7	1,797	61.4	0.5	13.2	6.2	0.0	18.2	0.6	100.0	803
Wealth quintile											
Lowest	17.6	2,709	7.2	2.7	7.5	3.2	0.5	78.7	0.2	100.0	476
Second	16.6	2,562	12.7	3.4	9.7	5.2	1.5	66.7	0.7	100.0	426
Middle	16.3	2,385	10.7	1.4	14.2	4.2	0.8	68.4	0.4	100.0	389
Fourth	18.7	2,363	29.9	1.2	13.7	5.3	0.1	49.5	0.3	100.0	442
Highest	38.6	2,611	63.2	0.3	12.3	5.5	0.0	17.9	0.8	100.0	1,007
Total	21.7	12,629	32.8	1.5	11.6	4.8	0.5	48.3	0.5	100.0	2,741

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] 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

Among households where the place for hand washing was observed, 33 percent had soap and water available. In most other households only water was available. Forty-eight percent of households had no water, soap, or other cleaning agent available.

Urban households were more likely than rural households to have soap and water available at the usual place for hand washing (55 percent versus 12 percent). In Western Rural district 66 percent of households had soap and water available at the usual place for hand washing, compared with only 2 percent in Bombali district. The likelihood of having soap and water available was highest in Western region (62 percent) and lowest in the Northern region (10 percent). Compared with households in other regions, households in the Western and Southern regions were more likely to have only water available (14 percent

and 17 percent, respectively). Households in the highest, fourth, and middle wealth quintiles were more likely to have soap and water available than households in the second and lowest wealth quintiles.

2.4 POPULATION BY AGE AND SEX

Age and sex are important demographic variables and are the primary basis of demographic classification. Table 2.7 shows the distribution of the de facto household population in the 2013 SLDHS by five-year age groups, according to sex and residence. A total of 73,791 individuals were residing in the sampled households; 38,332 were female (52 percent), and 35,460 were male (48 percent). There are more persons in the younger age groups than in the older age groups for both sexes, with those under age 20 accounting for more than half of the population.

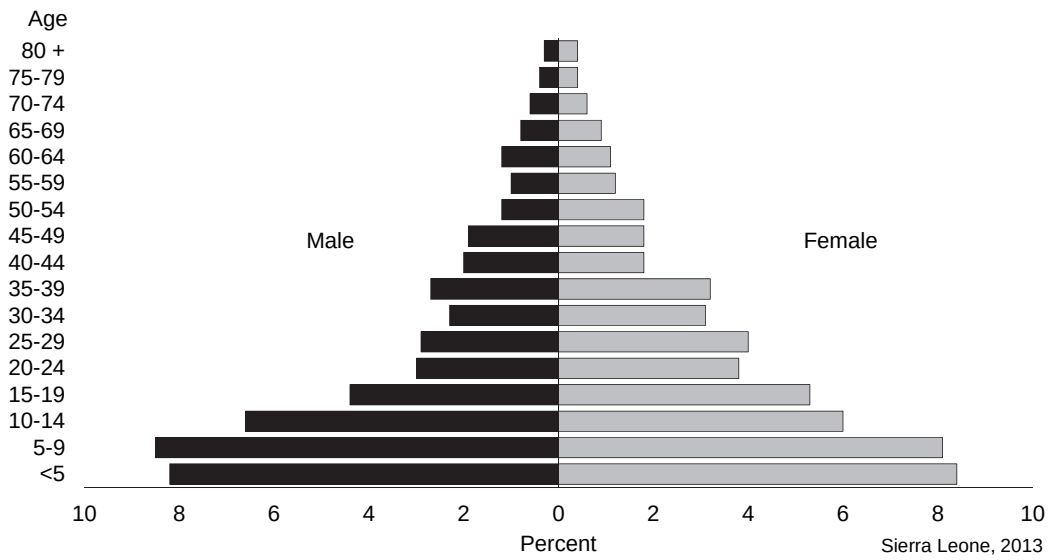
Table 2.7 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Sierra Leone 2013

	Urban			Rural					
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	13.7	12.6	13.1	18.5	17.9	18.2	17.0	16.2	16.6
5-9	14.6	13.7	14.1	19.1	16.4	17.7	17.7	15.5	16.6
10-14	13.0	12.8	12.9	14.1	11.0	12.5	13.7	11.6	12.6
15-19	12.4	13.3	12.9	7.9	8.9	8.4	9.3	10.3	9.8
20-24	9.4	10.0	9.7	5.0	6.0	5.5	6.3	7.3	6.8
25-29	7.9	8.7	8.3	5.0	7.3	6.2	5.9	7.7	6.9
30-34	5.4	5.9	5.7	4.6	6.1	5.4	4.9	6.0	5.5
35-39	5.7	6.1	5.9	5.5	6.2	5.9	5.6	6.1	5.9
40-44	4.0	3.3	3.6	4.2	3.6	3.9	4.1	3.5	3.8
45-49	3.9	3.2	3.5	4.0	3.6	3.8	4.0	3.5	3.7
50-54	2.3	3.1	2.7	2.5	3.8	3.2	2.5	3.5	3.0
55-59	2.1	2.0	2.1	2.1	2.5	2.3	2.1	2.3	2.2
60-64	2.1	1.7	1.9	2.7	2.4	2.5	2.5	2.2	2.3
65-69	1.3	1.5	1.4	1.7	1.7	1.7	1.6	1.6	1.6
70-74	1.1	1.0	1.0	1.4	1.2	1.3	1.3	1.1	1.2
75-79	0.5	0.5	0.5	0.9	0.8	0.8	0.8	0.7	0.7
80 +	0.4	0.6	0.5	0.7	0.8	0.8	0.6	0.8	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	10,975	12,003	22,978	24,485	26,328	50,813	35,460	38,332	73,791

Figure 2.1 illustrates the age-sex structure of the Sierra Leonean population, in a population pyramid. The share of the population under age 15 is almost 46 percent; people age 15-64 constitute about 50 percent, and those age 65 and older make up 4 percent of the total Sierra Leonean household population. The pyramid has a wide base, indicating that a large proportion of the population is under age 15.

Figure 2.1 **Population pyramid**



2.5 HOUSEHOLD COMPOSITION

Table 2.8 presents information on key aspects of the composition of households, including the sex of the household head and the size of the household. These characteristics are important because they are associated with the welfare of the household. Households headed by women, for example, are typically poorer than households headed by men. In large households economic resources are often more limited than in small ones. Moreover, where the size of the household is large, crowding can lead to health problems.

Table 2.8 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, Sierra Leone 2013

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	66.3	74.6	72.0
Female	33.7	25.4	28.0
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.0	0.0
1	6.3	3.0	4.0
2	6.7	4.9	5.5
3	11.2	9.8	10.3
4	12.9	15.0	14.3
5	16.4	16.6	16.6
6	12.9	15.5	14.6
7	9.5	11.7	11.0
8	7.3	8.2	7.9
9+	16.8	15.3	15.7
Total	100.0	100.0	100.0
Mean size of households	5.8	5.9	5.9
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]	42.8	35.0	37.5
Double orphans	4.7	3.6	3.9
Single orphans[2]	18.5	14.8	15.9
Foster and/or orphan children	47.9	39.6	42.2
Number of households	3,993	8,636	12,629

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.

The data for household composition show that, at the national level, women head 28 percent of Sierra Leonean households, a slightly higher proportion than observed in the 2008 SLDHS (22 percent). There are modest differences in female-headed households between urban areas (34 percent) and rural areas (25 percent).

The data also show that the mean size of a Sierra Leonean household is 5.9 persons, the same as in the 2008 SLDHS. There is no difference in average household size between rural and urban households (5.9 and 5.8 persons, respectively)

2.6 BIRTH REGISTRATION

The registration of births is the inscription of the facts of the birth into an official log kept at the registrar's office. A birth certificate is issued at the time of registration or later as proof of the registration of the birth. Birth registration is basic to ensuring a child's legal status and, thus, basic rights and services (UNICEF, 2006; United Nations General Assembly, 2002).

Table 2.9 gives the percentage of children under age 5 whose births were officially registered and the percentage with a birth certificate at the time of the survey. Not all children who are registered may have a birth certificate because some certificates may have been lost or never issued. However, all children with a certificate have been registered.

Nearly four of every five children in Sierra Leone under age 5 have been registered with civil authorities, and about one-third (34 percent) have a birth certificate. The distribution by age groups and gender shows a nearly equal proportion of birth registration. However, differentials exist according to residence, region, district, and wealth quintile. For example, the births of almost 80 percent of children in urban areas have been registered, compared with 76 percent in rural areas. The Southern region leads in the proportion of children registered (83 percent), followed by Western and Eastern regions (77 percent), with the Northern region having the lowest proportion registered (73 percent). At the district level, Pujehun district recorded the highest proportion of registered births (91 percent), followed by Kailahun and Bonthe

districts (88 percent), while Koinadugu district recorded the lowest proportion (50 percent). The results show that children in higher wealth quintiles are more likely to be registered and to possess a birth certificate than those in lower wealth quintiles.

2.7 CHILDREN'S LIVING ARRANGEMENTS AND ORPHANHOOD

Table 2.10 presents detailed information on living arrangements and orphanhood for children under age 18. In Sierra Leone half of the children under age 18 live with both parents, the same as in the 2008 SLDHS. About 14 percent live with their mother only while the father is alive; a slightly higher proportion than observed in the 2008 SLDHS (10 percent). Seven percent live with their father while the mother is alive; a slightly higher proportion (9 percent) was observed in 2008. The percentage of children that live with neither of their natural parents decreased from 26 percent in 2008 to 24 percent in 2013. The table also provides information on the type of orphanhood, that is, the proportion of children who have lost one or both parents. Ten percent of children under age 18 have lost one or both parents, and 2 percent have lost both parents.

Girls are more likely than boys not to live with their biological parents (26 and 22 percent, respectively). More children in urban than rural areas (30 and 21 percent, respectively) do not reside with their parents who are still living. The proportion of children not living with their parents is higher in the Western region (29 percent) than in the other regions. In the Western Urban district 29 percent of children are not living with their biological parents. Most children (61 percent) in Koinadugu district live with both biological parents; only 16 percent are not living with a biological parent.

Table 2.9 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, Sierra Leone 2013

Background characteristic	Children whose births are registered			Number of children
	Percentage who had a birth certificate	Percentage who did not have birth certificate	Percentage registered	
Age				
<2	34.3	43.0	77.3	4,635
2-4	33.5	42.9	76.4	7,646
Sex				
Male	32.7	43.4	76.2	6,063
Female	34.8	42.4	77.2	6,218
Residence				
Urban	44.0	35.6	79.6	3,023
Rural	30.5	45.3	75.8	9,259
Region				
Eastern	30.4	46.4	76.7	2,896
Northern	32.2	40.7	72.9	5,039
Southern	31.7	51.3	83.0	2,897
Western	50.5	26.8	77.3	1,449
District				
Kailahun	45.9	41.7	87.6	877
Kenema	28.3	42.1	70.4	1,220
Kono	16.5	58.0	74.6	799
Bombali	36.5	46.4	82.9	893
Kambia	55.7	8.9	64.6	648
Koinadugu	23.9	25.9	49.8	652
Port Loko	33.4	36.7	70.1	1,601
Tonkolili	19.6	66.1	85.7	1,246
Bo	49.4	26.6	75.9	1,083
Bonthe	14.3	74.0	88.3	531
Moyamba	20.6	62.9	83.5	698
Pujehun	28.0	62.6	90.6	585
Western Area Rural	42.0	39.1	81.1	274
Western Area Urban	52.5	24.0	76.5	1,175
Wealth quintile				
Lowest	26.6	50.8	77.4	2,920
Second	31.3	42.3	73.6	2,689
Middle	31.0	42.6	73.7	2,579
Fourth	34.1	45.9	80.1	2,360
Highest	53.3	27.0	80.3	1,733
Total	33.8	42.9	76.7	12,281

Table 2.10 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, Sierra Leone 2013

		Living with mother but not with father		Living with father but not with mother		Not living with either parent								
Background characteristic	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
Age														
0-4	60.7	20.2	2.2	4.1	0.5	10.1	0.6	0.7	0.5	0.4	100.0	11.9	4.6	12,281
<2	66.5	25.4	2.9	1.7	0.2	2.3	0.3	0.1	0.1	0.5	100.0	2.8	3.6	4,635
2-4	57.2	17.0	1.9	5.5	0.7	14.8	0.7	1.0	0.8	0.3	100.0	17.4	5.2	7,646
5-9	50.5	11.7	3.4	8.1	0.9	20.1	1.2	2.3	1.5	0.4	100.0	25.1	9.3	12,312
10-14	43.3	9.9	5.0	8.2	1.5	23.6	1.3	4.1	2.5	0.6	100.0	31.5	14.4	9,383
15-17	34.9	9.1	6.1	7.9	1.8	25.3	2.4	6.0	4.5	1.8	100.0	38.2	20.9	4,442
Sex														
Male	51.4	13.8	3.7	7.3	1.1	16.5	1.2	2.7	1.6	0.6	100.0	22.0	10.4	19,379
Female	49.0	13.6	3.8	6.3	0.9	20.2	1.1	2.6	1.9	0.6	100.0	25.9	10.4	19,038
Residence														
Urban	39.1	17.5	4.9	6.6	0.9	23.0	1.6	3.3	2.4	0.7	100.0	30.3	13.2	11,036
Rural	54.7	12.2	3.3	6.9	1.1	16.5	1.0	2.4	1.5	0.5	100.0	21.3	9.2	27,382
Region														
Eastern	49.0	14.3	3.5	7.9	0.9	18.7	1.1	2.6	1.3	0.5	100.0	23.8	9.5	8,783
Northern	53.0	12.8	3.7	6.6	1.0	16.9	1.1	2.7	1.7	0.4	100.0	22.4	10.2	15,735
Southern	53.3	11.9	2.9	6.3	1.1	18.9	1.1	2.1	1.6	0.8	100.0	23.8	8.9	8,647
Western	38.8	18.2	5.8	6.4	1.0	20.9	1.5	3.3	3.1	0.9	100.0	28.8	14.8	5,252
District														
Kailahun	52.4	14.5	4.3	6.8	0.6	16.8	0.6	2.2	1.4	0.4	100.0	21.0	9.2	2,474
Kenema	46.0	14.3	3.0	9.3	0.6	21.0	1.2	2.5	1.4	0.6	100.0	26.1	8.7	3,975
Kono	50.6	14.2	3.5	6.9	1.6	16.9	1.5	3.4	1.1	0.4	100.0	22.9	11.1	2,335
Bombali	54.4	12.2	4.6	5.9	0.7	16.7	0.9	2.8	1.5	0.2	100.0	22.0	10.6	3,292
Kambia	55.1	10.6	2.6	8.0	0.4	19.4	0.7	1.8	1.3	0.2	100.0	23.1	6.7	1,934
Koinadugu	60.7	11.6	3.0	5.9	1.8	11.3	1.5	1.3	2.1	0.7	100.0	16.3	9.8	1,948
Port Loko	53.1	13.5	2.9	5.7	1.0	17.6	1.1	3.2	1.2	0.7	100.0	23.1	9.5	4,771
Tonkolili	46.6	14.3	4.7	8.0	1.2	18.0	1.2	3.2	2.3	0.3	100.0	24.8	12.7	3,789
Bo	54.6	12.9	2.1	5.2	1.1	18.8	1.0	1.9	1.6	0.7	100.0	23.3	7.7	3,391
Bonthe	55.3	9.8	3.6	5.8	0.8	18.8	1.2	2.1	2.0	0.5	100.0	24.1	9.7	1,536
Moyamba	52.6	11.3	3.1	8.7	1.3	17.1	0.9	2.0	2.2	0.8	100.0	22.1	9.4	2,065
Pujehun	49.4	12.2	3.4	6.0	1.2	21.5	1.6	3.0	0.7	1.0	100.0	26.7	9.9	1,654
Western Area Rural	37.7	21.5	4.4	6.5	1.1	22.4	1.3	2.6	1.6	0.9	100.0	27.9	11.1	981
Western Area Urban	39.1	17.5	6.1	6.4	1.0	20.6	1.6	3.4	3.5	0.9	100.0	29.0	15.6	4,272
Wealth quintile														
Lowest	56.6	12.0	3.7	6.8	0.9	15.4	1.0	1.8	1.3	0.5	100.0	19.5	8.7	7,909
Second	55.0	12.7	3.2	6.8	1.0	15.7	1.0	2.5	1.6	0.4	100.0	20.8	9.4	7,954
Middle	54.1	12.1	3.1	6.7	0.9	17.7	1.0	2.4	1.4	0.5	100.0	22.5	8.8	7,980
Fourth	44.3	15.7	4.4	6.9	1.2	20.0	1.3	3.3	2.1	0.7	100.0	26.8	12.3	7,871
Highest	39.3	16.3	4.4	6.9	1.1	23.8	1.6	3.2	2.5	0.9	100.0	31.1	13.0	6,703
Total <15	52.2	14.3	3.4	6.7	0.9	17.4	1.0	2.2	1.4	0.4	100.0	22.1	9.0	33,975
Total <18	50.2	13.7	3.7	6.8	1.0	18.3	1.2	2.6	1.8	0.6	100.0	23.9	10.4	38,417

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

Children who are orphaned may be at a greater risk of not attending school, while those who are in school may drop out because they lack money to pay school fees. The 2013 SLDHS collected information to monitor such situations.

Table 2.11 presents data on school attendance of children age 10-14 by parental survival according to background characteristics. The table shows the proportion of children attending school whose parents are both dead and the proportion whose parents are both living and the child is residing with at least one parent. The overall ratio of school attendance of children whose parents are dead to those whose parents are living and the child resides with at least one parent is 0.81. Although the ratio is higher than that observed in the 2008 SLDHS (0.62), the current ratio indicates orphaned children are less likely to have access to

school than children with at least one living parent. The gap in school attendance between children whose parents are living and children whose parents are dead is wider for girls but has been narrowed from 0.57 in 2008 to 0.76 in 2013. In urban areas children whose parents are living are more likely to be in school than those whose parents are dead (92 percent versus 80 percent); the gap is wider in rural areas than urban areas (0.72 versus 0.87). There are large differentials in the ratio by region; in the Southern and Western regions the ratio is 0.86, compared with 0.61 in the Eastern region.

2.9 EDUCATION OF THE HOUSEHOLD POPULATION

Education is a key determinant of an individual's lifestyle and socioeconomic status. Studies have consistently shown that educational attainment has a strong effect on health behaviours and attitudes. Results from the 2013 SLDHS can be used to look at educational attainment among household members and school attendance ratios among youth.

For the tables presented here, the official age for entry into the primary level is six years. The official duration of primary school is six years (i.e., from class 1 to class 6), and the number of years assumed for completion of secondary school is seven years (6 – 3 – 4 – 4 arrangement).

2.9.1 Educational Attainment

Tables 2.12.1 and 2.12.2 present data on educational attainment of household members age 6 and older, for each sex. The data show a decrease in the proportion of women and men with no education (51 percent for women and 41 percent for men) compared with the 2008 SLDHS (58 percent for women and 46 percent for men). As expected, men are more likely to have either completed secondary (5 percent) or attained more than secondary (3 percent) than women (2 percent in each case). In most cases the gap between the proportion of men who have no education and the proportion of women who have no education increases with age. For instance, in the 6-9 age group, male children are more likely than female children to have never been to school (33 and 29 percent, respectively), while at age 65 and over 93 percent of women have never been to school, compared with 86 percent of men.

Table 2.11 School attendance by survivorship of parents

For de jure children age 10-14, the percentage attending school and the ratio of the percentage attending, by parental survival, according to background characteristics, Sierra Leone 2013

	Percentage attending school by survivorship of parents				
Background characteristic	Both parents dead	Number	Both parents alive and living with at least one parent	Number	Ratio[1]
Sex					
Male	70.8	102	80.0	3,084	0.88
Female	61.3	133	81.1	2,681	0.76
Residence					
Urban	79.9	98	92.3	1,528	0.87
Rural	54.9	136	76.3	4,236	0.72
Region					
Eastern	(48.9)	42	80.4	1,274	0.61
Northern	60.0	81	77.5	2,583	0.77
Southern	(67.2)	48	78.5	1,186	0.86
Western	81.8	64	95.1	722	0.86
District					
Kailahun	*	8	83.5	372	0.90
Kenema	*	23	78.5	564	0.51
Kono	*	11	80.0	338	0.59
Bombali	(72.0)	18	90.6	612	0.80
Kambia	*	7	66.3	332	0.61
Koinadugu	*	8	60.4	333	1.05
Port Loko	*	10	81.2	712	0.54
Tonkolili	(61.7)	38	75.4	595	0.82
Bo	*	26	87.1	459	0.84
Bonthe	*	5	68.3	225	0.80
Moyamba	*	14	77.0	310	0.78
Pujehun	*	3	72.3	192	0.99
Western Area Rural	*	6	96.3	149	0.76
Western Area Urban	(82.7)	57	94.8	573	0.87
Wealth quintile					
Lowest	(34.4)	25	67.4	1,172	0.51
Second	(54.5)	46	75.7	1,227	0.72
Middle	(67.5)	31	80.2	1,286	0.84
Fourth	66.9	73	86.9	1,161	0.77
Highest	83.5	61	96.2	918	0.87
Total	65.4	235	80.5	5,765	0.81

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

Table 2.12.1 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, Sierra Leone 2013

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	28.7	70.1	0.3	0.2	0.0	0.0	0.8	100.0	4,707	0.3
10-14	16.0	64.3	8.0	11.3	0.1	0.0	0.2	100.0	4,442	3.0
15-19	19.9	13.1	9.1	54.8	2.7	0.2	0.2	100.0	3,933	6.4
20-24	41.0	9.9	5.7	28.5	10.0	4.7	0.3	100.0	2,779	4.7
25-29	64.5	9.1	4.5	12.3	4.6	4.5	0.5	100.0	2,961	0.0
30-34	74.5	9.1	3.1	8.6	1.4	2.8	0.4	100.0	2,309	0.0
35-39	76.5	7.4	3.5	8.1	1.2	2.8	0.4	100.0	2,356	0.0
40-44	78.8	5.2	3.2	9.0	1.4	2.3	0.2	100.0	1,347	0.0
45-49	79.1	4.8	2.9	7.1	1.7	3.9	0.5	100.0	1,333	0.0
50-54	84.6	2.5	3.2	5.6	0.8	2.5	0.7	100.0	1,357	0.0
55-59	88.5	1.9	1.7	4.9	0.7	2.0	0.4	100.0	894	0.0
60-64	92.0	1.1	0.3	3.1	0.7	1.9	0.8	100.0	830	0.0
65+	92.9	1.4	1.3	2.5	0.5	0.4	0.9	100.0	1,613	0.0
Residence										
Urban	32.2	24.7	5.5	26.1	5.8	5.0	0.5	100.0	10,146	3.4
Rural	60.2	25.6	3.7	9.5	0.4	0.2	0.5	100.0	20,730	0.0
Region										
Eastern	54.2	26.6	4.1	12.9	1.3	0.6	0.3	100.0	6,977	0.0
Northern	56.9	24.6	3.8	12.6	1.0	0.8	0.3	100.0	12,020	0.0
Southern	54.3	27.1	4.5	11.5	1.2	0.9	0.6	100.0	6,651	0.0
Western	29.0	23.0	5.7	27.4	7.3	6.9	0.8	100.0	5,227	4.5
District										
Kailahun	53.5	30.0	4.6	10.7	0.5	0.2	0.6	100.0	2,019	0.0
Kenema	53.5	25.9	3.9	13.7	1.7	1.0	0.2	100.0	3,257	0.0
Kono	56.2	24.1	3.8	13.9	1.4	0.4	0.1	100.0	1,701	0.0
Bombali	48.2	25.2	4.7	18.8	1.6	1.5	0.1	100.0	2,614	0.0
Kambia	64.3	21.9	4.5	8.7	0.3	0.2	0.1	100.0	1,386	0.0
Koinadugu	65.6	23.3	2.4	7.2	0.3	0.2	0.9	100.0	1,484	0.0
Port Loko	56.4	24.8	3.8	12.8	1.1	0.9	0.2	100.0	3,661	0.0
Tonkolili	57.3	25.7	3.4	11.7	0.9	0.5	0.5	100.0	2,875	0.0
Bo	47.0	29.3	4.9	15.0	2.0	1.6	0.3	100.0	2,632	0.0
Bonthe	61.8	21.7	3.5	10.6	0.8	1.1	0.6	100.0	1,195	0.0
Moyamba	58.9	26.1	5.4	8.2	0.6	0.1	0.7	100.0	1,643	0.0
Pujehun	56.4	29.1	3.3	9.3	0.3	0.4	1.2	100.0	1,181	0.0
Western Area Rural	37.7	24.0	6.6	23.0	4.3	3.4	1.0	100.0	877	2.4
Western Area Urban	27.2	22.7	5.5	28.3	7.9	7.6	0.7	100.0	4,350	4.9
Wealth quintile										
Lowest	66.4	23.1	3.2	6.7	0.2	0.0	0.5	100.0	5,882	0.0
Second	63.2	24.2	3.5	8.6	0.2	0.0	0.4	100.0	5,976	0.0
Middle	57.1	27.5	4.1	10.2	0.4	0.2	0.5	100.0	6,074	0.0
Fourth	46.0	28.3	4.9	18.0	2.0	0.7	0.3	100.0	6,355	0.3
Highest	25.4	23.5	5.8	29.6	7.5	7.5	0.6	100.0	6,587	5.1
Total	51.0	25.3	4.3	15.0	2.1	1.8	0.5	100.0	30,876	0.0

Note: Total includes 14 women with information missing on age.
[1] Completed grade 6 at the primary level
[2] Completed grade 3 at the senior secondary school level

About twice as many women and men in rural areas have no education at all, compared with those in urban areas. Although the Northern and Southern regions have the highest proportions of women and men without education, a significant drop was observed between 2008 and 2013, for both women and men in these regions. As expected, the proportion with no education decreases dramatically as wealth increases.

Table 2.12.2 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, Sierra Leone 2013

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	33.1	66.0	0.1	0.3	0.0	0.0	0.4	100.0	4,975	0.1
10-14	19.0	60.7	7.6	12.4	0.1	0.0	0.3	100.0	4,875	2.8
15-19	17.9	13.2	6.2	58.4	3.6	0.5	0.2	100.0	3,283	6.9
20-24	24.6	7.7	2.5	43.7	16.4	4.6	0.5	100.0	2,244	8.2
25-29	41.2	6.5	3.3	24.7	15.1	8.6	0.5	100.0	2,105	5.5
30-34	56.6	7.1	3.8	16.0	8.1	7.7	0.7	100.0	1,725	0.0
35-39	59.6	6.9	5.4	17.5	4.4	6.0	0.4	100.0	1,980	0.0
40-44	62.2	7.2	4.1	14.6	4.8	6.8	0.3	100.0	1,463	0.0
45-49	61.9	4.4	4.0	15.3	6.6	7.2	0.6	100.0	1,419	0.0
50-54	67.2	4.4	2.9	11.4	6.2	7.3	0.7	100.0	873	0.0
55-59	64.1	5.5	3.6	12.2	7.4	6.0	1.2	100.0	737	0.0
60-64	79.7	3.3	1.8	8.0	2.1	4.4	0.8	100.0	882	0.0
65+	86.0	2.1	2.1	5.2	1.0	2.9	0.6	100.0	1,547	0.0
Residence										
Urban	22.3	23.9	4.1	30.0	11.1	8.1	0.5	100.0	9,126	5.7
Rural	50.5	28.3	3.8	14.2	1.7	1.1	0.4	100.0	18,989	0.0
Region										
Eastern	45.1	26.6	3.5	18.2	4.0	2.1	0.4	100.0	6,530	0.5
Northern	45.6	28.5	3.8	17.3	2.5	2.0	0.3	100.0	10,749	0.3
Southern	47.6	27.5	4.0	15.1	2.9	2.1	0.7	100.0	6,104	0.0
Western	18.5	22.7	4.5	30.8	13.2	9.8	0.7	100.0	4,732	6.6
District										
Kailahun	43.0	29.8	4.2	17.2	3.8	1.4	0.7	100.0	1,782	0.7
Kenema	45.9	23.7	3.6	19.1	4.6	2.7	0.3	100.0	3,201	0.5
Kono	46.1	28.7	2.7	17.6	3.1	1.7	0.1	100.0	1,547	0.1
Bombali	38.1	29.3	4.8	21.4	2.9	3.3	0.1	100.0	2,422	1.6
Kambia	52.0	26.2	4.4	14.4	2.0	0.9	0.1	100.0	1,259	0.0
Koinadugu	58.0	24.9	2.5	11.8	1.3	1.0	0.5	100.0	1,308	0.0
Port Loko	43.0	29.2	4.0	18.5	3.1	2.0	0.1	100.0	3,147	0.6
Tonkolili	46.1	29.7	2.9	16.4	2.4	1.9	0.6	100.0	2,613	0.1
Bo	37.7	30.3	4.6	19.5	4.8	2.8	0.2	100.0	2,194	1.3
Bonthe	56.9	21.9	3.8	12.8	1.8	2.4	0.4	100.0	1,166	0.0
Moyamba	49.4	28.0	4.4	13.7	2.1	1.4	1.1	100.0	1,601	0.0
Pujehun	54.8	27.3	2.5	11.2	1.5	1.4	1.3	100.0	1,143	0.0
Western Area Rural	25.1	25.7	7.7	27.7	7.0	5.7	1.1	100.0	811	4.7
Western Area Urban	17.1	22.1	3.8	31.4	14.4	10.6	0.6	100.0	3,921	7.2
Wealth quintile										
Lowest	60.8	24.6	3.7	9.6	0.7	0.2	0.3	100.0	5,390	0.0
Second	51.7	29.5	3.6	12.9	1.3	0.5	0.5	100.0	5,523	0.0
Middle	46.1	29.9	3.8	16.3	2.2	1.2	0.5	100.0	5,599	0.1
Fourth	36.0	28.3	4.2	23.5	4.7	2.9	0.4	100.0	5,568	2.0
Highest	15.1	22.3	4.2	32.8	13.9	11.2	0.5	100.0	6,034	7.4
Total	41.3	26.9	3.9	19.3	4.8	3.4	0.5	100.0	28,115	1.1

Note: Total includes 7 men with information missing on age.
[1] Completed grade 6 at the primary level
[2] Completed grade 3 at the senior secondary school level

2.9.2 School Attendance Rates

Table 2.13 presents the primary school and secondary school net and gross attendance ratios (NAR and GAR) for the 2012/2013 school year by household residence, regions, districts, and household wealth quintiles. The NAR for primary school is the percentage of the primary-school-age (6-11) population attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (12-18) population attending secondary school. By definition, the NAR cannot exceed 100 percent. The GAR for primary school is the total number of primary school students, of any age, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, of any age, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of over-age and under-age students at a given level of schooling, the GAR can exceed 100 percent. Youth are considered to be attending school currently if they attended formal academic school at any point during the given school year.

Table 2.13 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, Sierra Leone 2013

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	82.6	83.6	83.1	1.01	117.6	123.0	120.3	1.05
Rural	64.2	69.1	66.5	1.08	95.1	100.6	97.7	1.06
Region								
Eastern	65.0	72.9	68.9	1.12	99.4	106.3	102.8	1.07
Northern	69.1	68.5	68.8	0.99	99.8	98.6	99.2	0.99
Southern	64.8	78.9	71.3	1.22	94.8	117.1	105.1	1.23
Western	84.5	80.2	82.3	0.95	120.6	119.3	119.9	0.99
District								
Kailahun	71.7	75.1	73.5	1.05	104.6	107.6	106.1	1.03
Kenema	59.0	72.8	65.7	1.24	92.5	103.0	97.6	1.11
Kono	69.1	70.3	69.7	1.02	107.0	111.4	109.1	1.04
Bombali	77.6	77.4	77.5	1.00	109.7	114.5	112.0	1.04
Kambia	55.3	57.3	56.2	1.04	90.4	89.4	90.0	0.99
Koinadugu	61.1	62.0	61.6	1.01	87.8	86.4	87.1	0.98
Port Loko	69.8	67.4	68.6	0.97	98.9	95.4	97.3	0.97
Tonkolili	71.2	71.1	71.2	1.00	102.0	99.8	101.0	0.98
Bo	75.6	81.7	78.6	1.08	106.1	120.4	113.2	1.13
Bonthe	55.8	69.3	61.8	1.24	83.7	105.7	93.5	1.26
Moyamba	59.9	77.0	67.3	1.29	92.7	116.7	103.1	1.26
Pujehun	58.5	82.8	69.2	1.42	85.5	119.5	100.6	1.40
Western Area Rural	80.8	78.4	79.6	0.97	126.1	118.1	122.1	0.94
Western Area Urban	85.4	80.7	82.9	0.94	119.3	119.6	119.4	1.00
Wealth quintile								
Lowest	54.6	62.7	58.4	1.15	78.9	89.4	83.8	1.13
Second	65.5	65.7	65.6	1.00	97.1	96.1	96.7	0.99
Middle	66.5	73.3	69.7	1.10	100.2	106.6	103.3	1.06
Fourth	75.5	80.6	78.0	1.07	110.7	118.1	114.4	1.07
Highest	88.7	85.5	87.0	0.96	125.1	127.2	126.2	1.02
Total	69.1	73.4	71.2	1.06	101.1	107.2	104.0	1.06
SECONDARY SCHOOL								
Residence								
Urban	59.0	57.8	58.4	0.98	105.3	92.4	98.5	0.88
Rural	29.6	28.8	29.2	0.98	51.3	39.3	45.3	0.77
Region								
Eastern	33.3	36.6	34.9	1.10	61.0	51.7	56.4	0.85
Northern	38.5	36.7	37.6	0.95	67.8	53.8	60.7	0.79
Southern	31.1	30.6	30.8	0.99	54.0	43.0	48.5	0.80
Western	62.2	60.8	61.5	0.98	107.1	99.2	103.0	0.93
District								
Kailahun	32.2	30.1	31.2	0.94	63.0	44.0	53.4	0.70
Kenema	33.8	38.8	36.0	1.15	62.1	56.2	59.5	0.91
Kono	33.4	38.2	36.1	1.15	56.9	51.3	53.7	0.90
Bombali	51.5	50.8	51.1	0.99	97.2	74.2	84.4	0.76
Kambia	30.3	27.2	28.9	0.90	48.8	37.5	43.6	0.77
Koinadugu	27.8	25.3	26.5	0.91	56.1	36.1	45.6	0.64
Port Loko	42.9	35.0	38.9	0.81	64.3	51.0	57.5	0.79
Tonkolili	30.6	32.7	31.6	1.07	61.2	50.8	56.1	0.83
Bo	43.8	39.1	41.2	0.89	75.5	55.5	64.5	0.74
Bonthe	20.6	22.0	21.3	1.07	43.9	33.0	38.2	0.75
Moyamba	26.5	25.0	25.8	0.94	45.1	31.9	38.9	0.71
Pujehun	24.2	27.2	25.5	1.12	36.4	38.5	37.3	1.06
Western Area Rural	57.3	52.9	55.0	0.92	96.9	78.4	87.5	0.81
Western Area Urban	63.3	62.5	62.9	0.99	109.4	103.4	106.2	0.95
Wealth quintile								
Lowest	22.3	21.8	22.1	0.98	39.0	28.2	33.6	0.72
Second	25.9	28.0	26.9	1.08	45.9	37.3	41.6	0.81
Middle	33.1	30.2	31.7	0.91	56.7	42.3	49.7	0.75
Fourth	43.7	43.6	43.7	1.00	77.8	66.6	71.9	0.86
Highest	66.3	62.9	64.5	0.95	117.1	100.4	108.2	0.86
Total	40.0	40.0	40.0	1.00	70.4	59.7	64.9	0.85

[1] The NAR for primary school is the percentage of the primary-school age (6-11) population attending primary school. The NAR for secondary school is the percentage of the secondary-school age (12-17) population 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 gender parity index (GPI) assesses sex-related differences in school attendance rates and is calculated by dividing the GAR for the female population by the GAR for the male population. A GPI less than 1 indicates a gender disparity in favour of the male population, i.e., a higher proportion of males than females attends that level of schooling. A GPI greater than 1 indicates a gender disparity in favour of females. A GPI of 1 indicates parity or equality between the rates of participation for the sexes.

The data for NAR displayed in Table 2.13 indicates that 71 percent of children of primary school age are attending school—an improvement from 2008, when the NAR was estimated at 62 percent at the primary school level (2008 SLDHS). The NAR for primary school is higher in urban than rural areas (83 percent versus 67 percent). By region, the Western region has the highest NAR at primary level (83 percent). The situation is similar by district, where NAR for primary school is highest in Western Area Urban (83 percent). NAR increases with an increase in wealth quintile, from 58 percent at the lowest wealth quintile to 87 percent at the highest.

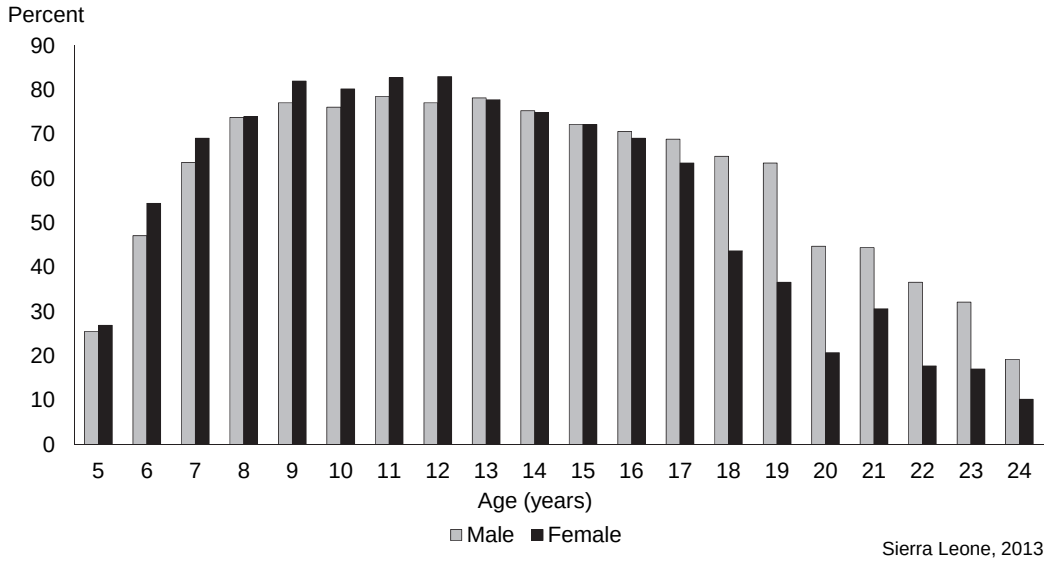
At the primary school level, the GAR is higher than the NAR (104 percent versus 71 percent), an indication that some children in primary school are not of primary school age.

As expected, the NAR and GAR are lower at the secondary school level than at the primary level. However, there has been a considerable improvement in the secondary school NAR; in the 2013 SLDHS the NAR is 12 percentage points higher than the NAR observed in the 2008 SLDHS (40 percent versus 28 percent). Secondary school NAR is generally low across the districts; Western Area Urban has the highest (63 percent), while Bonthe district has the lowest (21 percent). The gap in NAR at the secondary school level between the lowest wealth quintile and the highest wealth quintile is very wide, ranging from 22 percent to 65 percent.

The gender parity index shows the ratio of the female to male GARs. In primary school there is parity between the sexes; the index is 1.06. However, the GPI for secondary school drops to 0.85, indicating a bias in favour of males. Comparison with data from the 2008 SLDHS shows that the GPI for primary school has not changed between surveys. For the secondary school level the GPI in 2013 is higher than in 2008 (0.85 versus 0.67).

Figure 2.2 shows age-specific attendance rates (ASARs) for the population age 5-24—i.e., the percentage of a given age cohort that attends school, regardless of the level attended (primary, secondary, or higher). From age 5 through age 12, female attendance tends to be higher than male attendance. Attendance peaks at age 11 for both females and females, where the peak attendance rate is 83 percent for girls and 79 percent for boys. Whereas attendance is essentially the same for girls and boys age 13-15, from ages 16 upward the percentage of boys in school exceeds girls at every age.

Figure 2.2 **Age-specific attendance rates of the de facto population age 5-24**



2.10 CHILD LABOUR

Sierra Leone is a signatory to the Convention on the Rights of the Child (SLG, 2007). To assess the extent to which children in Sierra Leone are working, the 2013 SLDHS included a set of questions on the participation by each child age 5-14 in the household in different types of work. The types of work included working for persons other than members of the household, working in a household business or farm, or selling goods in the street, and doing household chores.

The number of hours worked in the seven days preceding the survey was recorded for all children engaged in any type of work. For work that was done for any person not a member of the household, a question was also asked to determine whether the child was paid or not paid for the work. This information was used to calculate the percentage of children age 5-14 engaged in child labour. The definition of child labour includes (a) children age 5-11 who in the seven days preceding the survey worked for someone who is not a member of the household, with or without pay, or engaged in any other family work or did household chores for 28 hours or more, and (b) children age 12-14 who in the seven days preceding the survey worked for someone who is not a member of the household, with or without pay, or engaged in any other family work for 14 hours or more or did household chores for 28 hours or more. This definition helps to identify the type of child work that should be eliminated in order to conform to the UN Convention on the Rights of the Child. As such, the estimate provided here is a minimum of the prevalence of child labour, since some children may be involved in hazardous labour activities for a number of hours that could be less than the numbers specified in the criteria described above.

2.10.1 Occurrence of Child Labour

Table 2.14 shows the percentage of de jure children age 5-14 engaged in different types of work in the seven days preceding the interview, by background characteristics. Percentages do not add up to the total for child labour, as children may be involved in more than one type of work. Overall, 37 percent of children age 5-14 in Sierra Leone are involved in child labour—44 percent of children age 5-11 and 16 percent of children age 12-14. Less than 1 percent of children age 5-11 and 2 percent of children age 12-14 are engaged in paid work; 23 percent and 38 percent, respectively, are engaged in unpaid work for someone who is not a member of their household; and 37 percent and 56 percent, respectively, work for a family business. Furthermore, 1 percent of children age 5-11 and 2 percent of children age 12-14 are engaged in household chores for 28 or more hours in a week.

Table 2.14 Child labour

Percentage of de jure children age 5-14 who were engaged in economic activity, in household chores, and in child labour during the seven days preceding the survey, by b

Background characteristic	Percentage of children age 5-11 involved in: Economic activity: Working outside household[1]: Paid work	Unpaid work	Working for family business[2]	Economic activity[3] for at least one hour per week	Household chores less than 28 hours per week	Household chores for 28 hours or more per week	Child labour[4]	Number of children age 5-11	Percentage of children age 12-14 invo Economic activity: Working outside household[1]: Paid work	Unpaid work	Working for family business[2]	Economic activity[3] less than 14 hours per week	Economic activity for 14 hours or more per week	Hous che less 28 h per
Sex														
Male	0.9	23.6	38.2	44.9	67.7	0.8	45.3	8,407	3.0	38.5	58.8	52.5	16.6	8
Female	0.5	22.2	35.7	43.1	70.4	0.9	43.5	7,874	1.3	36.7	53.0	50.3	14.2	8
Residence														
Urban	0.4	19.5	16.4	27.9	62.4	1.6	29.0	4,448	1.8	27.5	29.1	37.1	8.2	8
Rural	0.8	24.2	44.7	50.1	71.5	0.6	50.2	11,833	2.4	42.6	69.3	58.6	19.0	9
Region														
Eastern	1.0	29.3	48.0	56.2	73.2	0.6	56.2	3,727	2.1	44.7	67.6	53.5	24.3	9
Northern	0.6	23.1	40.5	46.7	72.9	0.3	46.8	6,740	1.6	40.9	62.1	60.1	11.5	9
Southern	0.7	18.8	36.0	40.1	65.5	1.0	40.4	3,732	3.1	35.3	61.0	50.0	18.9	8
Western	0.5	18.4	7.7	20.6	55.3	3.0	22.7	2,081	2.8	22.0	17.4	27.9	8.9	7
District														
Kailahun	1.0	33.5	52.1	60.6	73.1	0.0	60.6	1,092	2.8	47.9	78.4	67.8	18.7	8
Kenema	1.4	36.2	45.3	56.2	74.2	0.2	56.2	1,684	1.2	52.4	61.2	53.2	21.1	9
Kono	0.2	12.2	48.3	51.2	71.4	1.9	51.2	952	3.6	22.7	70.4	38.0	38.1	9
Bombali	0.4	34.8	37.9	46.5	75.2	0.3	46.5	1,421	1.1	54.5	61.8	66.5	4.7	9
Kambia	0.6	21.8	28.3	37.2	65.2	0.5	37.4	791	2.6	43.1	50.9	54.9	9.9	7
Koinadugu	2.5	33.5	43.9	55.5	72.4	0.1	55.5	846	5.7	60.1	68.3	70.6	15.7	9
Port Loko	0.1	11.5	40.8	42.2	75.3	0.3	42.6	2,010	0.6	19.3	56.8	45.8	13.8	9
Tonkolili	0.5	22.4	46.2	52.2	71.8	0.3	52.4	1,672	0.5	41.2	71.9	67.6	14.6	9
Bo	0.7	15.0	20.6	26.4	59.1	0.0	26.4	1,518	2.2	31.9	41.5	47.7	6.7	8
Bonthe	0.8	16.3	37.2	40.7	61.1	0.7	41.2	611	1.5	30.0	74.8	73.6	5.6	9
Moyamba	0.9	28.2	55.4	56.7	69.2	3.6	58.0	865	2.6	43.2	70.3	25.8	49.0	8
Pujehun	0.6	17.8	43.9	48.2	78.1	0.2	48.2	738	7.3	37.1	74.7	63.0	16.9	9
Western Area Rural	0.5	20.7	11.3	20.1	56.4	0.8	20.7	404	1.3	29.4	23.1	28.9	16.4	7
Western Area Urban	0.5	17.8	6.8	20.7	55.1	3.6	23.1	1,677	3.1	20.4	16.2	27.6	7.3	7
School attendance														
Yes	0.7	25.3	38.1	46.9	76.0	1.1	47.4	10,327	1.6	35.6	52.5	49.9	13.6	8
No	0.8	18.9	35.1	39.0	56.9	0.5	39.3	5,935	4.2	45.0	68.6	57.1	21.8	8
Mother's education														
No education	0.8	22.6	38.5	45.0	67.7	0.6	45.3	8,328	2.7	39.6	63.8	56.0	16.9	8
Primary	0.5	20.7	30.6	37.8	67.7	0.9	38.1	1,129	1.3	29.6	39.1	37.2	14.7	8
Secondary or higher	0.5	18.0	15.7	25.0	56.7	1.2	25.7	971	1.1	28.2	31.0	37.9	8.5	7
Wealth quintile														
Lowest	1.1	25.8	50.6	54.4	71.6	0.6	54.6	3,371	2.5	46.0	77.3	56.8	25.7	9
Second	0.6	24.5	45.3	50.6	70.8	0.9	50.8	3,486	2.4	46.6	72.4	61.2	18.8	9
Middle	0.7	24.9	42.6	49.6	70.2	0.7	49.9	3,490	2.6	39.0	68.1	57.8	17.4	9
Fourth	0.6	20.6	31.3	39.2	70.6	0.9	39.9	3,292	1.4	34.9	49.3	50.7	12.7	8
Highest	0.4	17.5	8.2	20.7	59.8	1.3	21.5	2,642	2.1	24.2	19.2	32.9	5.1	8
Total	0.7	22.9	37.0	44.0	69.0	0.9	44.4	16,281	2.2	37.6	56.0	51.5	15.4	8

Note: Total includes 28 children age 5-14 for whom information on school attendance is missing and 13 children 5-14 for whom information on mother's education is missin

[1] Any work, paid or unpaid, for someone who is not a member of the household

[2] Includes any work in a family business, on the farm, or selling goods in the street

[3] Economic activity is defined as working, paid or unpaid, for someone who is not a member of the household or working in a family business, on the farm, or selling goods

[4] Child labour includes (a) children age 5-11 who in the seven days preceding the survey, worked for someone who is not a member of the household, with or without pay chores for 28 or more hours, and (b) children age 12-14 who in the seven days preceding the survey, worked for someone who is not a member of the household, with or or more hours or did household chores for 28 or more hours

For all children age 5-14, the percentage engaged in labour is about the same among males (38 percent) and females (37 percent). However, the proportion of children engaged in labour is substantially higher among rural children (43 percent) than urban children (24 percent). By region, the Eastern region has the highest proportion of children age 5-14 engaged in labour (49 percent), while the Western region has the lowest proportion (20 percent). Among districts, it varies from 20 percent of children in the Western Areas to 56 percent in Moyamba district. While the proportion of children in labour does not vary by whether a child attends a school or not, it decreases steadily with mother's education and household wealth. Twenty-two percent of children whose mothers have at least secondary education are engaged in child labour, compared with 39 percent of children whose mothers have no education. Similarly, this proportion decreases from 48 percent for children in the lowest wealth quintile to 17 percent for children in the highest wealth quintile.

2.10.2 Child Labour and School Attendance

One of the negative consequences of child labour is its effect on a child's schooling. Table 2.15 shows the percentage of children age 5-14 involved in child labour, the percentage of children attending school, and the percentage of children both attending school and also involved in child labour. Among children involved in child labour, 68 percent are attending school. Among children attending school, 38 percent are involved in child labour, a small increase from 31 percent in the 2008 SLDHS.

Table 2.15 Child labour and school attendance

Percentage of children age 5-14 involved in child labour who are attending school, and percentage of children age 5-14 attending school who are involved in child labour, Sierra Leone 2013

	All children age 5-14			Children age 5-14 involved in labour		Children age 5-14 attending school	
Background characteristic	Percentage of children involved in child labour	Percentage of children attending school	Number of children age 5-14	Percentage of child labourers who are attending school	Number of children age 5-14 involved in child labour	Percentage of children attending school who are involved in child labour	Number of children age 5-14 attending school
Sex							
Male	38.2	65.4	11,242	66.1	4,297	38.6	7,351
Female	36.5	68.8	10,452	70.0	3,820	37.2	7,193
Residence							
Urban	23.7	80.4	6,242	79.9	1,479	23.6	5,020
Rural	43.0	61.6	15,452	65.2	6,638	45.5	9,524
Region							
Eastern	48.5	65.2	4,929	65.4	2,392	48.7	3,214
Northern	38.0	64.2	9,005	66.8	3,420	39.5	5,778
Southern	35.7	65.3	4,817	68.4	1,721	37.4	3,147
Western	19.8	81.7	2,943	83.7	583	20.3	2,404
District							
Kailahun	51.6	69.7	1,392	73.1	718	54.1	970
Kenema	46.8	63.6	2,319	61.0	1,084	44.8	1,476
Kono	48.4	63.1	1,218	64.0	590	49.1	768
Bombali	34.9	73.4	1,971	75.0	687	35.6	1,447
Kambia	29.8	53.5	1,090	55.0	325	30.7	583
Koinadugu	46.1	55.0	1,107	60.8	510	51.0	608
Port Loko	35.8	64.4	2,627	65.4	941	36.3	1,692
Tonkolili	43.3	65.5	2,210	69.4	957	45.9	1,448
Bo	22.3	71.8	1,930	80.1	431	24.9	1,386
Bonthe	32.4	54.7	811	61.0	263	36.1	444
Moyamba	56.1	63.9	1,133	66.6	636	58.5	724
Pujehun	41.5	62.8	944	63.5	392	41.9	593
Western Area Rural	20.1	78.3	558	88.4	112	22.7	437
Western Area Urban	19.8	82.5	2,385	82.5	471	19.8	1,967
Age							
5-11	44.4	63.4	16,281	67.7	7,233	47.4	10,327
12-14	16.3	77.9	5,413	70.0	884	14.7	4,216

Continued…

Table 2.15—*Continued*

Background characteristic	All children age 5-14			Children age 5-14 involved in labour		Children age 5-14 attending school	
	Percentage of children involved in child labour	Percentage of children attending school	Number of children age 5-14	Percentage of child labourers who are attending school	Number of children age 5-14 involved in child labour	Percentage of children attending school who are involved in child labour	Number of children age 5-14 attending school
Mother's education							
No education	38.8	64.2	10,859	67.1	4,210	40.5	6,975
Primary	33.1	74.0	1,439	76.7	476	34.3	1,065
Secondary or higher	22.4	83.1	1,247	88.4	280	23.9	1,035
Wealth quintile							
Lowest	48.6	52.4	4,266	56.8	2,073	52.6	2,237
Second	43.5	60.1	4,530	63.6	1,971	46.0	2,724
Middle	41.9	65.8	4,636	69.8	1,943	44.5	3,051
Fourth	32.9	73.8	4,475	78.1	1,472	34.8	3,302
Highest	17.4	85.3	3,786	87.5	657	17.8	3,229
Total	37.4	67.0	21,694	67.9	8,117	37.9	14,543

Note: Total includes 13 children age 5-14 for whom information on mother's education is missing.

CHARACTERISTICS OF RESPONDENTS 3

Key Findings

- Sixty-three percent of women and 50 percent of men are married, while 3 percent of women and 4 percent of men are living with a partner in informal unions.
- Fifty-six percent of women have no education compared with 40 percent of men.
- Nearly 80 percent of respondents are Muslims, and around 20 percent are Christians.
- The two largest ethnic groups are the Mende and Temne, each representing around one-third of the population of reproductive age.
- The literacy rate for women is 36 percent, and the rate for men is 52 percent.
- Fifty-six percent of women and 43 percent of men do not have weekly access to newspapers, television, or a radio.
- Sixty-eight percent of women working in agriculture are not paid.
- Twenty-seven percent of men age 15-49 use tobacco products.

This chapter describes the demographic and socioeconomic profile of the sample of women and men age 15-49 that were interviewed in the 2013 SLDHS. Percent distributions of various demographic and socioeconomic characteristics are shown for the full sample. The main background characteristics that will be used in subsequent chapters on reproduction and health are age at the time of the survey, marital status, broad education levels, urban/rural residence, region, district, religion, ethnicity, and the wealth quintile to which respondents belong. In addition, the chapter provides information on media exposure, health insurance coverage, employment, and work status.

Besides offering a better understanding of many topics discussed in the following chapters, this chapter is useful for assessing the economic and social development of Sierra Leone and its regions.

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 presents the background characteristics of the women and men interviewed in the 2013 SLDHS. Fifty-seven percent of women and 53 percent of men are under age 30. In general, the proportion of women and men in each age group declines with increasing age, reflecting the comparatively young age structure of the population in Sierra Leone.

Sixty-three percent of women and 50 percent of men are married, while 3 percent of women and 4 percent of men are in informal unions with their partners. Male respondents are much more likely than female respondents to have never married (43 percent versus 28 percent). Six percent of female respondents and 3 percent of male respondents are divorced, separated, or widowed.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Sierra Leone 2013

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	23.3	3,878	4,051	22.4	1,475	1,526
20-24	16.1	2,683	2,688	15.3	1,007	1,018
25-29	17.1	2,843	2,731	15.5	1,017	996
30-34	13.7	2,287	2,236	12.2	804	769
35-39	13.6	2,260	2,266	14.6	961	930
40-44	8.2	1,362	1,321	10.5	690	695
45-49	8.1	1,344	1,365	9.6	629	643
Religion						
Christian	21.2	3,527	3,687	19.9	1,312	1,350
Islam	78.2	13,032	12,878	79.6	5,242	5,202
Other	0.2	41	44	0.2	16	13
None	0.1	12	10	0.1	4	4
Missing	0.3	46	39	0.1	7	8
Ethnic group						
Creole	1.1	191	148	1.4	91	73
Fullah	3.2	530	582	3.8	252	275
Kono	4.5	752	848	3.9	260	303
Limba	6.6	1,104	1,150	5.9	391	404
Loko	2.9	487	415	2.7	178	150
Mandingo	2.3	382	471	2.5	166	200
Mende	33.4	5,558	5,648	32.8	2,158	2,157
Sherbro	2.4	407	430	3.0	198	210
Temne	35.3	5,885	5,424	36.1	2,375	2,222
Koranko	2.9	482	626	2.6	173	216
Other Sierra Leone	4.8	793	818	4.5	299	325
Other Foreign	0.3	52	66	0.4	29	27
Missing	0.2	33	32	0.2	12	15
Marital status						
Never married	28.4	4,730	4,911	43.3	2,849	2,861
Married	62.6	10,430	10,308	49.6	3,264	3,282
Living together	2.8	473	446	3.8	250	208
Divorced/separated	3.6	605	576	2.9	190	197
Widowed	2.5	420	417	0.4	30	29
Residence						
Urban	35.6	5,933	6,773	38.1	2,508	2,755
Rural	64.4	10,725	9,885	61.9	4,073	3,822
Region						
Eastern	21.7	3,614	3,369	21.9	1,442	1,337
Northern	37.8	6,292	6,231	34.9	2,300	2,327
Southern	21.1	3,514	4,354	21.5	1,414	1,742
Western	19.4	3,238	2,704	21.7	1,425	1,171
District						
Kailahun	5.9	984	952	5.6	371	351
Kenema	9.9	1,651	1,153	10.9	719	517
Kono	5.9	979	1,264	5.4	352	469
Bombali	8.3	1,377	1,288	7.6	499	462
Kambia	4.4	738	1,264	4.1	270	473
Koinadugu	4.3	719	1,100	4.1	268	432
Port Loko	12.0	1,994	1,424	10.3	679	491
Tonkolili	8.8	1,464	1,155	8.9	584	469
Bo	8.4	1,398	1,517	8.1	533	583
Bonthe	4.1	678	981	4.3	283	389
Moyamba	5.1	843	959	5.6	368	427
Pujehun	3.6	595	897	3.5	230	343
Western Area Rural	3.2	528	1,209	3.5	230	503
Western Area Urban	16.3	2,710	1,495	18.2	1,195	668
Education						
No education	55.8	9,293	9,140	40.3	2,651	2,614
Primary	14.0	2,331	2,278	12.5	825	819
Secondary or higher	30.2	5,034	5,240	47.2	3,106	3,144
Wealth quintile						
Lowest	18.5	3,089	3,035	18.5	1,218	1,221
Second	18.3	3,046	2,781	17.9	1,175	1,083
Middle	18.8	3,140	2,999	18.2	1,195	1,147
Fourth	20.3	3,388	3,998	18.0	1,183	1,443
Highest	24.0	3,994	3,845	27.5	1,811	1,683
Total 15-49	100.0	16,658	16,658	100.0	6,582	6,577
50-59	na	na	na	na	680	685
Total 15-59	na	na	na	na	7,262	7,262

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

Nearly two-thirds of respondents (64 percent of women and 62 percent of men) live in rural areas. The Northern region has the highest proportion of female respondents (38 percent), while the Western region has the smallest proportion (19 percent). Corresponding figures for men are 35 percent and 22 percent respectively.

Table 3.1 shows that 56 percent of women have no education compared with 40 percent of men. Forty-seven percent of men attended at least some secondary school compared with 30 percent of women. Forty-four percent of women and 46 percent of men are in the two highest wealth quintiles, while an equal proportion of both sexes (19 percent each) are in the lowest wealth quintile.

The distribution of respondents by religion shows that nearly eight respondents in ten are Muslims, and around 20 percent identify themselves as Christians. Very few Sierra Leoneans responded that they do not have a religious affiliation. The two largest ethnic groups are the Mende and Temne, each representing about one-third of the population of reproductive age.

3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Information on educational attainment—the highest level of schooling an individual attended and completed—is fundamental in explaining the extent of Sierra Leoneans' participation in primary, secondary, and post-secondary education. As a measure of Sierra Leone's potential for economic growth, educational attainment is also closely linked to health, political participation, and other social development indicators. Sierra Leone launched the Basic Education Programme in 1992 aimed at achieving education for all, thereby increasing school attendance and completion. The results presented in Tables 3.2.1 (women) and 3.2.2 (men) show that, overall, men have a huge advantage in educational attainment, having completed a median of 5.3 years of schooling versus 0.0 years among women. The difference in median years of schooling can be partially explained by the fact that the proportion of respondents with no education is higher among women than men (56 percent versus 40 percent), while a higher proportion of men than women have attained schooling beyond primary school (47 percent versus 30 percent).

Women and men age 15-24 have better access to education compared with those age 25-29 or in older age groups. For example, 28 percent of women age 15-24 have no education compared with 65 percent of women age 25-29. Similarly, 18 percent of men age 15-24 have no education compared with 39 percent of men age 25-29

Rural respondents generally have attained less education than urban residents. For example, 68 percent of rural women have no education compared with 33 percent of urban women; and 54 percent of rural men have no education compared with 18 percent of rural men.

Of the four regions of Sierra Leone, the Western region has the lowest proportion of women and men with no education (30 percent and 13 percent respectively). In the remaining three regions there are few variations in the proportion of respondents with no education; among women, from 61 percent in Eastern region to 63 percent in the Northern region, and among men, from 44 percent in Eastern region to 51 percent in the Southern region.

Access to education increases with women's wealth. Seventy-five percent of women in the lowest wealth quintile have no education compared with 26 percent of women in the highest wealth quintile. In contrast, 63 percent of women in the highest wealth quintile have attended or completed secondary schooling or higher compared with 11 percent of women in the lowest quintile. Similar patterns are observed among men; 64 percent of men in the lowest wealth quintile have no education compared with 12 percent of men in the highest wealth quintile; 80 percent of men in the highest wealth quintile have attended or completed secondary schooling or higher compared with 22 percent of men in the lowest quintile.

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, Sierra Leone 2013

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	28.1	11.4	7.2	42.9	7.9	2.5	100.0	6.2	6,561
15-19	19.6	12.5	8.3	54.2	5.1	0.3	100.0	6.6	3,878
20-24	40.5	9.9	5.7	26.5	11.9	5.6	100.0	4.9	2,683
25-29	64.6	9.8	4.0	12.2	4.9	4.5	100.0	0.0	2,843
30-34	74.2	9.0	2.9	9.1	1.8	2.9	100.0	0.0	2,287
35-39	77.8	7.1	3.7	7.2	1.4	2.9	100.0	0.0	2,260
40-44	78.8	4.6	3.0	10.0	1.5	2.2	100.0	0.0	1,362
45-49	80.5	4.8	2.2	6.8	1.9	3.7	100.0	0.0	1,344
Residence									
Urban	33.3	7.3	5.1	34.9	11.5	7.8	100.0	6.6	5,933
Rural	68.2	10.1	4.7	15.7	0.8	0.4	100.0	0.0	10,725
Region									
Eastern	60.7	10.0	4.7	20.8	2.7	1.1	100.0	0.0	3,614
Northern	63.0	9.1	4.6	19.8	2.3	1.3	100.0	0.0	6,292
Southern	62.1	10.0	5.1	19.2	2.2	1.5	100.0	0.0	3,514
Western	29.5	7.4	5.3	33.6	14.1	10.2	100.0	7.3	3,238
District									
Kailahun	61.3	11.8	6.9	18.5	1.2	0.2	100.0	0.0	984
Kenema	59.1	9.9	3.7	21.9	3.6	1.9	100.0	0.0	1,651
Kono	62.8	8.2	4.3	21.4	2.7	0.6	100.0	0.0	979
Bombali	54.6	5.5	5.4	28.9	3.4	2.1	100.0	0.0	1,377
Kambia	70.2	11.6	5.0	11.5	1.3	0.4	100.0	0.0	738
Koinadugu	75.4	7.6	3.2	12.5	0.9	0.5	100.0	0.0	719
Port Loko	61.8	11.5	4.1	18.7	2.4	1.5	100.0	0.0	1,994
Tonkolili	62.7	8.7	4.9	20.5	2.1	1.1	100.0	0.0	1,464
Bo	54.2	9.8	4.9	24.7	3.9	2.5	100.0	0.0	1,398
Bonthe	67.9	6.9	5.0	17.2	1.1	1.8	100.0	0.0	678
Moyamba	67.9	10.8	5.3	14.3	1.4	0.2	100.0	0.0	843
Pujehun	65.9	12.6	5.2	15.3	0.7	0.3	100.0	0.0	595
Western Area Rural	40.0	8.5	7.6	31.8	7.6	4.5	100.0	5.2	528
Western Area Urban	27.4	7.1	4.9	33.9	15.4	11.3	100.0	7.7	2,710
Wealth quintile									
Lowest	74.5	9.7	4.8	10.6	0.4	0.0	100.0	0.0	3,089
Second	71.3	9.9	4.2	14.2	0.4	0.0	100.0	0.0	3,046
Middle	65.8	10.3	4.8	17.7	1.0	0.4	100.0	0.0	3,140
Fourth	51.1	9.8	5.3	27.9	4.4	1.4	100.0	0.0	3,388
Highest	25.6	6.6	5.0	37.4	14.3	11.0	100.0	7.8	3,994
Total	55.8	9.1	4.9	22.6	4.7	3.0	100.0	0.0	16,658

[1] Completed grade 6 at the primary level
[2] Completed grade 3 at the senior secondary school level

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, Sierra Leone 2013

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	18.2	9.4	5.3	52.6	11.6	2.8	100.0	7.6	2,481
15-19	15.9	10.5	6.3	60.0	6.4	0.8	100.0	7.3	1,475
20-24	21.6	7.8	3.7	41.7	19.4	5.8	100.0	8.4	1,007
25-29	39.0	6.6	4.9	25.0	15.1	9.4	100.0	5.8	1,017
30-34	53.1	9.3	4.0	16.2	8.8	8.5	100.0	0.0	804
35-39	60.3	7.2	3.1	18.9	4.0	6.5	100.0	0.0	961
40-44	59.3	7.7	4.1	16.3	3.6	9.0	100.0	0.0	690
45-49	61.3	5.1	3.8	15.2	6.4	8.2	100.0	0.0	629
Residence									
Urban	18.1	5.1	4.0	41.4	18.0	13.4	100.0	9.0	2,508
Rural	54.0	9.8	4.8	25.6	4.1	1.8	100.0	0.0	4,073
Region									
Eastern	43.7	9.0	4.6	31.5	7.8	3.3	100.0	4.3	1,442
Northern	48.1	6.9	3.9	30.7	6.1	4.2	100.0	3.0	2,300
Southern	51.3	10.6	5.5	23.3	6.9	2.4	100.0	0.0	1,414
Western	13.2	6.4	4.4	41.3	18.6	16.1	100.0	9.6	1,425
District									
Kailahun	41.9	10.8	7.2	33.1	4.6	2.5	100.0	4.4	371
Kenema	44.6	7.0	3.8	30.6	9.8	4.1	100.0	4.5	719
Kono	43.7	11.3	3.5	31.8	7.1	2.7	100.0	3.7	352
Bombali	41.6	6.9	3.8	36.3	5.6	5.8	100.0	5.4	499
Kambia	51.8	9.5	3.8	28.2	5.1	1.6	100.0	0.0	270
Koinadugu	58.8	4.6	4.0	27.4	3.1	2.2	100.0	0.0	268
Port Loko	43.6	9.1	5.1	31.0	6.5	4.8	100.0	4.4	679
Tonkolili	52.4	4.2	2.4	28.4	8.0	4.5	100.0	0.0	584
Bo	38.6	11.2	6.0	28.7	12.0	3.6	100.0	5.0	533
Bonthe	59.8	8.5	7.5	19.3	3.6	1.4	100.0	0.0	283
Moyamba	55.3	11.0	5.3	22.8	3.9	1.7	100.0	0.0	368
Pujehun	64.2	11.2	2.5	16.4	4.0	1.7	100.0	0.0	230
Western Area Rural	23.1	10.4	7.6	42.5	11.5	4.9	100.0	7.5	230
Western Area Urban	11.3	5.6	3.7	41.1	20.0	18.3	100.0	10.0	1,195
Wealth quintile									
Lowest	64.3	8.5	4.8	20.4	1.8	0.2	100.0	0.0	1,218
Second	56.9	9.8	5.1	23.3	4.2	0.8	100.0	0.0	1,175
Middle	49.9	10.9	4.8	27.5	4.9	2.0	100.0	0.0	1,195
Fourth	32.7	7.9	4.8	39.9	9.6	5.1	100.0	6.8	1,183
Highest	12.0	4.8	3.5	41.9	20.6	17.3	100.0	10.0	1,811
Total 15-49	40.3	8.0	4.5	31.6	9.4	6.2	100.0	5.3	6,582
50-59	67.1	6.4	2.8	10.8	5.5	7.3	100.0	0.0	680
Total 15-59	42.8	7.9	4.3	29.6	9.0	6.3	100.0	4.8	7,262

[1] Completed grade 6 at the primary level
[2] Completed grade 3 at the senior secondary school level

3.3 LITERACY

The ability to read is crucial to social and economic opportunities for Sierra Leoneans. In addition, health development programme partners use literacy statistics to determine how best to get messages to women and men in different subgroups. The literacy status of respondents in the 2013 SLDHS was determined by ability of the respondent to read all or part of a simple sentence in English from a card. The literacy test was administered only to respondents who had less than a secondary school education, because those with a secondary education or higher were assumed to be literate. Tables 3.3.1 and 3.3.2 present literacy results for women and men age 15-49.

Overall, literacy rates in Sierra Leone are 36 percent for women and for 54 percent men. Literacy rates are higher for younger women and men compared with the older population. For example, literacy rates are 62 percent for women age 15-24, and 15 percent for women age 45-49. Corresponding literacy rates for men are 76 percent for age 15-24 and 34 percent for age 45-49.

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, Sierra Leone 2013

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/ visually impaired/ missing	Total	Percentage literate[1]	Number of women
Age								
15-24	53.2	2.2	6.4	37.9	0.2	100.0	61.8	6,561
15-19	59.6	3.4	7.9	29.0	0.2	100.0	70.9	3,878
20-24	43.9	0.6	4.2	50.9	0.4	100.0	48.7	2,683
25-29	21.6	0.5	3.1	74.5	0.2	100.0	25.3	2,843
30-34	13.8	0.7	3.0	82.2	0.4	100.0	17.5	2,287
35-39	11.5	0.6	2.7	84.7	0.4	100.0	14.8	2,260
40-44	13.7	0.3	2.0	83.8	0.2	100.0	15.9	1,362
45-49	12.5	0.5	1.6	85.2	0.2	100.0	14.5	1,344
Residence								
Urban	54.2	1.3	3.6	40.5	0.3	100.0	59.2	5,933
Rural	16.9	1.1	4.4	77.3	0.2	100.0	22.5	10,725
Region								
Eastern	24.6	1.2	4.4	69.5	0.2	100.0	30.2	3,614
Northern	23.4	1.3	3.4	71.6	0.2	100.0	28.1	6,292
Southern	22.8	1.0	5.2	70.6	0.3	100.0	29.1	3,514
Western	57.8	1.3	3.9	36.7	0.3	100.0	63.0	3,238
District								
Kailahun	20.0	2.6	6.5	70.6	0.4	100.0	29.0	984
Kenema	27.3	0.6	2.9	68.9	0.2	100.0	30.8	1,651
Kono	24.8	0.8	4.9	69.4	0.1	100.0	30.5	979
Bombali	34.5	1.1	3.3	61.2	0.0	100.0	38.8	1,377
Kambia	13.3	0.8	5.7	80.1	0.2	100.0	19.7	738
Koinadugu	13.8	1.6	2.4	81.9	0.2	100.0	17.8	719
Port Loko	22.6	1.5	3.8	71.6	0.5	100.0	27.9	1,994
Tonkolili	23.8	1.3	2.4	72.3	0.3	100.0	27.5	1,464
Bo	31.1	0.8	4.5	63.2	0.4	100.0	36.4	1,398
Bonthe	20.2	1.0	4.1	74.7	0.0	100.0	25.3	678
Moyamba	15.9	1.2	7.3	74.9	0.8	100.0	24.3	843
Pujehun	16.2	1.4	5.2	77.1	0.1	100.0	22.8	595
Western Area Rural	43.9	1.8	4.9	49.1	0.3	100.0	50.6	528
Western Area Urban	60.5	1.2	3.7	34.3	0.2	100.0	65.4	2,710
Wealth quintile								
Lowest	11.0	1.3	4.5	83.0	0.1	100.0	16.8	3,089
Second	14.6	0.8	4.2	80.1	0.2	100.0	19.7	3,046
Middle	19.1	1.2	4.0	75.4	0.2	100.0	24.3	3,140
Fourth	33.7	1.4	4.5	59.8	0.6	100.0	39.6	3,388
Highest	62.7	1.3	3.6	32.3	0.2	100.0	67.5	3,994
Total	30.2	1.2	4.1	64.2	0.3	100.0	35.5	16,658

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

Women and men in urban areas are more likely than rural residents to be literate. The literacy rate for urban women in Sierra Leone is 59 percent compared with 23 percent in the rural areas. Literacy rates for men in urban and rural areas are 78 percent and 39 percent respectively. Among the four regions, the Western region recorded the highest literacy rates for women and men. Sixty-three percent of women in the Western region are literate compared with 30 percent or less in the other regions. Similarly, 83 percent of men in the Western region are literate compared with 48 percent or less in the other regions. Women and men in the highest quintiles are more likely to be literate than their counterparts in the lowest quintiles.

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, Sierra Leone 2013

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	Blind/ visually impaired/ Missing	Total	Percentage literate[1]	Number of men
Age								
15-24	67.1	3.0	6.2	23.3	0.4	100.0	76.2	2,481
15-19	67.2	4.4	7.4	20.3	0.7	100.0	79.0	1,475
20-24	66.9	1.0	4.3	27.7	0.1	100.0	72.2	1,007
25-29	49.5	1.2	5.1	44.0	0.2	100.0	55.7	1,017
30-34	33.5	0.6	4.4	61.1	0.3	100.0	38.5	804
35-39	29.4	1.3	3.9	64.9	0.5	100.0	34.6	961
40-44	28.8	1.0	4.0	65.9	0.3	100.0	33.8	690
45-49	29.7	0.3	3.6	65.5	0.9	100.0	33.7	629
Residence								
Urban	72.8	1.6	3.8	21.5	0.3	100.0	78.2	2,508
Rural	31.4	1.8	5.7	60.6	0.5	100.0	38.9	4,073
Region								
Eastern	42.7	0.8	4.0	51.8	0.7	100.0	47.5	1,442
Northern	41.1	2.0	4.4	52.2	0.3	100.0	47.5	2,300
Southern	32.5	1.8	7.5	57.7	0.5	100.0	41.8	1,414
Western	76.1	2.0	4.5	17.1	0.3	100.0	82.6	1,425
District								
Kailahun	40.1	0.2	4.4	54.2	1.0	100.0	44.7	371
Kenema	44.5	0.5	4.5	49.9	0.6	100.0	49.5	719
Kono	41.5	2.3	2.7	52.9	0.5	100.0	46.5	352
Bombali	47.6	0.8	4.2	47.0	0.4	100.0	52.6	499
Kambia	34.9	3.0	5.4	56.4	0.4	100.0	43.2	270
Koinadugu	32.6	0.5	2.2	64.1	0.5	100.0	35.3	268
Port Loko	42.2	3.9	6.4	47.1	0.4	100.0	52.6	679
Tonkolili	41.0	1.1	2.6	55.2	0.1	100.0	44.7	584
Bo	44.3	3.0	8.1	44.0	0.6	100.0	55.4	533
Bonthe	24.2	1.6	8.3	65.9	0.0	100.0	34.1	283
Moyamba	28.4	1.2	9.7	59.9	0.7	100.0	39.3	368
Pujehun	22.1	0.3	1.4	75.9	0.3	100.0	23.8	230
Western Area Rural	59.0	3.5	10.7	26.6	0.2	100.0	73.2	230
Western Area Urban	79.4	1.7	3.3	15.3	0.3	100.0	84.4	1,195
Wealth quintile								
Lowest	22.4	0.4	5.3	71.2	0.6	100.0	28.2	1,218
Second	28.2	2.3	6.1	62.7	0.7	100.0	36.7	1,175
Middle	34.4	2.5	5.9	56.9	0.3	100.0	42.8	1,195
Fourth	54.6	1.8	5.7	37.5	0.5	100.0	62.0	1,183
Highest	79.7	1.5	3.0	15.5	0.3	100.0	84.3	1,811
Total 15-49	47.2	1.7	5.0	45.7	0.5	100.0	53.9	6,582
50-59	23.6	1.4	3.6	71.1	0.3	100.0	28.6	680
Total 15-59	45.0	1.7	4.9	48.1	0.5	100.0	51.5	7,262

[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 ACCESS TO MASS MEDIA

The 2013 SLDHS collected information on exposure to common print and electronic media. Respondents were asked how often they read a newspaper, listened to the radio, or watched television. This information is important because it indicates the extent to which Sierra Leoneans are regularly exposed to mass media, often used to convey messages on family planning and other health topics.

Tables 3.4.1 and 3.4.2 show the percentages of female and male respondents who were exposed to different types of mass media by age, residence, region, district, level of education, and wealth quintile. Seven percent of women and 14 percent of men read newspapers at least once a week, 14 percent of women and 18 percent of men watch television at least once a week, and 40 percent of women and 54 percent of men listen to the radio at least once a week. Overall, only 4 percent of women and 9 percent of men are exposed to all three media at least once per week. More than half of women (56 percent) and more than four of every ten men (43 percent) are not exposed to any of the three types of media on a regular basis.

There is a slight variation in media access by age. Large disparities exist among women and men in urban and rural areas in accessing any of the three types of media. For example, 14 percent of women in urban areas read a newspaper at least once a week compared with 2 percent in rural areas. Corresponding figures for men in urban and rural areas are 28 percent and 6 percent respectively. Women and men in the Western region access all three types of media more than those in any other region. In the Southern region 70 percent of women and 51 percent of men are without access to any newspaper, television, or radio. Women and men with more education are more likely to access media. The same is true for wealth. For instance, 74 percent of women in the lowest wealth quintile have no weekly exposure to any media source, over twice the proportion found in the highest wealth quintile, at 31 percent. For men, 60 percent in the lowest wealth quintile have no weekly exposure to any media source compared with 23 percent in the highest wealth quintiles.

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, Sierra Leone 2013

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	17.4	43.5	4.5	51.1	3,878
20-24	9.3	18.8	41.9	4.7	52.2	2,683
25-29	5.5	12.9	37.8	3.5	59.2	2,843
30-34	4.2	10.8	37.3	2.6	59.9	2,287
35-39	3.7	10.4	36.8	2.3	59.8	2,260
40-44	4.3	11.4	38.2	3.2	59.0	1,362
45-49	4.9	8.6	39.9	2.4	57.1	1,344
Residence						
Urban	13.9	33.1	51.9	8.7	38.7	5,933
Rural	2.4	3.1	33.1	0.6	65.8	10,725
Region						
Eastern	4.4	6.7	31.9	1.2	64.6	3,614
Northern	4.0	5.9	42.3	1.4	56.5	6,292
Southern	2.3	6.9	28.2	1.3	69.7	3,514
Western	18.3	44.7	56.3	12.6	31.4	3,238
District						
Kailahun	7.3	12.1	56.2	3.2	39.7	984
Kenema	2.0	6.3	16.3	0.3	79.8	1,651
Kono	5.4	1.9	33.6	0.6	64.0	979
Bombali	5.0	11.2	39.3	3.3	59.3	1,377
Kambia	3.0	10.8	54.7	1.0	43.8	738
Koinadugu	1.6	2.6	6.9	0.5	91.7	719
Port Loko	6.0	5.2	51.8	1.4	47.0	1,994
Tonkolili	1.9	1.1	43.4	0.1	56.0	1,464
Bo	3.6	14.9	30.0	2.9	66.0	1,398
Bonthe	1.7	1.6	28.6	0.3	70.5	678
Moyamba	1.3	1.8	25.7	0.2	73.5	843
Pujehun	1.1	1.3	27.2	0.2	72.3	595
Western Area Rural	15.4	24.6	55.7	10.0	39.4	528
Western Area Urban	18.9	48.6	56.4	13.2	29.9	2,710
Education						
No education	0.1	5.0	30.5	0.0	68.0	9,293
Primary	1.8	12.0	40.5	0.6	55.3	2,331
Secondary or higher	20.5	31.0	56.6	11.3	34.8	5,034
Wealth quintile						
Lowest	1.5	1.4	25.2	0.1	73.9	3,089
Second	2.0	3.0	33.5	0.2	65.5	3,046
Middle	2.4	3.0	35.4	0.7	63.4	3,140
Fourth	5.7	8.3	42.2	2.0	55.1	3,388
Highest	17.6	44.8	57.3	12.1	30.6	3,994
Total	6.5	13.8	39.8	3.5	56.2	16,658

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, Sierra Leone 2013

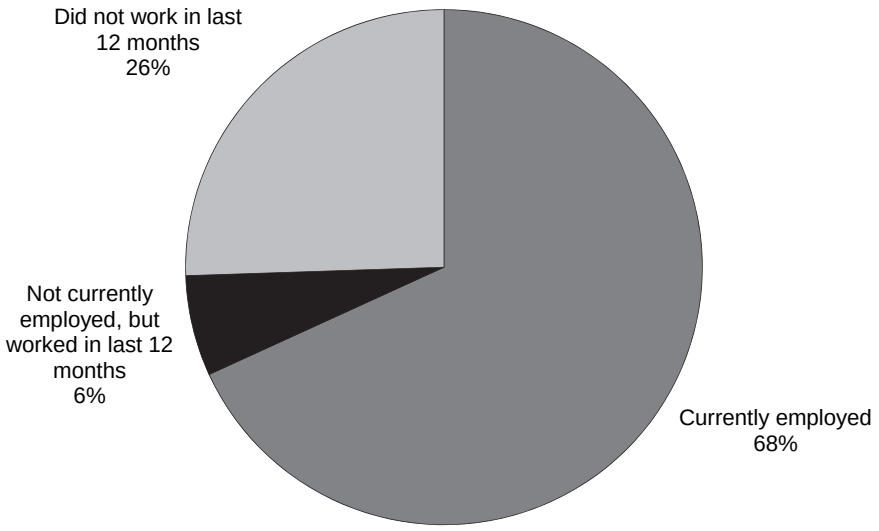
Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	13.9	20.4	50.8	8.1	44.7	1,475
20-24	21.9	24.0	60.7	12.4	34.7	1,007
25-29	15.6	19.0	54.3	9.7	42.7	1,017
30-34	11.7	14.2	53.2	6.6	45.0	804
35-39	10.7	13.6	51.7	7.1	46.4	961
40-44	10.7	12.5	51.8	7.6	47.0	690
45-49	12.8	13.8	59.8	6.9	37.4	629
Residence						
Urban	28.3	38.9	67.6	19.9	27.2	2,508
Rural	5.5	4.3	46.0	1.5	52.2	4,073
Region						
Eastern	11.2	9.6	53.7	4.8	44.3	1,442
Northern	7.8	9.4	49.8	4.1	48.2	2,300
Southern	7.5	6.4	46.9	2.1	50.8	1,414
Western	34.2	49.7	69.2	25.9	24.0	1,425
District						
Kailahun	5.1	3.3	42.2	0.7	55.7	371
Kenema	13.6	13.0	51.6	7.0	46.4	719
Kono	12.7	9.2	70.1	4.7	28.1	352
Bombali	14.7	24.5	58.2	12.5	40.4	499
Kambia	4.1	4.4	47.5	0.6	50.1	270
Koinadugu	9.6	1.0	20.3	0.7	74.0	268
Port Loko	8.2	8.8	65.1	3.6	33.0	679
Tonkolili	2.3	3.4	39.2	0.6	59.7	584
Bo	10.3	13.1	54.8	4.4	43.0	533
Bonthe	5.7	1.9	27.4	0.7	68.7	283
Moyamba	8.2	3.1	57.1	0.6	40.4	368
Pujehun	2.2	1.5	36.4	0.6	63.6	230
Western Area Rural	23.1	37.6	86.8	19.0	10.9	230
Western Area Urban	36.3	52.1	65.8	27.2	26.5	1,195
Education						
No education	0.2	5.1	41.2	0.1	58.1	2,651
Primary	3.2	9.8	48.5	1.3	50.4	825
Secondary or higher	29.1	30.2	66.9	17.6	27.5	3,106
Wealth quintile						
Lowest	2.8	0.9	38.5	0.3	60.3	1,218
Second	3.6	2.8	45.3	0.8	53.8	1,175
Middle	6.0	4.6	48.4	1.5	49.0	1,195
Fourth	13.0	15.0	59.2	5.4	37.7	1,183
Highest	34.9	48.4	71.2	25.7	22.7	1,811
Total 15-49	14.2	17.5	54.2	8.5	42.7	6,582
50-59	11.1	11.4	56.3	5.8	40.5	680
Total 15-59	13.9	17.0	54.4	8.3	42.5	7,262

3.5 EMPLOYMENT

Employment is a source of empowerment for women, given that they can exercise control over their own income. It is, however, difficult to measure employment status because some women who work do so on family farms, in family businesses, or in the informal sector, and such work often is not perceived as employment by the women themselves, while the same is true of men employed in these activities. As a result, this type of activity is rarely reported as employment.

The 2013 SLDHS asked respondents several questions about their current employment status and continuity of employment in the 12 months preceding the survey. Figure 3.1 and Table 3.5.1 present the proportion of women who were currently employed (i.e., who were working in the seven days preceding the survey), the proportion who were not currently employed but had been employed at some time during the 12 months preceding the survey, and the proportion who had not been employed at any time during the last 12 months. Table 3.5.2 presents similar employment status data for men.

Figure 3.1 **Women's employment status in the past 12 months**



Sierra Leone, 2013

Overall, 68 percent of women reported that they were currently employed. An additional 6 percent of women were not currently employed but had worked in the 12 months preceding the survey. Seventy-eight percent of men were currently employed, and an additional 3 percent had worked in the 12 months preceding the survey.

The proportion of women and men age 15-19 who were currently employed is lower than among older age groups, a finding that is due partially to the fact that many in the younger age group are students. Women and men who have never married are less likely to be currently employed (42 percent and 55 percent, respectively) compared with other women and men. Women and men with no children are less likely to be currently employed than those who have children. A higher percentage of rural women and men (76 percent and 88 percent respectively) are currently employed compared with urban residents (54 percent and 62 percent respectively).

Examining current employment status by region shows that women and men in the Western region have the lowest proportions currently employed (52 percent of women and 62 percent of men). The proportions currently employed do not vary much among the other three regions. Women and men with no education are more likely to be currently employed (80 percent and 95 percent respectively) compared with women and men with primary education (71 percent and 81 percent respectively) or with education beyond the primary level (45 percent and 62 percent respectively).

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Sierra Leone 2013

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
Age						
15-19	42.5	6.1	51.3	0.1	100.0	3,878
20-24	60.6	6.6	32.7	0.1	100.0	2,683
25-29	74.4	6.5	19.1	0.0	100.0	2,843
30-34	81.8	6.1	11.9	0.3	100.0	2,287
35-39	82.0	6.1	11.8	0.1	100.0	2,260
40-44	80.3	7.0	12.7	0.1	100.0	1,362
45-49	84.2	6.4	9.4	0.0	100.0	1,344
Marital status						
Never married	41.8	5.4	52.8	0.1	100.0	4,730
Married or living together	78.3	6.8	14.8	0.1	100.0	10,903
Divorced/separated/ widowed	81.2	5.4	13.4	0.0	100.0	1,025
Number of living children						
0	43.8	5.5	50.6	0.1	100.0	4,500
1-2	70.4	7.1	22.3	0.1	100.0	5,235
3-4	80.7	6.6	12.6	0.1	100.0	4,159
5+	84.1	5.9	9.9	0.0	100.0	2,765
Residence						
Urban	53.6	4.9	41.4	0.1	100.0	5,933
Rural	76.1	7.2	16.7	0.1	100.0	10,725
Region						
Eastern	71.6	8.1	20.2	0.0	100.0	3,614
Northern	72.9	8.0	19.0	0.1	100.0	6,292
Southern	70.2	4.2	25.5	0.1	100.0	3,514
Western	52.3	3.5	44.1	0.1	100.0	3,238
District						
Kailahun	70.2	20.4	9.4	0.0	100.0	984
Kenema	73.9	2.8	23.2	0.1	100.0	1,651
Kono	69.3	4.7	25.9	0.0	100.0	979
Bombali	61.6	12.2	26.2	0.0	100.0	1,377
Kambia	66.1	12.5	21.3	0.0	100.0	738
Koinadugu	80.3	1.6	17.8	0.4	100.0	719
Port Loko	73.5	10.9	15.3	0.2	100.0	1,994
Tonkolili	82.6	1.0	16.5	0.0	100.0	1,464
Bo	62.7	2.1	35.2	0.0	100.0	1,398
Bonthe	62.8	3.2	33.7	0.3	100.0	678
Moyamba	79.2	8.3	12.5	0.1	100.0	843
Pujehun	83.5	4.5	11.9	0.0	100.0	595
Western Area Rural	52.4	3.0	44.6	0.0	100.0	528
Western Area Urban	52.3	3.5	44.0	0.1	100.0	2,710
Education						
No education	79.9	6.8	13.2	0.1	100.0	9,293
Primary	70.5	6.0	23.5	0.1	100.0	2,331
Secondary or higher	45.2	5.6	49.1	0.1	100.0	5,034
Wealth quintile						
Lowest	78.5	6.7	14.7	0.1	100.0	3,089
Second	76.6	7.3	16.0	0.1	100.0	3,046
Middle	75.0	7.0	17.9	0.1	100.0	3,140
Fourth	66.2	6.8	26.9	0.1	100.0	3,388
Highest	49.6	4.5	45.8	0.1	100.0	3,994
Total	68.1	6.3	25.5	0.1	100.0	16,658

[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.

The proportion of women currently employed decreases with increasing levels of household wealth. Seventy-nine percent of women in the lowest wealth quintile were currently employed compared with 50 percent in the highest wealth quintile. For men, the proportion currently employed ranges from 60 percent in the highest wealth quintile to 91 percent in the second-lowest wealth quintile.

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Sierra Leone 2013

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	45.6	3.5	50.9	0.0	100.0	1,475
20-24	63.7	4.6	31.7	0.0	100.0	1,007
25-29	85.5	3.4	11.2	0.0	100.0	1,017
30-34	93.4	2.3	4.2	0.1	100.0	804
35-39	95.4	2.5	2.1	0.0	100.0	961
40-44	96.4	2.4	1.2	0.0	100.0	690
45-49	96.2	2.1	1.6	0.0	100.0	629
Marital status						
Never married	54.9	3.8	41.3	0.0	100.0	2,849
Married or living together	95.8	2.5	1.7	0.0	100.0	3,514
Divorced/separated/ widowed	87.4	3.5	8.7	0.4	100.0	219
Number of living children						
0	56.7	3.8	39.5	0.0	100.0	2,871
1-2	90.1	3.5	6.4	0.0	100.0	1,546
3-4	97.2	1.4	1.5	0.0	100.0	1,133
5+	96.7	2.7	0.5	0.0	100.0	1,032
Residence						
Urban	61.9	3.7	34.3	0.0	100.0	2,508
Rural	87.6	2.7	9.7	0.0	100.0	4,073
Region						
Eastern	83.5	2.1	14.4	0.0	100.0	1,442
Northern	83.7	3.1	13.2	0.0	100.0	2,300
Southern	78.2	4.3	17.5	0.0	100.0	1,414
Western	62.0	3.0	34.9	0.1	100.0	1,425
District						
Kailahun	89.6	2.3	8.1	0.0	100.0	371
Kenema	80.5	2.0	17.4	0.0	100.0	719
Kono	83.2	2.2	14.6	0.0	100.0	352
Bombali	73.5	5.4	21.1	0.0	100.0	499
Kambia	92.0	1.0	7.0	0.0	100.0	270
Koinadugu	91.8	1.8	6.3	0.0	100.0	268
Port Loko	88.2	3.9	7.9	0.0	100.0	679
Tonkolili	79.8	1.6	18.6	0.0	100.0	584
Bo	76.3	1.4	22.3	0.0	100.0	533
Bonthe	73.0	9.3	17.8	0.0	100.0	283
Moyamba	77.7	7.0	15.3	0.0	100.0	368
Pujehun	89.7	0.8	9.5	0.0	100.0	230
Western Area Rural	65.9	1.1	33.0	0.0	100.0	230
Western Area Urban	61.3	3.4	35.3	0.1	100.0	1,195
Education						
No education	94.8	2.5	2.6	0.0	100.0	2,651
Primary	81.4	2.2	16.5	0.0	100.0	825
Secondary or higher	62.3	3.9	33.8	0.0	100.0	3,106
Wealth quintile						
Lowest	88.6	3.3	8.0	0.0	100.0	1,218
Second	90.5	2.3	7.2	0.0	100.0	1,175
Middle	86.9	2.5	10.7	0.0	100.0	1,195
Fourth	72.0	4.3	23.7	0.0	100.0	1,183
Highest	60.1	3.2	36.7	0.0	100.0	1,811
Total 15-49	77.8	3.1	19.1	0.0	100.0	6,582
50-59	94.0	2.3	3.6	0.1	100.0	680
Total 15-59	79.3	3.0	17.6	0.0	100.0	7,262

[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.

3.6 OCCUPATION

The term occupation refers to the job held or the kind of work performed during the reference period. Respondents who were currently employed were asked to state their occupation; Tables 3.6.1 and 3.6.2 present the results for women and men, respectively. These tables show that the agriculture sector employs 52 percent of women and 54 percent of men. Two percent of women and 7 percent of men are employed in professional, technical, and managerial occupations; however, 37 percent of women are engaged in unskilled manual work compared with 27 percent of men. Five percent of women and 3 percent of men work in sales and services occupations.

Urban women and men are most often employed in unskilled manual work (68 percent and 47 percent respectively). In rural areas the majority of women (69 percent) and men (73 percent) work in agriculture. By region, the Southern region has the highest percentage of women in agricultural work (64 percent), while the Northern and Southern regions have the highest percentage of men working in agriculture (67 percent each). The Western region has the highest percentage of both women and men in unskilled manual work (69 percent and 49 percent respectively).

Occupation also varies with level of education. Ten percent of women and 16 percent of men with at least some secondary education are employed in professional, technical, and managerial occupations. Women and men with no education or only a primary education most commonly work in agriculture.

Employed women and men in the lower wealth quintiles are concentrated in agricultural occupations. The most common occupation among women and men in the highest wealth quintile is unskilled manual labor.

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, Sierra Leone 2013

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of women
Age										
15-19	0.3	0.0	4.0	0.1	35.8	0.9	46.3	12.7	100.0	1,884
20-24	1.5	0.1	6.2	0.0	43.8	0.5	44.9	3.1	100.0	1,804
25-29	3.0	0.7	5.7	0.1	37.4	0.5	50.1	2.5	100.0	2,300
30-34	2.3	0.2	4.6	0.0	37.6	0.2	54.1	1.0	100.0	2,009
35-39	2.3	0.6	3.9	0.0	36.3	0.3	55.8	0.8	100.0	1,992
40-44	2.7	0.2	3.8	0.1	34.5	0.2	57.1	1.3	100.0	1,188
45-49	4.3	0.5	3.4	0.0	32.7	0.3	57.7	1.1	100.0	1,218
Marital status										
Never married	3.6	0.7	7.1	0.1	44.7	0.8	30.1	13.0	100.0	2,230
Married or living together	1.7	0.2	3.8	0.0	34.8	0.4	57.9	1.2	100.0	9,278
Divorced/separated/ widowed	4.7	0.9	7.2	0.0	43.7	0.2	41.8	1.6	100.0	887
Number of living children										
0	3.1	0.6	5.3	0.1	38.6	0.9	39.8	11.7	100.0	2,216
1-2	3.1	0.6	5.8	0.0	41.0	0.4	46.6	2.5	100.0	4,059
3-4	1.8	0.1	4.1	0.0	35.8	0.4	56.7	1.1	100.0	3,631
5+	0.7	0.0	3.0	0.1	31.8	0.2	63.6	0.7	100.0	2,488
Residence										
Urban	6.4	1.2	9.5	0.1	67.9	0.7	7.9	6.3	100.0	3,471
Rural	0.6	0.0	2.7	0.0	25.3	0.3	68.8	2.2	100.0	8,925
Region										
Eastern	1.3	0.1	4.2	0.0	29.9	0.6	59.1	4.8	100.0	2,882
Northern	1.2	0.1	3.3	0.0	34.4	0.3	58.4	2.2	100.0	5,092
Southern	1.4	0.0	3.9	0.1	28.7	0.3	63.9	1.7	100.0	2,614
Western	7.8	2.0	10.1	0.1	69.0	0.8	3.5	6.7	100.0	1,807
District										
Kailahun	0.4	0.1	2.6	0.0	24.4	2.0	62.5	7.9	100.0	892
Kenema	1.8	0.0	3.8	0.0	37.2	0.0	56.2	1.0	100.0	1,266
Kono	1.5	0.1	6.9	0.0	23.7	0.1	60.0	7.6	100.0	725
Bombali	1.7	0.2	5.2	0.1	25.9	0.2	64.8	2.0	100.0	1,016
Kambia	0.6	0.0	3.5	0.0	28.8	0.9	62.4	3.8	100.0	580
Koinadugu	0.9	0.1	1.4	0.0	17.6	0.0	78.5	1.5	100.0	588
Port Loko	1.0	0.0	1.5	0.0	48.4	0.3	45.8	2.9	100.0	1,684
Tonkolili	1.7	0.0	5.0	0.0	33.2	0.1	59.0	1.1	100.0	1,223
Bo	2.6	0.0	3.6	0.0	33.3	0.0	57.9	2.6	100.0	906
Bonthe	1.2	0.3	9.1	0.3	31.1	0.9	55.9	1.3	100.0	447
Moyamba	0.5	0.0	1.1	0.0	17.3	0.3	79.6	1.1	100.0	737
Pujehun	0.6	0.0	3.9	0.1	34.7	0.3	59.0	1.4	100.0	524
Western Area Rural	2.4	0.3	12.5	0.0	74.9	0.9	7.2	1.8	100.0	293
Western Area Urban	8.8	2.4	9.6	0.1	67.9	0.7	2.7	7.7	100.0	1,514
Education										
No education	0.1	0.0	3.2	0.0	32.6	0.3	62.8	1.0	100.0	8,058
Primary	0.1	0.0	5.1	0.1	43.6	0.5	47.3	3.3	100.0	1,782
Secondary or higher	10.4	1.7	8.8	0.0	47.4	0.8	19.9	11.0	100.0	2,556
Wealth quintile										
Lowest	0.2	0.0	1.7	0.0	18.9	0.4	77.2	1.6	100.0	2,631
Second	0.2	0.0	2.6	0.0	22.3	0.3	72.8	1.8	100.0	2,557
Middle	0.5	0.0	2.0	0.0	29.4	0.3	64.9	2.8	100.0	2,573
Fourth	1.5	0.1	7.6	0.1	52.9	0.6	32.7	4.6	100.0	2,475
Highest	9.9	1.8	10.3	0.1	68.7	0.7	1.8	6.7	100.0	2,160
Total	2.2	0.3	4.6	0.0	37.2	0.4	51.7	3.4	100.0	12,396

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, Sierra Leone 2013

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of men
Age									
15-19	1.7	0.0	1.9	1.4	23.5	59.7	11.9	100.0	724
20-24	5.1	0.0	2.2	5.8	30.4	48.4	8.1	100.0	688
25-29	6.7	0.4	3.4	9.8	29.2	47.2	3.2	100.0	904
30-34	7.8	0.4	2.7	6.8	29.0	51.9	1.4	100.0	769
35-39	7.0	0.6	3.2	5.0	26.7	55.6	1.9	100.0	941
40-44	10.4	0.4	1.8	4.1	23.0	58.5	1.8	100.0	681
45-49	10.0	0.9	3.2	3.4	23.7	58.1	0.7	100.0	619
Marital status									
Never married	5.1	0.4	2.9	5.3	30.2	46.4	9.6	100.0	1,672
Married or living together	7.6	0.4	2.7	5.2	24.5	58.4	1.3	100.0	3,455
Divorced/separated/ widowed	9.5	0.9	1.3	9.3	34.4	39.4	5.1	100.0	200
Number of living children									
0	4.7	0.2	3.0	4.7	29.4	49.1	8.9	100.0	1,736
1-2	8.3	0.5	2.9	8.8	29.9	46.8	2.8	100.0	1,447
3-4	8.9	0.5	2.5	4.7	23.3	58.8	1.3	100.0	1,116
5+	6.4	0.4	2.1	2.5	21.3	66.9	0.5	100.0	1,027
Residence									
Urban	15.0	1.2	6.6	12.7	47.0	10.9	6.8	100.0	1,647
Rural	3.2	0.1	0.9	2.1	17.6	73.2	2.8	100.0	3,679
Region									
Eastern	3.6	0.1	1.6	4.5	28.7	55.5	6.0	100.0	1,235
Northern	5.8	0.3	1.3	3.9	19.9	66.7	2.1	100.0	1,996
Southern	4.6	0.2	2.3	4.4	18.9	66.9	2.7	100.0	1,167
Western	16.3	1.3	7.6	11.0	48.5	8.0	7.4	100.0	927
District									
Kailahun	2.7	0.0	0.0	1.4	24.0	58.7	13.3	100.0	341
Kenema	3.8	0.1	2.6	5.0	33.7	51.6	3.2	100.0	594
Kono	4.3	0.0	1.5	7.3	24.1	59.6	3.2	100.0	301
Bombali	9.1	0.1	2.5	5.2	22.2	59.4	1.6	100.0	394
Kambia	3.2	0.0	1.5	2.7	8.0	82.2	2.5	100.0	251
Koinadugu	5.5	0.4	0.8	4.0	12.7	72.6	4.0	100.0	251
Port Loko	3.7	0.4	1.0	5.1	17.4	69.7	2.6	100.0	625
Tonkolili	7.5	0.5	0.8	2.0	31.3	57.4	0.4	100.0	475
Bo	7.8	0.2	3.3	8.3	19.1	59.2	2.0	100.0	414
Bonthe	2.1	0.4	3.4	2.3	16.3	69.6	5.9	100.0	233
Moyamba	4.1	0.1	0.5	1.5	12.5	79.4	1.8	100.0	312
Pujehun	1.8	0.0	2.0	3.0	30.8	60.4	2.0	100.0	208
Western Area Rural	7.2	0.9	7.6	11.6	52.0	20.3	0.5	100.0	154
Western Area Urban	18.1	1.3	7.6	10.9	47.8	5.5	8.7	100.0	773
Education									
No education	1.1	0.1	1.1	3.2	24.0	69.5	1.0	100.0	2,582
Primary	0.9	0.0	1.8	5.2	31.0	58.3	2.8	100.0	689
Secondary or higher	16.1	0.9	4.9	8.3	28.6	32.9	8.3	100.0	2,055
Wealth quintile									
Lowest	1.5	0.0	0.0	1.0	17.1	78.3	2.1	100.0	1,120
Second	2.1	0.0	0.6	1.3	14.6	78.6	2.9	100.0	1,090
Middle	3.8	0.0	1.1	3.5	19.6	68.6	3.3	100.0	1,067
Fourth	7.4	0.4	3.1	8.7	34.5	40.5	5.3	100.0	902
Highest	19.1	1.5	8.4	12.7	47.9	3.6	6.8	100.0	1,146
Total 15-49	6.9	0.4	2.7	5.4	26.7	53.9	4.0	100.0	5,326
50-59	9.6	1.1	3.0	2.4	22.8	59.4	1.7	100.0	655
Total 15-59	7.2	0.5	2.7	5.1	26.2	54.5	3.8	100.0	5,981

3.7 TYPE OF EMPLOYMENT

Table 3.7 shows the percent distribution of women 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). Eleven percent of women engaged in agricultural work and 52 percent of women engaged in nonagricultural work are paid in cash only. Most other women in these occupational categories are not paid (68 percent for agriculture workers and 37 percent for nonagricultural workers). However, 15 percent of women working in agriculture and 7 percent of women in nonagricultural occupations received cash and in-kind earnings. Sixty-five percent of women engaged in agricultural work

and 79 percent of women engaged in nonagricultural work are self-employed. Women in agricultural work are more likely than those in nonagricultural work to be employed by a family member (34 percent and 14 percent, respectively). Thirty-seven percent of women working in agriculture are employed all year compared with 75 percent of women engaged in nonagricultural work. Fifty-nine percent of women working in agriculture are seasonally employed compared with 17 percent of those who are nonagricultural workers.

Table 3.7 Type of employment

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), Sierra Leone 2013

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	11.4	52.3	30.1
Cash and in-kind	14.9	6.6	10.8
In-kind only	5.5	3.3	4.4
Not paid	67.5	37.2	54.1
Missing	0.7	0.5	0.7
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	33.6	14.2	24.3
Employed by nonfamily member	0.7	6.3	3.4
Self-employed	65.4	79.0	71.8
Missing	0.3	0.5	0.5
Total	100.0	100.0	100.0
Continuity of employment			
All year	37.0	74.8	54.4
Seasonal	58.9	17.2	39.4
Occasional	3.8	7.7	5.8
Missing	0.3	0.3	0.4
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	6,413	5,565	12,396

Note: Total includes 418 women with missing information on type of employment.

3.8 HEALTH INSURANCE COVERAGE

Medical insurance can provide peace of mind and, most important, can help pay for health care needed to save lives and promote well-being. In the 2013 SLDHS, women and men were asked if they were covered by any health insurance. Results shown in Table 3.8 indicate that only 1 percent of women and 3 percent of men have health insurance. For both women and men, health insurance coverage tends to be the highest in urban areas, in the Western region, among respondents with at least some secondary education, and among respondents in the highest wealth quintile.

Table 3.8 Health insurance coverage

Percentage of women and men age 15-49 with health insurance coverage, according to background characteristics, Sierra Leone 2013

Background characteristic	Women		Men	
	Percentage covered by health insurance	Number of women	Percentage covered by health insurance	Number of men
Residence				
Urban	2.2	5,933	5.9	2,508
Rural	0.2	10,725	1.1	4,073
Region				
Eastern	0.5	3,614	3.6	1,442
Northern	0.6	6,292	1.5	2,300
Southern	1.0	3,514	1.2	1,414
Western	2.3	3,238	6.1	1,425
Education				
No education	0.4	9,293	0.9	2,651
Primary	0.8	2,331	3.8	825
Secondary or higher	2.2	5,034	4.5	3,106
Wealth quintile				
Lowest	0.2	3,089	0.3	1,218
Second	0.2	3,046	0.8	1,175
Middle	0.4	3,140	1.5	1,195
Fourth	1.0	3,388	2.9	1,183
Highest	2.5	3,994	7.0	1,811
Total 15-49	1.0	16,658	2.9	6,582
50-59	na	na	3.9	680
Total 15-59	na	na	3.0	7,262

3.9 SMOKING

In order to measure the extent of smoking among Sierra Leonean adults, women and men who were interviewed in the 2013 SLDHS were asked if they currently smoked cigarettes or used tobacco. Tables 3.9.1 and 3.9.2 present the percentages of women and men who smoke cigarettes or a pipe or use other tobacco products. Table 3.9.2 also includes information obtained from male cigarette smokers on number of cigarettes smoked in the 24 hours before the interview.

The results shown in Table 3.9.1 indicate that less than 9 percent of women said they use tobacco of any kind, and less than 5 percent said they smoke cigarettes, which is a slight decline from the 12 percent and 6 percent recorded in 2008 for overall tobacco use and smoking respectively.

Twenty-eight percent of men age 15-49 use tobacco products, with 27 percent saying that they smoke cigarettes, down from 37 percent in the 2008 SLDHS. Men in the highest wealth quintile, those in the urban areas, and those with secondary or higher education are less likely to smoke cigarettes compared with men with less education, rural men, and men in the lower wealth quintiles.

Among the regions, men in Northern region have the highest level of cigarette smoking, whereas men in Western region have the lowest level of smoking.

Among men age 15-49 who smoke cigarettes, the largest proportion (54 percent) said they smoked 10 or more in the previous 24 hours, followed by those who smoked 3.5 cigarettes (24 percent) and those who smoked 6-9 cigarettes (12 percent). There is little variation among the wealth quintiles in the percentage of men who smoked 10 or more cigarettes in the previous 24 hours; men with secondary or higher education are less likely to smoke 10 or more cigarettes per day compared with men with no education and men with primary education.

Table 3.9.1 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, Sierra Leone 2013

Background characteristic	Uses tobacco			Does not use tobacco	Number of women
	Cigarettes	Pipe	Other tobacco		
Age					
15-19	0.5	0.0	0.2	99.1	3,878
20-24	3.1	0.1	1.0	96.1	2,683
25-29	4.3	0.1	2.0	93.7	2,843
30-34	6.5	0.0	4.5	89.5	2,287
35-39	6.6	0.1	6.6	87.5	2,260
40-44	8.4	0.2	10.2	82.0	1,362
45-49	7.7	0.3	13.6	79.2	1,344
Maternity status					
Pregnant	2.3	0.0	3.6	94.3	1,429
Breastfeeding (not pregnant)	4.0	0.0	3.4	93.0	3,998
Neither	4.9	0.1	4.3	91.1	11,231
Residence					
Urban	4.0	0.0	1.5	94.5	5,933
Rural	4.7	0.1	5.4	90.3	10,725
Region					
Eastern	6.9	0.0	7.1	86.8	3,614
Northern	4.6	0.1	1.8	93.7	6,292
Southern	2.5	0.1	7.6	90.0	3,514
Western	3.5	0.0	0.8	95.7	3,238
District					
Kailahun	10.5	0.1	7.8	82.7	984
Kenema	5.5	0.0	8.9	86.0	1,651
Kono	5.6	0.0	3.5	92.2	979
Bombali	4.0	0.0	1.7	94.6	1,377
Kambia	6.0	0.2	1.5	92.5	738
Koinadugu	3.0	0.1	1.9	95.3	719
Port Loko	3.3	0.0	1.9	95.0	1,994
Tonkolili	6.9	0.5	1.9	91.1	1,464
Bo	2.5	0.0	8.7	88.9	1,398
Bonthe	1.4	0.0	2.7	95.8	678
Moyamba	3.8	0.3	8.4	87.8	843
Pujehun	2.0	0.0	9.4	88.7	595
Western Area Rural	3.1	0.0	1.6	95.5	528
Western Area Urban	3.6	0.0	0.6	95.7	2,710
Education					
No education	6.0	0.1	6.5	88.0	9,293
Primary	4.3	0.1	2.0	94.0	2,331
Secondary or higher	1.7	0.0	0.3	97.8	5,034
Wealth quintile					
Lowest	5.1	0.2	6.9	88.2	3,089
Second	5.4	0.2	5.7	89.3	3,046
Middle	4.2	0.0	5.4	90.8	3,140
Fourth	5.1	0.0	2.7	92.5	3,388
Highest	2.8	0.0	0.4	96.7	3,994
Total	4.4	0.1	4.0	91.8	16,658

Table 3.9.2 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, Sierra Leone 2013

	Uses tobacco					Percent distribution of men who smoke cigarettes by number of cigarettes smoked in the past 24 hours							
Background characteristic	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number of men	0	1-2	3-5	6-9	10+	Don't know/ missing	Total	Number of cigarette smokers
Age													
15-19	3.8	0.0	0.0	96.1	1,475	0.0	20.0	33.7	6.2	39.6	0.5	100.0	57
20-24	14.3	0.0	0.8	85.3	1,007	0.3	9.6	23.5	10.7	53.1	2.8	100.0	144
25-29	26.1	0.1	1.9	73.3	1,017	0.6	6.4	31.0	11.8	46.6	3.5	100.0	265
30-34	37.7	0.0	1.8	62.2	804	0.5	7.2	26.1	7.0	55.0	4.2	100.0	303
35-39	45.5	0.6	2.4	53.5	961	0.7	5.6	21.9	11.9	56.3	3.7	100.0	437
40-44	39.1	0.3	2.0	59.9	690	0.0	3.5	19.9	14.2	59.3	3.1	100.0	270
45-49	44.2	0.5	1.7	54.7	629	0.6	3.2	21.1	18.1	54.0	3.1	100.0	278
Residence													
Urban	13.7	0.2	1.1	85.8	2,508	0.1	6.1	24.3	14.2	53.3	1.9	100.0	344
Rural	34.6	0.2	1.6	64.9	4,073	0.6	6.1	24.0	11.6	54.0	3.7	100.0	1,410
Region													
Eastern	31.8	0.3	2.5	66.9	1,442	0.4	8.8	35.0	12.9	42.2	0.8	100.0	459
Northern	33.0	0.2	0.6	66.8	2,300	0.3	3.7	16.6	11.6	66.8	1.0	100.0	760
Southern	27.8	0.1	1.4	71.9	1,414	0.9	6.4	25.0	11.8	45.2	10.7	100.0	394
Western	9.9	0.2	1.4	89.5	1,425	0.3	9.4	26.0	13.1	46.9	4.2	100.0	141
District													
Kailahun	34.7	0.7	2.7	64.1	371	1.3	9.1	28.0	17.7	43.4	0.5	100.0	129
Kenema	31.0	0.2	3.5	67.2	719	0.0	9.6	41.2	11.2	37.3	0.8	100.0	223
Kono	30.6	0.0	0.4	69.1	352	0.0	6.7	30.7	10.7	50.7	1.3	100.0	108
Bombali	32.0	0.0	0.3	68.0	499	0.0	4.0	12.8	8.5	73.2	1.5	100.0	160
Kambia	36.4	0.1	0.8	63.6	270	0.4	1.9	10.8	8.2	78.4	0.4	100.0	98
Koinadugu	28.8	0.2	0.9	71.2	268	0.0	6.3	30.7	15.9	47.1	0.0	100.0	77
Port Loko	31.0	0.4	0.2	68.4	679	1.0	4.2	19.9	15.9	58.7	0.2	100.0	210
Tonkolili	36.7	0.0	1.3	63.3	584	0.0	2.8	13.8	9.7	71.8	1.9	100.0	214
Bo	26.4	0.0	1.8	73.4	533	1.2	7.3	20.1	11.0	35.3	25.1	100.0	141
Bonthe	20.1	0.5	1.2	79.9	283	1.3	9.7	8.1	25.7	49.8	5.4	100.0	57
Moyamba	27.9	0.0	0.8	71.9	368	1.2	0.9	27.8	7.8	60.3	1.9	100.0	103
Pujehun	40.7	0.2	1.5	58.8	230	0.0	9.1	39.6	8.9	40.5	1.9	100.0	94
Western Area Rural	17.8	0.1	0.1	82.2	230	1.2	10.7	18.9	12.9	52.1	4.3	100.0	41
Western Area Urban	8.4	0.2	1.7	91.0	1,195	0.0	8.8	28.9	13.3	44.8	4.2	100.0	100
Education													
No education	42.4	0.2	2.1	56.9	2,651	0.3	4.8	23.9	11.0	57.2	2.8	100.0	1,125
Primary	30.5	0.3	1.4	69.0	825	0.5	9.4	20.3	14.4	52.1	3.4	100.0	251
Secondary or higher	12.1	0.1	0.8	87.4	3,106	0.8	7.6	27.3	13.8	45.4	5.0	100.0	377
Wealth quintile													
Lowest	38.4	0.1	1.7	60.9	1,218	0.9	5.8	22.3	14.2	54.0	2.8	100.0	468
Second	38.1	0.2	1.5	61.1	1,175	0.1	6.4	26.7	11.3	52.4	3.1	100.0	448
Middle	33.1	0.2	1.6	66.4	1,195	0.3	4.3	21.7	8.2	59.6	5.9	100.0	396
Fourth	21.8	0.3	0.7	78.1	1,183	0.8	7.3	26.8	11.3	52.6	1.2	100.0	257
Highest	10.2	0.1	1.4	89.3	1,811	0.3	8.2	23.6	18.1	46.7	3.1	100.0	184
Total 15-49	26.6	0.2	1.4	72.8	6,582	0.5	6.1	24.1	12.1	53.9	3.4	100.0	1,754
50-59	41.1	1.2	1.5	57.7	680	0.5	7.0	24.3	12.0	55.1	1.1	100.0	279
Total 15-59	28.0	0.3	1.4	71.4	7,262	0.5	6.2	24.1	12.1	54.1	3.1	100.0	2,033

MARRIAGE AND SEXUAL ACTIVITY 4

Key Findings

- Two-thirds of women and about half of men are currently married.
- Thirty-five percent of currently married women are married to men who are in a polygynous union; 20 percent of currently married men are in a polygynous union.
- Men tend to marry later than women; the median age at first marriage among men age 25-49 is 25.0 years, while the median age for at first marriage among women age 25-49 is 18.0 years.
- Women and men in Sierra Leone tend to initiate sexual activity before marriage. The median age at first sexual intercourse is 16.4 years for women and 18.0 years for men age 25-49.

This chapter addresses marital status, age at first marriage, and sexual activity. Marriage is a primary indication of women's exposure to the risk of pregnancy and, therefore, is important for understanding fertility. Populations in which age at marriage is young tend to have early childbearing and high fertility. Thus trends in age at marriage have an important bearing on fertility trends. The chapter also includes information on two other direct measures of exposure to pregnancy: age at first sexual intercourse and frequency of intercourse.

4.1 CURRENT MARITAL STATUS

Table 4.1 presents the distribution of women and men by current marital status and age. The term "married" refers to legal or formal marriage, while the term "living together" designates an informal union in which a man and a woman live together but a formal civil or religious ceremony has not taken place. In subsequent tables that do not list living together as a separate category, "currently married" includes both categories, married and living together. Respondents who are currently married, widowed, divorced, or separated are referred to as "ever married."

Overall, two-thirds of women (66 percent) age 15-49 are currently married or living together with a man as though married. Twenty-eight percent of women have never married, while six percent are divorced, separated or widowed. Table 4.1 suggests that most Sierra Leonean women marry at least once during their lifetime. The proportion of never-married women declines sharply with age, from 80 percent of women age 15-19 to 1 percent of women age 45-49.

Among respondents age 15-49, the proportion never-married is notably higher among men than women (43 percent versus 28 percent). About half of men (53 percent) are currently married or living together with a woman, and 3 percent are divorced, separated, or widowed. Men tend to marry later than women. For example, 59 percent of women age 20-24 are in union compared with 19 percent of men age 20-24. The majority of men are married by age 50.

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Sierra Leone 2013

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	80.3	16.7	2.1	0.1	0.5	0.3	100.0	18.8	3,878
20-24	37.6	54.1	4.4	0.6	2.6	0.6	100.0	58.5	2,683
25-29	13.3	77.7	4.0	0.6	3.7	0.7	100.0	81.7	2,843
30-34	4.5	85.9	3.0	0.9	3.9	1.7	100.0	88.9	2,287
35-39	3.5	85.3	2.0	1.5	4.3	3.3	100.0	87.3	2,260
40-44	2.0	83.8	2.1	1.7	3.5	6.9	100.0	85.9	1,362
45-49	1.3	80.8	1.2	1.4	3.1	12.2	100.0	82.0	1,344
Total 15-49	28.4	62.6	2.8	0.8	2.8	2.5	100.0	65.5	16,658
					MEN				
Age									
15-19	99.0	0.7	0.2	0.0	0.1	0.0	100.0	0.9	1,475
20-24	79.8	15.9	3.0	0.0	1.2	0.1	100.0	18.9	1,007
25-29	39.7	49.1	6.8	1.2	2.8	0.3	100.0	56.0	1,017
30-34	14.1	76.3	5.4	1.0	2.9	0.2	100.0	81.7	804
35-39	5.4	84.6	4.8	2.1	2.5	0.6	100.0	89.3	961
40-44	1.4	88.7	4.9	1.8	1.6	1.5	100.0	93.7	690
45-49	1.0	88.4	3.9	2.6	2.9	1.2	100.0	92.3	629
Total 15-49	43.3	49.6	3.8	1.1	1.8	0.4	100.0	53.4	6,582
50-59	1.0	89.1	4.2	1.8	1.9	2.0	100.0	93.3	680
Total 15-59	39.3	53.3	3.8	1.1	1.8	0.6	100.0	57.1	7,262

4.2 POLYGYNY

Polygyny, the practice of having more than one wife at the same time, has implications for the frequency of sexual intercourse, and thus may have an effect on fertility. The 2013 SLDHS measured the extent of polygyny by asking all currently married female respondents whether their husbands or partners had other wives (co-wives), and if so, how many. Table 4.2.1 shows the percent distribution of currently married women age 15-49 by number of co-wives. Married men were asked whether they had one or more wives or partners with whom they were living. Table 4.2.2 shows the percent distribution of currently married men by number of wives.

As Table 4.2.1 shows, in Sierra Leone over a third (35 percent) of married women age 15-49 are in polygynous unions; twenty-seven percent of female respondents reported having one co-wife, while 8 percent have two or more co-wives. The prevalence of polygyny reported by women age 15-49 has remained about the same since 2008 SLDHS, when the SLDHS estimated it at 37 percent.

The proportion of women living in polygynous unions increases with age, from 19 percent among women age 15-19 to 47 percent among women age 45-49. Polygynous unions are more prevalent in rural areas (39 percent) than urban areas (22 percent). At the regional level, the Northern region (45 percent) has the highest percentage of women in polygynous unions, followed by the Southern (32 percent) and Eastern (30 percent) regions, and the Western region has the lowest proportion (16 percent). The district-level figures show that Kambia has the highest proportion of polygynous unions (53 percent), and the Western Urban district has the lowest proportion (15 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, Sierra Leone 2013

Background characteristic	Number of co-wives 0	1	2+	Don't know	Missing	Total	Number of women
Age							
15-19	79.6	16.2	2.7	1.5	0.1	100.0	729
20-24	73.8	20.7	3.5	1.3	0.7	100.0	1,570
25-29	68.1	26.0	3.9	1.6	0.3	100.0	2,323
30-34	64.3	27.1	6.8	1.5	0.4	100.0	2,033
35-39	55.6	33.4	9.6	1.1	0.2	100.0	1,974
40-44	54.5	30.1	14.5	0.9	0.1	100.0	1,170
45-49	51.7	32.8	14.4	0.5	0.5	100.0	1,103
Residence							
Urban	74.9	17.9	4.4	2.4	0.4	100.0	2,923
Rural	59.5	30.7	8.7	0.9	0.3	100.0	7,980
Region							
Eastern	69.1	25.3	4.8	0.8	0.1	100.0	2,558
Northern	53.6	33.7	11.6	0.7	0.4	100.0	4,399
Southern	65.8	25.9	6.4	1.6	0.3	100.0	2,434
Western	79.8	14.0	2.3	3.2	0.7	100.0	1,512
District							
Kailahun	67.0	26.8	5.1	1.1	0.0	100.0	760
Kenema	69.4	24.6	5.0	0.8	0.1	100.0	1,161
Kono	70.8	24.8	3.9	0.4	0.1	100.0	637
Bombali	68.7	24.0	6.8	0.2	0.4	100.0	805
Kambia	46.0	40.0	13.3	0.4	0.2	100.0	563
Koinadugu	45.9	39.4	11.4	1.2	2.1	100.0	547
Port Loko	52.9	34.6	12.2	0.2	0.1	100.0	1,456
Tonkolili	51.0	33.7	13.7	1.6	0.0	100.0	1,027
Bo	67.6	25.3	6.6	0.5	0.0	100.0	933
Bonthe	72.2	18.3	3.0	6.5	0.0	100.0	418
Moyamba	57.6	32.5	8.1	0.7	1.1	100.0	632
Pujehun	67.8	24.9	6.4	0.7	0.2	100.0	452
Western Area Rural	76.3	18.2	4.7	0.8	0.0	100.0	305
Western Area Urban	80.7	13.0	1.6	3.8	0.8	100.0	1,207
Education							
No education	59.4	30.2	9.0	1.1	0.3	100.0	7,870
Primary	68.7	25.1	4.5	1.5	0.2	100.0	1,426
Secondary or higher	79.6	15.0	2.9	1.9	0.6	100.0	1,607
Wealth quintile							
Lowest	65.8	26.9	5.6	1.3	0.4	100.0	2,341
Second	60.0	31.4	7.5	0.7	0.3	100.0	2,323
Middle	58.0	31.6	9.4	0.7	0.2	100.0	2,307
Fourth	58.9	29.2	10.3	1.3	0.3	100.0	2,087
Highest	77.6	14.8	4.5	2.5	0.6	100.0	1,845
Total	63.6	27.3	7.5	1.3	0.3	100.0	10,903

The proportion of women living in polygynous unions declines as women's level of education increases. Thirty-nine percent of women with no education are in polygynous unions compared with 18 percent with secondary education or higher. There also are notable differences in the prevalence of polygyny among different wealth quintiles. Women in the highest wealth quintile are much less likely to be in polygynous unions than women in any of the four lower wealth quintiles, while the highest prevalence of polygyny is found in the second, middle, and fourth quintiles.

Table 4.2.2 shows the distribution of currently married men by number of wives. Twenty percent of men age 15-49 reported having two or more wives, a small increase from the 17 percent reported in the 2008 SLDHS. Older men, men living in rural areas, those in the Northern region, those with little or no education, and men in the lowest wealth quintile are more likely than other men to be in polygynous unions.

4.3 AGE AT FIRST MARRIAGE

Whether or not the start of marriage coincides with the initiation of sexual intercourse and thus the beginning of exposure to the risk of pregnancy, first marriage is an important social and demographic indicator. In most societies it represents the point in a person's life when childbearing first becomes welcome. The duration of exposure to the risk of pregnancy depends primarily on the age at which women first marry. Women who marry early, on average, are more likely to have their first child at a young age and give birth to more children overall, contributing to high fertility rates. The 2013 SLDHS obtained information on age at first marriage by asking respondents the month and year or the age at which they started living with their first spouse or partner.

Table 4.3 presents the percentages of women and men who were first married by specific exact ages, and the median age at first marriage for women and men, according to current age. Note that in this table "married" includes "living with a man/woman" as well as formal marriage.

Women tend to enter into marriage relatively early in Sierra Leone. One in six women age 20-49 married by age 15, 48 percent married by age 18, and 64 percent married by age 20. The median age at first marriage among woman age 20-49 is 18.2 years. Younger generations tend to enter into marriage slightly later than older cohorts. The median age at first marriage rises from 18.2 years among women age 25-29 to 19.4 years among women age 20-24.

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, Sierra Leone 2013

Background characteristic	Number of wives: 1	Number of wives: 2+	Total	Number of men
Age				
15-19	*	*	100.0	13
20-24	96.9	3.1	100.0	190
25-29	94.7	5.3	100.0	569
30-34	85.3	14.7	100.0	657
35-39	77.0	23.0	100.0	858
40-44	72.0	28.0	100.0	646
45-49	67.5	32.5	100.0	580
Residence				
Urban	85.2	14.8	100.0	983
Rural	78.1	21.9	100.0	2,530
Region				
Eastern	84.0	16.0	100.0	847
Northern	74.2	25.8	100.0	1,300
Southern	80.7	19.3	100.0	839
Western	87.1	12.9	100.0	528
District				
Kailahun	89.0	11.0	100.0	241
Kenema	83.1	16.9	100.0	391
Kono	80.1	19.9	100.0	215
Bombali	83.3	16.7	100.0	260
Kambia	71.6	28.4	100.0	156
Koinadugu	62.2	37.8	100.0	156
Port Loko	72.6	27.4	100.0	396
Tonkolili	76.1	23.9	100.0	331
Bo	81.6	18.4	100.0	313
Bonthe	91.8	8.2	100.0	151
Moyamba	70.4	29.6	100.0	226
Pujehun	83.4	16.6	100.0	149
Western Area Rural	80.7	19.3	100.0	106
Western Area Urban	88.8	11.2	100.0	422
Education				
No education	77.1	22.9	100.0	1,979
Primary	81.7	18.3	100.0	419
Secondary or higher	84.8	15.2	100.0	1,116
Wealth quintile				
Lowest	79.9	20.1	100.0	800
Second	78.4	21.6	100.0	744
Middle	77.5	22.5	100.0	733
Fourth	76.8	23.2	100.0	573
Highest	88.1	11.9	100.0	664
Total 15-49	80.1	19.9	100.0	3,514
50-59	63.7	36.3	100.0	635
Total 15-59	77.6	22.4	100.0	4,148

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

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, Sierra Leone 2013

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	5.5	na	na	na	na	80.3	3,878	a
20-24	12.5	38.9	53.8	na	na	37.6	2,683	19.4
25-29	16.4	48.4	64.1	74.8	83.4	13.3	2,843	18.2
30-34	16.9	53.3	69.7	79.4	88.0	4.5	2,287	17.7
35-39	17.3	49.6	66.7	78.2	86.6	3.5	2,260	18.0
40-44	14.5	51.4	67.7	77.7	85.4	2.0	1,362	17.9
45-49	16.0	48.8	63.9	74.8	85.7	1.3	1,344	18.1
20-49	15.6	47.9	63.8	na	na	12.6	12,780	18.2
25-49	16.4	50.2	66.4	77.0	85.7	6.0	10,097	18.0
				MEN				
Age								
15-19	0.2	na	na	na	na	99.0	1,475	a
20-24	0.7	5.9	12.9	na	na	79.8	1,007	a
25-29	1.4	6.7	17.1	28.3	47.4	39.7	1,017	a
30-34	1.4	10.2	20.3	35.1	56.7	14.1	804	24.2
35-39	1.8	10.6	19.6	31.2	52.3	5.4	961	24.6
40-44	1.3	9.8	18.8	33.5	52.0	1.4	690	24.6
45-49	0.3	6.3	13.9	26.5	41.4	1.0	629	26.5
20-49	1.2	8.2	17.1	na	na	27.2	5,107	a
25-49	1.3	8.8	18.1	30.9	50.2	14.3	4,100	25.0
20-59	1.1	7.8	16.3	na	na	24.1	5,787	a
25-59	1.2	8.2	17.1	29.7	48.1	12.4	4,781	a

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

The proportion of women age 15-19 who married by age 15 declined from 10 percent in 2008 to 6 percent in 2013. The median age first marriage among women age 20-49 rose from 17.2 years in 2008 to 18.2 years in 2013.

Men tend to marry at a later age than women. The median age at first marriage among men age 25-49 is 25.0 years, seven years older than among women. Only 17 percent of men age 20-49 married by age 20 compared with 64 percent of women age 20-49.

Table 4.4 shows median age at first marriage by background characteristics. Women age 25-49 living in urban areas marry about two years later than rural women (19.5 years compared with 17.5 years). At the district level, the median age at first marriage for women age 25-49 ranges from 15.9 years in Koinadugu to 20.8 years in Western Area Urban district. The median age at first marriage for women age 25-49 is higher among the better educated and the wealthier.

Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, and median age at first marriage among men age 20-59 and 25-59, according to background characteristics, Sierra Leone 2013

Background characteristic	Women's age 20-49	Women's age 25-49	Men's age 25-59
Residence			
Urban	a	19.5	a
Rural	17.6	17.5	24.7
Region			
Eastern	17.9	17.8	24.5
Northern	17.6	17.4	a
Southern	18.0	17.9	24.7
Western	a	20.6	a
District			
Kailahun	18.3	18.3	24.7
Kenema	17.7	17.4	24.8
Kono	17.7	17.5	23.8
Bombali	18.3	17.8	a
Kambia	17.9	18.0	a
Koinadugu	16.1	15.9	24.9
Port Loko	17.6	17.5	24.7
Tonkolili	17.7	17.5	a
Bo	18.1	17.8	a

Continued…

4.4 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is often used as a proxy for the onset of women's exposure to the risk of pregnancy. However, because some women are sexually active before marriage, the age at which women initiate sexual intercourse more precisely marks the beginning of their exposure to reproductive risk. Table 4.5 shows the percentage of women and men who had first sexual intercourse by exact ages.

In Sierra Leone two in ten women age 20-49 first had sexual intercourse by age 15, nearly seven in ten by age 18, and more than eight in ten by age 20. The median age at first sex among women age 20-49 is 16.5 years—nearly two years younger than women's median age at first marriage (18.2 years). There is no major variation in median age at first sexual intercourse by age group among women.

Both women and men in Sierra Leon tend to initiate sexual activity before marriage. Men become sexually active later than women, however, a pattern that holds true in all age groups. Only 8 percent of men age 20-49 first had sex before age 15 compared with 21 percent among women of the same age group. The median age at first sex among men age 20-49 is 18.0 years—1.5 years later than among women in the same age group. Men's median age at first sexual intercourse does not vary considerably by age group.

Table 4.4—*Continued*

Background characteristic	Women's age 20-49	Women's age 25-49	Men's age 25-59
Bonthe	18.7	18.9	24.7
Moyamba	17.5	17.5	24.3
Pujehun	17.7	17.7	24.4
Western Area Rural	a	19.8	a
Western Area Urban	a	20.8	a
Education			
No education	17.5	17.5	24.5
Primary	17.9	17.9	a
Secondary or higher	a	22.0	a
Wealth quintile			
Lowest	17.2	17.2	24.1
Second	17.7	17.6	24.8
Middle	17.7	17.6	24.8
Fourth	18.2	17.9	a
Highest	a	20.3	a
Total	18.2	18.0	a

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/partners for the first time before reaching the beginning of the age group

Comparing the 2013 SLDHS with the 2008 SLDHS shows only minimal variations in age at first sex. The median age at first sex among women age 20-49 increased slightly, from 16.1 years to 16.5 years, while among men age 20-49 it decreased slightly, from 18.6 to 18.0 years.

Table 4.5 Age at first sexual intercourse

Percentage of women and men age 15-49 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, Sierra Leone 2013

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	19.3	na	na	na	na	35.5	3,878	a
20-24	19.8	68.5	85.6	na	na	2.5	2,683	16.6
25-29	22.8	70.1	83.8	87.6	89.7	0.3	2,843	16.4
30-34	22.1	70.7	82.5	85.5	86.6	0.0	2,287	16.3
35-39	21.6	68.0	81.2	85.5	87.5	0.0	2,260	16.4
40-44	18.7	63.7	78.1	81.9	84.1	0.0	1,362	16.7
45-49	21.1	65.9	77.7	82.4	86.1	0.0	1,344	16.5
20-49	21.2	68.4	82.3	na	na	0.6	12,780	16.5
25-49	21.6	68.4	81.3	85.2	87.3	0.1	10,097	16.4
15-24	19.5	na	na	na	na	22.0	6,561	a
				MEN				
Age								
15-19	10.4	na	na	na	na	55.6	1,475	a
20-24	10.7	53.9	82.3	na	na	9.0	1,007	17.7
25-29	7.9	53.3	78.2	89.9	94.8	1.7	1,017	17.8
30-34	8.4	54.7	74.6	89.6	93.8	0.5	804	17.7
35-39	6.8	46.7	74.9	89.2	93.2	0.2	961	18.2
40-44	5.7	45.9	70.3	89.8	93.0	0.0	690	18.2
45-49	5.3	44.1	68.6	85.7	90.2	0.2	629	18.4
20-49	7.7	50.3	75.6	na	na	2.3	5,107	18.0
25-49	7.0	49.3	73.9	89.0	93.2	0.6	4,100	18.0
15-24	10.5	na	na	na	na	36.7	2,481	a
20-59	7.2	48.3	73.9	na	na	2.0	5,787	18.1
25-59	6.5	47.1	72.1	88.1	92.5	0.5	4,781	18.2

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 displays median age at first sexual intercourse among women and men by background characteristics. Women in rural areas start sexual activity at about the same age as urban women. Women with at least some secondary education begin sexual activity almost one year later than those with no education. Similarly, women in the highest wealth quintile tend to initiate sexual activity almost one year later than women in the lowest wealth quintile.

As Table 4.6 shows, the median age at first intercourse among men age 25-49 is 18.2 years. Among men there is little variation in median age at first sex with regard to place of residence, education, or wealth status.

4.5 Recent Sexual Activity

In the absence of contraception, the probability of pregnancy is related to the regularity of sexual intercourse.

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 20-59 and age 25-59, according to background characteristics, Sierra Leone 2013

Background characteristic	Women age 20-49	Women age 25-49	Men age 20-59	Men age 25-59
Residence				
Urban	17.1	17.0	18.2	18.4
Rural	16.2	16.2	18.0	18.1
Region				
Eastern	16.3	16.3	17.9	18.0
Northern	15.9	15.9	18.3	18.4
Southern	16.8	16.8	18.1	18.1
Western	17.5	17.3	18.0	18.2
District				
Kailahun	15.9	15.9	18.1	18.1
Kenema	16.6	16.6	17.6	17.7
Kono	16.2	16.1	18.2	18.3
Bombali	16.6	16.6	19.1	19.4
Kambia	15.9	15.9	18.7	18.7
Koinadugu	16.2	16.0	18.8	18.9
Port Loko	15.6	15.7	17.6	17.6
Tonkolili	15.9	15.9	18.2	18.1
Bo	16.9	16.9	18.2	18.2
Bonthe	16.8	16.8	19.3	19.2

Continued…

Information on intercourse is important for refining the measurement of exposure to pregnancy. In the 2013 SLDHS women and men who have had sexual intercourse were asked how long ago their last sexual contact occurred. Tables 4.7.1, for women, and Table 4.7.2, for men, show the percent distribution of women and men age 15-49 by the timing of their last sexual intercourse, according to background characteristics.

Table 4.6—*Continued*

Background characteristic	Women age 20-49	Women age 25-49	Men age 20-59	Men age 25-59
Moyamba	16.3	16.3	17.1	17.2
Pujehun	16.8	16.9	17.1	17.2
Western Area Rural	16.8	16.9	18.0	18.3
Western Area Urban	17.6	17.4	18.0	18.1
Education				
No education	16.3	16.3	18.1	18.1
Primary	16.1	16.2	18.0	18.1
Secondary or higher	17.4	17.4	18.2	18.3
Wealth quintile				
Lowest	16.3	16.3	17.8	17.9
Second	16.2	16.2	18.2	18.2
Middle	16.1	16.1	18.2	18.2
Fourth	16.4	16.4	18.1	18.2
Highest	17.4	17.3	18.2	18.4
Total	16.5	16.4	18.1	18.2

More than half (52 percent) of women age 15-49 reported having sexual intercourse within the four weeks preceding the survey. Twenty-five percent were sexually active in the 12 months preceding the survey but not in the past month, and 14 percent reported that their most recent sexual intercourse occurred more than a year before the survey. About one woman in ten reported having never had sex. The percentage of women age 15-49 who reported never having had sex increased from 6 percent in the 2008 SLDHS to 9 percent in the 2013 SLDHS.

Recent sexual activity is least common among the youngest age group of women. More than one-third (36 percent) of women age 15-19 have never had sex. Recent sexual activity is most common among the currently married, with six in ten women reporting having sex within the four weeks preceding the survey. Thirty-seven percent of never-married women and 28 percent of formerly married women reported having sex within the four weeks preceding the survey.

There is no significant variation by place of residence in sexual activity within the four weeks preceding the survey. District-level figures show that women in Koinadugu are least likely to have been sexually active within the four weeks preceding the survey (36 percent), and women in Kailahun are most likely (58 percent). Women with no education are more likely to have been sexually active in the past four weeks (56 percent) than those with primary education (46 percent) or secondary or higher education (47 percent). Women in the lowest wealth quintile are least likely to have had sexual intercourse in the last four weeks (50 percent).

Among men age 15-49, the proportion sexually active in the four weeks preceding the survey (56 percent) is slightly higher than among women (52 percent). About one in four men had sexual intercourse in the past year, and 5 percent reported that their last sexual intercourse occurred more than a year before the survey. Fourteen percent of men reported never having had sex, about the same proportion as in the 2008 SLDHS (13 percent).

As is the case for women, recent sexual activity is less common among the youngest age group of men surveyed. However, the proportion of respondents age 15-19 who had never had sex is much higher among men than women (56 percent versus 36 percent). Thirty-six percent of never-married men and 47 percent of divorced, separated, or widowed men were sexually active within the four weeks preceding the survey. Men in urban areas (54 percent), those with secondary education (51 percent), and those in the highest wealth quintile (52 percent) were the least likely to have been sexually active in the four weeks preceding the survey.

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, Sierra Leone 2013

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	33.5	24.3	5.9	0.7	35.5	100.0	3,878
20-24	50.9	30.0	16.2	0.4	2.5	100.0	2,683
25-29	55.0	29.9	14.3	0.5	0.3	100.0	2,843
30-34	59.8	23.4	16.7	0.1	0.0	100.0	2,287
35-39	59.7	23.3	16.7	0.3	0.0	100.0	2,260
40-44	62.6	22.0	14.7	0.7	0.0	100.0	1,362
45-49	59.3	20.7	19.8	0.2	0.0	100.0	1,344
Marital status							
Never married	37.4	25.8	5.6	0.5	30.6	100.0	4,730
Married or living together	60.0	24.4	15.2	0.4	0.0	100.0	10,903
Divorced/separated/ widowed	28.1	34.6	36.8	0.4	0.0	100.0	1,025
Marital duration[2]							
0-4 years	54.4	28.3	16.4	0.7	0.2	100.0	1,851
5-9 years	53.2	30.0	16.6	0.3	0.0	100.0	1,810
10-14 years	58.2	24.6	16.9	0.3	0.0	100.0	1,716
15-19 years	62.7	21.1	15.7	0.5	0.0	100.0	1,380
20-24 years	65.9	21.0	12.8	0.3	0.0	100.0	985
25+ years	67.5	20.3	11.8	0.4	0.0	100.0	792
Married more than once	64.4	21.6	13.7	0.3	0.0	100.0	2,369
Residence							
Urban	51.9	25.6	9.8	0.5	12.1	100.0	5,933
Rural	51.5	25.3	16.0	0.4	6.8	100.0	10,725
Region							
Eastern	54.3	23.9	13.5	0.3	8.1	100.0	3,614
Northern	48.1	26.6	17.4	0.4	7.4	100.0	6,292
Southern	55.0	24.9	12.2	0.4	7.5	100.0	3,514
Western	51.7	25.5	8.8	0.6	13.4	100.0	3,238
District							
Kailahun	58.1	21.2	15.8	0.6	4.4	100.0	984
Kenema	57.0	23.3	11.7	0.2	7.8	100.0	1,651
Kono	46.1	27.4	14.1	0.2	12.3	100.0	979
Bombali	49.9	26.2	14.6	0.2	9.1	100.0	1,377
Kambia	47.6	32.5	11.6	0.5	7.8	100.0	738
Koinadugu	35.7	22.7	30.9	0.3	10.4	100.0	719
Port Loko	49.8	26.8	16.2	0.4	6.7	100.0	1,994
Tonkolili	50.5	25.7	17.8	0.9	5.2	100.0	1,464
Bo	56.8	23.4	10.7	0.3	8.9	100.0	1,398
Bonthe	54.3	24.6	11.8	0.5	8.8	100.0	678
Moyamba	52.7	26.2	14.0	0.5	6.5	100.0	843
Pujehun	54.8	27.2	13.8	0.2	4.0	100.0	595
Western Area Rural	54.0	26.6	8.0	0.4	10.9	100.0	528
Western Area Urban	51.3	25.2	9.0	0.7	13.8	100.0	2,710
Education							
No education	55.6	24.7	17.4	0.4	2.0	100.0	9,293
Primary	45.8	23.9	12.6	0.4	17.3	100.0	2,331
Secondary or higher	47.0	27.5	7.7	0.5	17.2	100.0	5,034
Wealth quintile							
Lowest	49.7	26.0	17.3	0.4	6.6	100.0	3,089
Second	51.5	25.1	16.6	0.3	6.5	100.0	3,046
Middle	53.1	25.5	14.7	0.3	6.3	100.0	3,140
Fourth	50.9	25.6	13.9	0.6	9.0	100.0	3,388
Highest	52.6	25.1	8.0	0.5	13.7	100.0	3,994
Total	51.6	25.4	13.8	0.4	8.7	100.0	16,658

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

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, Sierra Leone 2013

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	20.2	19.6	4.2	0.3	55.6	100.0	1,475
20-24	51.2	34.6	5.2	0.0	9.0	100.0	1,007
25-29	62.8	30.0	5.4	0.0	1.7	100.0	1,017
30-34	71.2	23.3	4.7	0.4	0.5	100.0	804
35-39	74.0	18.9	6.6	0.3	0.2	100.0	961
40-44	73.3	19.5	7.2	0.0	0.0	100.0	690
45-49	71.3	22.6	5.7	0.1	0.2	100.0	629
Marital status							
Never married	35.5	26.5	4.9	0.2	32.8	100.0	2,849
Married or living together	73.3	21.4	5.1	0.1	0.0	100.0	3,514
Divorced/separated/ widowed	47.0	36.3	16.4	0.4	0.0	100.0	219
Marital duration[2]							
0-4 years	66.6	29.0	4.4	0.0	0.0	100.0	629
5-9 years	68.6	26.7	4.3	0.4	0.0	100.0	600
10-14 years	73.3	19.0	7.4	0.3	0.0	100.0	504
15-19 years	76.0	18.3	5.7	0.0	0.0	100.0	288
20-24 years	76.7	16.6	6.2	0.4	0.0	100.0	161
25+ years	74.8	23.2	2.0	0.0	0.0	100.0	53
Married more than once	77.7	17.4	4.8	0.0	0.0	100.0	1,279
Residence							
Urban	53.8	24.3	5.2	0.2	16.5	100.0	2,508
Rural	57.5	24.0	5.5	0.1	12.8	100.0	4,073
Region							
Eastern	61.7	22.2	3.4	0.1	12.5	100.0	1,442
Northern	53.1	24.7	7.5	0.1	14.6	100.0	2,300
Southern	58.7	23.0	4.3	0.2	13.9	100.0	1,414
Western	52.5	26.3	5.2	0.3	15.7	100.0	1,425
District							
Kailahun	61.8	21.0	3.4	0.6	13.2	100.0	371
Kenema	66.0	20.7	2.7	0.0	10.6	100.0	719
Kono	52.9	26.5	4.8	0.0	15.8	100.0	352
Bombali	49.3	28.6	7.1	0.3	14.7	100.0	499
Kambia	54.7	20.8	7.0	0.1	17.4	100.0	270
Koinadugu	46.3	19.7	18.0	0.0	16.0	100.0	268
Port Loko	57.4	22.9	6.2	0.0	13.5	100.0	679
Tonkolili	53.9	27.8	4.5	0.0	13.8	100.0	584
Bo	59.5	24.0	4.7	0.5	11.4	100.0	533
Bonthe	48.3	26.5	2.7	0.0	22.5	100.0	283
Moyamba	54.9	24.7	5.9	0.0	14.5	100.0	368
Pujehun	75.7	13.6	2.8	0.0	7.9	100.0	230
Western Area Rural	59.2	25.2	3.2	0.0	12.4	100.0	230
Western Area Urban	51.2	26.5	5.6	0.4	16.3	100.0	1,195
Education							
No education	63.6	22.8	6.2	0.2	7.2	100.0	2,651
Primary	51.1	19.7	5.6	0.2	23.3	100.0	825
Secondary or higher	51.0	26.4	4.7	0.1	17.8	100.0	3,106
Wealth quintile							
Lowest	58.0	23.3	6.4	0.0	12.4	100.0	1,218
Second	59.3	23.3	4.9	0.3	12.1	100.0	1,175
Middle	57.5	23.7	4.9	0.0	14.0	100.0	1,195
Fourth	55.3	23.3	5.0	0.2	16.2	100.0	1,183
Highest	52.3	26.1	5.6	0.3	15.7	100.0	1,811
Total 15-49	56.1	24.1	5.4	0.2	14.2	100.0	6,582
50-59	71.9	19.7	8.4	0.0	0.0	100.0	680
Total 15-59	57.6	23.7	5.7	0.2	12.9	100.0	7,262

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

FERTILITY 5

Key Findings

- The total fertility rate is 4.9 births per woman—5.7 in rural areas and 3.5 in urban areas—for the three years preceding the survey.
- Half of all non-first births occurred at least 36 months after the previous birth, while 17 percent occurred less than 24 months after.
- The median age at first birth is 19.4 years for women age 25-49, almost the same as in the 2008 SLDHS (19.3 years).
- One in every ten women age 25-49 gave birth by age 15, and 56 percent became mothers by age 20.
- The median duration of postpartum insusceptibility to pregnancy is 18.0 months among women with a recent birth.
- Eleven percent of all women age 30-49 are menopausal, and 45 percent at age 48-49.

This chapter looks at a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women begin childbearing. Information on current and cumulative fertility is essential for monitoring population growth. Birth intervals are important because short intervals are associated with high childhood mortality. The age at which childbearing begins can also have a major impact on the health and wellbeing of both the mother and the child.

To generate data on fertility, a birth history was collected from each woman interviewed in the 2013 SLDHS. All women who were interviewed gave a complete reproductive history, including the total number of children born alive, and the sex, date of birth, and survival status of each child. For children who had died, respondents were asked the child's age at death. In addition to information on all live births, women were asked questions to complete a calendar covering their reproductive history in the five years preceding the survey, that is, from January 2008 onward. These questions allowed interviewers to identify pregnancies that may not have resulted in live births due to induced abortions, miscarriages, or stillbirths in the five years preceding the survey.

5.1 CURRENT FERTILITY

Measures of current fertility presented in this chapter include age-specific fertility rates (ASFRs), the total fertility rate (TFR), the general fertility rate (GFR), and the crude birth rate (CBR). The rates are generally presented for the period 1-36 months preceding the survey, determined from the date of the interview and a child's birth date. A three-year period is chosen for calculating these rates to provide the most current information, to reduce sampling error, and to avoid problems associated with displacement of births. Age-specific fertility rates show the age pattern of fertility. Numerators for the ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey and classifying them by the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period.

The TFR refers to the average number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (age 15-49). The GFR represents the number of live births per 1,000 women of reproductive age. The CBR is the number of live births per 1,000

population. The latter two measures are based on the birth history data for the three-year period before the survey and the age-sex distribution of the household population.

Table 5.1 shows that the TFR for the three-year period before the survey is 4.9 for the country as a whole, 5.7 in rural areas, and 3.5 in urban areas. Thus if current fertility levels remain constant, Sierra Leonean women will have five children on average at the end of their reproductive lives, and in rural areas women will have on average two children more than urban women.

Table 5.1 and Figure 5.1 show that age-specific fertility rates start relatively high among women age 15-19 (125 per 1,000), indicating an early age of initiation of childbearing, especially in rural areas, where the fertility rate among women age 15-19 is 155 per 1,000. In rural areas fertility peaks at age 20-24 (257 per 1,000), whereas urban areas show a slightly delayed peak in fertility, at age 25-29 (168 per 1,000). Age-specific fertility rates remain consistently higher in rural areas throughout the childbearing years.

Table 5.1 also presents the GFR and CBR. The GFR is 169 births per 1,000 women age 15-44, and the CBR is 36 births per 1,000 population.

Clear-cut differences between rural and urban women are observed for all three indicators. For example, the GFR for rural women is 66 percent higher than for urban women—a difference of 79 children per 1,000 women.

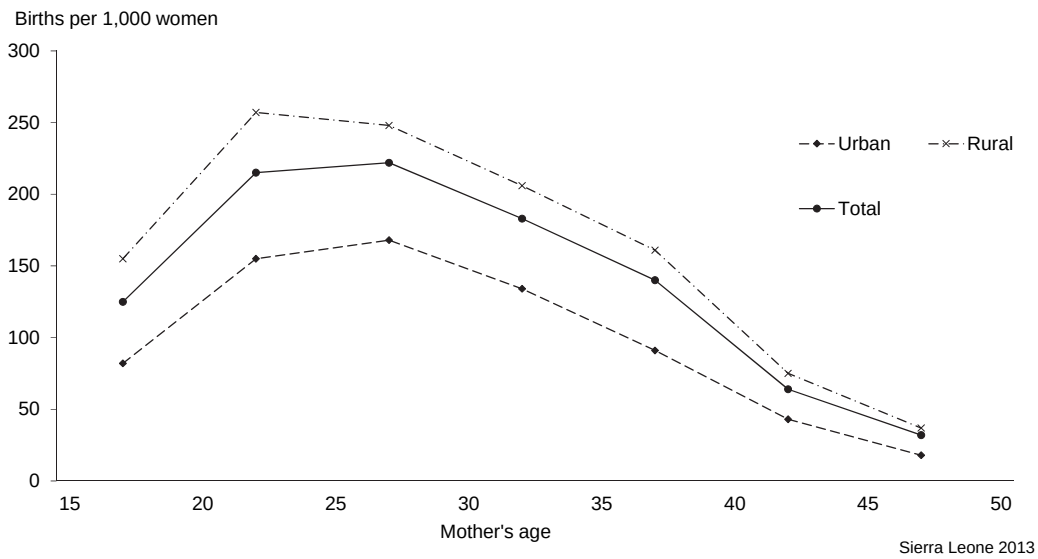
Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Sierra Leone 2013

	Residence		
Age group	Urban	Rural	Total
15-19	82	155	125
20-24	155	257	215
25-29	168	248	222
30-34	134	206	183
35-39	91	161	140
40-44	43	75	64
45-49	18	37	32
TFR (15-49)	3.5	5.7	4.9
GFR	119	198	169
CBR	29.5	38.2	35.7

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to 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

Figure 5.1 **Age-specific fertility rates, by mother's age and residence**



5.2 FERTILITY DIFFERENTIALS

This section presents differentials in fertility by residence, region, district, education level, and wealth quintile. Table 5.2 and Figure 5.2 display these differentials for three measures of fertility: TFR, percentage of women who are currently pregnant, and mean number of children ever born to women age 40-49. These indicators provide a basis for inferring long-term trends in fertility by comparing the TFR with the mean number of children ever born to women age 40-49. The latter indicator summarises the fertility behaviour of older women who are nearing the end of their reproductive period. It serves as a marker of average completed fertility for women who began childbearing in the three decades preceding the survey.

Table 5.2 Fertility by women's background characteristics

Total fertility rate (TFR) 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, Sierra Leone 2013

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	3.5	5.8	5.1
Rural	5.7	10.1	6.3
Region			
Eastern	5.5	9.0	6.4
Northern	5.2	9.5	6.2
Southern	5.4	9.4	6.0
Western	3.2	5.4	4.5
District			
Kailahun	6.0	9.7	6.4
Kenema	4.9	9.2	6.4
Kono	5.8	8.1	6.6
Bombali	4.4	7.3	6.1
Kambia	5.8	8.5	5.8
Koinadugu	5.5	9.6	6.8
Port Loko	5.3	10.6	5.9
Tonkolili	5.2	10.5	6.6
Bo	5.1	9.9	6.1
Bonthe	4.2	7.3	4.3
Moyamba	6.2	9.4	6.0
Pujehun	6.3	10.3	7.3
Western Area Rural	3.8	9.8	5.1
Western Area Urban	3.1	4.6	4.3
Education			
No education	5.6	9.8	6.2
Primary	5.3	9.2	6.1
Secondary or higher	3.0	6.1	4.3
Wealth quintile			
Lowest	6.1	10.9	6.4
Second	5.8	10.7	6.4
Middle	5.5	9.3	6.3
Fourth	4.7	8.0	6.1
Highest	3.0	5.1	4.5
Total	4.9	8.6	5.9

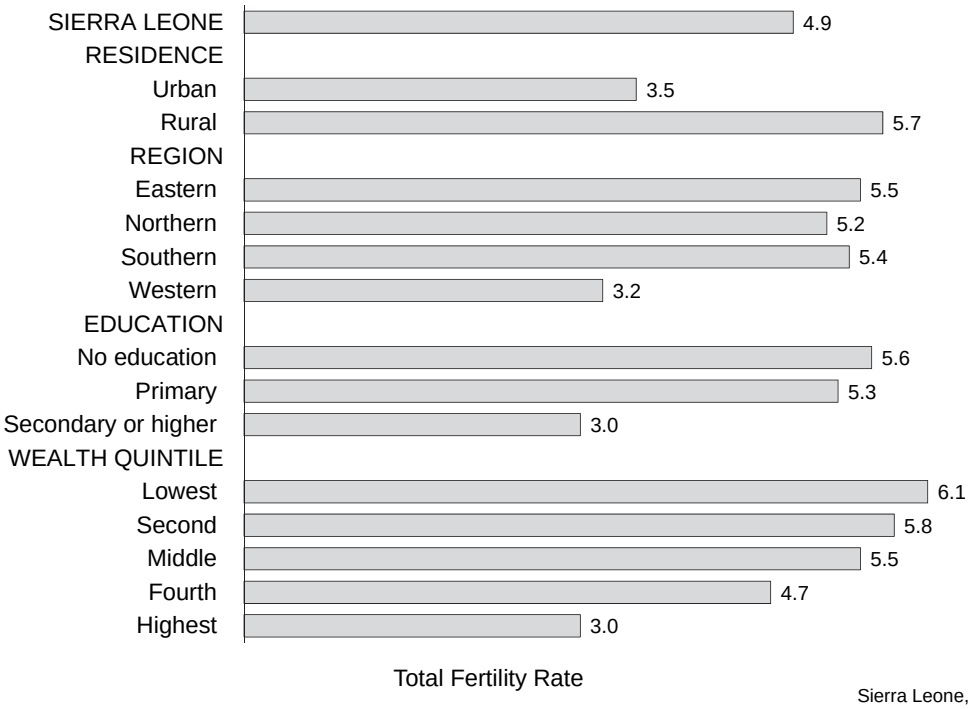
Note: Total fertility rates are for the period 1-36 months preceding the interview.

The mean number of children ever born to women age 40-49 in Sierra Leone is 5.9. This is one child more than the current TFR, suggesting that fertility has decreased over the past few decades. However, some caution should be taken when assessing trends in fertility from comparisons of the TFR and the mean number of children ever born because older women may understate their total childbearing experience.

Table 5.2 and Figure 5.2 show also that the Western region has a lower TFR (3.2) than the other three regions (from 5.2 to 5.5). The TFR decreases with increasing level of education. Women with secondary or higher education have a TFR of 3.0 compared with a TFR of 5.6 among women with no education. Women in the highest wealth quintile have an average of three fewer children than women in the lowest quintile (3.0 and 6.1 births per woman respectively).

Table 5.2 shows that 9 percent of interviewed women were pregnant at the time of the survey. The percentage of women who are currently pregnant provides another measure of current fertility, although the survey may not capture all pregnancies because some women may not know they are pregnant or may be reluctant to report early-stage pregnancies.

Figure 5.2 **Total Fertility Rate by background characteristics**



Sierra Leone, 2013

5.3 FERTILITY TRENDS

Table 5.3.1 examines trends in age-specific fertility rates for successive five-year periods before the survey, using information from the retrospective birth histories obtained from respondents in the 2013 SLDHS. To calculate these rates, births are classified according to the period of time in which the birth occurred and the mother's age at the time of the birth. Because birth histories were not collected for women age 50 and older, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period five to nine years or more preceding the survey because women in that age group would have been 50 years or older at the time of the survey.

Table 5.3.1 shows that age-specific fertility rates decreased for all age groups between the two most recent five-year periods preceding the survey. However, a comparison between 2008 SLDHS and 2013 SLDHS (Table 5.3.2 and Figure 5.3) indicates minimal changes in age-specific fertility rates except among young women age 15-19, where age-specific fertility rates declined from 146 to 125 children per 1,000 women.

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, Sierra Leone 2013

	Number of years preceding survey			
Mother's age at birth	0-4	5-9	10-14	15-19
15-19	131	164	166	164
20-24	221	262	265	259
25-29	227	267	262	272
30-34	191	247	229	[264]
35-39	142	186	[216]	-
40-44	77	[133]	-	-
45-49	[37]	-	-	-

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

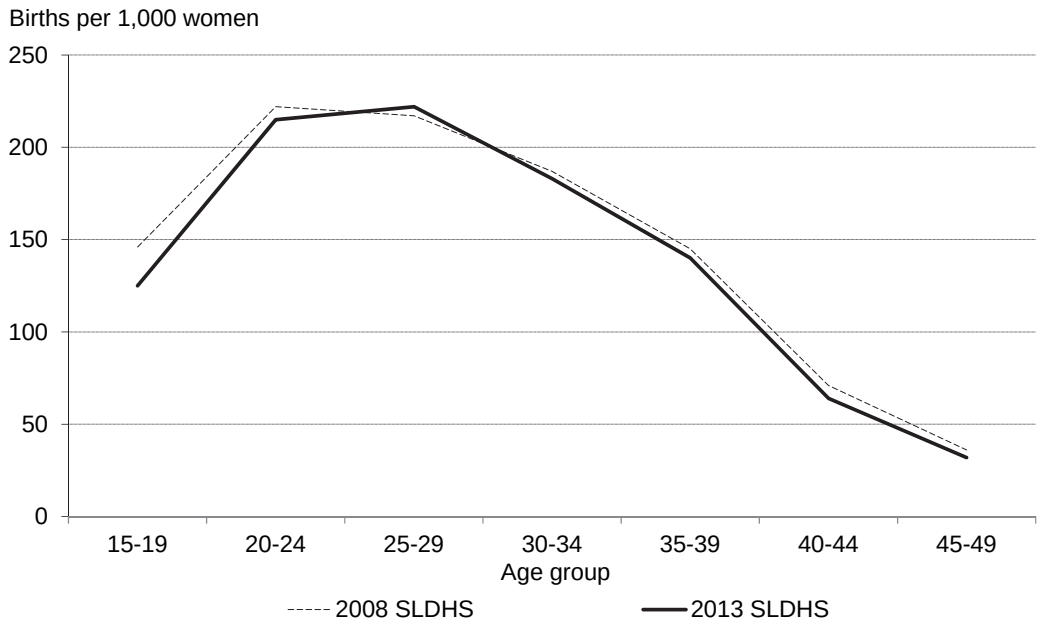
Table 5.3.2 Trends in age-specific and total fertility rates

Trends in age-specific and total fertility rates for the three-year period preceding the 2008 SLDHS, and 2013 SLDHS, by mother's age at the time of the birth

	Survey	
Mother's age at birth	2008 SLDHS	2013 SLDHS
15-19	146	125
20-24	222	215
25-29	217	222
30-34	187	183
35-39	145	140
40-44	71	64
45-49	36	32
TFR 15-49	5.1	4.9

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

Figure 5.3 **Trends in age-specific fertility rates**



5.4 CHILDREN EVER BORN AND LIVING

Table 5.4 shows the distribution of all women and currently married women by the number of children ever born, according to five-year age groups. The table also shows the mean number of children ever born and the mean number of living children. Information on the number of children ever born reflects the accumulation of births over a woman's entire reproductive period (parity) and therefore has limited reference to current fertility levels, particularly when the country is experiencing a decline in fertility. However, as an indicator, the number of children ever born to all women is useful for observing how average family size varies across age groups, and for observing the level of primary infertility. Comparison of the mean number of children ever born to all women and the mean number of living children shows the cumulative effects of mortality during the childbearing period.

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, Sierra Leone 2013

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
ALL WOMEN															
Age															
15-19	77.6	18.4	3.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,878	0.27	0.23
20-24	27.7	32.4	24.3	11.8	2.8	0.9	0.0	0.1	0.0	0.0	0.0	100.0	2,683	1.33	1.13
25-29	9.1	16.1	23.5	21.8	16.5	9.2	2.8	0.7	0.1	0.1	0.0	100.0	2,843	2.64	2.21
30-34	2.6	7.2	13.0	17.2	22.6	18.4	10.5	5.7	1.9	0.4	0.5	100.0	2,287	3.94	3.18
35-39	1.7	4.3	9.0	12.4	15.4	18.5	13.9	11.9	7.1	3.9	1.9	100.0	2,260	4.92	3.85
40-44	2.3	3.0	6.1	8.5	14.5	15.1	14.3	12.5	11.0	5.5	7.2	100.0	1,362	5.61	4.30
45-49	1.9	2.7	3.2	8.0	10.6	13.7	13.3	12.9	11.6	9.0	13.1	100.0	1,344	6.29	4.64
Total	25.0	14.3	12.5	11.1	10.5	9.1	6.1	4.6	3.1	1.8	2.0	100.0	16,658	2.90	2.30
CURRENTLY MARRIED WOMEN															
Age															
15-19	36.3	47.0	14.5	2.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	729	0.83	0.71
20-24	10.2	33.3	33.3	16.9	4.5	1.5	0.0	0.2	0.0	0.0	0.0	100.0	1,570	1.78	1.51
25-29	4.9	13.0	23.6	24.8	19.0	10.5	3.2	0.9	0.1	0.1	0.0	100.0	2,323	2.90	2.43
30-34	1.7	6.4	11.2	17.4	23.6	19.2	11.4	6.0	2.0	0.5	0.5	100.0	2,033	4.08	3.28
35-39	1.1	3.0	8.3	12.1	14.9	19.1	14.6	12.7	8.1	4.2	2.0	100.0	1,974	5.10	3.99
40-44	1.9	1.9	4.8	8.1	14.9	14.9	14.5	13.2	12.1	5.8	7.9	100.0	1,170	5.81	4.45
45-49	1.5	1.7	3.2	6.9	10.0	13.5	14.3	13.7	11.4	9.8	14.3	100.0	1,103	6.51	4.81
Total	5.8	12.8	15.2	14.9	14.4	12.5	8.4	6.4	4.3	2.5	2.7	100.0	10,903	3.89	3.08

Seventy-eight percent of women age 15-19 have never given birth. This proportion declines to 3 percent or less for women age 30 and older, indicating that childbearing among Sierra Leonean women is nearly universal. The percentage of women who are childless at the end of the reproductive period is an indirect measure of primary infertility (the proportion of women who are unable to bear children at all). Voluntary childlessness is rare in Sierra Leone; therefore, it is likely that married women with no births are unable to have children. The data show that less than 3 percent of all women remain childless by their 40s. Whereas one-fourth of all women are reported as childless, the percentage is much lower (6 percent) among currently married women.

The mean number of children ever born is higher (3.9 children) among currently married women compared with all women (2.9 children)—a difference of one child. On average, all women have 2.3 surviving children, and currently married women have 3.1 surviving children. The difference in the mean number of children ever born to all women and to currently married women can be attributed to cultural practices in Sierra Leone, where premarital births are discouraged, resulting in large number of young and unmarried women with negligible fertility.

Finally, the 1988 National Population Policy suggested as a guidepost that women in Sierra Leone could have up to four children. The 2013 SLDHS results indicate that 37 percent of all married women continue to have five or more children.

5.5 BIRTH INTERVALS

A birth interval is defined as the period of time between two successive live births. Information about birth intervals is important in understanding the health status of young children. Research has shown that short birth intervals (<24 months) are associated with poor health outcomes, especially during infancy. Children born too soon after a previous birth, especially if the interval between the births is less than two years, have an increased risk of sickness and death at an early age. In contrast, longer birth intervals (more than two years) contribute to improved health status for both the mother and child.

Table 5.5 presents the percent distribution of non-first births in the five years preceding the survey by number of months since the preceding birth, according to selected demographic and socioeconomic variables. The median length of birth interval in Sierra Leone is 36.0 months, which is roughly the same as the median interval in the 2008 SLDHS (36.2 months). The table further shows that 5 percent of non-first births occur after an interval of less than 18 months, and 12 percent are born after an interval of 18-23 months. One in three births (34 percent) occurs 24-35 months after the previous birth, and 22 percent take place 36-47 months after the previous birth. More than one-fourth (28 percent) of all non-first births occurred 48 months after the previous birth.

The median number of months since the preceding birth increases consistently with age, from 30.0 months among mothers age 15-19 to 39.9 months among mothers age 40-49. The median birth interval does not vary much by birth order or sex of the preceding birth. However, there are considerable variations in the median birth interval by survival of the preceding birth, residence, and region.

The median birth interval is higher if the preceding birth's survival status is living (37.1 months) rather than dead (31.4 months). The median birth interval is higher for urban mothers (39.3 months) than for rural mothers (35.3 months). There is little variation in median birth interval by educational attainment. The median birth interval increases with each wealth quintile, from 33.5 months in the lowest quintile to 40.9 months in the highest quintile.

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, Sierra Leone 2013

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	14.9	13.3	40.0	21.8	6.0	4.0	100.0	164	30.0
20-29	4.7	13.1	37.3	21.3	11.3	12.2	100.0	4,075	34.2
30-39	4.1	10.5	31.8	22.2	12.1	19.2	100.0	4,216	37.7
40-49	4.1	10.3	28.0	20.1	14.1	23.4	100.0	1,137	39.9
Sex of preceding birth									
Male	4.3	11.8	33.7	22.3	11.4	16.6	100.0	4,943	36.1
Female	4.8	11.5	34.0	20.8	12.5	16.4	100.0	4,649	35.9
Survival of preceding birth									
Living	3.0	10.6	34.2	22.1	12.5	17.6	100.0	7,921	37.1
Dead	11.9	16.7	32.2	18.9	9.2	11.1	100.0	1,672	31.4
Birth order									
2-3	5.0	11.4	33.2	21.0	11.6	17.9	100.0	4,200	36.2
4-6	3.8	11.9	34.4	22.8	11.6	15.6	100.0	3,910	36.0
7+	5.2	11.8	34.2	20.1	13.7	15.0	100.0	1,483	35.5
Residence									
Urban	5.5	8.9	28.8	20.4	13.9	22.5	100.0	2,203	39.3
Rural	4.3	12.5	35.4	21.9	11.3	14.7	100.0	7,389	35.3
Region									
Eastern	5.5	12.3	33.1	21.5	12.4	15.1	100.0	2,399	35.6
Northern	3.1	10.8	33.2	23.2	12.6	17.1	100.0	3,770	37.4
Southern	4.9	13.9	39.2	20.4	9.8	11.9	100.0	2,318	33.3
Western	6.7	8.3	26.3	18.6	12.9	27.2	100.0	1,106	40.4
District									
Kailahun	4.4	8.5	31.2	23.5	14.7	17.7	100.0	723	38.2
Kenema	6.5	15.1	33.4	19.8	11.2	14.1	100.0	1,058	33.3
Kono	5.1	12.0	35.0	22.2	11.8	13.8	100.0	618	35.4
Bombali	2.4	6.5	29.0	26.0	14.1	22.1	100.0	606	40.3
Kambia	4.8	12.4	34.6	21.8	9.4	17.0	100.0	460	35.3
Koinadugu	3.1	9.6	35.5	26.6	12.6	12.5	100.0	530	36.8
Port Loko	3.2	13.1	33.4	24.2	12.5	13.5	100.0	1,269	36.1
Tonkolili	2.6	10.4	33.6	18.6	13.4	21.4	100.0	905	38.0
Bo	3.5	11.5	38.6	24.1	11.2	11.1	100.0	895	35.1
Bonthe	2.2	15.2	42.7	18.0	10.4	11.6	100.0	334	32.4
Moyamba	5.8	16.2	34.4	17.5	9.3	16.8	100.0	592	33.7
Pujehun	8.0	14.5	43.8	18.8	7.3	7.7	100.0	497	30.7
Western Area Rural	2.7	9.2	31.6	19.3	10.9	26.2	100.0	199	39.7
Western Area Urban	7.6	8.1	25.2	18.4	13.3	27.4	100.0	907	40.6
Education									
No education	4.3	11.7	33.8	21.9	12.0	16.3	100.0	7,326	36.1
Primary	5.1	12.6	35.3	20.7	12.2	14.1	100.0	1,284	34.8
Secondary or higher	5.7	9.7	32.4	20.4	10.6	21.2	100.0	983	37.4
Wealth quintile									
Lowest	4.5	14.6	38.5	19.5	9.3	13.6	100.0	2,359	33.5
Second	4.3	10.3	36.6	22.3	11.5	15.0	100.0	2,145	35.5
Middle	4.6	12.9	31.3	23.0	13.1	15.1	100.0	2,081	36.6
Fourth	3.8	10.9	32.4	22.4	13.0	17.6	100.0	1,742	37.1
Highest	6.0	7.3	26.7	20.6	14.1	25.3	100.0	1,266	40.9
Total	4.5	11.6	33.9	21.6	11.9	16.5	100.0	9,593	36.0

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.

5.6 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Among women who are not using contraception, exposure to the risk of pregnancy in the period after a birth is influenced primarily by two factors: breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the length of the amenorrhoea period (the interval between childbirth and the return of menstruation) after a birth. More frequent breastfeeding for longer durations is associated with longer periods of postpartum amenorrhoea. Delaying the resumption of sexual relations after a birth also prolongs the period of postpartum protection. This is referred to as postpartum abstinence. Women are considered insusceptible to pregnancy if they are not at risk of conception, either because they are amenorrhoeic or abstain from sexual activity after a birth.

Table 5.6 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Sierra Leone 2013

Months since birth	Percentage of births for which the mother is: Amenorrhoeic	Abstaining	Insusceptible[1]	Number of births
< 2	85.5	94.0	97.8	345
2-3	81.0	90.4	93.8	472
4-5	67.9	87.7	90.5	491
6-7	63.9	87.6	89.1	449
8-9	53.2	81.9	85.1	389
10-11	48.1	75.9	80.8	389
12-13	33.3	68.5	71.7	479
14-15	26.4	61.6	63.7	474
16-17	20.1	53.0	54.3	450
18-19	15.4	44.9	48.5	383
20-21	11.3	35.8	37.1	305
22-23	11.1	26.0	28.3	271
24-25	4.0	14.1	15.2	445
26-27	3.0	11.4	12.9	450
28-29	1.8	9.6	10.5	402
30-31	1.6	3.5	4.4	355
32-33	3.7	5.5	8.3	279
34-35	2.4	2.1	3.9	289
Total	31.6	50.4	52.7	7,116
Median	9.5	17.4	18.0	na
Mean	11.0	17.3	18.2	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 amenorrhoeic or still abstaining (or both) following birth

Table 5.6 shows the percentages of births for which mothers are postpartum amenorrhoeic and abstaining, along with the percentage of births for which mothers are defined as still postpartum insusceptible. The latter category includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth and, thus, not exposed (i.e., insusceptible) to the risk of pregnancy. The results presented in the table are based on cross-sectional analysis, representing the experience of mothers of all births at a single point in time rather than the experience of a cohort of mothers over time. The data are grouped in two-month intervals to minimise the fluctuations in the estimates. The median and mean-duration estimates shown at the bottom of Table 5.6 are calculated from the current status distributions presented in the table.

At the time of the survey, mothers were insusceptible to the risk of pregnancy for 53 percent of births in the three years preceding the survey. The median duration of postpartum insusceptibility to pregnancy is 18.0 months. The median duration of amenorrhoea is 9.5 months, while the median duration of postpartum abstinence is much higher (17.4 months). By 10-11 months after the birth, 81 percent of mothers are insusceptible to pregnancy, 48 percent are amenorrhoeic, and 76 percent are abstaining from sexual relations.

In some populations differentials across subgroups in the duration of postpartum amenorrhoea and abstinence may indicate incipient changes in traditional postpartum practices. Table 5.7 shows the median durations of postpartum amenorrhoea, abstinence, and insusceptibility by background characteristics.

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

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Sierra Leone 2013

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	9.1	16.5	17.1
30-49	10.3	18.9	19.3
Residence			
Urban	6.7	15.0	15.6
Rural	10.2	18.6	19.0
Region			
Eastern	8.8	17.0	17.8
Northern	10.7	21.0	21.1
Southern	9.7	14.3	14.8
Western	5.9	13.3	13.9
District			
Kailahun	9.4	16.4	18.5
Kenema	5.7	15.4	16.8
Kono	10.7	19.2	19.3
Bombali	8.2	21.4	21.4
Kambia	9.9	19.7	20.6
Koinadugu	13.2	23.5	23.6

Continued…

The median duration of postpartum amenorrhoea is slightly longer among women age 30-49 (10.3 months) than among women age 15-29 (9.1 months). Similarly, the median postpartum abstinence among women age 30-49 is higher (18.9 months) than the median postpartum abstinence among women age 15-29 (16.5 months). It follows that the duration of postpartum insusceptibility is also longer among older women (19.3 months) than younger women (17.1 months).

Rural women have a much longer period of postpartum amenorrhoea than urban women (10.2 and 6.7 months respectively), a longer period of postpartum abstinence (18.6 and 15.0 months respectively), and a longer median period of postpartum insusceptibility (19.0 and 15.6 months respectively).

Table 5.7—*Continued*

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Port Loko	9.8	20.6	20.8
Tonkolili	11.6	20.8	20.8
Bo	7.3	14.7	15.1
Bonthe	12.8	14.3	15.1
Moyamba	9.4	13.8	14.0
Pujehun	10.7	14.6	15.5
Western Area Rural	5.6	16.2	16.2
Western Area Urban	6.0	11.3	12.8
Education			
No education	10.3	18.9	19.4
Primary	8.9	16.1	16.4
Secondary or higher	6.4	15.4	15.6
Wealth quintile			
Lowest	10.4	17.3	18.2
Second	9.6	19.1	19.2
Middle	10.3	18.4	18.8
Fourth	8.6	17.0	18.0
Highest	6.0	14.5	14.7
Total	9.5	17.4	18.0

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

According to region, the median durations of postpartum amenorrhoea, abstinence, and insusceptibility are longest in the Northern region (10.7, 21.0, and 21.1 months respectively) and shortest in Western region (5.9, 13.3, and 13.9 months respectively). With regard to districts, the Western Urban district has the lowest median duration of postpartum insusceptibility (12.8 months), while Koinadugu has the highest median duration (23.6 months).

The median durations of postpartum amenorrhoea, abstinence, and insusceptibility decline as women's educational level increases. The median duration of postpartum insusceptibility is 19.4 months for women with no education compared with 15.6 months for women with at least some secondary education. Women in the highest wealth quintile have the lowest median durations of postpartum amenorrhoea, abstinence, and insusceptibility compared with women in other wealth quintiles.

5.7 MENOPAUSE

Fecundity refers to the ability to have children. The risk of pregnancy declines with age as increasing proportions of women become infecund. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a population. Table 5.8 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy for women age 30 and older. The 2013 SLDHS defines menopausal women as women who are neither pregnant nor postpartum amenorrhoeic and who have not had a menstrual period in the six months preceding the survey, or women who report being menopausal. Table 5.8 presents findings on menopause for women age 30 and older.

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Sierra Leone 2013

Age	Percentage menopausal[1]	Number of women
Age		
30-34	1.7	2,287
35-39	3.4	2,260
40-41	9.2	793
42-43	16.1	449
44-45	23.4	581
46-47	46.6	351
48-49	45.3	532
Total	11.1	7,254

[1] Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

Eleven percent of women age 30-49 are menopausal. The proportion of women who are menopausal increases with age, from 2 percent among women age 30-34 to 47 percent among women age 46-47; the percentage decreases slightly to 45 percent among women age 48-49.

5.8 AGE AT FIRST BIRTH

The age at which childbearing commences is an important determinant of overall fertility as well as the health and welfare of the mother and child. In some societies, a rise in the age at marriage has caused a delay in the age at which childbearing begins and thus has contributed to a decrease in fertility. In Sierra Leone, however, it is not uncommon for women to have children before getting married, although the incidence is low.

Table 5.9 shows the percentage of women who have given birth by specific ages, according to their age at the time of the survey. Overall, the median age at first birth for women age 25-49 in Sierra Leone is 19.4 years, which is similar to results from the 2008 SLDHS (19.3 years). The median age at first birth does not vary much by age group, although women age 35 and older seem on average to have a higher median age at first birth compared with younger women under age 35.

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, Sierra Leone 2013

	Percentage who gave birth by exact age					Percentage		Median
Current age	15	18	20	22	25	who have never given birth	Number of women	age at first birth
Age								
15-19	3.7	na	na	na	na	77.6	3,878	a
20-24	9.7	36.4	58.6	na	na	27.7	2,683	19.2
25-29	10.2	37.1	58.2	73.8	86.5	9.1	2,843	19.2
30-34	11.3	40.0	59.7	75.1	89.1	2.6	2,287	19.0
35-39	10.1	34.8	53.3	69.7	86.6	1.7	2,260	19.6
40-44	10.8	36.6	53.8	69.7	83.8	2.3	1,362	19.6
45-49	8.9	33.8	49.4	64.9	80.6	1.9	1,344	20.1
20-49	10.2	36.7	56.3	na	na	9.1	12,780	19.3
25-49	10.3	36.8	55.7	71.4	86.0	4.1	10,097	19.4

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

In Sierra Leone, one in every ten women age 25-49 gave birth by age 15, and 56 percent became mothers by age 20. Another way to view trends in age at first birth over time is to compare the proportions of women who gave birth by age 15 across age groups. Whereas 4 percent of women age 15-19 gave birth by age 15, the corresponding proportion for women age 20-24 is 10 percent, and this proportion stays virtually unchanged in older age groups.

Table 5.10 shows the median age at first birth for women age 20-49 and age 25-49 across key sub-groups of women. The measures are presented for women age 25-49 to ensure that half of the women have already had a birth by the start of the age group. Urban women age 25-49 have a slightly higher median age at first birth (19.7 years) than rural women (19.3 years). A comparison across regions shows that the median age at first birth for women age 25-49 ranges from 19.1 years in the Eastern region to 20.0 years in the Western region.

Table 5.10 Median age at first birth

Median age at first birth among women age 20-49 and age 25-49 according to background characteristics, Sierra Leone 2013

Background characteristic	Women age 20-49	Women age 25-49
Residence		
Urban	19.9	19.7
Rural	19.1	19.3
Region		
Eastern	18.9	19.1
Northern	19.3	19.4
Southern	19.1	19.3
Western	a	20.0
District		
Kailahun	19.4	19.5
Kenema	18.7	18.9
Kono	18.7	18.8
Bombali	19.4	19.1
Kambia	a	20.7
Koinadugu	18.6	18.6
Port Loko	19.3	19.6

Continued…

Women with no education have the same median age at first birth as women with primary education (19.1 years). On the contrary, women with secondary or higher education had their first birth at a median age of 21 years—nearly two years later than women with primary education or no education. Women in the lowest wealth quintile had their first birth 0.9 years earlier than women in the highest wealth quintile (19.1 and 20.0 years respectively). The median age at first birth ranges from 18.6 years in Pujehun and Koinadugu to 20.1 years in the Western Urban district.

Table 5.10—*Continued*

Background characteristic	Women age 20-49	Women age 25-49
Tonkolili	19.1	19.2
Bo	19.4	19.6
Bonthe	19.7	20.0
Moyamba	18.8	18.9
Pujehun	18.5	18.6
Western Area Rural	20.0	20.0
Western Area Urban	a	20.1
Education		
No education	18.9	19.1
Primary	18.9	19.1
Secondary or higher	a	21.0
Wealth quintile		
Lowest	18.8	19.1
Second	19.3	19.4
Middle	19.2	19.5
Fourth	19.1	19.0
Highest	a	20.0
Total	19.3	19.4

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

5.9 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy is a major health concern because of its association with higher risks of morbidity and mortality for both the mother and child. In addition, childbearing during the teenage years frequently has adverse social consequences, particularly regarding educational attainment, because women who become mothers in their teens are more likely to curtail their schooling. Table 5.11shows the percentage of women age 15-19 who have either had a live birth or who are pregnant with their first child.

Overall, 28 percent of adolescents age 15-19 have begun childbearing; 22 percent have had a live birth and 6 percent are pregnant with their first child as of the date of the survey. Rates of teen motherhood increase steadily from age 15 to 19. A larger proportion of teenagers in rural areas than in urban areas have begun childbearing (34 percent versus 19 percent). At the regional level, the proportion of teenagers who have started childbearing is highest in the Southern region (33 percent) and lowest in the Western region (18 percent). The percentage of teenagers who have started childbearing decreases as education levels increase; 46 percent of teenagers with no education have already begun childbearing compared with 22 percent of those with secondary or higher education. Teenagers in the lowest wealth quintile are more likely to have started childbearing compared with those in the highest wealth quintile (36 and 14 percent respectively). At the district level, the Western Urban area has the lowest percentage of adolescents who have started child bearing (16 percent), while Pujehun has the highest percentage (48 percent).

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, Sierra Leone 2013

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	3.4	2.1	5.6	987
16	6.7	3.5	10.2	696
17	19.8	7.9	27.7	636
18	35.8	7.2	42.9	901
19	51.3	8.5	59.8	658
Residence				
Urban	15.7	3.2	18.9	1,595
Rural	27.0	7.2	34.2	2,283
Region				
Eastern	23.9	6.4	30.3	753
Northern	23.6	5.8	29.4	1,503
Southern	26.2	7.1	33.2	804
Western	14.8	2.9	17.7	818
District				
Kailahun	30.3	6.4	36.8	155
Kenema	24.1	8.1	32.2	299
Kono	20.4	4.7	25.1	300
Bombali	16.9	3.8	20.7	398
Kambia	20.4	2.5	22.9	153
Koinadugu	27.6	5.2	32.8	181
Port Loko	27.7	7.5	35.2	461
Tonkolili	25.4	7.9	33.2	310
Bo	20.0	7.4	27.4	340
Bonthe	24.1	8.5	32.7	190
Moyamba	32.2	4.6	36.8	173
Pujehun	40.6	7.5	48.0	101
Western Area Rural	20.7	7.9	28.6	139
Western Area Urban	13.6	1.8	15.5	679
Education				
No education	37.4	8.8	46.2	760
Primary	22.9	5.8	28.7	808
Secondary or higher	17.2	4.4	21.7	2,310
Wealth quintile				
Lowest	28.1	7.6	35.7	631
Second	29.0	6.5	35.5	610
Middle	27.4	7.3	34.7	689
Fourth	22.3	6.3	28.6	873
Highest	12.0	2.2	14.2	1,075
Total	22.4	5.6	27.9	3,878

FERTILITY PREFERENCES 6

Key Findings

- About one-quarter of currently married women (26 percent) do not want more children, while another quarter (24 percent) want another child soon; 35 percent want to delay the next birth for two or more years, and 4 percent would like to have another child but are uncertain as to when.
- Compared with the 2008 SLDHS, both the proportion of married women in the 2013 SLDHS who want another child soon and the proportion who want to stop childbearing have declined slightly, while the proportion who want to delay childbearing has increased by 10 percentage points.
- Women age 15-49 report an ideal family size of 4.9 children, essentially the same as in the 2008 SLDHS.
- Eighty-six percent of births were desired at the time of conception, 11 percent of births were wanted at a later time, and 3 percent of births were unwanted.
- Women in Sierra Leone are currently having an average of 0.7 children more than they actually want, based on their actual fertility behaviour compared with the number of children they would consider ideal.

Information on fertility preferences is important to family planning programmes because it helps to assess the need for contraception, whether for spacing or limiting births, and also to assess the extent of unwanted and mistimed pregnancies. Data on fertility preferences can also be useful as an indicator of future fertility patterns.

This chapter addresses three questions that allow an assessment of the need for contraception: Does the respondent want more children? If so, how long would she prefer to wait before the next child? If she could start afresh, how many children in all would she want? The chapter also explores two other questions: To what extent do unwanted or mistimed pregnancies occur? What effect might the prevention of such pregnancies have on fertility rates?

Given that family planning programmes seek to enable couples to bear the number of children they want and to achieve the spacing of births they prefer, and that men play a crucial role in the realisation of these preferences, the 2013 SLDHS also included questions on the fertility preferences of men.

6.1 Desire for More Children

Table 6.1 presents the distribution of currently married women and men by desire for children and according to number of living children. In the 2013 SDLS, about one married woman in every four (26 percent) responded that she wants no more children. The majority of married women (62 percent) would like to have another child. Twenty-four percent of women want a child within two years, while 35 percent want to delay the next birth for two or more years, and 4 percent would like to have another child but are uncertain when to have the child. Overall, more than six in every ten currently married women (64 percent) want either to delay their next birth or to end childbearing altogether. Among those who want to postpone their next birth or who want no more children, women who are not using a contraceptive method can be considered as potential clients for family planning services.

Similar fertility preference patterns are observed among currently married men, though men are less likely than women to want to delay the next birth (37 percent of men want another child soon versus 24

percent of women), and less likely than women to want to stop having children (16 percent of men want no more children versus 26 percent of women).

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, Sierra Leone 2013

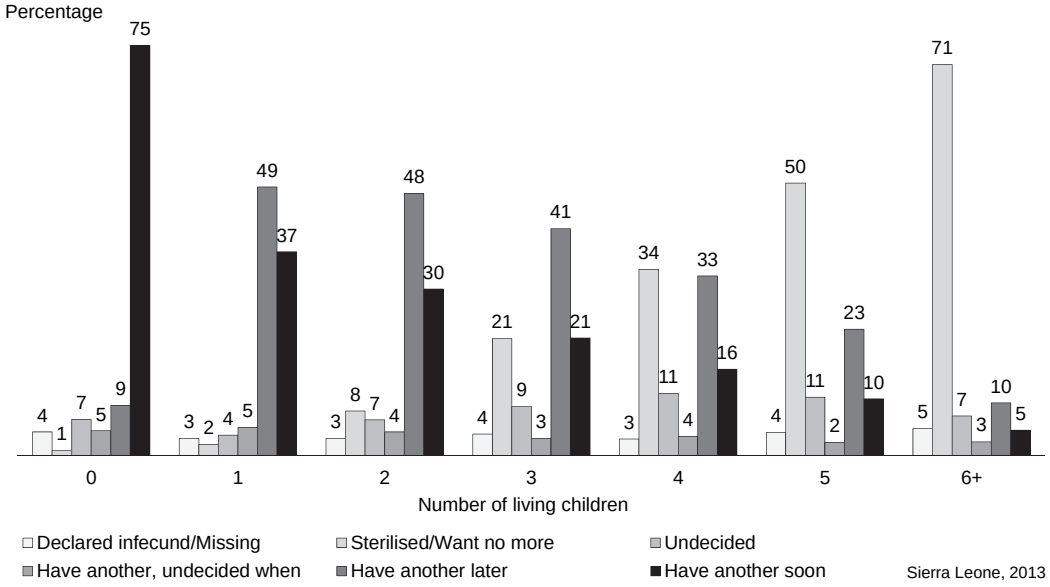
Desire for children	Number of living children							Total 15-49	Total 15-59
	0	1	2	3	4	5	6+		
				WOMEN					
Have another soon[2]	74.7	37.1	30.3	21.4	15.7	10.3	4.6	24.0	na
Have another later[3]	9.1	48.9	47.7	41.3	32.7	23.0	9.6	34.5	na
Have another, undecided when	4.5	5.1	4.3	3.1	3.5	2.4	2.5	3.6	na
Undecided	6.6	3.7	6.5	8.9	11.3	10.6	7.2	7.9	na
Want no more	0.9	2.0	7.9	21.1	33.5	48.9	69.1	25.8	na
Sterilised[4]	0.0	0.0	0.2	0.2	0.4	0.7	2.1	0.5	na
Declared infecund	4.3	2.2	2.1	3.3	2.6	3.6	4.2	3.0	na
Missing	0.0	0.9	1.0	0.6	0.4	0.6	0.7	0.7	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number	574	1,721	2,141	2,041	1,723	1,328	1,375	10,903	na
				MEN					
Have another soon[2]	72.2	48.0	38.3	35.7	35.2	32.1	24.8	37.1	35.1
Have another later[3]	8.4	42.5	43.8	38.3	31.6	28.0	24.5	34.0	30.6
Have another, undecided when	1.7	1.8	3.5	4.4	2.8	4.0	2.2	3.0	3.1
Undecided	7.6	5.7	6.1	8.2	10.6	8.8	12.3	8.6	8.7
Want no more	2.7	1.5	6.9	12.4	19.0	26.4	34.8	16.0	21.0
Sterilised[4]	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0
Declared infecund	0.9	0.0	0.3	0.2	0.4	0.3	0.2	0.2	0.5
Missing	6.4	0.5	1.1	0.7	0.3	0.4	1.0	1.0	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	146	552	639	616	509	385	667	3,514	4,148

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 sterilisation
[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).

The proportion of women who want to stop childbearing increases steadily with the number of living children (Figure 6.1)—from 2 percent among women with only one child alive, to 21 percent among those with three children, and 69 percent among woman with six or more living children. About half of currently married women with only one child want to wait for two or more years before having another child.

Conversely, the proportion of women who want to have a child within two years or later declines as the number of living children increases, from 91 percent among women with only one child to 52 percent among those with four children, and to 17 percent among women with at least six living children. The pattern is similar for men.

Figure 6.1 **Fertility preferences among currently married women according to number of living children**



There have been some changes in fertility preferences among married women since the 2008 SLDHS. The proportion of currently married women who want another child soon has declined slightly (from 28 to 24 percent), as has the proportion wanting no more children (from 30 to 26 percent). In contrast, the proportion of women who want to delay childbearing for two or more years has increased by 10 percentage points—from 25 to 35 percent.

6.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 6.2.1 displays percentages of currently married women who want no more children (including women who have been sterilised), by number of living children and selected background characteristics. Urban women are more likely than rural women to want no more children (29 versus 25 percent). At the regional level, the proportion of married women who want no more children is highest in the Western Area (30 percent) and lowest in the Northern region (25 percent).

Overall, the proportion of women who want to stop childbearing is lower among women with at least secondary education (19 percent) compared with women with primary education and those with no education (22 and 29 percent respectively). However, when the number of living children is held constant, a larger proportion of women with secondary education or higher want to limit their family size, with the exception of women with only one child or no child, and those with six children or more.

When women have two or more living children, the percentage wanting no more children tends to be higher among women in the two highest wealth quintiles than in the other three quintiles.

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, Sierra Leone 2013

Background characteristic	Number of living children							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	0.6	1.2	14.5	30.2	47.0	63.9	79.2	29.4
Rural	1.0	2.4	5.3	17.9	29.6	45.5	69.4	25.2
Region								
Eastern	0.2	3.4	9.0	19.8	35.0	50.9	75.9	28.2
Northern	1.3	2.0	6.4	17.0	27.7	46.5	66.4	24.5
Southern	1.6	1.8	4.9	19.6	32.6	44.1	72.4	25.5
Western	0.0	0.5	14.6	36.8	60.2	71.0	83.9	29.8
District								
Kailahun	(0.5)	5.5	8.2	22.1	35.6	48.3	83.4	29.6
Kenema	(0.0)	3.4	13.1	20.1	30.7	53.8	73.7	27.4
Kono	(0.0)	0.9	2.0	16.3	42.1	49.6	72.4	28.1
Bombali	(0.0)	4.2	5.6	18.5	26.7	45.2	70.5	30.0
Kambia	5.2	1.7	8.2	25.0	37.5	52.2	57.7	27.3
Koinadugu	(3.7)	3.9	4.3	9.7	32.7	55.5	77.4	25.6
Port Loko	0.0	0.7	9.6	17.2	26.9	39.7	67.4	22.7
Tonkolili	0.0	1.6	2.5	15.4	22.6	49.5	59.8	20.6
Bo	(1.0)	0.5	5.3	16.2	26.8	31.3	69.3	22.7
Bonthe	(2.4)	0.0	3.9	23.4	41.5	59.0	(61.7)	22.1
Moyamba	(2.1)	4.8	5.0	19.9	35.5	50.4	74.1	27.0
Pujehun	*	1.7	5.1	23.3	32.9	60.4	79.3	32.3
Western Area Rural	(0.0)	2.3	6.0	17.6	49.1	55.5	(78.9)	21.4
Western Area Urban	0.0	0.0	16.8	40.9	63.8	74.6	(85.2)	31.9
Education								
No education	1.4	2.7	7.2	18.8	32.6	48.5	71.0	28.6
Primary	0.0	2.3	3.2	22.1	33.1	52.3	75.7	21.5
Secondary or higher	0.0	0.6	14.7	37.9	46.7	58.8	65.6	19.2
Wealth quintile								
Lowest	1.0	4.4	5.5	14.3	28.8	49.3	64.4	24.6
Second	1.5	1.0	4.5	17.4	29.5	47.7	70.8	25.2
Middle	1.4	2.1	5.6	20.1	31.9	43.3	70.2	26.4
Fourth	0.6	2.0	8.3	22.0	34.5	48.7	78.1	27.5
Highest	0.0	0.7	15.8	36.1	52.7	66.8	77.9	28.5
Total	0.9	2.0	8.1	21.3	33.9	49.6	71.2	26.3

Note: Women who have been sterilised 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

Table 6.2.2 shows that fertility preferences among currently married men are similar to those for women. Overall, however, the proportions of men who do not want to have more children are lower than is true of women. The Northern area shows the lowest proportion of men who do not want more children (12 percent), while the highest proportion is in the Western Area (20 percent). A higher proportion of men in urban areas (20 percent) do not want more children compared with men in rural areas (14 percent).

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, Sierra Leone 2013

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	3.1	2.5	11.8	21.7	32.3	33.4	52.0	20.4
Rural	2.5	0.9	4.3	8.0	15.1	24.5	31.5	14.4
Region								
Eastern	(10.6)	2.2	4.1	13.7	20.1	31.6	47.4	18.5
Northern	1.4	0.6	2.3	7.7	11.8	16.1	25.0	11.6
Southern	(0.0)	1.1	5.1	10.4	21.1	36.5	39.9	18.2
Western	(0.0)	2.9	16.9	23.0	(36.7)	(23.9)	(53.5)	19.8
District								
Kailahun	*	(5.6)	5.3	(15.5)	(32.0)	(44.9)	(52.7)	21.9
Kenema	*	(1.7)	(3.4)	10.7	(10.6)	(22.9)	(35.6)	12.9
Kono	*	(0.0)	3.6	17.6	(25.0)	(31.5)	58.4	24.9
Bombali	*	(0.0)	(0.0)	(3.7)	(19.4)	*	46.5	17.0
Kambia	*	(5.7)	(0.0)	(2.0)	(13.9)	(16.0)	8.8	7.4
Koinadugu	*	*	*	(8.1)	(2.6)	(31.4)	18.9	11.3
Port Loko	*	(0.0)	(6.7)	9.0	(10.3)	(6.5)	20.5	9.7
Tonkolili	*	(0.0)	(0.0)	(11.9)	(9.7)	(16.1)	26.7	11.8
Bo	*	(1.8)	(5.3)	5.4	11.9	(41.7)	25.3	14.7
Bonthe	*	(2.6)	(0.6)	(16.2)	(46.0)	*	(49.6)	21.1
Moyamba	*	(0.0)	(9.1)	(17.7)	(26.3)	(34.6)	(40.5)	21.0
Pujehun	*	(0.0)	(5.0)	(5.8)	(6.0)	*	(55.5)	18.4
Western Area Rural	*	(4.6)	(20.6)	18.0	*	*	(51.4)	22.1
Western Area Urban	*	(2.5)	16.2	(24.8)	*	*	*	19.2
Education								
No education	0.0	1.2	3.2	9.4	14.4	22.7	32.4	15.1
Primary	*	0.9	5.1	10.7	(29.8)	37.2	29.1	15.9
Secondary or higher	3.7	1.9	12.1	19.2	25.8	31.5	45.5	17.9
Wealth quintile								
Lowest	(0.0)	0.7	4.3	8.3	16.9	23.6	34.0	14.4
Second	(0.0)	0.0	2.8	10.3	14.5	26.0	29.7	14.2
Middle	(8.5)	2.0	2.3	9.9	17.0	19.6	35.7	15.6
Fourth	(7.1)	3.3	6.0	7.3	13.6	42.1	35.8	16.5
Highest	(0.5)	1.7	16.0	24.8	38.5	(27.5)	46.2	20.3
Total 15-49	2.7	1.5	6.9	12.4	19.1	26.4	35.0	16.1
50-59	*	*	(45.3)	43.0	39.5	43.8	55.8	48.8
Total 15-59	3.2	1.6	9.4	15.5	21.9	29.8	41.9	21.1

Note: Men who have been sterilised or who state in response to the question about desire for children that their wife has been sterilised 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).

6.3 IDEAL NUMBER OF CHILDREN

This section focuses on the respondent's ideal number of children, implicitly taking into account the number of children that the respondent already has. Women and men, regardless of marital status, were asked about the number of children they would choose to have if they could start afresh. Respondents who had no children were asked, *"If you could choose exactly the number of children to have in your whole life, how many would that be?"* For respondents who had children, the question was rephrased as follows: *"If you could go back to the time when 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?"* Table 6.3 summarises the responses to these questions for both women and men age 15-49.

Almost all women and men provided a numeric response, with less than 5 percent of respondents failing to do so. The mean ideal number of children reported by women is very close to the observed total fertility rate (TFR) for the three years preceding the survey (4.9). For all women who provided a numeric response, the mean ideal number of children is 4.9, while for currently married women the mean ideal

number of children is 5.4. The mean ideal number of children has remained essentially the same as in the 2008 SLDHS (5.0).

The percent distribution of women by ideal number of children and according to the number of living children shows two general tendencies. First, for women with fewer than three living children and those with no living children, the most frequently reported ideal number of children is four. Second, the most commonly reported ideal number of children by women with at least three living children is six or higher.

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men 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, Sierra Leone 2013

	Number of living children							
Ideal number of children	0	1	2	3	4	5	6+	Total
				WOMEN				
0	1.3	0.4	0.3	0.5	1.2	0.8	1.5	0.8
1	0.4	0.7	0.4	0.1	0.3	0.2	0.2	0.4
2	13.4	7.7	4.5	1.6	1.5	1.0	0.9	5.9
3	23.7	20.0	11.0	6.2	3.0	1.9	1.2	12.4
4	38.3	40.5	41.0	29.4	21.8	15.8	12.2	31.7
5	8.9	13.2	15.5	20.7	14.7	17.6	9.1	13.7
6+	10.7	14.3	24.5	36.4	50.6	53.3	65.1	30.1
Non-numeric responses	3.3	3.2	2.7	5.1	6.9	9.4	9.8	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	4,100	2,832	2,584	2,305	1,899	1,447	1,491	16,658
Mean ideal number of children for:[2]								
All women	3.8	4.2	4.6	5.3	5.8	6.1	7.1	4.9
Number of women	3,967	2,743	2,513	2,188	1,769	1,312	1,344	15,835
Currently married women	4.5	4.4	4.7	5.3	5.9	6.2	7.1	5.4
Number of currently married women	539	1,651	2,073	1,934	1,606	1,205	1,249	10,256
				MEN[3]				
0	1.7	0.3	0.7	1.2	2.1	2.1	1.8	1.4
1	0.5	0.4	0.0	0.0	0.1	0.0	0.0	0.3
2	13.7	8.8	5.0	1.5	1.3	1.2	0.7	7.8
3	18.5	16.9	11.0	7.2	1.6	2.4	1.1	12.3
4	30.6	35.4	35.4	22.7	18.8	7.8	7.9	26.3
5	12.5	15.5	15.0	20.0	14.4	15.4	4.7	13.4
6+	19.3	20.9	29.3	43.3	58.8	63.9	78.7	34.9
Non-numeric responses	3.1	1.9	3.6	4.1	2.9	7.2	5.1	3.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,799	799	734	650	526	398	676	6,582
Mean ideal number of children for men 15-49:[2]								
All men	4.2	4.6	5.2	5.8	6.4	7.3	9.5	5.4
Number of men	2,713	784	707	624	511	369	641	6,350
Currently married men	4.9	4.9	5.3	5.8	6.4	7.3	9.5	6.4
Number of currently married men	141	539	620	593	493	356	632	3,375
Mean ideal number of children for men 15-59:[2]								
All men	4.2	4.6	5.2	5.8	6.4	7.2	9.5	5.6
Number of men	2,726	798	750	698	593	461	953	6,978
Currently married men	5.0	4.9	5.3	5.8	6.5	7.3	9.5	6.7
Number of currently married men	147	547	657	661	570	445	934	3,962

[1] The number of living children includes current pregnancy for women
[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 among men age 15-49 is slightly higher than for women (5.5 versus 4.9), a pattern that has remained unchanged since the 2008 SLDHS. As for women, the most commonly reported ideal number of children for men with less than three children is four, while the ideal number of children most commonly mentioned by men with more than two living children is at least six.

Table 6.4 shows the mean ideal number of children by age and background characteristics of all women. The mean ideal number of children increases steadily with age, from 3.9 among women age 15-19 to 6.3 among women age 45-49. Women in urban areas have lower mean ideal family sizes (4.0) than rural women (5.4). Northern region recorded the highest ideal family sizes for women (5.4), and the lowest was in Western region (3.8).

The mean ideal number of children declines steadily with increasing education, from 5.6 among women with no education to 3.8 among women with at least secondary education. Similarly, the mean ideal number of children declines with increasing wealth quintile, from 5.6 among women in the lowest wealth quintile to 3.8 among women in the highest wealth quintile.

Table 6.4 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Sierra Leone 2013

Background characteristic	Mean	Number of women[1]
Age		
15-19	3.9	3,758
20-24	4.3	2,611
25-29	4.8	2,750
30-34	5.4	2,160
35-39	5.7	2,101
40-44	5.9	1,258
45-49	6.3	1,196
Residence		
Urban	4.0	5,730
Rural	5.4	10,106
Region		
Eastern	5.0	3,376
Northern	5.4	6,016
Southern	5.1	3,288
Western	3.8	3,156
District		
Kailahun	5.1	951
Kenema	5.0	1,496
Kono	4.7	928
Bombali	5.3	1,341
Kambia	5.3	711
Koinadugu	5.1	677
Port Loko	5.4	1,867
Tonkolili	5.5	1,421
Bo	4.8	1,273
Bonthe	4.5	639
Moyamba	5.6	811
Pujehun	5.7	565
Western Area Rural	4.3	520
Western Area Urban	3.7	2,636
Education		
No education	5.6	8,667
Primary	4.7	2,233
Secondary or higher	3.8	4,935
Wealth quintile		
Lowest	5.6	2,937
Second	5.4	2,877
Middle	5.4	2,965
Fourth	4.7	3,184
Highest	3.8	3,872
Total	4.9	15,835

[1] Number of women who gave a numeric response

6.4 FERTILITY PLANNING STATUS

The 2013 SLDHS examined the issue of unplanned and unwanted fertility by asking women who had births during the five years before the survey whether the births were wanted at the time (planned), wanted but at a later time (mistimed), or not wanted at all (unwanted). For women who were pregnant at the time of the interview, this question was also asked with reference to the current pregnancy. The procedure required the respondents to recall accurately their wishes at one or more points in their last five years. Care has to be exercised in interpreting the results because an unwanted conception may have become a cherished child, leading to the rationalisation of responses to these questions.

It appears from Table 6.5 that nearly all births (97 percent) born to women age 15-49 in five years preceding the survey were wanted; 86 percent of births were desired at the time of conception, while for 11 percent births women would have liked to have had the birth at a later time. Nonetheless, 3 percent of births were unwanted at any time. The proportion of unwanted births has declined since the 2008 SLDHS, when it was 10 percent.

The proportion of unwanted births is greater for births of fourth order or more (5 percent) than for third births or earlier births (1 percent). Similarly, the proportion of unwanted births to older women is much larger than among younger women. For instance, 11 percent of births to women age 40-44 are unwanted compared with about 1 percent of births to women under age 30.

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, Sierra Leone 2013

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	72.7	25.3	0.9	1.0	100.0	2,954
2	90.4	8.0	0.9	0.7	100.0	2,530
3	91.9	6.1	1.1	1.0	100.0	2,121
4+	87.5	6.8	4.7	1.1	100.0	6,022
Mother's age at birth						
<20	72.4	26.1	0.7	0.8	100.0	2,555
20-24	87.9	10.1	1.3	0.7	100.0	3,309
25-29	90.6	6.8	1.2	1.4	100.0	3,299
30-34	89.4	6.0	3.4	1.2	100.0	2,351
35-39	87.3	5.2	6.8	0.7	100.0	1,468
40-44	82.1	6.4	10.5	1.0	100.0	523
45-49	76.9	7.5	14.3	1.3	100.0	122
Total	85.5	10.9	2.6	1.0	100.0	13,627

A total wanted fertility rate can be calculated in the same manner as the conventional total fertility rate, except that it excludes unwanted births. The total wanted fertility rate measures the potential demographic impact of avoiding unwanted births. A birth is considered wanted if the number of living children at the time of conception is less than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful or unsuccessful women are on average in achieving their reproductive intentions. Table 6.6 presents a comparison of total wanted fertility rates and total fertility rates for the three years preceding the survey by background characteristics.

The total wanted fertility rate is 4.2 children, compared with the actual total fertility rate of 4.9 children (rates calculated over the three years prior to the survey). In other words, women in Sierra Leone are currently having an average of 0.7 children more than their stated ideal family size. The table also shows that, regardless of place of residence, level of education, and wealth quintile, the total wanted fertility rate is lower than the actual total fertility rate.

Women in Kambia, Koinadugu, and Bo districts have the largest gap between their actual and wanted fertility, a difference of slightly more than one child. Women in Western region, those with higher levels of education, and women in the highest wealth quintile seem to be the most successful in achieving their ideal fertility; that is, the gap between their total wanted fertility rates and actual total fertility rates is the smallest.

Table 6.6 Total wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Sierra Leone 2013

Background characteristic	Total wanted fertility rates	Total fertility rate
Residence		
Urban	3.0	3.5
Rural	4.9	5.7
Region		
Eastern	4.7	5.5
Northern	4.5	5.2
Southern	4.5	5.4
Western	2.9	3.2
District		
Kailahun	5.5	6.0
Kenema	4.1	4.9
Kono	4.9	5.8
Bombali	3.8	4.4
Kambia	4.8	5.8
Koinadugu	4.4	5.5
Port Loko	4.6	5.3
Tonkolili	4.8	5.2
Bo	4.0	5.1
Bonthe	3.6	4.2
Moyamba	5.5	6.2
Pujehun	5.5	6.3
Western Area Rural	3.5	3.8
Western Area Urban	2.8	3.1
Education		
No education	4.8	5.6
Primary	4.6	5.3
Secondary or higher	2.7	3.0
Wealth quintile		
Lowest	5.4	6.1
Second	4.9	5.8
Middle	4.7	5.5
Fourth	4.0	4.7
Highest	2.6	3.0
Total	4.2	4.9

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 contraception is widespread in Sierra Leone; 95 percent of women and 96 percent of men report knowing about a contraceptive method.
- The prevalence of modern contraceptive methods among married women has doubled since 2008, increasing from 7 percent in 2008 SLDHS to 16 percent in the 2013 SLDHS.
- Injectables (10 percent), pills (5 percent), and implants (4 percent) are the most commonly used modern methods.
- More than two-thirds (68 percent) of current users of modern contraceptive methods obtain their methods from the public sector, mostly from government health centres (34 percent).
- Twenty-five percent of currently married women have an unmet need for family planning; 17 percent for spacing and 8 percent for limiting births.

Family planning refers to a conscious effort by couples to limit or space the number of children they want to have by using contraceptive methods. This chapter presents information on knowledge and current use of contraception in Sierra Leone. Information is also provided on sources of contraception, informed choice, contraception discontinuation rates, unmet need for family planning, and future use of contraception. The focus of this chapter is on sexually active women because they have the greatest risk of exposure to pregnancy and the greatest need to regulate their fertility. The results of interviews with men are presented alongside those with women, as men play an equally important role in the realisation of reproductive health and family planning decisions and behaviour. Comparisons are also made, where feasible, with findings from previous surveys to evaluate changes in contraceptive measures over time in Sierra Leone.

7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Information on knowledge and use of family planning methods was obtained from female and male respondents by asking them to mention ways or methods by which a couple can delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent had heard of it. For each method known, respondents were asked if they had ever used the method. Respondents who reported they used the method were asked whether they or their partners were using a method at the time of the survey.

Contraceptive methods are classified as modern or traditional. Modern methods include female sterilisation, male sterilisation, the pill, the intrauterine device (IUD), injectables, implants, the male condom, the female condom, the lactational amenorrhoea method (LAM), and emergency contraception. Methods such as rhythm (periodic abstinence) and withdrawal are considered traditional methods. Provision was also made in the questionnaire to record any other methods mentioned by the respondent, including folk methods.

Table 7.1 shows data on the level of knowledge of contraceptive methods among all women and men age 15-49, as well as among those who are currently married and those who are sexually active but not married, by specific methods. In Sierra Leone, knowledge of any contraceptive method has increased markedly since the 2008 SLDHS and is currently widespread; in the 2013 SLDHS 95 percent of all women and 96 percent of all men responded that they know of at least one method of contraception compared with

74 percent and 83 percent, respectively, in the 2008 SLDHS. Modern methods are more widely known than traditional methods; 94 percent of all women know of a modern method, while only 68 percent know of a traditional method. Similarly, 96 percent of all men know of a modern method, while 68 percent know of a traditional method.

Table 7.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who know any contraceptive method, by specific method, Sierra Leone 2013

	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	95.0	94.8	98.8	96.3	97.6	98.7
Any modern method	94.2	93.7	98.6	95.9	97.0	98.6
Female sterilisation	58.1	58.8	67.3	54.5	55.5	66.4
Male sterilisation	31.1	31.4	38.4	37.5	36.8	49.6
Pill	91.2	90.5	97.3	86.5	88.6	92.0
IUD	68.3	67.5	83.2	49.2	49.7	60.3
Injectables	90.4	89.9	97.2	86.5	87.9	92.2
Implants	87.7	86.4	95.6	80.7	80.5	89.0
Male condom	90.5	89.3	97.5	94.9	95.9	98.2
Female condom	69.5	66.9	83.5	65.8	64.6	79.2
Lactational amenorrhoea (LAM)	46.4	50.3	45.5	22.5	25.3	27.5
Emergency contraception	30.9	29.9	42.4	20.7	21.2	28.3
Any traditional method	67.9	69.4	78.5	67.6	72.2	77.0
Rhythm	42.8	40.5	59.6	38.4	39.0	49.6
Withdrawal	51.9	51.2	68.9	59.5	63.1	71.2
Other	38.4	42.6	35.5	21.7	26.9	21.7
Mean number of methods known by respondents 15-49	8.0	8.0	9.1	7.2	7.3	8.3
Number of respondents	16,658	10,903	2,058	6,582	3,514	1,115
Mean number of methods known by respondents 15-59	na	na	na	7.1	7.2	8.3
Number of respondents	na	na	na	7,262.0	4,148.5	1,122.7

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

Among women, the most commonly known modern methods are the pill and the male condom (91 percent), followed by injectables (90 percent) and implants (88 percent). Implants were among the least known modern contraceptive methods in the 2008 SLDHS (4 %). Currently, the least known modern methods are male sterilisation and emergency contraception (31 percent). Of the traditional methods, withdrawal is the most commonly known (52 percent).

Among men, the most commonly known modern method is the male condom (95 percent). Similar to women, withdrawal is the most commonly known traditional method among men (60 percent). Overall, all women know an average eight (8.0) contraceptive methods while all men know an average of seven (7.2) methods. Sexually active unmarried women know an average of nine (9.1) contraceptive methods.

7.2 CURRENT USE OF CONTRACEPTIVE METHODS

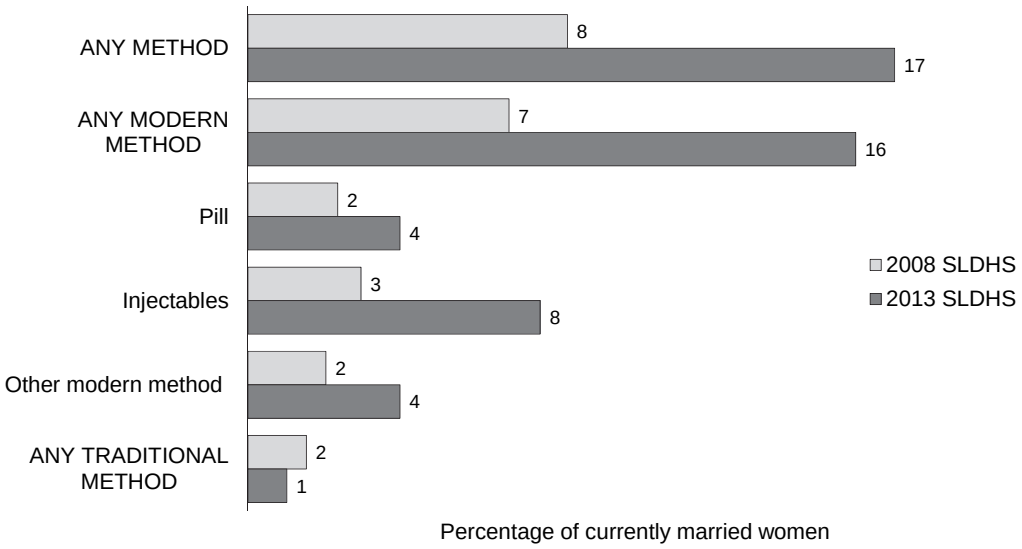
This section presents information on current contraceptive use among women age 15-49. The level of current use is a measure of actual contraceptive practice at the time of the survey. It is also the most widely used measure of the success of family planning programmes. Furthermore, it can be used to estimate the reduction in fertility attributable to contraception. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception. This section focuses on the levels and differentials in current use of contraception in Sierra Leone.

Table 7.2 shows the percent distribution of all women, currently married women, and sexually active unmarried women who are currently using specific family planning methods, according to age. Overall, 22 percent of all women in Sierra Leone are using a contraceptive method; most women are using a modern contraceptive method (21 percent) and a small proportion of women are using a traditional method (1 percent). Injectables (10 percent), pills (5 percent), and implants (4 percent) are the most commonly used modern methods. The use of contraceptive methods is least common among women age over 40 (19 percent or less), and most common among women age 20-24 (29 percent).

When restricted to currently married women, data show that 17 percent of married women in Sierra Leone are using a contraceptive method; 16 percent are using a modern contraceptive method and 1 percent are using a traditional method. Injectables (8 percent), pills (4 percent), and implants (2 percent) are the most commonly used modern methods by married women. Among the currently married, use of contraceptive methods is lower among young women, age 15-19 (8 percent) and among old women, age 45-49 (13 percent) than among women at intermediate ages (14 percent or higher).

Figure 7.1 shows that the prevalence of modern contraceptive method use among married women has doubled since 2008, from 7 percent in 2008 SLDHS to 16 percent in the 2013 SLDHS. The largest increase is in the use of injectables, from 3 percent in 2008 to 8 percent in 2013.

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



As expected, a larger proportion of sexually active unmarried women than currently married women are using a modern family planning method (56 percent versus 16 percent). Similar to married women but with higher prevalence rates, the most commonly used modern contraceptive methods among sexually active unmarried women are injectables (26 percent), pills (14 percent), and implants (12 percent).

Table 7.2 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, Sierra Leone 2013

			Modern method									Traditional method					
Age	Any method	Any modern method	Female sterili-sation	Pill	IUD	Inject-ables	Implants	Male condom	LAM	Other	Any tradi-tional method	Rhythm	With-drawal	Other	Not currently using	Total	Number of women
ALL WOMEN																	
Age																	
15-19	21.7	20.7	0.0	4.3	0.4	9.4	5.2	0.8	0.6	0.0	0.9	0.2	0.2	0.5	78.3	100	3,878
20-24	29.1	27.9	0.0	7.3	0.3	13.2	5.1	0.7	0.8	0.4	1.2	0.2	0.4	0.6	70.9	100	2,683
25-29	21.6	20.8	0.0	5.4	0.3	9.8	3.3	0.9	0.9	0.2	0.8	0.0	0.1	0.7	78.4	100	2,843
30-34	23.9	22.8	0.2	6.7	0.1	10.8	3.4	0.7	0.7	0.1	1.1	0.1	0.3	0.8	76.1	100	2,287
35-39	21.1	19.8	0.7	4.5	0.1	9.6	3.4	0.7	0.7	0.2	1.4	0.1	0.0	1.2	78.9	100	2,260
40-44	18.5	16.9	1.2	4.1	0.2	7.9	2.5	0.3	0.7	0.0	1.6	0.0	0.2	1.4	81.5	100	1,362
45-49	12.1	10.0	1.3	2.2	0.1	4.7	0.9	0.2	0.6	0.1	2.1	0.4	0.0	1.7	87.9	100	1,344
Total	22.1	20.9	0.3	5.1	0.2	9.8	3.8	0.7	0.7	0.1	1.2	0.2	0.2	0.8	77.9	100	16,658
CURRENTLY MARRIED WOMEN																	
Age																	
15-19	7.8	7.8	0.0	1.0	0.2	3.3	0.8	0.4	1.9	0.0	0.0	0.0	0.0	0.0	92.2	100	729
20-24	14.2	13.6	0.0	2.8	0.2	7.0	2.3	0.3	1.0	0.0	0.5	0.0	0.2	0.3	85.8	100	1,570
25-29	15.8	15.2	0.0	3.9	0.2	7.3	2.6	0.3	0.9	0.0	0.6	0.0	0.1	0.6	84.2	100	2,323
30-34	20.9	20.1	0.2	5.9	0.0	9.2	3.4	0.3	0.8	0.1	0.8	0.0	0.1	0.7	79.1	100	2,033
35-39	19.7	18.2	0.6	4.4	0.0	9.4	2.7	0.1	0.7	0.2	1.4	0.0	0.0	1.4	80.3	100	1,974
40-44	18.2	16.5	1.3	4.3	0.1	7.4	2.6	0.1	0.8	0.0	1.7	0.0	0.2	1.5	81.8	100	1,170
45-49	12.8	10.5	1.6	2.1	0.1	5.1	0.9	0.0	0.7	0.1	2.3	0.5	0.0	1.8	87.2	100	1,103
Total	16.6	15.6	0.5	3.9	0.1	7.5	2.4	0.2	0.9	0.0	1.0	0.1	0.1	0.9	83.4	100	10,903
SEXUALLY ACTIVE UNMARRIED WOMEN[1]																	
Age																	
15-19	56.4	53.9	0.0	11.3	0.8	24.3	15.0	2.3	0.0	0.2	2.5	0.6	0.3	1.6	43.6	100	918
20-24	66.7	63.6	0.0	18.5	0.8	28.5	11.8	2.4	0.0	1.5	3.1	0.7	1.5	1.0	33.3	100	554
25-29	60.0	59.0	0.0	17.7	0.7	24.9	9.9	4.2	0.0	1.7	1.0	0.3	0.3	0.4	40.0	100	267
30-34	68.1	60.7	0.0	15.8	0.0	36.6	7.1	1.3	0.0	0.0	7.3	0.6	4.1	2.7	31.9	100	132
35-39	49.2	46.1	0.0	5.7	1.4	21.9	8.3	8.2	0.0	0.6	3.1	3.1	0.0	0.0	50.8	100	100
40-44	37.0	34.4	3.3	3.4	0.9	22.3	4.3	0.3	0.0	0.0	2.6	0.0	0.0	2.6	63.0	100	53
45-49	(34.0)	(30.0)	0.0	(6.9)	(0.0)	(9.8)	(4.6)	(8.7)	(0.0)	(0.0)	(4.0)	(0.0)	(0.0)	(4.0)	(66.0)	100	34
Total	59.2	56.3	0.1	13.8	0.7	25.9	12.2	2.8	0.0	0.7	2.9	0.7	0.8	1.3	40.8	100	2,058

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.
na = Not applicable
LAM = Lactational amenorrhoea method
[1] Women who have had sexual intercourse within 30 days preceding the survey

7.3 DIFFERENTIALS IN CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

Table 7.3 presents information on current use of contraception among married women age 15-49 by background characteristics. Current use of contraception varies by place of residence, region, education, number of living children, and wealth quintile. In general, women do not begin to use contraception until they have had at least one child. Few women without children use any contraceptive method (5 percent), while those with one or more children are more likely to use contraception. Contraceptive use is highest among women with five or more living children (21 percent). Women in rural areas are less likely to use contraceptive methods than women in urban areas (13 percent versus 27 percent). This difference is observed across all modern methods of contraception.

At the regional level, 27 percent of currently married women in the Western region use a contraceptive method compared with 17 percent in the Eastern and Southern regions, and 12 percent in the Northern region. Contraceptive use increases with educational attainment. Twenty six percent of women with a secondary or higher education use a contraceptive method compared with 14 percent of women with no education. By wealth quintile, women in the lower quintiles are less likely to use a contraceptive method compared with women in the highest quintile.

Table 7.3 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, Sierra Leone 2013

			Modern method									Traditional method					
Background characteristic	Any method	Any modern method	Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	LAM	Other	Any traditional method	Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
Number of living children																	
0	5.0	4.8	0.0	1.0	0.3	1.9	1.3	0.3	0.0	0.0	0.2	0.0	0.1	0.1	95.0	100	830
1-2	14.4	13.8	0.1	3.8	0.1	6.5	2.1	0.4	0.8	0.0	0.5	0.0	0.1	0.4	85.6	100	3,808
3-4	18.7	17.6	0.3	4.6	0.2	8.6	2.7	0.1	1.1	0.0	1.1	0.2	0.1	0.9	81.3	100	3,734
5+	20.8	18.9	1.4	3.9	0.0	9.3	2.9	0.1	1.1	0.2	1.9	0.0	0.0	1.9	79.2	100	2,531
Residence																	
Urban	26.6	24.7	0.7	6.7	0.2	11.6	4.4	0.5	0.6	0.0	1.9	0.2	0.3	1.4	73.4	100	2,923
Rural	13.0	12.3	0.4	2.8	0.1	6.0	1.7	0.1	1.0	0.0	0.7	0.0	0.0	0.7	87.0	100	7,980
Region																	
Eastern	17.3	16.6	0.3	6.7	0.0	6.7	2.3	0.3	0.2	0.1	0.8	0.0	0.0	0.8	82.7	100	2,558
Northern	12.3	11.4	0.6	1.1	0.2	6.1	1.2	0.1	2.1	0.0	0.9	0.0	0.0	0.9	87.7	100	4,399
Southern	17.2	16.3	0.5	4.3	0.0	8.1	3.2	0.1	0.0	0.1	0.9	0.0	0.0	0.9	82.8	100	2,434
Western	27.1	25.0	0.2	6.5	0.2	12.1	5.1	0.6	0.2	0.1	2.1	0.4	0.5	1.2	72.9	100	1,512
District																	
Kailahun	21.3	21.1	0.4	11.0	0.0	6.5	2.3	0.4	0.2	0.3	0.2	0.0	0.0	0.2	78.7	100	760
Kenema	17.2	16.0	0.4	6.2	0.0	6.5	2.3	0.5	0.2	0.0	1.2	0.0	0.0	1.2	82.8	100	1,161
Kono	12.9	12.2	0.0	2.4	0.1	7.4	2.3	0.0	0.0	0.0	0.7	0.0	0.0	0.7	87.1	100	637
Bombali	14.3	13.6	2.4	0.9	0.2	8.4	0.9	0.0	0.8	0.0	0.6	0.0	0.1	0.5	85.7	100	805
Kambia	5.4	5.4	0.0	0.4	0.1	2.3	0.9	0.5	1.2	0.0	0.0	0.0	0.0	0.0	94.6	100	563
Koinadugu	6.5	6.3	0.2	0.7	0.5	2.4	1.4	0.0	1.2	0.0	0.2	0.0	0.0	0.2	93.5	100	547
Port Loko	13.7	12.5	0.2	1.3	0.0	6.7	1.0	0.0	3.3	0.0	1.3	0.0	0.0	1.3	86.3	100	1,456
Tonkolili	15.5	14.2	0.4	1.7	0.3	7.5	1.7	0.2	2.1	0.2	1.4	0.0	0.0	1.4	84.5	100	1,027
Bo	19.3	19.1	0.2	6.6	0.1	8.7	3.3	0.2	0.0	0.0	0.2	0.0	0.0	0.2	80.7	100	933
Bonthe	20.5	18.0	0.1	1.4	0.1	9.8	6.2	0.4	0.0	0.0	2.5	0.0	0.0	2.5	79.5	100	418
Moyamba	9.9	9.3	0.6	1.4	0.0	6.2	0.9	0.1	0.0	0.2	0.7	0.0	0.0	0.7	90.1	100	632
Pujehun	20.1	19.0	1.4	6.4	0.0	7.7	3.4	0.0	0.0	0.0	1.1	0.1	0.0	1.0	79.9	100	452
Western Area Rural	24.1	23.0	0.3	3.4	0.6	13.6	4.2	0.2	0.2	0.4	1.0	0.0	0.2	0.9	75.9	100	305
Western Area Urban	27.9	25.5	0.2	7.3	0.1	11.8	5.4	0.7	0.1	0.0	2.4	0.4	0.6	1.3	72.1	100	1,207
Education																	
No education	14.3	13.2	0.4	3.3	0.1	6.5	1.8	0.1	0.8	0.0	1.1	0.0	0.0	1.1	85.7	100	7,870
Primary	19.3	18.9	0.8	4.2	0.1	9.7	2.9	0.1	1.2	0.0	0.3	0.0	0.0	0.3	80.7	100	1,426
Secondary or higher	26.0	24.6	0.3	6.7	0.3	10.3	5.0	1.2	0.8	0.0	1.3	0.3	0.5	0.5	74.0	100	1,607
Wealth quintile																	
Lowest	12.5	11.5	0.2	2.5	0.1	5.3	1.6	0.2	1.5	0.1	1.0	0.0	0.0	1.0	87.5	100	2,341
Second	12.1	11.5	0.4	2.9	0.1	5.9	1.1	0.1	1.0	0.0	0.6	0.0	0.0	0.6	87.9	100	2,323
Middle	12.8	12.1	0.3	3.2	0.0	6.0	2.0	0.1	0.4	0.1	0.7	0.0	0.0	0.7	87.2	100	2,307
Fourth	20.4	19.2	0.7	4.3	0.2	9.5	3.4	0.2	0.9	0.1	1.2	0.0	0.0	1.2	79.6	100	2,087
Highest	28.1	26.3	0.8	7.2	0.2	12.1	4.6	0.8	0.5	0.0	1.8	0.3	0.5	1.0	71.9	100	1,845
Total	16.6	15.6	0.5	3.9	0.1	7.5	2.4	0.2	0.9	0.0	1.0	0.1	0.1	0.9	83.4	100	10,903

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

7.4 SOURCE OF CONTRACEPTION

Information on where women obtain their contraceptive methods is useful for family planning programme managers and implementers for logistic planning. All women who reported that they were currently using any modern contraceptive method at the time of the survey were asked where they obtained the method the last time they acquired it. Since women may not know exactly in which category the source falls (e.g., government or private, health centre, or clinic), the interviewers were instructed to note the full name of the source or facility. Furthermore, supervisors and field editors were trained to verify the name and type of source to maintain the consistency and improve the accuracy of the source, for instance, by asking informants in the clusters for the names of local family planning outlets.

Table 7.4 indicates that more than two-thirds (68 percent) of current users of modern contraceptive methods obtain their method from the public sector, mostly from government health centres (34 percent). Moreover, less than one-third of users (28 percent) reported the private sector as their source of modern methods. The most common private source is the pharmacy (14 percent), where women mostly get male condoms (45 percent) and pills (34 percent).

Table 7.4 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, Sierra Leone 2013

Source	Female sterilisation	Pill	IUD	Inject-ables	Implants	Male condom	Total
Public sector	66.3	50.4	78.0	77.5	73.9	40.6	68.4
Government hospital	56.6	6.6	35.5	14.3	14.1	15.8	13.4
Government health centre	8.3	28.6	13.2	41.1	29.0	7.7	33.6
Family planning clinic	1.3	11.0	26.4	14.8	23.2	11.9	15.2
Public mobile clinic	0.0	2.4	2.0	4.9	5.5	4.4	4.2
Public outreach worker	0.0	1.5	0.9	2.0	2.1	0.8	1.8
Other public	0.0	0.2	0.0	0.4	0.0	0.0	0.3
Private sector	18.7	45.4	22.0	19.7	23.5	47.3	27.9
Private hospital, clinic	15.4	7.5	20.8	8.9	15.3	0.7	9.7
Pharmacy	0.0	34.3	0.0	6.4	1.4	45.2	13.8
Private doctor's office	0.0	0.6	1.2	0.4	0.3	0.4	0.5
Private mobile clinic	3.4	0.9	0.0	0.9	4.7	0.0	1.6
Private outreach worker	0.0	0.7	0.0	0.6	1.6	1.0	0.8
Other private medical	0.0	1.2	0.0	2.5	0.1	0.0	1.6
Other source	0.0	1.6	0.0	0.7	0.1	11.1	1.2
Shop	0.0	0.7	0.0	0.0	0.0	2.2	0.2
Friend Relative	0.0	0.9	0.0	0.7	0.1	8.9	0.9
Other	0.0	1.0	0.0	1.3	0.5	1.0	1.0
Don't know	6.9	0.0	0.0	0.0	0.0	0.0	0.1
Missing	8.1	1.7	0.0	0.8	2.1	0.0	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	56	857	39	1,632	634	115	3,339

Note: Total includes 2 users of male sterilisation and 3 users of diaphragm but excludes lactational amenorrhoea method (LAM).

7.5 INFORMED CHOICE

Informed choice is an important concept for assessing and monitoring the quality of family planning services offered to users. Women currently using a modern contraceptive method who started their last episode of use within five years preceding the survey were asked whether they were informed about side effects or problems they might have with the method, what to do if they experienced side effects, and other methods they could use. This information assists users in coping with side effects and also decreases unnecessary discontinuations. Obtaining this type of information is also a measure of the quality of family planning service provision. Table 7.5 presents the results by method type and source of the method.

Seventy-six percent of contraceptive users were informed about the side effects of the method they use, 75 percent were informed about what to do if they experienced side effects, and 83 percent were informed about other available methods of contraception. Users of contraceptive methods were less likely to

receive information about side effects or problems from a private source than from a public source (65 percent versus 81 percent). The same was true of information on what to do if side effects were experienced (66 percent versus 80 percent), and on other available methods (74 percent versus 88 percent). Women who used implants were most likely to be informed about side effects, what to do if they experienced side effects, and other methods they could use.

Table 7.5 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, Sierra Leone 2013

	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 experienced side effects	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				
Pill	65.0	64.3	76.1	803
IUD	78.3	78.3	84.7	37
Injectables	78.5	77.1	84.4	1,554
Implants	82.5	82.8	86.6	623
Initial source of method[1]				
Public sector	81.4	80.1	87.5	2,152
Private sector	65.3	66.1	74.4	788
Other source	(50.1)	(50.7)	(74.9)	30
Total	75.6	74.8	82.6	3,046

Note: Table includes users of only the methods listed individually. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 76 women with information missing on initial source of method.
[1] Source at start of current episode of use

7.6 CONTRACEPTIVE DISCONTINUATION

Couples can realise their reproductive goals only when they use reliable contraceptive methods consistently and correctly. A prominent concern for managers of family planning programmes is the discontinuation of contraceptive methods, which puts women at risk of unintended pregnancies. Provided with this information, family planning providers can better advise potential users of the advantages and disadvantages of each contraceptive method, allowing women to make more informed decisions about the methods that best suit their needs.

The calendar section of the Woman's Questionnaire records all segments of contraceptive use from 3 to 59 months preceding the survey. The month of the interview and the two months preceding the survey are ignored in order to avoid bias that may be introduced by unrecognised pregnancies. One-year contraceptive discontinuation rates based on the calendar data are presented in Table 7.6.

The data in table 7.6 show that 23 percent of women age 15-49 who started an episode of contraceptive use within the five–year period preceding the survey stopped using the contraceptive method within 12 months of starting its use. Twenty-six percent of discontinuations occurred among women using pills, 25 percent were among women using injectables, and 9 percent among women using implants.

The most frequent reason for contraceptive discontinuation within 12 months is side effects or other health related reasons (11 percent). Four percent of users discontinued in order to become pregnant, and 5 percent switched to other contraceptive methods.

Table 7.6 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, Sierra Leone 2013

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	3.3	5.4	0.2	10.2	2.3	2.4	2.6	26.4	4.8	1,272
Injectables	1.0	4.2	0.7	14.3	1.4	1.0	2.2	24.9	4.1	2,131
Implants	0.2	1.2	0.0	6.1	0.0	0.6	0.8	8.8	1.5	714
Male condom	(3.0)	(12.0)	(0.7)	(2.6)	(6.0)	(9.0)	(9.0)	(42.4)	(17.6)	162
Other[1]	3.2	0.6	3.1	1.4	1.2	0.0	11.5	21.0	2.7	371
All methods	1.7	4.0	0.6	10.5	1.6	1.5	2.9	22.9	4.5	4,858

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 female sterilisation, male sterilisation, IUD, female condom, diaphragm, foam or jelly, LAM, rhythm method, 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

7.7 KNOWLEDGE OF THE FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for the successful practice of coitus-associated methods such as withdrawal and condoms. Such knowledge is particularly critical in the use of the rhythm method. The 2013 SLDHS included a question designed to obtain information on the respondent's understanding of when a woman is most likely to become pregnant during her menstrual cycle. Respondents were asked, '*From one menstrual period to the next, are there certain days when a woman is more likely to get pregnant if she has sexual relations?*' If the reply was 'yes,' the respondent was further asked whether that time was just before a woman's period begins, during her period, right after her period has ended, or halfway between two periods.

Table 7.7 shows the percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle. Twenty-nine percent of women correctly reported when the fertile period occurs i.e., a woman is most likely to conceive halfway between two menstrual periods. Thirty percent of women reported that they do not know when a woman's fertile period occurs. Twenty-one percent of women reported that there is no specific time that a woman is more likely to get pregnant during the woman's ovulatory cycle.

Table 7.7 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, Sierra Leone 2013

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins	*	5.4	5.4
During her menstrual period	*	2.0	2.0
Right after her menstrual period has ended	*	11.8	11.8
Halfway between two menstrual periods	*	29.2	29.3
Other	*	0.4	0.4
No specific time	*	20.5	20.5
Don't know	*	30.3	30.3
Missing	*	0.2	0.2
Total	100.0	100.0	100.0
Number of women	25	16,633	16,658

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

7.8 NEED AND DEMAND FOR FAMILY PLANNING

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of the need for family planning, given that not all of these women are exposed to the risk of pregnancy and some of them may already be using contraception. This section discusses the extent of the need and potential demand for family planning services.

The criteria used within the DHS program to identify women with unmet need for family planning have recently been revised (Bradley et al., 2012). Previously, unmet need was calculated from information on contraceptive discontinuation and other questions that were not included in every survey, which made levels of unmet need not comparable over time and across DHS surveys. The revised definition includes only information that has been collected in every survey so that unmet need can be measured in the same way over time.

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 amenorrhoeic 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 amenorrhoeic 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 who are 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 and unmet need for limiting
- **Total demand for family planning:** the sum of unmet need and total contraceptive use
- **Percentage of demand satisfied:** total contraceptive use divided by the sum of unmet need and total contraceptive use (any method)
- **Percentage of demand satisfied by modern methods:** total modern contraceptive use divided by the sum of unmet need and total contraceptive use (any method)

Table 7.8 presents data on unmet need, met need, and the total demand for family planning among currently married women, according to whether the need or demand is for spacing or limiting births and by background characteristics. Overall, 25 percent of currently married women have an unmet need for family planning; 17 percent for spacing and 8 percent for limiting births. Seventeen percent of married women have a met need for family planning—that is, they are currently using a contraceptive method. Unmet need has decreased slightly in the past five years from 28 percent in the 2008 SLDHS to 25 percent in the 2013 SLDHS.

Table 7.8 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, Sierra Leone 2013

	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	29.7	1.1	30.7	7.8	0.0	7.8	37.4	1.1	38.5	20.2	20.2	729
20-24	23.8	2.0	25.8	13.5	0.7	14.2	37.3	2.7	39.9	35.5	34.2	1,570
25-29	22.1	3.2	25.3	14.3	1.5	15.8	36.4	4.7	41.1	38.5	37.0	2,323
30-34	15.8	7.5	23.2	14.7	6.2	20.9	30.4	13.6	44.1	47.3	45.6	2,033
35-39	14.5	13.9	28.4	9.1	10.6	19.7	23.5	24.5	48.1	40.9	37.9	1,974
40-44	6.1	18.0	24.1	4.4	13.8	18.2	10.5	31.8	42.4	43.0	38.9	1,170
45-49	3.3	14.1	17.3	2.2	10.6	12.8	5.5	24.6	30.1	42.5	34.9	1,103
Residence												
Urban	16.6	9.5	26.1	16.9	9.7	26.6	33.5	19.2	52.7	50.5	46.9	2,923
Rural	16.7	7.9	24.6	8.3	4.7	13.0	25.0	12.6	37.5	34.6	32.7	7,980
Region												
Eastern	17.6	8.9	26.5	10.7	6.6	17.3	28.3	15.5	43.8	39.5	37.8	2,558
Northern	16.1	7.7	23.8	8.3	4.0	12.3	24.3	11.7	36.0	34.1	31.6	4,399
Southern	16.9	7.1	24.0	9.9	7.3	17.2	26.8	14.4	41.2	41.8	39.6	2,434
Western	16.5	11.0	27.4	18.2	8.9	27.1	34.7	19.8	54.5	49.7	45.9	1,512
District												
Kailahun	15.6	8.0	23.5	13.4	7.9	21.3	29.0	15.9	44.8	47.5	47.0	760
Kenema	18.6	8.6	27.2	10.8	6.4	17.2	29.4	15.0	44.4	38.7	36.1	1,161
Kono	18.2	10.5	28.7	7.4	5.4	12.9	25.7	15.9	41.6	30.9	29.3	637
Bombali	15.9	7.0	22.8	7.6	6.6	14.3	23.5	13.6	37.1	38.4	36.7	805
Kambia	17.0	10.1	27.1	3.4	1.9	5.4	20.4	12.1	32.5	16.5	16.5	563
Koinadugu	13.4	10.2	23.5	5.2	1.3	6.5	18.6	11.5	30.1	21.8	21.0	547
Port Loko	16.9	7.8	24.7	9.9	3.9	13.7	26.8	11.6	38.4	35.7	32.4	1,456
Tonkolili	16.0	5.5	21.5	10.7	4.8	15.5	26.7	10.3	37.0	42.0	38.3	1,027
Bo	20.9	7.2	28.1	12.6	6.7	19.3	33.4	14.0	47.4	40.7	40.2	933
Bonthe	11.2	3.6	14.8	13.1	7.4	20.5	24.3	10.9	35.3	58.1	51.1	418
Moyamba	15.5	8.1	23.6	4.1	5.8	9.9	19.7	13.9	33.5	29.7	27.6	632
Pujehun	15.8	8.9	24.7	9.6	10.6	20.1	25.4	19.4	44.8	45.0	42.4	452
Western Area Rural	17.9	9.1	27.0	18.0	6.0	24.1	35.9	15.1	51.1	47.1	45.1	305
Western Area Urban	16.1	11.4	27.5	18.3	9.6	27.9	34.4	21.0	55.4	50.3	46.1	1,207
Education												
No education	15.6	8.9	24.4	8.3	5.9	14.3	23.9	14.8	38.7	36.8	34.0	7,870
Primary	18.2	7.2	25.4	12.9	6.4	19.3	31.1	13.6	44.7	43.1	42.4	1,426
Secondary or higher	20.7	6.5	27.2	19.7	6.3	26.0	40.3	12.8	53.2	48.8	46.3	1,607
Wealth quintile												
Lowest	16.4	7.4	23.8	8.1	4.4	12.5	24.5	11.8	36.3	34.4	31.6	2,341
Second	17.5	8.6	26.2	7.8	4.3	12.1	25.3	12.9	38.2	31.6	30.0	2,323
Middle	16.3	8.9	25.2	7.7	5.1	12.8	24.0	14.0	38.0	33.6	31.8	2,307
Fourth	17.8	6.9	24.6	12.2	8.3	20.4	29.9	15.1	45.0	45.3	42.7	2,087
Highest	15.1	9.9	25.0	19.2	9.0	28.1	34.3	18.8	53.1	53.0	49.6	1,845
Total	16.7	8.3	25.0	10.6	6.0	16.6	27.3	14.3	41.6	40.0	37.5	10,903

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 sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, and lactational amenorrhoea method (LAM)

At present, the total potential demand for family planning among currently married women is 42 percent, an increase from 37 percent in 2008. If all married women who say they want to space their births or limit the number of children were to use family planning methods, the CPR would increase from its current level of 17 percent to 42 percent (i.e., adding the 25 percent with unmet need for family planning to the 17 percent with met need). The potential demand for family planning is mainly for spacing (27 percent) rather than for limiting births (14 percent).

Forty percent of the total demand for family planning methods is satisfied, mostly by a modern contraceptive method (38 percent). Comparison with the 2008 SLDHS shows a sharp increase in percentage of the demand satisfied by contraceptive use (22 percent in 2008 versus 40 percent in 2013).

As expected, unmet need for spacing is higher among younger women, while unmet need for limiting childbearing is higher among older women. There is little difference in unmet need between rural areas (25 percent) and urban areas (26 percent). By region, unmet need ranges from 24 percent in North and Southern regions to 27 percent each in Western and Eastern regions. At the district level, unmet need among married women is lowest in Bonthe district (15 percent) and highest in Kono district (29 percent). Unmet need is slightly higher among women with at least a secondary education (27 percent) than among women with a primary education (25 percent) or no education (24 percent). Unmet need varies only slightly by wealth quintiles.

Table 7.8 also shows that the total demand for family planning among married women is highest (48 percent) among women age 35-39, and higher among women in urban areas (53 percent) than rural areas (38 percent). Regionally, demand is highest in Western region (55 percent) and lowest in Northern region (36 percent). Demand is also highest among women in the highest wealth quintile and among women with at least a secondary education.

7.9 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which non-users plan to use contraceptive methods in the future. In the 2013 SLDHS women age 15-49 who were not using any contraceptive method at the time of the survey were asked about their intention to use family planning in the future. Table 7.9 shows that 49 percent of currently married non-users intend to use a method of contraception in the future, 12 percent are unsure of their intentions, and 38 percent have no intention of using any method in the future.

Notably, the proportions of women and their intention for future use of a contraceptive method varies slightly with the number of living children they have, except for childless women and those with four or more children. For instance, the proportion of currently married women who are unsure of future use of contraception is 11 or 12 percent for all the categories of women with any children, but is 17 percent for women with no children.

Table 7.9 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, Sierra Leone 2013

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
Intends to use	38.5	52.6	51.8	50.6	47.7	49.3
Unsure	17.1	11.3	12.4	12.2	10.6	11.8
Does not intend to use	42.3	34.6	34.8	35.7	40.1	37.5
Missing	2.1	1.5	0.9	1.5	1.6	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	533	1,479	1,836	1,671	3,571	9,090

[1] Includes current pregnancy

7.10 EXPOSURE TO FAMILY PLANNING MESSAGES IN THE MEDIA

Exposure to family planning messages is a vital component of delivering family planning services to both urban and rural populations. Information on the level of public exposure to the various types of media allows policymakers to use the most effective media for various target groups. In the 2013 SLDHS all respondents were asked whether they had heard or seen family planning messages on the radio, on television, or in a newspaper or magazine in the few months before the survey, to assess the effectiveness of such media on the dissemination of family planning information.

Table 7.10 shows the percent distribution of women and men by their exposure to family planning messages through the media. Radio is the most frequent source of family planning messages for both women (53 percent) and men (60 percent) age 15-49. Among women, newspaper or magazine is the least common source of family planning messages (4 percent). Among men, the proportion recently exposed to family planning message through television and newspapers or magazines was the same for both media (9 percent).

Nearly half women (46 percent) and 39 percent of men were not exposed to family planning messages through radio, television, or newspapers/magazines. The proportion of women not exposed to family planning messages through these three types of media is higher in rural areas than in urban areas (55 percent versus 31 percent). Also, women with no education are more likely (56 percent) to have no exposure to the three types of media compared with women with primary education or higher education (44 percent and 29 percent respectively). Similar trends are observed among men. The proportions of women and men not exposed to the three types of media are higher among respondents in the lowest wealth quintile than in the other quintiles.

Table 7.10 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, Sierra Leone 2013

	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	53.3	9.0	4.2	46.0	3,878	48.9	8.3	6.7	49.8	1,475
20-24	56.1	13.4	5.6	43.3	2,683	66.1	12.8	13.6	32.5	1,007
25-29	53.6	9.7	4.2	46.2	2,843	60.5	10.5	9.7	39.1	1,017
30-34	53.8	8.9	3.3	46.0	2,287	64.6	7.4	8.2	34.9	804
35-39	52.1	7.4	3.1	47.7	2,260	63.9	6.8	6.9	35.8	961
40-44	50.1	8.8	3.0	49.4	1,362	61.4	7.6	7.9	38.3	690
45-49	51.8	6.5	4.4	48.1	1,344	62.8	7.8	7.7	36.8	629
Residence										
Urban	67.6	23.3	9.5	31.3	5,933	62.1	20.0	18.6	36.1	2,508
Rural	45.4	1.7	1.1	54.6	10,725	58.8	2.0	2.6	41.1	4,073
Region										
Eastern	56.8	5.1	4.3	43.1	3,614	60.9	5.3	8.1	39.0	1,442
Northern	51.8	3.6	1.6	48.1	6,292	60.8	4.7	4.4	39.1	2,300
Southern	34.7	3.8	2.5	65.3	3,514	58.6	2.3	2.9	41.4	1,414
Western	72.5	31.4	10.4	25.7	3,238	59.5	25.8	21.9	37.5	1,425
District										
Kailahun	76.5	1.2	1.5	23.4	984	71.7	1.1	1.7	28.3	371
Kenema	45.3	9.9	8.1	54.5	1,651	59.4	7.8	12.7	40.6	719
Kono	56.4	1.0	0.8	43.6	979	52.7	4.4	5.4	47.1	352
Bombali	54.8	7.2	3.5	45.1	1,377	64.0	10.9	9.6	35.7	499
Kambia	59.3	6.2	0.6	40.7	738	44.8	4.3	2.5	55.2	270
Koinadugu	15.4	2.9	1.4	84.6	719	28.9	0.9	1.8	71.1	268
Port Loko	54.9	2.7	1.4	44.9	1,994	70.4	3.4	3.3	29.3	679
Tonkolili	58.8	0.5	0.6	41.2	1,464	68.9	2.8	3.4	31.1	584
Bo	37.8	8.2	4.9	62.1	1,398	57.2	3.6	2.9	42.8	533
Bonthe	30.7	0.6	0.6	69.3	678	23.4	0.0	0.0	76.6	283
Moyamba	41.0	1.1	1.5	59.0	843	77.7	1.7	4.0	22.3	368
Pujehun	23.2	0.9	0.7	76.8	595	74.9	3.2	4.6	25.1	230
Western Area Rural	79.7	16.0	7.9	19.7	528	82.4	8.9	9.4	17.0	230
Western Area Urban	71.1	34.4	10.9	26.9	2,710	55.0	29.0	24.4	41.4	1,195
Education										
No education	43.7	3.0	1.0	56.2	9,293	51.7	1.9	0.4	48.2	2,651
Primary	55.5	6.9	2.5	43.7	2,331	55.1	5.2	1.2	44.5	825
Secondary or higher	70.0	22.4	10.5	29.2	5,034	68.5	15.8	17.8	30.1	3,106
Wealth quintile										
Lowest	36.8	1.0	1.0	63.2	3,089	48.7	0.7	0.7	51.3	1,218
Second	43.5	1.6	1.1	56.4	3,046	59.0	1.3	1.6	41.0	1,175
Middle	48.5	1.7	0.8	51.5	3,140	60.8	1.9	2.1	39.2	1,195
Fourth	58.7	5.1	3.2	41.2	3,388	68.2	5.4	7.9	31.6	1,183
Highest	72.7	31.3	12.2	25.8	3,994	62.6	26.2	23.5	34.9	1,811
Total 15-49	53.3	9.4	4.1	46.3	16,658	60.1	8.9	8.7	39.2	6,582
50-59	na	na	na	na	na	66.0	7.2	7.6	33.9	680
Total 15-59	na	na	na	na	na	60.6	8.7	8.6	38.7	7,262

na = Not applicable

7.11 CONTACT OF NON-USERS WITH FAMILY PLANNING PROVIDERS

In the 2013 SLDHS, women who were not using any family planning method were asked whether they had been visited in the 12 months preceding the survey by a health worker who talked with them about family planning. This information is especially useful for determining whether family planning outreach programmes are reaching non-users. Non-users were also asked if they had visited a health facility in the past 12 months for any reason other than family planning, and if so, whether any health worker at the facility had spoken to them about family planning.

Table 7.11 indicates that 24 percent of non-users reported discussing family planning when a fieldworker visited them. Thirty percent of non-users reported that they had visited a health facility and discussed family planning, while 16 percent of non-users visited a health facility but did not discuss family planning. Women age 25-34 are more likely than younger women or older women to have discussed family

planning during a visit to a health facility. Overall, the majority of non-users (61 percent) did not discuss family planning either with a fieldworker or at a health facility during the 12 months preceding the survey.

Table 7.11 Contact of non-users 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, Sierra Leone 2013

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	18.5	17.5	11.5	72.2	3,037
20-24	24.0	35.0	19.5	57.1	1,902
25-29	26.6	38.3	20.8	54.1	2,229
30-34	28.2	38.0	16.1	53.8	1,740
35-39	25.6	33.3	16.0	57.5	1,782
40-44	23.1	25.0	16.7	65.3	1,110
45-49	23.1	22.3	15.4	65.4	1,181
Residence					
Urban	19.9	23.4	17.9	68.6	3,974
Rural	25.5	32.4	15.6	58.0	9,008
Region					
Eastern	26.6	38.2	14.2	54.9	2,876
Northern	27.3	33.7	15.0	55.3	5,173
Southern	22.4	21.6	20.0	66.5	2,764
Western	13.2	18.6	17.4	77.0	2,168
District					
Kailahun	35.7	46.9	14.6	42.7	763
Kenema	22.2	28.8	15.5	65.0	1,294
Kono	25.1	45.0	11.7	50.3	819
Bombali	39.9	20.2	9.3	57.3	1,025
Kambia	45.5	39.0	13.7	45.6	679
Koinadugu	5.5	11.2	27.0	85.3	659
Port Loko	24.3	41.8	12.3	49.9	1,654
Tonkolili	22.2	43.8	17.9	49.7	1,157
Bo	33.4	27.8	19.5	56.4	1,054
Bonthe	15.9	15.7	22.0	73.6	494
Moyamba	18.8	12.1	11.3	76.2	751
Pujehun	10.5	29.3	33.3	65.8	466
Western Area Rural	39.3	33.7	8.2	57.1	373
Western Area Urban	7.8	15.5	19.4	81.2	1,795
Education					
No education	23.6	31.1	17.2	60.5	7,856
Primary	25.9	30.6	14.4	58.2	1,900
Secondary or higher	23.1	25.3	15.2	64.7	3,226
Wealth quintile					
Lowest	21.1	28.4	15.0	63.2	2,628
Second	25.8	32.9	16.5	58.2	2,600
Middle	28.0	32.6	16.5	56.3	2,633
Fourth	27.7	34.3	14.8	55.3	2,502
Highest	16.4	20.1	18.6	72.8	2,617
Total	23.8	29.6	16.3	61.2	12,982

The proportion of women who were visited by a fieldworker is higher in rural areas than in urban areas (26 and 20 percent respectively). Similarly, women in rural areas are more likely than women in urban areas to have visited a health facility and discussed family planning (32 and 23 percent respectively). The proportion of non-users who visited a health facility and discussed family planning is highest in the Eastern region (38 percent) and lowest in the Western region (19 percent). Women with primary or no education are more likely than women with secondary or higher education to have visited a health facility and discussed family planning with a provider (31 percent versus 25 percent).

INFANT AND CHILD MORTALITY 8

Key Findings

- The infant mortality rate is 92 deaths per 1,000 live births and the under-five mortality rate is 156 deaths per 1,000 live births, for the five years preceding the 2013 SLDHS.
- Infant and under-five mortality are higher in rural areas than in urban areas.
- Child mortality is estimated at 70 deaths per 1,000 live births, while the neonatal mortality rate is 39 deaths per 1,000 live births. The postneonatal mortality rate is 54 deaths per 1,000 live births.
- Neonatal mortality is marginally higher in urban areas than in rural areas.

Infant and child mortality rates reflect the level of socioeconomic development and overall quality of life in a country. This chapter reports on levels, trends, and differentials in perinatal, neonatal, postneonatal, infant, child, and under-five mortality. The information is useful in understanding population trends—for example, infant mortality rates can be used in population projections—and planning and evaluation of health policies and programmes. Understanding the patterns of childhood mortality assists the health sector to identify population groups that are at high risk. The government of Sierra Leone is implementing the Free Health Care Initiative, which was launched in 2010. One of the aims of this initiative is to reduce childhood mortality; therefore, the information presented in this report is useful in assessing the impact of the different programmes.

8.1 METHODOLOGICAL CONSIDERATIONS

The data used to estimate infant and childhood mortality were collected in the birth history section of the Woman's Questionnaire. The birth history section begins with questions about the respondent's experience with childbearing (i.e., the number of sons and daughters living with the mother, the number living elsewhere, and the number of children who have died). These questions are followed by a retrospective birth history in which each respondent is asked to list each of her births, starting with the first birth. For each birth, data were obtained on sex, month, and year of birth, survivorship status, and current age or, if the child is dead, age at death. This information is used to directly estimate mortality rates. In this report, age-specific mortality rates are categorised and defined as follows:

Neonatal mortality (NN): the probability of dying within the first month of life

Postneonatal mortality (PNN): the probability of dying after the first month of life but before the first birthday (the difference between infant and neonatal mortality)

Infant mortality ($_1q_0$): the probability of dying before the first birthday

Child mortality ($_4q_1$): the probability of dying between the first and fifth birthdays

Under-five mortality ($_5q_0$): the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births with the exception of child mortality, which is expressed per 1,000 children surviving to age 12 months.

The 2013 SLDHS estimates mortality rates for five-year periods preceding the survey, i.e., 2013-2009, 2008-2004, and so on. The estimates are based on births and infant and child deaths reported by women age 15-49 as of the interview date. Inherent in this methodology are possible biases arising from incomplete and possibly unrepresentative data.

Since only surviving women age 15-49 are interviewed, no data are available for the children of women who have died. In this case, mortality estimates will be biased if the mortality experience of children born to surviving and non-surviving women differs. Any method of measuring childhood mortality that relies on mothers' reports (e.g., birth histories) assumes that female adult mortality is not high, or if it is high, that there is little or no correlation between the mortality risks of the mothers and those of their children.

Another methodological constraint arises from the fact that women older than age 49 at the time of the survey are not interviewed and thus cannot contribute information on their children for periods preceding the survey. This censoring of information and the resulting potential for bias becomes more severe as mortality estimates are made for time periods more distant from the survey. To reduce the effect of these methodological limitations, estimation of infant and child mortality in this report is restricted to the period 15 years preceding the survey.

8.2 Assessment of Data Quality

The reliability of mortality estimates depends on the sampling variability of the estimates and on non-sampling errors. Sampling variability and sampling errors are discussed in Appendix B. Non-sampling errors depend on the completeness with which child deaths are recalled and reported, the accuracy of the date of birth information given by the mother for living children, and the accuracy of age at death information given by the mother for deceased children. Serious omission of births and deaths affects mortality estimates; displacement of dates of such vital events affects mortality trends, and misreporting of age at death distorts 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 the underreporting of births and deaths for children who were no longer living at the time of the survey. Mothers may be reluctant to talk about their dead children, either because the subject brings back sad memories or because their culture discourages mention of the dead. Even if a respondent is willing to talk about a dead child, she may forget events that happened in the more distant past, particularly if a child was alive only for a short time. When selective omission of childhood deaths occurs, it is usually most severe for deaths in early infancy. Appendix Table C.3 shows that the percentage of missing information for birth dates (births in the past 15 years), age at death, age at first union, and mother's education is below 2 percent. Appendix Table C.4 shows the rates of completeness of birth. These rates are nearly 100 percent for the years under observation and are essentially the same for living children as for dead children.

An examination of the proportion of early neonatal deaths to all neonatal deaths (Appendix Table C.5) shows that early neonatal deaths represented 81 percent of all neonatal deaths for the five-year period preceding the 2013 SLDHS. The proportion is essentially equivalent for the period 5-14 years preceding the survey. However, the proportion of early neonatal deaths is slightly lower for deaths occurring 15-19 years before the survey (72 percent) than for deaths occurring 0-4 years preceding the survey, which is not surprising given the greater likelihood of recall errors for deaths occurring further in the past. In comparison, the proportion of early neonatal deaths for the five-year period preceding the 2008 SLDHS was 76 percent.

An examination of the proportion of neonatal deaths to infant deaths (Appendix Table C.6) shows that neonatal deaths represented 46 percent of infant deaths for the five-year period preceding the 2013 SLDHS, which is essentially the same proportion reported for the five-year period preceding the 2008 SLDHS (4 percent). It is, however, higher than the proportion reported in the period 5-19 years before the survey, which ranged between 33 percent and 37 percent.

Another potential data quality problem involves the displacement of birth dates, which may distort mortality trends. This can occur if an interviewer knowingly records a birth as occurring in a different year, which could happen if an interviewer were trying to reduce his or her overall work load, because live births occurring during the five years preceding the interview are the subject of a lengthy set of additional questions. In the 2013 SLDHS questionnaire, the cut-off year for these questions was 2008. Appendix Table C.4 shows evidence of some transference of children from 2008 to earlier years. For example, there were 2,923 children born in 2007 compared with 2,446 born in 2008, a 20 percent increase. The calendar year ratios for living and deceased children are 111 and 143 respectively, for 2007, compared with 97 and 72 in 2008 and 91 and 92 in 2006.

A third 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 minimise 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. Appendix Table C.6 shows that there is considerable heaping of deaths at age 12 months because the number of deaths at this age is about twice the number of deaths at age 11 months and three times the number of deaths at age 13 months. There were also a number of deaths reported to have occurred at age "1 year," despite the instructions given to interviewers. This heaping at age 12 months can potentially bias the mortality rates reported in the tables in this chapter. Although age heaping at 12 months to the extent shown in Appendix Table C.6 is likely to have only a minor underestimation effect on estimates of infant mortality, it is likely to lead to some overestimation of child mortality.

8.3 LEVELS AND TRENDS OF INFANT AND CHILD MORTALITY

Table 8.1 shows neonatal, postneonatal, infant, child, and under-five mortality rates for successive five-year periods before the survey. For the five years immediately preceding the survey (2008-2013), the infant mortality rate is 92 deaths per 1,000 live births. The estimate of child mortality (age 12 months to 4 years) is 70 deaths per 1,000 live births, while the overall under-five mortality rate for the same period is 156 deaths per 1,000 live births. The neonatal mortality rate is 39 deaths per 1,000 live births. The postneonatal mortality rate is 54 deaths per 1,000 live births.

Table 8.1 Early childhood mortality rates

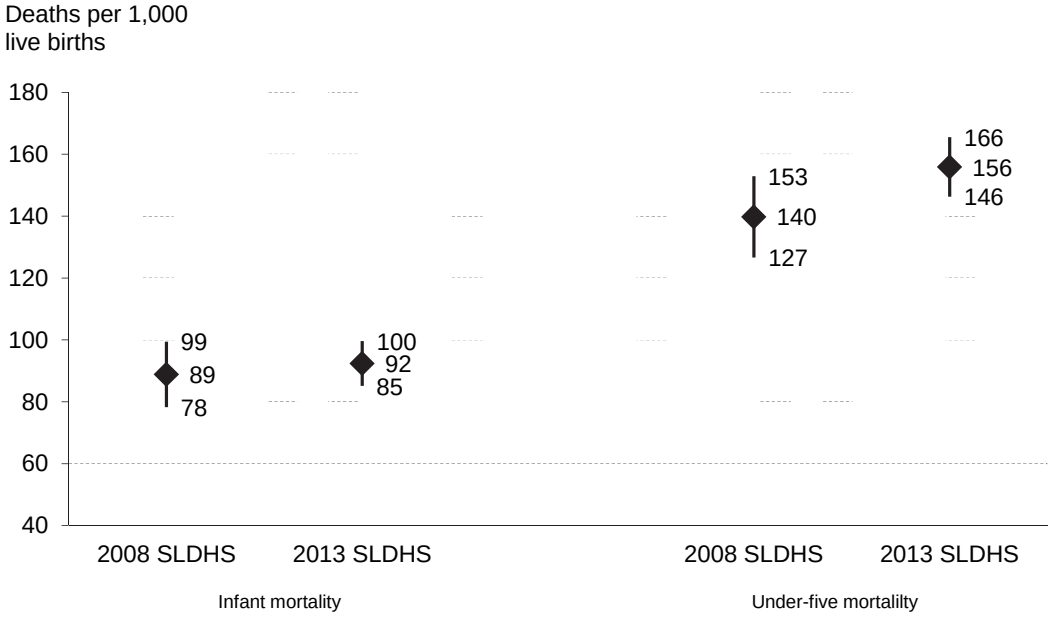
Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Sierra Leone 2013

Years preceding the survey	Period	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	2009-2013	39	54	92	70	156
5-9	2004-2008	46	81	127	77	194
10-14	1999-2003	48	104	152	89	227

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

For the 15-year period preceding the survey, under-five mortality rates have declined from 227 deaths per 1,000 live births during the late 1990s (1998-2004) to 156 deaths per 1,000 live births in the most recent five years (2008-2013). Infant mortality decreased from 152 deaths per 1,000 live births to 92 deaths per 1,000 live births in the same period. While these statistics suggests an improvement of mortality conditions from the late 1990s to the early 2010s, current mortality rate estimates were consistently higher than those from the 2008 SLDHS for the same reporting period. Confidence intervals for the infant and under-five mortality rates for the 2008 SLDHS and the 2013 SLDHS displayed in the Figure 8.1 do not provide any evidence of change in the two rates between the two surveys. This discrepancy in mortality rates between the surveys is probably a result of the underestimation of mortality in the previous survey.

Figure 8.1 **Infant and under-five mortality rates with confidence intervals for the five years preceding the 2008 SLDHS and the 2013 SLDHS**



8.4 SOCIOECONOMIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Table 8.2 presents mortality differentials by place of residence, region, educational level of the mother, and household wealth. To capture a sufficient number of births to study mortality differentials across subgroups of the population, rates are presented for the 10-year period preceding the survey. Under-five mortality is higher in rural areas (181 deaths per 1,000 live births) compared with urban areas (158 deaths per 1,000 live births). Infant mortality is also higher in rural areas, at 112 deaths per 1,000 live births compared with 105 deaths per 1,000 live births in urban areas. However, neonatal mortality is higher in urban areas (48 deaths per 1,000 live births) than in rural areas (41 deaths per 1,000 live births).

There are regional differences in infant and under-five mortality as well. Under-five mortality rates range from a low of 157 deaths per 1,000 live births in the Western region to a high of 200 deaths per 1,000 live births in the Eastern region. Infant mortality is also relatively high in the Eastern region.

Higher levels of educational attainment of the mother are generally associated with lower childhood mortality rates. Children born to mothers with no education have the highest under-five mortality rate (180 deaths per 1,000 live births). Rates decline as mother's level of education increases. Under-five mortality is 147 deaths per 1,000 live births for children whose mothers have a secondary or higher education.

Children in households in the highest wealth quintile have the lowest postneonatal, infant, child, and under-five mortality rates. All childhood mortality rates except neonatal mortality rates are highest for children from households in the middle wealth quintile. However, neonatal mortality rates are highest for children in households in the highest wealth quintile.

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Sierra Leone 2013

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Residence					
Urban	48	57	105	60	158
Rural	41	71	112	78	181
Region					
Eastern	44	83	127	83	200
Northern	36	60	96	77	165
Southern	45	73	118	65	175
Western	56	50	107	56	157
District					
Kailahun	34	76	110	85	186
Kenema	48	99	147	91	224
Kono	46	65	110	69	171
Bombali	35	36	71	45	113
Kambia	24	51	75	61	131
Koinadugu	40	74	113	100	202
Port Loko	38	64	101	82	175
Tonkolili	37	69	106	93	190
Bo	55	64	119	62	173
Bonthe	25	30	55	23	77
Moyamba	46	98	144	64	199
Pujehun	39	90	130	101	217
Western Area Rural	66	59	124	59	176
Western Area Urban	54	48	103	55	152
Mother's education					
No education	42	70	112	77	180
Primary	43	62	104	70	167
Secondary or higher	46	56	102	50	147
Wealth quintile					
Lowest	42	73	116	79	186
Second	40	70	110	75	177
Middle	42	75	117	82	189
Fourth	38	64	103	73	168
Highest	52	48	100	48	144

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

8.5 DEMOGRAPHIC DIFFERENTIALS IN CHILD MORTALITY

The demographic characteristics of both mothers and children have been found to play an important role in child survival. Table 8.3 presents childhood mortality rates according to sex of the child, mother's age at birth, birth order, previous birth interval, and the infant's size at birth.

Table 8.3 shows that across all childhood mortality indicators the rates for male children are higher than those for female children. The under-five mortality rate for male children is 186 deaths per 1,000 live births compared with 164 deaths per 1,000 live births for female children.

Childhood mortality rates are described as having a U-shaped relationship with birth order; first-order births and higher-order births experience a higher mortality risk than middle-order births. The data from 2013 SLDHS confirm this pattern. Neonatal mortality for first-order births is 53 deaths per 1,000 live births, which then decreases to 34 deaths per 1,000 live births for infants who are a second or third birth order, and again increases for infants born of a birth order of seven and higher (65 births per 1,000 live births).

Studies have shown that a longer birth interval has a positive effect on a child's chances of survival. Table 8.3 shows that childhood mortality rates are generally higher for children born within two years of the birth of a preceding sibling. Under-five mortality is 263 deaths per 1,000 live births for children born after an interval of less than two years compared with 133 deaths per 1,000 live births for birth intervals of three years. The relationship is observed for all childhood mortality rates.

Mothers were asked whether their children born in the past five years were very large at birth, larger than average, average, smaller than average, or very small. Birth size has been found to be a good proxy for a child's weight. The data show that children who were small or very small at birth were more likely to die before their first birthday compared with children whose birth weights were average or above.

Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Sierra Leone 2013

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	46	71	117	78	186
Female	39	64	102	69	164
Mother's age at birth					
<20	54	75	130	80	199
20-29	38	65	102	69	165
30-39	41	69	110	77	178
40-49	48	62	110	(63)	(166)
Birth order					
1	53	62	115	66	174
2-3	34	65	98	64	156
4-6	37	68	104	79	175
7+	65	87	151	101	237
Previous birth interval[2]					
<2 years	66	107	172	109	263
2 years	41	76	117	82	189
3 years	31	52	83	55	133
4+ years	21	36	57	46	100
Birth size[3]					
Small/very small	67	76	143	na	na
Average or larger	28	47	75	na	na

na = Not available. Figures in parentheses are based on 250-499 unweighted cases.
[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

8.6 PERINATAL MORTALITY

Perinatal deaths include pregnancy losses occurring after seven completed months of gestation (stillbirths) and deaths within the first seven days of life (early neonatal deaths). The perinatal death rate is calculated by dividing the total number of perinatal deaths by the total number of pregnancies reaching seven months of gestation. The distinction between a stillbirth and an early neonatal death may be a fine one, depending often on the observed presence or absence of some faint signs of life after delivery.

The causes of stillbirths and early neonatal deaths overlap, and examining just one or the other can understate the true level of mortality around delivery. For these reasons, both events are usually combined and examined together. Information on stillbirths for the five years preceding the survey was derived from the calendar portion of the Woman's Questionnaire.

Table 8.4 presents the number of stillbirths, early neonatal deaths, and perinatal mortality rate for the five-year period preceding the 2013 SLDHS by selected demographic and socioeconomic characteristics. The table shows that 100 stillbirths and 377 neonatal deaths were reported, resulting in a perinatal mortality rate of 39 deaths per 1,000 pregnancies. The perinatal mortality rate is highest (44 per thousand pregnancies) among children whose mothers are younger than age 20. Perinatal mortality is highest for women who have a birth interval of less than 15 months (56 deaths per 1,000 pregnancies). Urban areas have higher perinatal mortality than rural areas (46 and 36 deaths per 1,000 pregnancies respectively). At the regional level, the Western region, which is the most urban of the regions, reported the highest perinatal mortality of 53 deaths per 1,000 pregnancies. Perinatal mortality is higher among women with at least a primary education and among women in the highest wealth quintile.

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, Sierra Leone 2013

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	9	93	44	2,302
20-29	56	164	36	6,051
30-39	30	103	39	3,382
40-49	5	17	40	563
Previous pregnancy interval in months[4]				
First pregnancy	18	112	52	2,519
<15	7	27	99	347
15-26	18	85	42	2,468
27-38	25	81	35	3,037
39+	31	72	26	3,927
Residence				
Urban	33	112	46	3,144
Rural	67	266	36	9,154
Region				
Eastern	25	97	41	2,982
Northern	44	114	33	4,792
Southern	16	96	38	2,908
Western	16	70	53	1,615
District				
Kailahun	13	22	40	882
Kenema	10	44	41	1,311
Kono	2	30	40	788
Bombali	3	18	27	791
Kambia	12	12	40	608
Koinadugu	13	18	46	665
Port Loko	10	42	33	1,600
Tonkolili	5	25	26	1,127
Bo	6	51	51	1,113
Bonthe	1	8	20	464
Moyamba	2	26	38	729
Pujehun	7	11	30	602
Western Area Rural	2	12	48	297
Western Area Urban	14	58	54	1,318
Mother's education				
No education	66	235	36	8,460
Primary	20	66	49	1,746
Secondary or higher	13	76	43	2,092
Wealth quintile				
Lowest	19	87	37	2,877
Second	18	65	31	2,634
Middle	20	77	38	2,593
Fourth	29	68	41	2,329
Highest	15	80	51	1,865
Total	100	377	39	12,298

[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.

8.7 HIGH-RISK FERTILITY BEHAVIOUR

Typically, infants and young children have a higher risk of dying if they are born to very young mothers or older mothers, if they are born after a short birth interval, or if their mothers have already had many children. In the following analysis, mothers are classified as at risk if they are younger than age 18 or older than age 34 at the time of childbirth. A short birth interval is defined as less than 24 months, and a high-order birth is defined as occurring after three or more previous births (i.e., birth order 4 or higher). A child may be at an elevated risk of dying due to a combination of factors.

Table 8.5 shows the percent distribution of children born in the five-year period preceding the survey by category of elevated risk of mortality. First births to mothers age 18-34, which make up 14 percent of births, are considered 'unavoidable' and are shown as a separate risk category. Twenty seven percent of children born in the five-year period preceding the survey were born to mothers not in any of the high-risk categories. Almost 60 percent of births occurring in the five years preceding the survey were in an avoidable high-risk category: 40 percent were births to mothers in a single high-risk category and 20 percent were births to mothers in a multiple high-risk category. The largest percentage of births in the single high-risk category is to mothers with birth order greater than three children (25 percent). In the multiple high-risk category mothers older than age 34 and having a birth order greater than three children make up the highest percentage of births (12 percent).

Table 8.5 also presents risk ratios, which represent the increased risk of mortality among births in various high-risk categories relative to births not having any high-risk characteristics. Among births involving a single risk factor, mother's age under 18 (risk ratio = 1.67) and a birth interval less than 24 months (risk ratio = 1.53) are the single factors with the highest risks of under-five mortality in Sierra Leone. Overall, risk ratios are higher for children in a multiple high-risk category than for those in a single high-risk category. The combination of a short birth interval and a high birth order (above 3) results in a risk ratio that is nearly three times (risk ratio = 2.58) higher than for births not in any high-risk category. Five percent of births fall into this category. The combination of an older mother, a short birth interval, and a high birth order results in a risk ratio almost two times higher; 2 percent of births are in this category. The other vulnerable births are those to women under age 18 with a birth interval of less than 24 months. These children are three times more likely to die compared with children not in any high-risk category. Less than 1 percent of births are in this category.

The last column in Table 8.5 shows the distribution of currently married women by the risk category into which a birth would fall if conceived at the time of the survey. This column is based on assumptions that do not take into account family planning, postpartum infecundity, and prolonged abstinence. The table shows that 16 percent of women are not in any high-risk category, and 5 percent are only at risk of having their first birth between ages 18 and 34, which is considered to be an unavoidable risk. Seventy-nine percent of currently married women in the 2013 LDHS have at least one avoidable risk factor, with 31 percent having a single risk factor and 48 percent having multiple risk factors.

Table 8.5 High-risk fertility behaviour

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, Sierra Leone 2013

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	26.8	1.00	16.2[a]
Unavoidable risk category			
First order births between ages 18 and 34 years	13.8	1.33	4.6
Single high-risk category			
Mother's age <18	8.5	1.67	0.8
Mother's age >34	1.1	0.83	3.9
Birth interval <24 months	4.9	1.53	8.4
Birth order >3	25.3	1.14	18.3
Subtotal	39.8	1.29	31.4
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.6	3.01	0.3
Age >34 and birth interval <24 months	0.1	*	0.1
Age >34 and birth order >3	11.8	1.07	30.7
Age >34 and birth interval <24 months and birth order >3	1.9	1.95	5.4
Birth interval <24 months and birth order >3	5.2	2.58	11.3
Subtotal	19.6	1.62	47.8
In any avoidable high-risk category	59.5	1.40	79.2
Total	100.0	na	100.0
Number of births/women	12,198	na	10,903

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 250 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 sterilised women

REPRODUCTIVE HEALTH 9

Key Findings

- Practically all women age 15-49 who had a live birth in the five years preceding the survey received antenatal care from a skilled provider (i.e., a doctor, nurse or midwife, or Maternal and Child Health Aide).
- Seventy-six percent of women who had a live birth in the five years preceding the survey reported making at least four antenatal care visits during the pregnancy.
- Ninety-four percent of women age 15-49 who had a live birth in the five years preceding the survey took iron tablets or syrup, and 72 percent took intestinal parasite drugs.
- Ninety percent of women age 15-49 had their last birth protected against neonatal tetanus.
- Fifty-four percent of births in Sierra Leone take place in a health facility
- Six in ten births are attended by a skilled provider, mostly a nurse/midwife (44 percent) or MCH Aide (14 percent), and in 2 percent of cases by a doctor. One-third of births (36 percent) are attended by a traditional birth attendant, and 3 percent by relatives or some other person.

The health care that a woman receives before and during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of the mother and her child. Reproductive health care encompasses family planning and prenatal, delivery, and postnatal care with the aim of ensuring maternal health and reducing maternal morbidity and mortality.

Sierra Leone has a reproductive health policy that provides a roadmap for all stakeholders working in this area. The guidelines for that policy are outlined in the Basic Package of Essential Health (BPEH) Services, for the reduction of maternal and neonatal mortality and morbidity in Sierra Leone (Ministry of Health and Sanitation, 2010). The National Reproductive Health Strategy also provides guidelines for improving access to skilled attendance at childbirth and for improving the availability of and access to quality emergency obstetrical care.

The 2013 SLDHS collected information on maternal health care for women who had given birth to at least one child in the five years preceding the survey. For the most recent birth in that period, women were asked from whom they had obtained antenatal care during pregnancy and whether they had received a tetanus toxoid injection; for all births in the five years before the survey, mothers were asked who assisted at the delivery and where they gave birth to the child and, finally, questions were asked about postnatal care for the most recent birth.

This chapter presents findings in these areas of importance to maternal health and also addresses problems in access to health care. The findings are important to those who formulate policies and programmes and also to those who design appropriate strategies and interventions to improve maternal and child health care services.

9.1 ANTENATAL CARE

Antenatal care from a skilled attendant is important to monitor the pregnancy and reduce the risk of death for mother and baby during pregnancy and delivery. Antenatal care (ANC) enables early detection of

complications and prompt treatment (e.g., detection and treatment of sexually transmitted infections); prevention of diseases through immunisation and micronutrient supplementation; birth preparedness and complication readiness; and health promotion and disease prevention through health messages and counselling of pregnant women.

Table 9.1 presents the percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by ANC provider during pregnancy for the most recent birth, and the percentage receiving ANC from a skilled provider—that is, a doctor, nurse, midwife, or Maternal and Child Health (MCH) Aide—for the most recent birth, according to background characteristics. The results show that in Sierra Leone practically all women (97 percent) received ANC from a skilled provider. ANC services were mainly provided by nurses or midwives (65 percent) and MCH Aides (26 percent), and in few cases, by medical doctors (6 percent). There is relatively little variation in the coverage of ANC by a skilled provider according to mother's characteristics.

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, Sierra Leone 2013

	Antenatal care provider										
Background characteristic	Doctor	Nurse/ midwife	MCH Aide	Community health worker	Traditional birth attendant	Other	Missing	No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
Mother's age at birth											
<20	5.3	68.0	25.2	0.0	0.4	0.0	0.2	0.8	100.0	98.6	1,609
20-34	6.5	65.3	25.3	0.3	0.5	0.0	0.5	1.6	100.0	97.1	5,566
35-49	4.6	62.7	28.2	0.2	0.8	0.1	0.6	2.9	100.0	95.4	1,473
Birth order											
1	9.6	66.4	22.3	0.0	0.7	0.0	0.1	0.8	100.0	98.4	1,819
2-3	6.3	66.6	24.6	0.3	0.4	0.0	0.6	1.1	100.0	97.6	2,829
4-5	4.9	64.2	27.2	0.5	0.5	0.1	0.5	2.2	100.0	96.3	2,205
6+	3.0	63.9	29.1	0.0	0.6	0.0	0.8	2.5	100.0	96.1	1,794
Residence											
Urban	18.5	69.4	10.2	0.3	0.3	0.0	0.4	0.8	100.0	98.2	2,387
Rural	1.2	63.9	31.6	0.2	0.6	0.0	0.5	2.0	100.0	96.7	6,260
Region											
Eastern	2.5	70.2	25.6	0.1	0.2	0.0	0.5	0.8	100.0	98.3	2,054
Northern	2.7	57.4	35.4	0.2	0.8	0.0	0.5	3.0	100.0	95.5	3,385
Southern	1.5	73.2	23.4	0.1	0.4	0.1	0.4	0.8	100.0	98.2	1,982
Western	27.8	66.7	3.1	0.6	0.5	0.0	0.5	0.8	100.0	97.7	1,226
District											
Kailahun	0.9	74.8	23.0	0.1	0.7	0.0	0.2	0.4	100.0	98.7	602
Kenema	4.0	59.5	35.0	0.2	0.0	0.0	0.8	0.5	100.0	98.4	908
Kono	2.0	82.9	12.7	0.0	0.2	0.0	0.3	1.9	100.0	97.6	544
Bombali	5.2	35.4	54.9	0.0	2.4	0.0	1.4	0.8	100.0	95.5	585
Kambia	1.8	48.6	42.7	0.0	0.7	0.0	0.8	5.4	100.0	93.1	417
Koinadugu	1.7	31.0	57.3	0.4	1.6	0.0	0.1	8.0	100.0	90.0	453
Port Loko	2.8	75.1	19.1	0.3	0.1	0.0	0.3	2.2	100.0	97.1	1,122
Tonkolili	1.8	67.9	27.9	0.0	0.3	0.0	0.4	1.7	100.0	97.6	810
Bo	1.8	77.5	20.2	0.0	0.1	0.0	0.1	0.3	100.0	99.5	792
Bonthe	0.3	80.8	15.1	0.5	0.6	0.0	0.2	2.6	100.0	96.2	324
Moyamba	1.1	66.3	29.8	0.2	0.5	0.6	1.0	0.6	100.0	97.2	481
Pujehun	2.7	66.7	29.1	0.0	0.6	0.0	0.7	0.3	100.0	98.5	385
Western Area Rural	6.3	78.2	14.1	0.0	0.5	0.0	0.7	0.2	100.0	98.6	226
Western Area Urban	32.7	64.1	0.6	0.8	0.4	0.0	0.5	0.9	100.0	97.4	1,000
Education											
No education	3.2	64.5	28.6	0.3	0.7	0.0	0.6	2.0	100.0	96.3	5,768
Primary	5.5	66.6	25.9	0.0	0.2	0.0	0.5	1.3	100.0	98.0	1,203
Secondary or higher	15.8	67.7	15.7	0.1	0.2	0.0	0.0	0.5	100.0	99.2	1,676
Wealth quintile											
Lowest	1.1	59.3	35.5	0.1	0.6	0.0	0.6	2.7	100.0	96.0	1,901
Second	1.1	63.5	32.1	0.2	0.9	0.0	0.5	1.8	100.0	96.7	1,809
Middle	1.1	65.5	30.2	0.4	0.4	0.1	0.4	1.9	100.0	96.7	1,797
Fourth	5.3	72.1	20.7	0.0	0.4	0.0	0.4	1.0	100.0	98.1	1,694
Highest	25.3	67.8	5.2	0.3	0.3	0.0	0.7	0.5	100.0	98.3	1,447
Total	6.0	65.4	25.7	0.2	0.5	0.0	0.5	1.7	100.0	97.1	8,647

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, midwife, and MCH Aide

9.2 NUMBER OF ANC VISITS AND TIMING OF FIRST VISITS

The antenatal care policy in Sierra Leone follows the World Health Organisation (WHO) approach to promoting safe pregnancies, recommending at least four ANC visits for women without complications. This approach emphasises quality of care during each visit instead of focusing on the number of visits. The recommended schedule of visits is as follows: the first visit should occur by the end of 16 weeks of pregnancy, the second visit should be between 24 and 28 weeks of pregnancy, the third visit should occur at 32 weeks, and the fourth visit should occur at 36 weeks. However, women with complications, special needs, or conditions beyond the scope of basic care may require additional visits.

Table 9.2 presents the percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of ANC visits and timing of the first visit for the most recent live birth. Seventy-six percent of women who had a live birth in the five years preceding the survey reported making ANC visits at least four times during pregnancy.

Table 9.2 also shows that 9 percent of women made two or three ANC visits during their last pregnancy. Less than 1 percent of women made just one ANC visit. There are some rural-urban disparities in the number of ANC visits. Eighty percent of urban women compared with 75 percent of rural women made a minimum of four visits.

The results also show that forty-five percent of women made their first ANC visit in the first trimester of pregnancy, and 42 percent made their first ANC visit between four and five months during pregnancy. Ten percent of women made their first ANC visit in their sixth or seventh month of pregnancy.

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, Sierra Leone 2013

	Residence		
Number and timing of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	1.0	2.3	1.9
1	0.4	0.6	0.6
2-3	6.5	9.4	8.6
4+	79.9	74.6	76.0
Don't know/missing	12.2	13.1	12.9
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.0	2.3	1.9
<4	42.5	45.2	44.5
4-5	44.1	41.2	42.0
6-7	10.6	9.3	9.6
8+	1.0	0.6	0.7
Don't know/missing	0.8	1.5	1.3
Total	100.0	100.0	100.0
Number of women	2,387	6,260	8,647
Median months pregnant at first visit (for those with ANC)	4.3	4.1	4.1
Number of women with ANC	2,364	6,119	8,483

9.3 COMPONENTS OF ANTENATAL CARE

The content of antenatal care is an essential component of the quality of services. Focused antenatal care hinges on the principle that every pregnancy is at risk of complications. It is therefore important to ensure that in addition to receiving basic care every pregnant woman should be monitored for complications, receive information on their symptoms, and undergo routine screening as part of all ANC visits. To assess ANC services, the 2013 SLDHS asked respondents a number of questions about the care they received during pregnancy for their most recent live birth.

Table 9.3 presents information including the percentages of women who took iron tablets or syrup, took intestinal antiparasitic drugs, were informed of the symptoms of pregnancy complications, and received selected routine services during ANC visits for their most recent birth in the past five years.

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, Sierra Leone 2013

	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				
Background characteristic	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
Mother's age at birth								
<20	93.7	70.6	1,609	89.0	93.9	71.2	89.3	1,594
20-34	93.7	73.0	5,566	89.4	94.6	74.5	90.0	5,462
35-49	94.1	72.1	1,473	90.1	93.1	71.1	87.3	1,426
Birth order								
1	94.6	72.3	1,819	91.4	95.0	74.5	91.0	1,803
2-3	92.8	72.9	2,829	89.7	95.1	76.6	91.5	2,785
4-5	93.9	72.6	2,205	88.7	94.2	73.2	87.9	2,153
6+	94.2	71.6	1,794	88.1	92.0	67.1	86.3	1,741
Residence								
Urban	95.1	75.9	2,387	92.3	96.7	84.1	93.0	2,364
Rural	93.3	71.1	6,260	88.4	93.2	69.2	88.0	6,119
Region								
Eastern	98.1	64.1	2,054	90.0	93.4	62.8	87.6	2,034
Northern	90.7	70.3	3,385	84.8	93.1	75.3	88.5	3,272
Southern	95.5	80.3	1,982	95.0	94.4	68.7	88.5	1,964
Western	92.2	79.6	1,226	92.2	98.1	93.3	96.4	1,213
District								
Kailahun	98.1	79.2	602	91.0	96.4	60.8	90.8	599
Kenema	98.3	66.7	908	90.0	90.6	62.4	84.3	902
Kono	97.8	43.1	544	89.2	94.8	65.6	89.5	533
Bombali	93.9	71.2	585	73.4	95.9	85.9	91.5	574
Kambia	75.9	75.4	417	92.9	95.0	80.9	92.2	392
Koinadugu	87.5	57.4	453	59.8	90.1	58.6	81.1	417
Port Loko	93.2	77.5	1,122	91.8	93.5	83.7	89.9	1,096
Tonkolili	94.3	64.2	810	92.5	91.2	62.2	86.4	794
Bo	98.3	87.5	792	96.0	95.4	69.1	92.8	790
Bonthe	93.9	67.0	324	96.8	97.2	63.7	86.3	315
Moyamba	91.1	71.7	481	97.1	92.0	74.5	83.2	476
Pujehun	96.6	87.3	385	88.8	92.7	64.7	88.2	383
Western Area Rural	86.0	82.9	226	96.5	99.3	97.2	99.3	224
Western Area Urban	93.6	78.8	1,000	91.2	97.9	92.4	95.8	989
Education								
No education	93.1	70.0	5,768	87.7	93.0	70.1	87.3	5,632
Primary	94.6	76.2	1,203	91.4	95.7	76.7	90.7	1,184
Secondary or higher	95.6	78.0	1,676	94.1	97.3	82.0	95.8	1,667
Wealth quintile								
Lowest	93.3	67.8	1,901	88.7	91.7	64.0	85.5	1,846
Second	93.5	70.9	1,809	86.6	92.9	67.7	86.5	1,772
Middle	93.1	72.6	1,797	87.8	93.2	71.2	89.3	1,760
Fourth	94.1	74.1	1,694	92.4	95.6	78.7	91.3	1,671
Highest	95.2	78.2	1,447	92.5	98.5	88.9	96.2	1,435
Total	93.8	72.4	8,647	89.5	94.2	73.3	89.4	8,483

Among women with a live birth in the past five years, 94 percent took iron tablets or syrup and 72 percent took intestinal parasite drugs during the pregnancy for the most recent birth. There is little variation in the percentage of women who took iron supplements by the woman's age, the child's birth order, and wealth quintile. Slightly more women with secondary or higher education (96 percent) took iron supplements than women with no education (93 percent). The proportions of women who took internal parasite drugs vary markedly from one region to another and also by district. Uptake of intestinal parasitic drugs is higher in Southern and Western regions (80 percent) than in Eastern region (64 percent). By district, uptake of intestinal parasitic drugs ranges from 43 percent in Kono to 88 percent in Bo. Women in urban areas (76 percent) are slightly more likely than women in rural areas (71 percent) to have taken drugs to prevent intestinal parasites during their last pregnancy.

Ninety percent of women who received antenatal care during their last pregnancy were informed of the symptoms of pregnancy complications. Women in urban areas are more likely to receive such information than those in rural areas (92 percent compared with 88 percent).

Among the various components of ANC received, overall, 94 percent of women had their blood pressure measured, 73 percent had a urine sample taken, and 89 percent had a blood sample taken. Variations are observed by urban-rural residence. Ninety-seven percent of women in urban areas had their blood pressure measured compared with 93 percent of women in rural areas. Eight in ten urban women had a urine sample taken (84 percent) compared with 69 percent of rural women. Ninety-three percent of women in urban areas had a blood sample taken compared with 88 percent of women in rural areas.

9.4 TETANUS TOXOID INJECTIONS

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a cause of infant death that is due primarily to unsanitary conditions at childbirth. In the 2013 SLDHS, information was collected on the number of doses of tetanus toxoid vaccine the mother received during the pregnancy for her most recent birth during the five-year period preceding the survey. In addition, questions were included to ascertain whether mothers received tetanus injections during the pregnancy for the last live birth, as a means of determining whether the last birth was fully protected from neonatal tetanus.

Table 9.4 shows the percentage of women with a live birth in the five years preceding the survey who reported receiving tetanus toxoid injections during the pregnancy for the last live birth. Also shown is whether the last birth was fully protected against neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother received two tetanus toxoid injections during the pregnancy for her last birth; (2) the mother received two or more tetanus toxoid injections, the last of which was within three years of the last live birth; (3) the mother received three or more tetanus toxoid injections, the last of which was within five years of the last live birth; (4) the mother received four or more tetanus toxoid injections, the last of which was within 10 years of the last live birth; or (5) the mother received five or more tetanus toxoid injections during the pregnancy for the last birth.

The data shows that 87 percent of the mothers received two or more tetanus toxoid injections during their pregnancy, and 90 percent of last-born children during the five-year period before the survey were fully protected against neonatal tetanus. There are regional variations in the

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, Sierra Leone 2013

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	83.8	88.2	1,609
20-34	87.6	90.5	5,566
35-49	87.5	90.1	1,473
Birth order			
1	85.4	89.5	1,819
2-3	87.0	90.3	2,829
4-5	87.2	90.4	2,205
6+	87.8	89.7	1,794
Residence			
Urban	86.7	90.5	2,387
Rural	87.0	89.8	6,260
Region			
Eastern	91.7	93.4	2,054
Northern	81.8	85.9	3,385
Southern	93.7	95.7	1,982
Western	81.7	86.6	1,226
District			
Kailahun	97.4	98.0	602
Kenema	89.6	92.1	908
Kono	89.0	90.6	544
Bombali	89.8	91.7	585
Kambia	72.1	79.4	417
Koinadugu	75.3	83.1	453
Port Loko	84.9	87.4	1,122
Tonkolili	80.4	84.5	810
Bo	97.1	98.1	792
Bonthe	95.6	96.9	324
Moyamba	87.9	92.3	481
Pujehun	92.6	93.9	385
Western Area Rural	88.3	93.1	226
Western Area Urban	80.3	85.1	1,000
Education			
No education	86.3	89.0	5,768
Primary	87.4	90.3	1,203
Secondary or higher	88.4	93.4	1,676
Wealth quintile			
Lowest	88.4	91.1	1,901
Second	86.2	89.2	1,809
Middle	86.8	89.7	1,797
Fourth	87.1	90.1	1,694
Highest	85.7	90.0	1,447
Total	86.9	90.0	8,647

[1] Includes mothers with two injections during the pregnancy of her 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.

percentage of last-born children who were fully protected against neonatal tetanus: the Southern and Eastern regions have the highest proportions of births protected against neonatal tetanus (96 and 93 percent respectively); the Northern region has the lowest proportion (86 percent). At the district level, the proportion of births protected against tetanus is highest in Kailuhn and Bo (98 percent respectively), and lowest in Kambia (79 percent).

9.5 PLACE OF DELIVERY

An important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies delivered under the supervision of trained health providers. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause death or serious illness to the mother, the baby, or both. Data on delivery care were obtained for all births that occurred in the five years preceding the survey.

Table 9.5 shows the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics. Fifty-four percent of births in Sierra Leone take place in a health facility: 52 percent are delivered in a public-sector health facility, and 2 percent in a private sector facility. Forty-four percent of deliveries in the last five years took place at home. Nearly half of births born to mothers age 35-49 were delivered at home (49 percent). Lower-order births are more likely to take place in a health facility than higher-order births. For example, 62 percent of first-order births in the past five years occurred in a health facility compared with 47 percent of sixth- and higher-order births. Children born to women in urban areas are more likely to be delivered in an institutional setting than children born to rural women (68 percent versus 50 percent).

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, Sierra Leone 2013

Background characteristic	Health facility: Public sector	Health facility: Private sector	Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
Mother's age at birth								
<20	55.3	2.0	41.6	0.1	0.8	100.0	57.4	2,293
20-34	52.5	2.0	44.1	0.3	1.0	100.0	54.5	8,075
35-49	48.1	1.8	48.9	0.2	1.0	100.0	49.9	1,830
Birth order								
1	59.1	3.3	36.5	0.1	0.9	100.0	62.4	2,606
2-3	53.7	2.3	42.6	0.4	1.0	100.0	56.0	4,200
4-5	49.2	1.4	48.4	0.2	0.7	100.0	50.7	3,026
6+	46.6	0.7	51.1	0.4	1.2	100.0	47.3	2,367
Antenatal care visits[1]								
None	6.9	0.4	82.4	0.0	10.2	100.0	7.4	164
1-3	36.7	0.6	62.4	0.4	0.0	100.0	37.3	795
4+	57.2	2.3	40.3	0.2	0.0	100.0	59.5	6,574
Don't know/missing	59.6	2.9	36.6	0.6	0.4	100.0	62.5	1,115
Residence								
Urban	61.2	6.9	30.4	0.1	1.3	100.0	68.1	3,112
Rural	49.3	0.3	49.2	0.3	0.9	100.0	49.7	9,087
Region								
Eastern	71.3	1.5	26.2	0.5	0.5	100.0	72.8	2,958
Northern	36.5	0.6	62.0	0.1	0.8	100.0	37.1	4,749
Southern	59.6	0.7	37.9	0.4	1.3	100.0	60.4	2,892
Western	51.2	9.5	37.3	0.0	2.0	100.0	60.7	1,600
District								
Kailahun	84.2	0.1	15.2	0.0	0.4	100.0	84.3	869
Kenema	74.9	2.4	21.2	1.1	0.4	100.0	77.3	1,302
Kono	51.2	1.5	46.6	0.1	0.6	100.0	52.7	787
Bombali	40.4	1.0	56.4	0.1	2.1	100.0	41.4	788
Kambia	33.4	0.5	65.3	0.2	0.6	100.0	33.9	596
Koinadugu	32.6	0.2	66.0	0.3	0.8	100.0	32.8	653
Port Loko	38.8	0.4	60.4	0.1	0.3	100.0	39.2	1,590
Tonkolili	34.5	0.7	64.1	0.0	0.7	100.0	35.2	1,122
Bo	70.6	1.3	26.9	0.1	1.0	100.0	71.9	1,107
Bonthe	73.2	0.8	24.4	0.2	1.5	100.0	74.0	463

Continued…

Table 9.5—*Continued*

Background characteristic	Health facility: Public sector	Health facility: Private sector	Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
Moyamba	32.5	0.2	65.0	0.3	2.1	100.0	32.7	727
Pujehun	61.8	0.3	36.1	1.2	0.6	100.0	62.1	595
Western Area Rural	54.9	1.8	42.2	0.1	1.0	100.0	56.7	295
Western Area Urban	50.3	11.3	36.2	0.0	2.2	100.0	61.6	1,304
Mother's education								
No education	48.1	1.3	49.2	0.3	1.0	100.0	49.4	8,394
Primary	56.8	0.7	40.9	0.3	1.2	100.0	57.5	1,725
Secondary or higher	65.9	5.8	27.6	0.0	0.6	100.0	71.7	2,079
Wealth quintile								
Lowest	48.2	0.2	50.5	0.2	0.9	100.0	48.4	2,858
Second	49.6	0.2	48.8	0.5	0.9	100.0	49.8	2,616
Middle	48.8	0.5	49.4	0.4	1.0	100.0	49.2	2,573
Fourth	58.5	1.5	39.0	0.1	1.0	100.0	60.0	2,300
Highest	60.0	10.0	28.5	0.1	1.2	100.0	70.1	1,851
Total	52.4	2.0	44.4	0.3	1.0	100.0	54.4	12,198

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

The Eastern region has the highest proportion of institutional deliveries (73 percent), while the Northern region has the lowest proportion (37 percent). Births to women who make four or more ANC visits are more likely to occur in a health facility than births to women who do not attend ANC (60 percent versus 7 percent). The results indicate also that births to mothers with at least secondary education are more likely to occur in a health facility (72 percent) than births to women with no education or with primary education (58 percent and 49 percent respectively). The percentage of births delivered in a public health facility is also higher among women in the two highest wealth quintiles compared with the other three quintiles.

9.6 ASSISTANCE DURING DELIVERY

In addition to place of birth, assistance during childbirth is an important variable influencing the birth outcome and the health of the mother and infant. The skills and performance of the birth attendant determine whether or not he or she can manage complications and observe hygienic practices. Table 9.6 shows the percent distribution of live births in the five years preceding the survey by the person providing assistance, according to background characteristics of the women. This table also presents data on prevalence of births by caesarean section.

Six in ten births in Sierra Leone are attended by a skilled provider, mostly a nurse/midwife (44 percent) or an MCH Aide (14 percent), and in 2 percent cases by a doctor. However, more than one-third (36 percent) of births are attended by a traditional birth attendant, and 3 percent by relatives or some other person.

Assistance by skilled providers is more likely for births to mothers under age 20 (65 percent) and first-order births (69 percent). In urban areas nearly eight in ten births (79 percent) are assisted by a skilled provider compared with 53 percent of births in rural areas. Births in Northern region (42 percent) are less likely to be attended by a skilled provider than births in other areas. The proportion of births delivered with assistance of a skilled provider increases with mother's increasing education, from 54 percent of births to mothers with no education to 63 percent of births to mothers with primary education, and 79 percent of births to mothers with at least secondary education. Similarly, assistance during delivery by a skilled provider varies by women's economic status: births to women in the highest wealth quintile are more likely to be assisted by a skilled provider (84 percent) than births to women in the lowest wealth quintile (51 percent).

Table 9.6 also shows that 3 percent of births are delivered by caesarean section. Delivery by caesarean section is highest among births to mothers with secondary or higher education (5 percent), births to mothers in the highest wealth quintile (6 percent), urban births (5 percent), and births in Western region (6 percent).

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 birth assisted by a skilled provider and percentage delivered by caesarean-section, according to background characteristics, Sierra Leone 2013

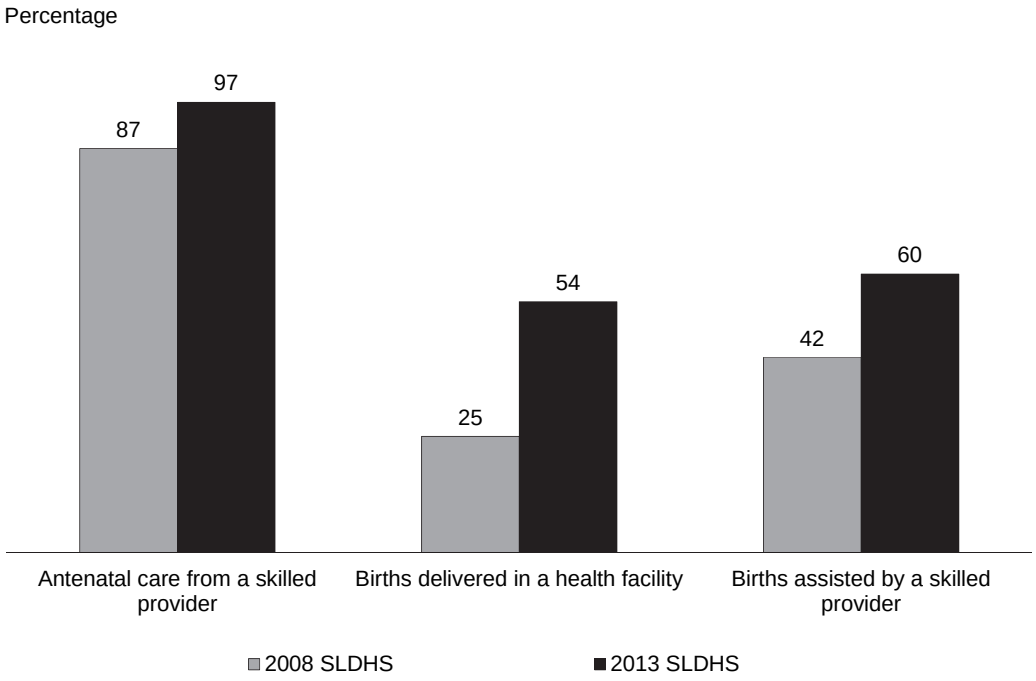
Background characteristic	Person providing assistance during delivery								Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
	Doctor	Nurse/ midwife	MCH Aide	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total			
Mother's age at birth											
<20	2.0	47.9	14.7	31.2	3.2	0.2	0.8	100.0	64.6	2.3	2,293
20-34	2.3	44.1	13.5	35.5	3.1	0.2	1.2	100.0	59.9	2.9	8,075
35-49	2.7	36.4	13.4	41.5	4.4	0.5	1.0	100.0	52.5	3.5	1,830
Birth order											
1	3.7	51.8	13.6	26.5	3.2	0.1	1.1	100.0	69.1	3.5	2,606
2-3	2.1	45.2	14.0	34.7	2.8	0.3	1.0	100.0	61.3	2.6	4,200
4-5	2.3	39.9	13.9	39.2	3.6	0.2	0.9	100.0	56.1	3.1	3,026
6+	1.3	36.8	13.2	42.8	4.0	0.5	1.4	100.0	51.2	2.5	2,367
Antenatal care visits[2]											
None	0.1	7.4	4.2	62.3	14.9	1.0	10.0	100.0	11.7	0.0	164
1-3	1.7	30.3	9.7	51.9	6.1	0.4	0.0	100.0	41.7	3.4	795
4+	2.8	47.8	15.0	31.2	3.0	0.2	0.1	100.0	65.5	4.2	6,574
Don't know/missing	3.6	53.0	10.0	30.2	2.6	0.4	0.3	100.0	66.5	4.6	1,115
Place of delivery											
Health facility	4.1	71.9	22.5	1.0	0.1	0.1	0.4	100.0	98.5	5.3	6,632
Elsewhere	0.2	10.0	3.3	78.5	7.4	0.4	0.2	100.0	13.6	0.0	5,447
Missing	0.0	8.7	0.8	4.8	0.0	3.8	81.9	100.0	9.5	0.0	120
Residence											
Urban	7.0	62.1	9.8	17.9	1.5	0.3	1.5	100.0	78.9	4.9	3,112
Rural	0.7	37.3	15.1	41.7	4.0	0.3	0.9	100.0	53.2	2.2	9,087
Region											
Eastern	1.0	56.6	19.4	20.5	1.6	0.3	0.6	100.0	77.0	1.5	2,958
Northern	1.2	28.5	11.8	53.0	4.4	0.3	0.8	100.0	41.5	2.8	4,749
Southern	1.4	47.0	15.6	30.3	4.1	0.2	1.4	100.0	64.0	2.9	2,892
Western	10.0	58.7	5.6	21.8	1.7	0.2	2.1	100.0	74.2	5.8	1,600
District											
Kailahun	1.0	70.2	15.0	12.9	0.5	0.1	0.4	100.0	86.3	2.9	869
Kenema	1.1	51.3	30.1	15.2	1.3	0.3	0.6	100.0	82.5	1.0	1,302
Kono	0.9	50.2	6.5	37.5	3.4	0.5	0.9	100.0	57.6	0.6	787
Bombali	2.3	25.5	17.6	46.6	5.8	0.1	2.1	100.0	45.4	4.4	788
Kambia	0.5	24.5	15.6	55.9	2.7	0.0	0.7	100.0	40.6	1.2	596
Koinadugu	1.7	14.1	17.2	55.2	10.9	0.3	0.6	100.0	33.0	1.1	653
Port Loko	0.6	38.2	7.2	50.3	3.1	0.1	0.4	100.0	46.0	3.8	1,590
Tonkolili	1.3	27.5	9.0	58.4	2.5	0.7	0.5	100.0	37.8	2.0	1,122
Bo	1.6	57.3	17.2	19.5	3.1	0.1	1.3	100.0	76.0	3.7	1,107
Bonthe	1.3	63.7	12.2	15.7	4.7	0.6	1.8	100.0	77.2	2.7	463
Moyamba	0.5	22.9	13.0	53.0	8.6	0.1	1.9	100.0	36.4	1.5	727
Pujehun	2.0	44.5	18.3	34.2	0.0	0.2	0.7	100.0	64.8	3.3	595
Western Area Rural	3.4	49.8	10.5	31.9	3.6	0.2	0.7	100.0	63.7	4.6	295
Western Area Urban	11.4	60.7	4.4	19.5	1.3	0.2	2.4	100.0	76.6	6.1	1,304
Mother's education											
No education	1.3	38.8	14.1	40.6	3.8	0.3	1.0	100.0	54.2	2.3	8,394
Primary	3.1	45.3	14.6	32.5	3.0	0.1	1.4	100.0	63.0	3.6	1,725
Secondary or higher	6.0	61.8	11.5	18.0	1.5	0.1	1.1	100.0	79.3	4.6	2,079
Wealth quintile											
Lowest	0.5	32.8	17.6	43.8	4.0	0.3	1.0	100.0	50.9	1.8	2,858
Second	0.8	36.9	14.3	42.7	3.7	0.5	1.1	100.0	52.0	2.3	2,616
Middle	0.8	38.0	14.4	42.0	3.7	0.1	0.9	100.0	53.2	2.4	2,573
Fourth	2.4	52.6	12.4	28.5	3.0	0.2	0.9	100.0	67.4	3.0	2,300
Highest	9.3	66.8	7.6	13.0	1.6	0.2	1.5	100.0	83.7	6.0	1,851
Total	2.3	43.7	13.7	35.6	3.3	0.3	1.1	100.0	59.7	2.9	12,198

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, midwife, and MCH Aide.
[2] Includes only the most recent birth in the five years preceding the survey

Figure 9.1 shows that ANC attendance, births delivered in a health facility, and assistance during delivery improved between 2008 and 2013. The proportion of women receiving ANC from a skilled provider increased from 87 percent in 2008 to 97 percent in 2013. Similarly, there was a twofold increase in the proportion of births that take place in a health facility, from 25 percent in the 2008 SLDHS to 54 percent in

the 2013 SLDHS. Furthermore, the proportion of births assisted by a skilled provider increased from 42 percent in 2008 to 60 percent in 2013.

Figure 9.1 **Trends in antenatal care attendance, health facility delivery, assistance during delivery**



9.7 POSTNATAL CARE

A large proportion of maternal and neonatal deaths occur during the first 24 hours after delivery. Thus, prompt postnatal care is important for both the mother and the infant, to treat complications arising from the delivery as well as to provide the mother with important information on caring for herself and her baby.

The recommended practice by Ministry of Health and Sanitation is that all women who deliver in a health facility receive a postnatal health check-up within the first 24 hours after delivery. Women who also give birth outside of a health facility should be referred to a health facility for a postnatal check-up within 12 hours of giving birth (BHEP, 2010). To assess the extent of postnatal care, women with a live birth during the five years preceding the survey were asked questions about any postnatal care they may have received related to the last birth. If they reported receiving care, they were asked about the timing of the first check-up and the type of health provider performing it.

9.7.1 Postnatal Care for Mother

Figure 9.2 shows the length of stay in a health facility following the last live birth among women with a birth in the five years preceding the survey who delivered in a health facility. Forty-six percent of women who had a delivery by caesarean section stayed in the health facility for three or more days compared with 23 percent among women who had a vaginal birth.

Figure 9.2 **Mother's duration of stay in the health facility after giving birth**

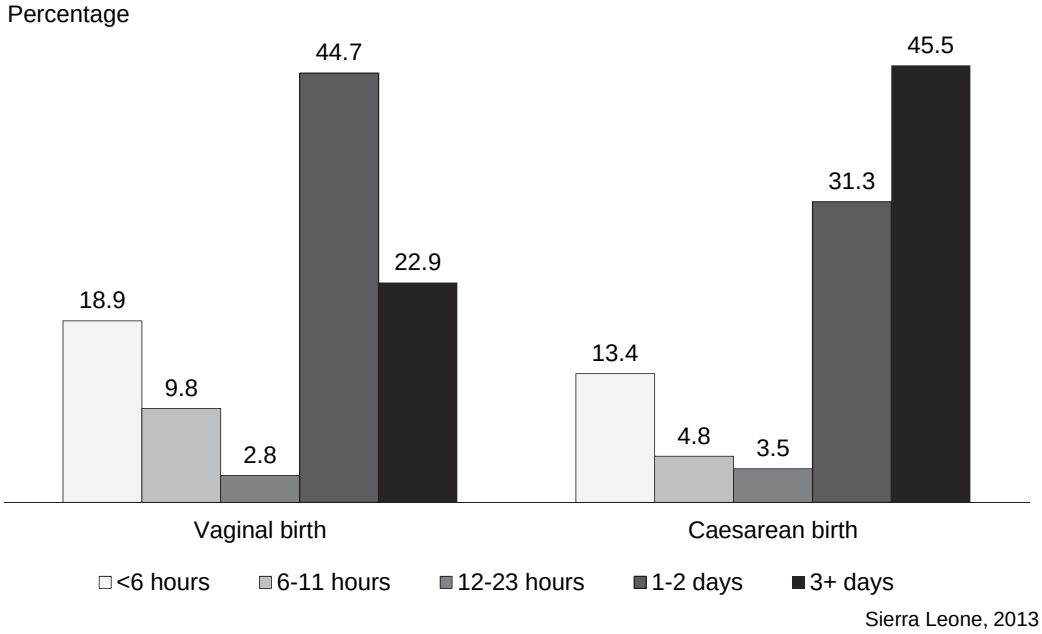


Table 9.7 shows that in the two years preceding the survey 73 percent of women received postnatal care for their last birth within the recommended first two days following delivery; 57 percent of women received postnatal care within four hours of delivery, 7 percent received care within 4-23 hours, and 10 percent were seen one to two days following delivery. One in every five women did not receive any postnatal check-up.

Urban women (78 percent) were more likely than rural women (71 percent) to obtain postnatal care within the first two days after delivery. The percentage of women with a postnatal check-up in the two days after delivery tends to decline slightly with birth order.

At the regional level, the highest percentage of women who received postnatal care within the first two days after delivery is found in the Eastern region (80 percent) and the lowest percentage in the Northern region (67 percent). Postnatal check-up in the two days after delivery is more common among mothers with the highest level of education and among those in the highest wealth quintile than among others. Eighty percent of mothers with secondary or higher education received postnatal care compared with 69 percent of mothers with no education. Similarly, 78 percent of mothers in the highest wealth quintile and 77 percent in the fourth wealth quintile obtained postnatal care compared with 68 percent of mothers in the lowest wealth quintile.

Table 9.7 Timing of first postnatal check-up

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal check-up 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 check-up in the first two days after giving birth, according to background characteristics, Sierra Leone 2013

Background characteristic	Time after delivery of mother's first postnatal check-up						No postnatal checkup[1]	Total	Percentage of women with a postnatal check-up 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	54.0	8.5	9.8	2.8	2.0	3.4	19.4	100.0	72.3	967
20-34	57.5	6.3	9.0	2.5	1.7	3.5	19.4	100.0	72.9	3,144
35-49	56.0	5.1	11.2	1.7	1.9	2.8	21.3	100.0	72.3	710
Birth order										
1	56.3	8.5	9.1	2.8	2.1	3.1	18.0	100.0	74.0	1,059
2-3	58.8	6.1	9.2	2.9	1.8	3.7	17.6	100.0	74.3	1,689
4-5	55.7	6.1	9.3	2.2	2.2	3.2	21.4	100.0	71.1	1,191
6+	53.9	5.8	10.7	1.7	1.0	3.4	23.5	100.0	70.4	881
Place of delivery										
Health facility	68.4	7.7	9.4	1.9	1.5	4.1	6.9	100.0	85.7	2,794
Elsewhere	40.4	5.1	9.6	3.2	2.3	2.4	37.1	100.0	55.0	2,016
Residence										
Urban	60.8	6.1	10.9	2.7	1.3	4.0	14.2	100.0	78.0	1,240
Rural	55.1	6.8	9.0	2.4	2.0	3.2	21.6	100.0	70.9	3,580
Region										
Eastern	66.6	3.5	10.1	1.4	0.7	5.3	12.3	100.0	80.3	1,113
Northern	50.6	8.4	8.1	2.1	2.0	2.7	26.2	100.0	67.0	1,997
Southern	55.4	7.4	11.4	4.1	3.2	1.4	17.1	100.0	74.2	1,048
Western	59.8	5.2	9.4	2.6	1.1	5.2	16.7	100.0	74.8	662
District										
Kailahun	87.4	0.8	2.5	0.9	0.0	0.0	8.4	100.0	90.7	323
Kenema	69.8	3.8	5.8	1.1	0.0	7.7	11.7	100.0	79.5	502
Kono	37.6	6.1	26.2	2.6	2.7	7.1	17.6	100.0	69.9	288
Bombali	49.0	20.9	13.7	1.1	0.8	1.5	13.1	100.0	83.6	338
Kambia	50.4	8.1	11.3	2.7	3.9	1.8	21.8	100.0	69.8	251
Koinadugu	38.7	8.4	1.5	0.3	1.0	2.6	47.4	100.0	48.6	271
Port Loko	56.1	5.5	7.3	2.2	1.6	2.7	24.6	100.0	68.9	666
Tonkolili	50.7	3.5	7.4	3.6	2.9	3.9	27.9	100.0	61.7	471
Bo	39.2	14.9	19.5	4.3	5.1	2.3	14.6	100.0	73.6	382
Bonthe	77.8	5.2	6.1	0.9	0.5	0.8	8.8	100.0	89.1	157
Moyamba	62.2	1.8	5.6	7.2	3.8	0.4	18.9	100.0	69.6	294
Pujehun	58.5	3.2	9.0	2.0	0.7	1.6	25.0	100.0	70.7	215
Western Area Rural	59.2	3.7	11.3	4.5	2.3	1.8	17.2	100.0	74.2	126
Western Area Urban	59.9	5.6	9.0	2.1	0.9	6.0	16.6	100.0	75.0	536
Education										
No education	53.5	6.3	9.6	2.5	2.1	3.5	22.5	100.0	69.4	3,118
Primary	61.7	7.2	8.8	1.9	1.2	3.2	16.1	100.0	77.7	735
Secondary or higher	62.7	7.0	9.5	2.8	1.5	3.1	13.4	100.0	79.5	967
Wealth quintile										
Lowest	53.6	5.1	9.0	2.4	1.7	2.6	25.6	100.0	67.7	1,110
Second	53.9	7.1	10.0	3.0	2.7	3.1	20.2	100.0	70.9	1,012
Middle	55.2	7.4	9.6	1.6	1.7	3.3	21.2	100.0	72.2	1,056
Fourth	61.0	7.5	9.6	2.8	1.5	3.6	14.0	100.0	78.1	923
Highest	61.2	6.0	9.2	2.7	1.3	4.6	15.0	100.0	76.8	719
Total	56.6	6.6	9.5	2.5	1.8	3.4	19.7	100.0	72.7	4,820

Note: Total includes 10 women for whom information on place of delivery is missing.
[1] Includes women who received a check-up after 41 days

Table 9.8 presents information on the type of health provider performing the first postnatal check-up. The skills of the provider determine ability to diagnose problems and to recommend appropriate treatment or referral.

Forty-one percent of women received a postnatal check-up from a doctor, nurse, or mid-wife, 13 percent from an MCH Aide, 18 percent from a traditional birth attendant, and less than 1 percent from a community health worker. Twenty-seven percent did not receive a postnatal check-up in the two days after delivery. Urban women and women who are well educated are more likely to receive postnatal care from a doctor, nurse, or midwife after delivery. For example, 60 percent of women in urban areas received postnatal care from a doctor, nurse, or midwife compared with 35 percent of women in rural areas. A similar pattern is observed for women with secondary or higher education (58 percent) compared with those with no education (35 percent).

Table 9.8 Type of provider of first postnatal check-up 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-up in the two days after the last live birth, according to background characteristics, Sierra Leone 2013

Background characteristic	Type of health provider of mother's first postnatal check-up				No postnatal check-up in the first two days after birth	Total	Number of women
	Doctor/ nurse/ midwife	MCH Aide	Com-munity health worker	Traditional birth attendant			
Mother's age at birth							
<20	41.3	13.8	0.2	17.1	27.7	100.0	967
20-34	42.7	12.5	0.4	17.4	27.1	100.0	3,144
35-49	34.3	15.6	0.8	21.6	27.7	100.0	710
Birth order							
1	48.3	11.6	0.3	13.7	26.0	100.0	1,059
2-3	42.9	13.4	0.4	17.7	25.7	100.0	1,689
4-5	38.0	13.6	0.4	19.0	28.9	100.0	1,191
6+	33.5	14.5	0.6	21.8	29.6	100.0	881
Place of delivery							
Health facility	64.1	20.4	0.1	1.1	14.3	100.0	2,794
Elsewhere	9.6	3.4	0.9	41.2	45.0	100.0	2,016
Residence							
Urban	59.8	8.1	0.3	9.8	22.0	100.0	1,240
Rural	34.7	15.0	0.4	20.7	29.1	100.0	3,580
Region							
Eastern	49.3	19.7	0.0	11.3	19.7	100.0	1,113
Northern	28.0	13.1	0.7	25.2	33.0	100.0	1,997
Southern	45.7	13.1	0.5	15.0	25.8	100.0	1,048
Western	60.0	3.0	0.2	11.6	25.2	100.0	662
District							
Kailahun	65.6	14.4	0.0	10.7	9.3	100.0	323
Kenema	41.8	29.0	0.0	8.7	20.5	100.0	502
Kono	43.9	9.5	0.0	16.5	30.1	100.0	288
Bombali	27.0	21.6	1.4	33.5	16.4	100.0	338
Kambia	23.1	18.2	1.0	27.4	30.2	100.0	251
Koinadugu	13.2	18.5	0.0	16.9	51.4	100.0	271
Port Loko	38.8	7.6	0.5	22.0	31.1	100.0	666
Tonkolili	24.6	8.9	0.5	27.6	38.3	100.0	471
Bo	53.4	18.2	0.0	2.1	26.4	100.0	382
Bonthe	70.8	6.0	2.2	10.1	10.9	100.0	157
Moyamba	22.3	11.7	0.3	35.4	30.4	100.0	294
Pujehun	45.6	11.0	0.3	13.8	29.3	100.0	215
Western Area Rural	54.3	3.1	1.1	15.7	25.8	100.0	126
Western Area Urban	61.4	3.0	0.0	10.7	25.0	100.0	536
Education							
No education	35.2	13.7	0.4	20.1	30.6	100.0	3,118
Primary	44.5	13.9	0.2	19.1	22.3	100.0	735
Secondary or higher	57.9	11.2	0.5	9.9	20.5	100.0	967
Wealth quintile							
Lowest	30.2	16.1	0.5	20.9	32.3	100.0	1,110
Second	33.6	14.9	0.3	22.2	29.1	100.0	1,012
Middle	37.6	14.0	0.4	20.2	27.8	100.0	1,056
Fourth	47.8	13.0	0.7	16.7	21.9	100.0	923
Highest	65.3	5.7	0.2	5.6	23.2	100.0	719
Total	41.2	13.2	0.4	17.9	27.3	100.0	4,820

Note: Total includes 10 women for whom information on place of delivery is missing.

9.7.2 Postnatal Care for Newborn

Each woman with a birth in the two-year period preceding the survey was asked questions on the postnatal care that her last baby received in the first two days after birth. Table 9.8 shows that 39 percent of newborns received postnatal care within first two days of delivery. Among newborns who received a postnatal check-up within two days of delivery, 7 percent were seen in less than 1 hour, 16 percent in 1-3 hours, 4 percent in 4-23 hours, and 20 percent were seen in 1-6 days after delivery. Fifty-two percent of newborns did not receive a check-up within two days of delivery. Newborns in urban areas (47 percent) were more likely than newborns in rural areas (36 percent) to obtain postnatal care within the first two days after delivery.

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 check-up, and the percentage of births with a postnatal check-up in the first two days after birth, according to background characteristics, Sierra Leone 2013

Background characteristic	Time after birth of newborn's first postnatal check-up						No postnatal check-up[1]	Total	Percentage of births with a postnatal check-up 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	8.8	13.5	3.7	10.5	7.8	1.6	54.0	100.0	36.6	967
20-34	7.3	16.1	3.3	12.7	8.2	1.7	50.7	100.0	39.5	3,144
35-49	5.4	15.8	4.3	12.6	7.6	1.3	52.9	100.0	38.4	710
Birth order										
1	8.4	14.8	4.4	10.7	8.4	1.0	52.3	100.0	38.3	1,059
2-3	7.2	16.9	2.9	11.2	7.8	1.9	52.1	100.0	38.2	1,689
4-5	7.3	15.0	3.1	14.8	7.8	1.6	50.3	100.0	40.3	1,191
6+	6.2	14.8	4.3	12.5	8.5	1.7	51.9	100.0	38.1	881
Place of delivery										
Health facility	10.3	19.6	3.4	8.8	7.1	1.9	48.8	100.0	42.2	2,794
Elsewhere	3.2	10.1	3.7	17.0	9.4	1.2	55.5	100.0	34.0	2,016
Residence										
Urban	9.0	20.8	5.6	11.6	7.6	2.6	42.8	100.0	47.0	1,240
Rural	6.7	13.8	2.8	12.5	8.2	1.2	54.8	100.0	35.9	3,580
Region										
Eastern	4.2	20.6	3.8	12.1	6.3	2.1	50.9	100.0	40.7	1,113
Northern	5.4	13.1	2.4	12.0	9.4	1.4	56.4	100.0	33.0	1,997
Southern	14.1	12.6	2.9	12.4	8.1	0.7	49.3	100.0	42.1	1,048
Western	7.4	19.3	7.7	13.1	7.1	2.7	42.7	100.0	47.5	662
District										
Kailahun	2.9	23.5	3.9	6.0	6.8	0.2	56.8	100.0	36.2	323
Kenema	7.6	26.5	5.1	16.4	5.3	0.8	38.2	100.0	55.6	502
Kono	0.0	6.9	1.2	11.5	7.5	6.6	66.4	100.0	19.6	288
Bombali	0.6	17.5	4.1	17.8	18.8	1.6	39.6	100.0	40.4	338
Kambia	6.9	19.1	3.1	13.2	2.5	1.6	53.7	100.0	42.2	251
Koinadugu	19.8	10.5	0.7	2.4	4.7	0.1	61.8	100.0	33.4	271
Port Loko	4.8	13.2	1.5	10.1	10.0	1.5	58.9	100.0	29.6	666
Tonkolili	0.9	8.3	2.9	15.2	8.0	1.5	63.1	100.0	27.3	471
Bo	10.6	20.1	4.2	16.8	7.3	1.5	39.5	100.0	51.7	382
Bonthe	2.9	4.1	0.2	11.1	19.9	0.0	61.9	100.0	18.2	157
Moyamba	1.4	9.5	1.6	6.6	5.6	0.3	74.9	100.0	19.5	294
Pujehun	45.8	9.8	4.4	13.3	3.9	0.3	22.5	100.0	73.3	215
Western Area Rural	3.7	3.7	1.4	18.4	11.4	0.0	61.4	100.0	27.2	126
Western Area Urban	8.3	22.9	9.1	11.9	6.0	3.4	38.3	100.0	52.2	536
Mother's education										
No education	6.6	13.6	3.3	11.9	8.5	1.5	54.8	100.0	35.3	3,118
Primary	9.6	18.8	2.6	14.2	6.6	2.3	45.9	100.0	45.6	735
Secondary or higher	8.0	19.6	5.1	12.0	7.8	1.5	46.1	100.0	44.6	967
Wealth quintile										
Lowest	5.5	11.9	2.6	12.0	8.0	0.7	59.3	100.0	32.1	1,110
Second	7.4	16.0	2.8	10.8	8.1	1.6	53.2	100.0	37.1	1,012
Middle	6.7	15.2	3.0	10.6	7.4	1.5	55.7	100.0	35.6	1,056
Fourth	7.6	15.1	2.8	16.4	10.2	2.3	45.6	100.0	41.9	923
Highest	10.6	21.8	7.7	11.8	6.2	2.3	39.7	100.0	51.8	719
Total	7.3	15.6	3.5	12.2	8.1	1.6	51.7	100.0	38.7	4,820

Note: Total includes 10 births for which information on place of delivery is missing.
[1] Includes newborns who received a check-up after the first week

At the regional level, postnatal care within two days of delivery is highest in the Western region (48 percent) and lowest in the Northern region (33 percent). Fifty-five percent of newborns whose mothers had no education did not receive a postnatal check-up compared with 46 percent of newborns whose mothers had a primary education or higher. Newborns whose mothers were in the highest wealth quintile were more likely to receive a postnatal check-up than those whose mothers were in the lowest quintile.

Table 9.10 shows the percent distribution of most recent births in the two years preceding the survey by type of provider of the newborn's first postnatal health check-up during the two days after delivery, according to background characteristics.

The findings show that 22 percent of newborns received postnatal care from a doctor, nurse, or midwife within the two days following birth. Eleven percent of newborns received a postnatal check-up from

an MCH Aide, 6 percent from a traditional birth attendant, and less than 1 percent from a community health worker.

Table 9.10 Type of provider of first postnatal check-up 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-up during the two days after the last live birth, according to background characteristics, Sierra Leone 2013

Background characteristic	Type of health provider of newborn's first postnatal check-up				No postnatal check-up in the first two days after birth	Total	Number of births
	Doctor/ nurse/ midwife	MCH Aide	Com-munity health worker	Tradi-tional birth attendant			
Mother's age at birth							
<20	21.0	10.0	0.1	5.4	63.4	100.0	967
20-34	24.0	9.6	0.2	5.6	60.5	100.0	3,144
35-49	16.8	15.1	0.4	6.1	61.6	100.0	710
Birth order							
1	24.0	9.6	0.2	4.5	61.7	100.0	1,059
2-3	23.5	8.4	0.2	6.1	61.8	100.0	1,689
4-5	22.1	11.9	0.1	6.2	59.7	100.0	1,191
6+	18.6	13.7	0.2	5.5	61.9	100.0	881
Place of delivery							
Health facility	29.3	12.1	0.0	0.8	57.8	100.0	2,794
Elsewhere	12.9	8.3	0.4	12.5	66.0	100.0	2,016
Residence							
Urban	36.6	6.9	0.1	3.4	53.0	100.0	1,240
Rural	17.4	11.7	0.3	6.4	64.1	100.0	3,580
Region							
Eastern	20.2	17.6	0.0	2.9	59.3	100.0	1,113
Northern	14.4	10.6	0.4	7.7	67.0	100.0	1,997
Southern	28.6	8.0	0.2	5.3	57.9	100.0	1,048
Western	40.3	2.3	0.0	4.9	52.5	100.0	662
District							
Kailahun	18.6	13.8	0.0	3.9	63.8	100.0	323
Kenema	25.0	27.2	0.0	3.4	44.4	100.0	502
Kono	13.6	5.3	0.0	0.7	80.4	100.0	288
Bombali	13.7	22.0	0.8	4.0	59.6	100.0	338
Kambia	11.0	12.2	0.6	18.3	57.8	100.0	251
Koinadugu	10.6	15.8	0.6	6.4	66.6	100.0	271
Port Loko	18.4	3.9	0.2	7.1	70.4	100.0	666
Tonkolili	13.2	7.9	0.0	6.2	72.7	100.0	471
Bo	36.2	14.4	0.2	0.9	48.3	100.0	382
Bonthe	15.5	1.4	0.6	0.6	81.8	100.0	157
Moyamba	7.5	3.3	0.0	8.6	80.5	100.0	294
Pujehun	53.2	7.6	0.4	12.1	26.7	100.0	215
Western Area Rural	19.4	3.2	0.0	4.6	72.8	100.0	126
Western Area Urban	45.2	2.0	0.0	5.0	47.8	100.0	536
Mother's education							
No education	17.9	10.8	0.2	6.3	64.7	100.0	3,118
Primary	27.6	11.6	0.2	6.3	54.4	100.0	735
Secondary or higher	32.7	8.7	0.1	3.1	55.4	100.0	967
Wealth quintile							
Lowest	13.3	13.3	0.1	5.4	67.9	100.0	1,110
Second	17.6	11.6	0.5	7.5	62.9	100.0	1,012
Middle	17.8	10.2	0.2	7.4	64.4	100.0	1,056
Fourth	26.3	11.1	0.2	4.3	58.1	100.0	923
Highest	44.7	4.3	0.0	2.8	48.2	100.0	719
Total	22.4	10.5	0.2	5.7	61.3	100.0	4,820

Note: Total includes 10 births for which information on place of delivery is missing.

Newborns whose mothers are more educated and those in urban areas are more likely to receive postnatal care from a doctor, nurse, or midwife after delivery. For example, 37 percent of newborns in urban areas received postnatal care from a doctor, nurse, or midwife compared with 17 percent in rural areas. A similar pattern is observed for newborns whose mothers have secondary or higher education compared with those with no education (33 percent versus 18 percent).

9.8 PROBLEMS IN ACCESSING HEALTH CARE

Many factors prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers that some women face in seeking care during pregnancy and at delivery.

In the 2013 SLDHS, female respondents were asked whether each of the following factors would be a big problem in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to health facility, transport cost, not wanting to go alone, concern that there may not be a female provider or any health provider, and concern that drugs may not be available. Table 9.11 presents information on the extent to which women reported that one or more of these factors was a serious problem for them in accessing health care.

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, Sierra Leone 2013

	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	18.0	65.5	36.1	15.1	70.3	3,878
20-34	16.7	66.3	38.0	16.0	71.4	7,813
35-49	18.3	69.2	41.2	18.3	73.9	4,967
Number of living children						
0	17.6	63.0	32.8	14.4	67.5	4,500
1-2	16.3	65.4	37.1	15.0	70.5	5,235
3-4	18.0	68.0	41.1	18.2	73.2	4,159
5+	18.6	75.1	46.6	20.0	79.6	2,765
Marital status						
Never married	16.9	62.4	29.7	12.7	66.7	4,730
Married or living together	17.8	69.3	42.9	18.2	74.5	10,903
Divorced/separated/widowed	15.9	63.7	32.7	15.0	68.2	1,025
Employed last 12 months						
Not employed	16.5	57.6	26.0	11.2	62.2	4,262
Employed for cash	15.9	66.2	36.5	16.3	72.2	5,064
Employed not for cash	19.2	72.9	47.3	19.7	77.3	7,249
Missing	9.7	76.7	31.8	11.3	76.7	83
Residence						
Urban	15.9	58.3	15.8	8.0	62.3	5,933
Rural	18.3	71.8	51.1	21.2	77.2	10,725
Region						
Eastern	35.7	79.0	42.0	21.5	81.3	3,614
Northern	12.0	68.1	48.1	18.2	75.1	6,292
Southern	10.9	66.9	42.7	18.0	70.8	3,514
Western	15.0	51.5	11.4	5.8	56.3	3,238
District						
Kailahun	43.9	78.3	44.5	25.3	81.8	984
Kenema	22.6	74.9	34.8	18.2	76.3	1,651
Kono	49.4	86.6	51.7	23.3	89.2	979
Bombali	6.6	72.2	41.0	8.0	74.3	1,377
Kambia	19.9	81.2	57.3	28.8	85.2	738
Koinadugu	2.6	96.8	72.4	18.8	97.9	719
Port Loko	3.4	54.6	42.9	12.1	65.8	1,994
Tonkolili	29.3	62.0	45.5	30.4	72.2	1,464
Bo	6.8	69.6	27.3	7.4	73.0	1,398
Bonthe	5.5	28.5	21.3	6.6	34.6	678
Moyamba	13.1	93.7	76.4	36.8	96.3	843
Pujehun	23.4	66.0	55.4	29.6	71.1	595
Western Area Rural	6.7	59.5	14.5	4.3	62.7	528
Western Area Urban	16.6	49.9	10.8	6.1	55.0	2,710
Education						
No education	18.8	72.0	45.6	19.6	76.6	9,293
Primary	18.3	68.1	40.6	17.0	73.5	2,331
Secondary or higher	14.5	57.3	24.5	10.3	62.4	5,034
Wealth quintile						
Lowest	22.2	76.5	58.6	24.6	80.4	3,089
Second	21.1	73.7	53.2	21.5	80.0	3,046
Middle	15.5	71.6	47.2	19.1	76.3	3,140
Fourth	15.6	66.1	30.9	13.4	71.3	3,388
Highest	14.1	51.7	11.4	6.8	56.1	3,994
Total	17.5	67.0	38.5	16.5	71.9	16,658

Seventy-two percent of women reported that at least one of these problems would pose a barrier in seeking health care for themselves when they are sick. The leading barrier to health care for women in Sierra Leone is concern over getting money for treatment at a health facility (67 percent). Thirty-nine percent of women said that distance to a health facility was a concern. Eighteen percent of women said that getting permission to go for treatment was a concern. Not wanting to go alone (17 percent) also was reported as a hindrance to seeking care. Women married or living together with a man (75 percent) were more likely to report at least one problem in accessing health care than never-married women (67 percent) and women divorced, separated, or widowed (68 percent). Women in rural areas were more likely than urban women to report at least one problem in accessing health care (77 percent versus 62 percent). Eighty percent of women in the lower two wealth quintiles reported at least one problem in accessing health care, compared with 56 percent of women in the highest wealth quintile. Women in the Eastern region (81 percent) were more likely than women in the Western region (56 percent) to cite at least one factor as a serious problem.

CHILD HEALTH 10

Key Findings

- Seven percent of children born in the past five years were of low birth weight.
- The proportion of children fully vaccinated by age 12 months has increased, from 31 percent in 2008 to 58 percent in 2013.
- Five percent of children under age 5 exhibited symptoms of acute respiratory infection in the two weeks before the survey. Advice or treatment from a health care facility or provider was sought for 72 percent of these children.
- Twenty-five percent of children under age 5 had a fever in the two weeks preceding the survey. Advice or treatment from a health care facility or provider was sought for 66 percent of these children.
- Eleven percent of children under age 5 had a diarrhoeal episode in the two weeks preceding the survey, and 2 percent had blood in their stool. Sixty-five percent were taken to a health care facility or provider for advice or treatment. Ninety percent were treated with oral rehydration therapy or increased fluids.

This chapter presents findings on several areas of importance to child health, including information on infant birth weight and size at birth; childhood vaccination coverage by timing, source of information on coverage, and background characteristics; prevalence and treatment practices for respiratory infection and fever; and prevalence of diarrhoea, diarrhoea treatment, feeding practices during diarrhoea, knowledge of oral rehydration salt (ORS) packets, and disposal of children's stools.

Information on birth weight and size at birth, treatment practices, and contact with health facilities influences the design and implementation of programmes aimed at reducing neonatal and infant mortality. Vaccination coverage information focuses on the age group 12-23 months (i.e., the typical age by which children should have received all basic vaccinations). Data on differences in vaccination coverage between subgroups of the population aid in programme planning. Data on treatment practices and contact with health services among children ill with the three most important childhood illnesses—acute respiratory infection (ARI), fever, and diarrhoea—help in the assessment of national programmes aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of ARI, including treatment with antibiotics, and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. Data on the treatment of diarrhoeal disease with oral rehydration therapy and increased fluids help in the assessment of programmes that recommend such treatments. Because sanitary practices can help prevent and reduce the severity of diarrhoeal disease, this chapter also provides information on disposal of children's faecal matter. The information on child health presented in this chapter pertains only to children born during the five years preceding the survey unless otherwise specified

10.1 Weight and Size at Birth

A child's birth weight and size at birth are important indicators of the child's vulnerability to childhood illness and chance of survival. Children whose birth weight is less than 2.5 kilograms and children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight was recorded in the questionnaire from either a written record if available or the mother's recall. Because birth weight

may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained. Even though such estimates are subjective, they can be a useful proxy for the weight of the child.

Table 10.1 presents information on weight and size at birth for children born in the last five years according to background characteristics. The table shows that birth weight information was reported for just under half of births (48 percent). The table further shows that of those children born in the past five years with a reported birth weight, 7 percent were of low birth weight—less than 2.5 kg. There are only small variations in reported birth weight by background characteristics. There is a slight inverse relationship between low birth weight and both mothers' age at birth and baby's birth order. Women with secondary or higher education are more likely to have low-birth-weight babies (10 percent compared with 7 percent or less among mothers with less education). Urban women and women in the Western region both have higher likelihood of low-birth-weight babies.

Table 10.1 Child's size and weight at birth

Percent distribution of live births in the five years preceding the survey by mother's estimate of baby's size at birth, percentage of live births in the five years preceding the survey that have a reported birth weight, and among live births in the five years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, Sierra Leone 2013

	Percent distribution of all live births by size of child at birth					Percentage of all births that have a reported birth weight[1]		Births with a reported birth weight[1]	
Background characteristic	Very small	Smaller than average	Average or larger	Don't know/ missing	Total		Number of births	Percentage less than 2.5 kg	Number of births
Mother's age at birth									
<20	5.6	13.5	77.1	3.7	100.0	47.8	2,293	8.6	1,096
20-34	4.7	11.6	80.5	3.3	100.0	47.9	8,075	7.1	3,866
35-49	5.5	10.8	81.0	2.8	100.0	46.4	1,830	4.9	849
Birth order									
1	5.1	13.9	76.5	4.6	100.0	51.0	2,606	9.1	1,329
2-3	4.8	11.2	80.6	3.4	100.0	47.0	4,200	7.8	1,975
4-5	4.7	10.9	82.2	2.2	100.0	47.8	3,026	5.9	1,446
6+	5.4	11.9	79.5	3.1	100.0	44.8	2,367	5.0	1,061
Mother's smoking status									
Smokes cigarettes/ tobacco/marijuana	4.1	13.4	79.3	3.2	100.0	43.2	573	5.0	248
Does not smoke	5.0	11.8	79.9	3.3	100.0	47.8	11,615	7.2	5,558
Residence									
Urban	4.5	13.3	77.0	5.1	100.0	54.7	3,112	11.3	1,702
Rural	5.1	11.3	80.9	2.7	100.0	45.2	9,087	5.4	4,109
Region									
Eastern	5.8	13.5	79.2	1.5	100.0	60.3	2,958	5.3	1,784
Northern	5.5	11.6	80.3	2.6	100.0	36.6	4,749	7.1	1,738
Southern	2.6	10.6	83.2	3.6	100.0	51.9	2,892	4.7	1,500
Western	6.1	11.7	74.1	8.1	100.0	49.3	1,600	15.7	788
District									
Kailahun	8.3	21.1	69.2	1.4	100.0	77.5	869	7.0	674
Kenema	3.7	10.0	85.3	1.0	100.0	57.2	1,302	4.4	745
Kono	6.7	11.0	79.9	2.4	100.0	46.5	787	4.1	365
Bombali	5.9	6.1	82.4	5.6	100.0	44.4	788	13.1	350
Kambia	2.7	9.5	84.7	3.1	100.0	42.4	596	4.6	253
Koinadugu	9.1	19.9	68.8	2.2	100.0	33.5	653	4.3	218
Port Loko	5.9	12.0	81.4	0.6	100.0	30.4	1,590	5.8	484
Tonkolili	4.0	11.2	81.8	3.0	100.0	38.6	1,122	6.7	434
Bo	2.5	11.2	84.4	1.9	100.0	62.4	1,107	6.1	691
Bonthe	0.4	8.2	82.7	8.7	100.0	53.0	463	3.1	245
Moyamba	4.5	9.4	82.5	3.5	100.0	28.9	727	1.3	210
Pujehun	2.3	12.6	82.0	3.1	100.0	59.6	595	4.9	354
Western Area Rural	5.2	10.2	82.1	2.5	100.0	45.0	295	7.0	133
Western Area Urban	6.3	12.0	72.3	9.4	100.0	50.2	1,304	17.5	655
Mother's education									
No education	4.9	11.9	80.0	3.3	100.0	44.5	8,394	6.6	3,735
Primary	5.2	10.5	81.0	3.3	100.0	46.7	1,725	4.4	805
Secondary or higher	5.2	12.8	78.8	3.2	100.0	61.1	2,079	10.1	1,270
Wealth quintile									
Lowest	5.8	11.8	79.3	3.1	100.0	45.0	2,858	7.2	1,285
Second	4.9	11.3	80.9	2.9	100.0	45.4	2,616	3.9	1,188
Middle	4.7	11.1	80.8	3.3	100.0	44.4	2,573	5.0	1,144
Fourth	4.1	12.7	80.7	2.5	100.0	48.7	2,300	6.9	1,120
Highest	5.1	12.6	77.3	5.0	100.0	58.0	1,851	12.9	1,074
Total	5.0	11.8	79.9	3.3	100.0	47.6	12,198	7.1	5,811

Note: Total for reported birth weight includes 10 births with information missing on mother's smoking status. Total for birth with less than 2.5 kg includes 5 births with missing information on mother's smoking status.
[1] Based on either a written record or the mother's recall

In the absence of a reported birth weight, a mother's subjective assessment of the size of the baby at birth may be a useful proxy. Five percent of babies were considered by their mothers to be very small; 12 percent were considered smaller than average; and the great majority (80 percent) were considered to be average or larger. Mothers' assessments of baby size differed minimally by background characteristics.

10.2 VACCINATION OF CHILDREN

Universal immunisation of children against the six vaccine-preventable diseases—tuberculosis, diphtheria, whooping cough (pertussis), tetanus, polio, and measles—is crucial to reducing infant and child mortality. Sierra Leone has adopted the World Health Organization (WHO) guidelines for childhood immunisations that call for all children to receive the following: a BCG vaccination against tuberculosis; three doses of DPT to prevent diphtheria, pertussis, and tetanus; three doses of polio vaccine; and a measles vaccine during the first year of life. In addition to these standard vaccinations, the Ministry of Health has recommended that children receive three doses of the hepatitis B vaccine, with the first dose given at birth or at first clinical contact. The pentavalent vaccine, recently introduced, has replaced the DPT and hepatitis B vaccines, except for the first dose of the hepatitis B vaccine given at birth. The pentavalent vaccine contains, in addition to DPT, the hepatitis B vaccine and a vaccine against *Haemophilus influenzae* type b, or Haemophilus influenzae type B (Hib), and is supposed to be given according to the same schedule as DPT.

The 2013 SLDHS collected information on vaccinations for all children born in the five years before the survey. For each of these children, mothers were asked to provide their health card, called an "Under Fives Card" in Sierra Leone. When interviewers could see these health cards, the dates of the child's vaccinations were copied from the card onto the questionnaire. If the interviewer did not see the card or if a vaccine had not been recorded on the card as being administered, the mother was asked to recall the specific vaccines given to her child. The vaccination coverage is based on both the information copied from the health cards and the information obtained from the mothers' reports.

Table 10.2 and Figure 10.1 show the percentage of children age 12-23 months who received specific vaccinations at any time before the survey by source of information, that is, from a vaccination card or from mother's report. Children age 12-23 months are the youngest cohort of children who would have reached the age by which they should be fully vaccinated; it is recommended that children receive all the above stated vaccinations by age 12 months. The results show that 58 percent of children age 12-23 months received all of the recommended vaccinations by age 12 months. Practically all children received BCG (95 percent), and 68 percent received the measles vaccine. Coverage of the first dose of DPT and polio vaccines was relatively high (93 percent and 91 percent respectively); however, only 75 percent of the children went on to receive the final DPT and polio doses, contributing to a dropout of 18 percent and 16 percent, respectively, between the first and final dose of the DPT and polio vaccines[1]. Only 4 percent of the children did not receive any type of vaccination.

[1] Regarding mother's report on the polio vaccine, mothers were asked whether their children were vaccinated but not the number of doses of polio vaccine received. The number of polio doses from the mother's account is approximated assuming it is equivalent to the number of doses of DPT she reports. Data from vaccination cards corroborate that there is a 99% correspondence between these two vaccines.

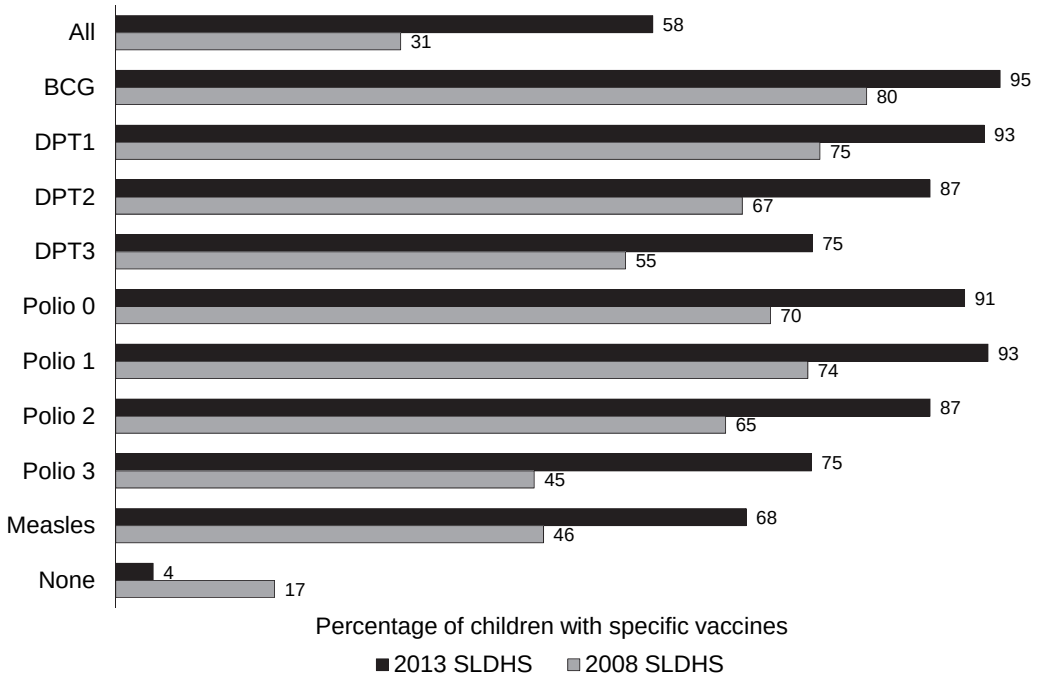
Table 10.2 Vaccinations by source of information

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, Sierra Leone 2013

Source of information	BCG	DPT 1	DPT 2	DPT 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles	All basic vaccinations[2]	No vaccinations	Number of children
Vaccinated at any time before survey												
Vaccination card	72.9	72.5	70.0	65.0	71.8	72.6	70.2	65.0	58.2	56.5	0.2	1,590
Mother's report	22.7	21.0	18.7	12.9	19.5	21.4	18.5	12.8	20.4	11.5	3.3	578
Either source	95.6	93.5	88.7	77.9	91.4	94.0	88.6	77.8	78.6	68.0	3.5	2,169
Vaccinated by 12 months of age[3]	**94.7**	**93.0**	**87.2**	**74.6**	**90.9**	**93.4**	**87.2**	**74.5**	**67.5**	**57.5**	**4.1**	**2,169**

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)
[3] 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.

Figure 10.1 **Trends in vaccination coverage during the first year of life among children age 12-23 months**



Trends in vaccination coverage over the past five years can be seen by comparing data from the 2013 SLDHS with similar data from the 2008 SLDHS (Figure 10.1). Vaccination coverage among children age 12-23 months in Sierra Leone has improved over the past five years. The proportion of children fully vaccinated by age 12 months increased from 31 percent in 2008 to 58 percent in 2013. The proportion of children who have not received any of the recommended immunisations declined, from 17 percent in the 2008 SLDHS to 4 percent in the 2013 SLDHS.

Table 10.3 presents vaccination coverage according to information from vaccination cards and mothers' reports among children age 12-23 months, by background characteristics. There are minimal differences in full vaccine coverage across children's sex and birth order. Mothers with secondary or higher education are more likely to report their child was fully vaccinated (74 percent) compared with mothers with less education (67 percent or less). There is no clear pattern between wealth quintile and vaccination coverage. Children in urban areas are slightly more like to receive all basic vaccinations than children in rural areas. At the regional level, vaccination coverage ranges from 56 percent in the Western region to 78 percent in the Eastern region.

Vaccination cards were presented for 73 percent of children age 12-23 months. Cards were more likely to be seen for female children (75 percent), children whose birth order was six or greater (78 percent), rural children (76 percent), children in the Eastern region (82 percent), and children whose mothers had a primary level education (78 percent). Children in the highest household wealth quintile were much less likely to present a vaccination card (59 percent) compared with the lower wealth quintiles (72 percent or more).

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, Sierra Leone 2013

		DPT			Polio[1]								
Background characteristic	BCG	1	2	3	0	1	2	3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex													
Male	95.3	93.6	89.4	77.8	91.9	94.0	89.4	78.1	78.1	68.3	3.8	71.0	1,040
Female	95.8	93.5	88.0	77.9	90.8	94.0	88.0	77.6	79.0	67.8	3.2	75.4	1,129
Birth order													
1	94.8	94.6	91.0	78.3	90.3	94.1	90.2	77.1	78.7	68.5	3.8	74.7	473
2-3	95.8	92.7	88.0	75.8	91.0	93.3	88.2	75.9	80.1	67.1	2.6	69.1	725
4-5	94.1	92.4	88.6	79.1	91.6	93.0	88.3	79.4	75.7	67.2	5.4	74.3	561
6+	97.9	95.3	87.2	79.2	92.8	96.3	88.1	80.0	79.9	70.1	2.1	77.8	410
Residence													
Urban	94.7	93.6	89.9	77.6	91.7	93.3	90.0	77.2	78.5	65.6	4.2	65.0	561
Rural	95.9	93.5	88.2	77.9	91.2	94.2	88.2	78.1	78.6	68.9	3.2	76.2	1,608
Region													
Eastern	98.1	95.3	93.2	84.2	96.3	96.2	93.3	84.8	84.4	77.8	1.6	82.0	566
Northern	94.4	91.9	83.8	72.3	87.8	92.6	83.6	72.3	73.4	62.0	4.4	72.8	858
Southern	96.7	95.8	93.8	86.4	94.9	95.9	94.1	86.2	82.8	75.3	2.7	77.7	444
Western	92.4	91.2	86.4	69.1	87.0	90.8	86.3	68.3	76.3	56.2	5.8	52.1	301
District													
Kailahun	98.3	95.9	95.9	89.0	97.7	97.0	97.0	91.2	91.3	84.7	1.6	92.6	166
Kenema	97.3	95.4	93.6	83.3	95.1	96.0	93.6	83.2	81.5	75.4	2.0	75.5	269
Kono	99.4	94.3	88.9	80.0	96.9	95.5	87.9	80.0	81.5	73.8	0.6	81.7	131
Bombali	95.9	92.6	88.8	84.2	90.3	95.2	88.8	83.4	76.5	68.9	3.9	80.3	136
Kambia	89.4	90.7	75.5	61.1	80.8	86.2	73.2	59.2	74.6	51.7	6.8	56.0	106
Koinadugu	94.9	92.4	85.4	69.9	80.0	94.3	84.9	69.9	74.3	63.6	3.9	76.1	134
Port Loko	94.1	93.0	85.5	74.0	93.1	92.4	85.5	74.5	72.5	65.1	5.2	72.3	277
Tonkolili	96.3	90.4	81.5	69.5	87.8	93.4	81.9	70.2	71.5	57.3	2.6	75.0	205
Bo	98.5	98.5	97.7	93.4	98.5	97.7	97.7	93.2	84.4	82.3	1.5	86.7	167
Bonthe	96.6	97.2	96.3	80.9	92.3	98.2	96.3	80.9	92.5	77.2	0.9	69.9	62
Moyamba	94.5	92.6	88.3	78.7	90.4	93.4	89.0	80.0	78.4	66.4	4.7	63.5	118
Pujehun	96.5	94.1	92.4	87.1	95.7	94.6	92.9	85.0	79.1	72.8	3.5	84.6	96
Western Area Rural	96.7	96.4	89.6	71.6	92.0	96.4	89.6	71.0	76.7	60.4	3.3	58.4	55
Western Area Urban	91.4	90.1	85.7	68.5	85.9	89.6	85.6	67.7	76.2	55.2	6.3	50.7	246
Mother's education													
No education	94.3	91.9	86.6	76.0	89.6	92.8	86.7	76.2	77.2	66.9	4.7	73.2	1,423
Primary	98.2	97.3	92.0	80.4	93.7	96.5	91.4	80.0	76.2	65.2	1.2	78.1	313
Secondary or higher	97.7	96.1	92.9	82.1	95.4	96.1	93.2	81.7	84.9	73.8	1.1	70.2	432
Wealth quintile													
Lowest	95.1	91.7	89.6	78.6	90.0	93.0	89.7	78.9	81.4	73.1	4.0	72.1	521
Second	94.1	92.0	86.4	77.3	88.6	93.7	86.5	77.9	77.5	66.3	4.5	77.3	463
Middle	97.2	95.4	87.8	79.1	93.2	95.1	87.0	78.1	76.4	66.8	2.3	77.8	464
Fourth	97.5	96.6	92.7	80.5	96.0	95.1	92.2	80.1	78.4	69.4	2.4	76.7	402
Highest	93.8	92.0	86.7	72.3	89.0	92.8	87.9	72.9	79.0	62.3	4.5	58.8	319
Total	95.6	93.5	88.7	77.9	91.4	94.0	88.6	77.8	78.6	68.0	3.5	73.3	2,169

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Table 10.4 shows the percentage of children age 12-59 months at the time of the survey who received specific vaccines by age 12 months and the percentage with a vaccination card, by current age of the child. More than half of children age 12-59 months received all of the recommended vaccinations by age 12 months (53 percent). Older children (age 48-59 months) were less likely (46 percent) to have received all their vaccines compared with younger children age 12-23 months (58 percent). This pattern is true for each individual vaccine.

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, Sierra Leone 2013

		DPT			Polio[1]								
Age in months	BCG	1	2	3	0	1	2	3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
12-23	94.7	93.0	87.2	74.6	90.9	93.4	87.2	74.5	67.5	57.5	4.1	73.3	2,169
24-35	92.1	87.3	82.5	70.9	86.9	88.7	82.6	71.2	67.5	57.3	6.6	62.0	2,011
36-47	90.4	85.7	79.0	64.6	83.1	86.9	78.4	64.5	63.1	50.1	8.3	53.0	2,237
48-59	89.3	82.8	75.4	59.7	81.4	84.3	75.1	59.3	60.4	45.5	9.5	40.9	1,991
Total	91.8	87.5	81.5	67.9	85.8	88.7	81.3	67.9	65.5	53.2	6.9	57.5	8,408

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 vaccinations.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

10.3 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is one of the leading causes of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large number of deaths caused by ARI. In the 2013 SLDHS, the prevalence of ARI symptoms was estimated by asking mothers whether their children under age 5 had been ill in the two weeks preceding the survey with a cough accompanied by short, rapid breathing, considered to be chest-related. These symptoms are consistent with pneumonia. It should be noted that the data collected on ARI symptoms are subjective in the sense that they are based on the mother's perception of illness, without validation by medical personnel.

Table 10.5 shows that 5 percent of children under age 5 exhibited symptoms of ARI in the two weeks before the survey. Prevalence of ARI symptoms varies by children's age. Children ages 6-11 months were more likely to have symptoms of ARI (9 percent) than children in other age groups. By region, children in the Northern region (8 percent) and children in the Koinadugu district (13 percent) were most likely to exhibit symptoms of ARI. Symptoms were least likely to be reported for children in the highest wealth quintile (3 percent).

As Table 10.5 shows, advice or treatment from a health facility or a health care provider was sought for 72 percent of children under age 5 with symptoms of ARI. Older children ages 48-59 months were least likely to have advice or treatment sought for their symptoms (58 percent) compared with children in the younger age groups (70 percent or more). Children of mothers with secondary or higher education were much more likely to have advice and treatment sought for their symptoms (80 percent) compared with children of less educated mothers (70-72 percent). The percentage of children with ARI symptoms for whom advice or treatment was sought ranges from 66 percent in the Northern region to 85 percent in the Eastern region.

Forty-five percent of children under age 5 with symptoms of ARI in the past two weeks received antibiotics. Similar patterns for seeking advice and treatment for ARI were also seen in children's receipt of antibiotics. Fifty-nine percent of children in urban areas received antibiotics compared with 42 percent in rural areas. Sixty-two percent of children whose mothers had secondary or higher education received antibiotics, a much higher percentage than among other education levels. By region, children in the Eastern region were most likely to have received antibiotics, and children in the Northern region were least likely.

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, Sierra Leone 2013

	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 health facility or provider[2]	Percentage who received antibiotics	Number of children
Age in months					
<6	3.8	1,251	77.1	35.4	48
6-11	8.6	1,155	76.3	43.0	99
12-23	7.0	2,169	69.5	46.0	152
24-35	4.1	2,011	70.2	51.6	83
36-47	3.3	2,237	78.2	50.1	74
48-59	2.8	1,991	58.4	38.2	57
Sex					
Male	4.9	5,360	70.9	45.4	261
Female	4.6	5,454	72.5	44.7	251
Mother's smoking status					
Smokes cigarettes/ tobacco/marijuana	5.4	491	*	*	27
Does not smoke	4.7	10,313	72.2	45.0	484
Cooking fuel					
Electricity or gas	*	2	na	na	0
Kerosene	*	2	na	na	0
Coal/lignite	*	5	na	na	0
Charcoal	3.6	1,652	75.4	63.0	59
Wood/straw[3]	4.9	9,136	71.1	42.6	452
Residence					
Urban	3.6	2,749	73.2	59.2	100
Rural	5.1	8,065	71.3	41.7	412
Region					
Eastern	3.1	2,566	85.1	60.4	80
Northern	7.5	4,286	65.8	40.5	321
Southern	2.3	2,574	83.8	44.0	60
Western	3.7	1,389	73.2	51.5	51
District					
Kailahun	4.0	776	(85.1)	(34.4)	31
Kenema	2.3	1,100	*	*	26
Kono	3.4	690	(88.7)	(91.3)	23
Bombali	4.4	727	(79.2)	(20.9)	32
Kambia	10.4	549	70.8	36.2	57
Koinadugu	12.6	573	55.3	43.9	72
Port Loko	7.1	1,423	64.7	46.7	100
Tonkolili	5.8	1,014	(68.6)	(40.4)	59
Bo	1.9	996	*	*	19
Bonthe	0.9	442	*	*	4
Moyamba	3.0	627	*	*	19
Pujehun	3.5	509	(81.6)	(18.0)	18
Western Area Rural	8.1	259	(62.9)	(50.8)	21
Western Area Urban	2.7	1,130	*	*	30
Mother's education					
No education	4.8	7,447	69.9	42.6	358
Primary	5.0	1,508	71.7	39.2	75
Secondary or higher	4.3	1,859	79.9	61.6	79
Wealth quintile					
Lowest	4.9	2,542	67.7	37.9	125
Second	5.0	2,338	71.9	50.3	118
Middle	5.5	2,261	75.3	34.2	125
Fourth	4.7	2,054	70.1	53.0	96
Highest	2.9	1,619	75.1	63.9	47
Total	4.7	10,814	71.7	45.1	512

Note: Total includes 10 children with information missing on mother's smoking status and 17 children with information missing on cooking fuel. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related and/or by difficult breathing which was chest-related) is considered a proxy for pneumonia

[2] Excludes pharmacy, shop, and traditional practitioner

[3] Includes grass, shrubs, crop residues

10.4 FEVER

Fever is a major symptom of malaria and other acute infections in children. Malaria and other illnesses that cause fever contribute to high levels of malnutrition, morbidity, and mortality. Although fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Because malaria is a major contributory cause of death in infancy and childhood in many developing countries, the so-called presumptive treatment of fever with antimalarial medication is advocated in many countries where malaria is endemic. It is important that effective malaria treatment be given promptly to prevent the disease from becoming severe and complicated.

In the 2013 SLDHS, mothers were asked whether their children under age 5 had a fever in the two weeks preceding the survey and, if so, whether any treatment was sought. Table 10.6 shows that 25 percent of children under age 5 were reported to have had fever in the two weeks preceding the survey. Advice or treatment was sought from a health facility or provider for 66 percent of the children who had fever in the two weeks preceding the survey. Table 10.6 further shows that among children with fever, 48 percent took antimalarial drugs, and 34 percent took antibiotic drugs.

Fever is least common among children under age 6 months, and most common among children age 6-11 months and age 12-23 months (both 33 percent), after which it decreases with age. Urban children are slightly more likely to have had a fever compared with rural children (27 percent compared with 25 percent). The proportion of children with fever is highest in the Northern region (27 percent) and lowest in the Eastern region (24 percent).

Overall, advice or treatment was sought for 66 percent of children under age 5 with a fever in the past two weeks. Male children and children with educated mothers are somewhat more likely to have had advice or treatment sought for them; these children are also more likely to have taken an antimalarial or antibiotic drug. There are also differences across background characteristics for receipt of an antimalarial and an antibiotic drug. For example, children in the Eastern region are more likely to have taken an antimalarial for recent fever (60 percent) and children in the Western region are least likely (37 percent). However, children in the Western region are most likely to have taken an antibiotic for recent fever (43 percent), and children in the Eastern region are least likely (38 percent).

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 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, Sierra Leone 2013

	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 health facility or provider[1]	Percentage who took anti-malarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	16.0	1,251	75.1	33.0	34.2	201
6-11	32.5	1,155	69.4	43.0	34.9	376
12-23	32.6	2,169	69.9	50.2	37.8	706
24-35	28.3	2,011	63.8	48.4	32.3	570
36-47	22.1	2,237	61.7	54.3	31.0	493
48-59	20.4	1,991	57.1	50.1	29.4	406
Sex						
Male	25.4	5,360	67.7	49.4	34.5	1,360
Female	25.5	5,454	63.5	47.2	32.6	1,392
Residence						
Urban	27.1	2,749	60.0	45.0	40.7	744
Rural	24.9	8,065	67.7	49.5	30.9	2,008
Region						
Eastern	23.6	2,566	75.6	60.0	38.0	605
Northern	26.8	4,286	63.1	45.8	29.2	1,148
Southern	25.3	2,574	66.6	47.8	32.1	650
Western	25.1	1,389	54.2	37.2	42.6	348
District						
Kailahun	25.4	776	81.8	58.8	28.3	197
Kenema	25.6	1,100	72.6	64.7	36.8	281
Kono	18.5	690	72.9	51.7	55.6	127
Bombali	23.0	727	83.5	76.7	26.7	167
Kambia	31.2	549	59.5	42.5	23.9	172
Koinadugu	51.5	573	55.0	42.4	30.9	295
Port Loko	23.9	1,423	61.9	42.2	32.3	339
Tonkolili	17.2	1,014	63.5	32.0	28.4	175
Bo	25.4	996	66.2	55.5	42.3	253
Bonthe	11.5	442	81.1	39.1	49.3	51
Moyamba	25.6	627	63.7	41.4	16.7	160
Pujehun	36.5	509	65.8	45.3	26.7	186
Western Area Rural	18.7	259	71.4	34.8	47.0	48
Western Area Urban	26.6	1,130	51.4	37.6	41.9	300
Mother's education						
No education	25.2	7,447	63.8	46.9	30.7	1,878
Primary	26.9	1,508	67.2	48.6	31.7	406
Secondary or higher	25.1	1,859	71.4	53.8	46.4	468
Wealth quintile						
Lowest	24.7	2,542	65.2	49.3	28.1	627
Second	24.8	2,338	66.6	46.9	30.8	580
Middle	24.9	2,261	70.2	48.9	30.7	564
Fourth	26.9	2,054	67.4	51.4	37.1	552
Highest	26.5	1,619	56.4	44.1	44.4	429
Total	25.4	10,814	65.6	48.3	33.5	2,752

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

10.5 PREVALENCE OF DIARRHOEA

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children, although the condition can be easily treated with oral rehydration therapy (ORT). A simple and effective response to dehydration is a prompt increase in fluid intake. Exposure to diarrhoea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. When interpreting the 2013 SLDHS findings, it should be borne in mind that diarrhoea prevalence is subject to seasonal variability.

The 2013 SLDHS obtained information on the prevalence of diarrhoea among young children by asking mothers whether their children under age 5 had diarrhoea during the two weeks preceding the interview. When a child was identified as having had diarrhoea, information was collected on treatment and feeding practices during the diarrhoeal episode. The mother was also asked whether there was blood in the child's stools. Diarrhoea with blood in the stools indicates cholera, dysentery, or other diseases that need to be treated differently from diarrhoea in which there is no blood in the stools. Mothers of children who were ill with any form of diarrhoea in the preceding two weeks were asked what actions they had taken to treat the diarrhoea and about feeding practices during the diarrhoeal episode. Other information collected included the respondent's knowledge of ORT, which involves giving the child a solution prepared by mixing water with a commercially prepared packet of oral rehydration salt (ORS) or recommended home fluids (RHF), usually a home-made sugar-salt-water solution.

Table 10.7 shows that 11 percent of children under age 5 had a diarrhoeal episode in the two weeks preceding the survey and 2 percent had blood in the stool, a sign of disease or infection. The prevalence of diarrhoea varies by age of children. Young children age 6-11 months and age 12-23 months are more prone to diarrhoea than children in other age groups; this may be because these children are being introduced for the first time to complementary foods in combination with breast feeding. The prevalence of diarrhoea varies regionally. Children in the Northern region are more susceptible to episodes of diarrhoea (14 percent) than children in other regions, while the lowest proportion

Table 10.7 Prevalence of diarrhoea

Percentage of children under age 5 who had diarrhoea in the two weeks preceding the survey, by background characteristics, Sierra Leone 2013

Background characteristic	Diarrhoea in the two weeks preceding the survey: All diarrhoea	Diarrhoea in the two weeks preceding the survey: Diarrhoea with blood	Number of children
Age in months			
<6	5.2	0.2	1,251
6-11	14.8	2.2	1,155
12-23	14.8	3.0	2,169
24-35	13.3	3.3	2,011
36-47	9.2	2.2	2,237
48-59	8.6	2.6	1,991
Sex			
Male	11.0	2.3	5,360
Female	11.2	2.5	5,454
Source of drinking water[1]			
Improved	10.6	2.2	6,083
Not improved	11.7	2.6	4,712
Toilet facility[2]			
Improved, not shared	9.6	2.9	855
Shared[3]	11.5	2.5	4,056
Non-improved	11.0	2.3	5,857
Residence			
Urban	11.7	1.6	2,749
Rural	10.9	2.7	8,065
Region			
Eastern	9.3	2.1	2,566
Northern	13.5	3.5	4,286
Southern	8.2	1.7	2,574
Western	12.5	1.1	1,389
District			
Kailahun	7.7	2.1	776
Kenema	7.3	1.6	1,100
Kono	14.4	2.8	690
Bombali	11.4	1.1	727
Kambia	17.3	4.1	549
Koinadugu	23.1	6.7	573
Port Loko	12.5	4.6	1,423
Tonkolili	8.8	1.4	1,014
Bo	6.8	1.5	996
Bonthe	3.9	0.5	442
Moyamba	14.8	3.0	627
Pujehun	6.7	1.4	509
Western Area Rural	5.3	1.6	259
Western Area Urban	14.1	1.0	1,130
Mother's education			
No education	11.2	2.5	7,447
Primary	11.1	2.5	1,508
Secondary or higher	10.7	2.1	1,859
Wealth quintile			
Lowest	10.5	2.2	2,542
Second	11.5	2.6	2,338
Middle	11.1	3.3	2,261
Fourth	11.4	2.6	2,054
Highest	11.2	1.1	1,619
Total	11.1	2.4	10,814

Note: Total includes 20 children with information missing on source of drinking water and 46 children with information missing on type of toilet facility.
[1] See Table 2.1 for definition of categories
[2] See Table 2.2 for definition of categories
[3] Facilities that would be considered improved if they were not shared by two or more households

of children with diarrhoea is in the Southern region (8 percent). There are no substantial variations in diarrhoeal prevalence by type of toilet facility or source of drinking water.

10.6 DIARRHOEA TREATMENT

For children who had diarrhoea in the two weeks preceding the survey, mothers were asked what they did to treat the illness. Table 10.8 shows the percentage of children with diarrhoea who received specific treatments, by background characteristics.

Sixty-five percent of the children with diarrhoea were taken to a health care facility or provider where advice or treatment was sought. Considering variation by age, children ages 6-11 months are most likely to have received treatment (68 percent). Advice and treatment was sought much more often for bloody diarrhoea (74 percent) compared with non-bloody diarrhoea (63 percent). Seeking treatment for diarrhoea from a health provider is most common in the Eastern region (76 percent), and least common in the Western region (59 percent).

Table 10.8 includes information on oral rehydration therapy (ORT). Ninety percent of children with diarrhoea were treated with ORT or increased fluids. Eighty-five percent were treated with ORS, a solution prepared from a packet of oral rehydration salts, and 32 percent received increased fluids. Forty-eight percent of children were given antibiotic drugs, and 33 percent received home remedies or other treatments. Three percent of children with diarrhoea did not receive any treatment.

Table 10.8 Diarrhoea treatment

Among children under age 5 who had diarrhoea 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, Sierra Leone 2013

Background characteristic	Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT)					Other treatments							Number of children with diarrhoea
		Fluid from ORS packets or pre-packaged liquid	Recommended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Anti- biotic drugs	Anti-motility drugs	Zinc supple-ments	Intravenous solution	Home remedy/ other	Missing	No treatment	
Age in months														
<6	60.2	65.6	10.9	65.6	16.1	66.8	43.3	0.0	1.7	0.0	26.6	0.0	14.1	65
6-11	67.9	84.4	6.9	85.2	31.5	90.1	49.8	2.7	5.4	0.0	37.5	0.0	4.4	171
12-23	66.3	87.6	11.9	89.0	34.0	92.5	44.9	2.5	4.5	0.0	35.5	0.5	1.9	321
24-35	65.5	85.9	11.3	86.7	36.2	92.3	50.9	1.4	4.2	0.0	30.2	0.8	2.3	268
36-47	64.9	86.6	9.6	87.8	32.3	90.7	48.1	0.8	2.8	1.0	31.6	0.6	3.3	206
48-59	63.3	85.2	13.4	86.7	25.9	87.8	49.0	0.2	2.6	0.0	29.2	3.4	3.1	171
Sex														
Male	64.6	85.6	12.0	87.0	32.1	90.8	45.1	1.8	4.3	0.0	32.4	1.4	3.3	591
Female	66.1	84.5	9.7	85.4	31.3	88.7	50.7	1.2	3.4	0.3	32.7	0.4	3.5	610
Type of diarrhoea														
Non-bloody	63.3	86.6	9.8	87.5	32.4	90.7	47.7	1.6	4.0	0.0	31.7	0.3	3.4	926
Bloody	73.5	81.3	13.7	83.3	31.0	88.1	50.5	1.2	3.5	0.8	36.7	0.6	3.6	261
Residence														
Urban	64.4	86.2	16.9	86.6	28.7	88.1	61.3	2.5	3.2	0.0	29.5	1.0	1.9	322
Rural	65.7	84.6	8.6	86.0	32.8	90.4	43.1	1.2	4.1	0.2	33.7	0.8	3.9	879
Region														
Eastern	76.0	84.7	13.0	86.9	12.7	87.2	47.9	0.4	3.0	0.0	36.9	0.5	5.4	240
Northern	62.8	82.2	9.1	83.5	44.4	89.6	43.1	1.5	4.3	0.0	36.4	0.6	3.5	577
Southern	65.3	89.9	6.4	90.3	20.9	92.2	51.2	1.6	6.8	1.0	26.4	1.9	2.0	212
Western	59.3	89.1	19.0	89.1	29.0	91.0	60.6	2.8	0.0	0.0	21.3	1.4	2.2	173
District														
Kailahun	77.7	76.4	27.1	80.3	23.7	81.5	22.2	1.8	6.9	0.0	43.4	1.1	10.7	60
Kenema	81.7	82.9	8.2	83.6	16.9	83.6	53.7	0.0	3.7	0.0	49.2	0.0	1.2	80
Kono	70.4	91.0	8.4	93.5	2.8	93.5	58.6	0.0	0.0	0.0	23.0	0.5	5.4	100
Bombali	75.6	93.0	3.4	93.8	46.2	95.3	28.7	2.8	3.6	0.0	55.2	1.3	0.0	83
Kambia	67.0	82.8	17.4	83.7	19.4	88.3	59.1	1.2	5.1	0.0	24.1	0.0	5.1	95
Koinadugu	52.5	79.6	1.0	79.6	65.5	90.0	20.3	0.5	3.8	0.0	40.7	0.3	7.2	132
Port Loko	58.6	76.4	11.4	77.6	38.4	84.7	65.0	1.7	4.2	0.0	32.5	1.0	0.8	177
Tonkolili	69.8	87.2	12.7	90.8	50.1	94.5	29.5	1.8	4.8	0.0	33.3	0.0	4.8	89
Bo	81.8	94.9	7.8	94.9	16.9	95.4	59.4	2.3	7.8	3.2	51.6	3.2	0.0	67
Bonthe	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Moyamba	53.5	86.8	7.0	86.8	9.2	89.1	53.9	1.8	2.8	0.0	7.4	1.3	4.5	93
Pujehun	62.1	85.3	5.1	87.7	60.0	92.2	36.7	0.0	18.2	0.0	19.2	1.8	0.0	34
Western Area Rural	(56.9)	(92.0)	(19.5)	(92.0)	(32.3)	(92.0)	(53.7)	(0.0)	(0.0)	(0.0)	(23.8)	(0.0)	(6.6)	14
Western Area Urban	59.5	88.8	19.0	88.8	28.7	90.9	61.2	3.1	0.0	0.0	21.1	1.5	1.8	159

Continued…

Table 10.8—*Continued*

Background characteristic	Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT)					Other treatments							
		Fluid from ORS packets or pre-packaged liquid	Recommended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Anti- biotic drugs	Anti-motility drugs	Zinc supple-ments	Intravenous solution	Home remedy/ other	Missing	No treatment	Number of children with diarrhoea
Mother's education														
No education	65.2	84.3	9.3	85.6	32.8	89.6	46.8	1.6	3.4	0.3	32.5	1.2	3.4	833
Primary	67.8	90.8	13.0	90.8	28.5	92.7	43.7	2.8	5.1	0.0	37.4	0.0	2.7	168
Secondary or higher	63.9	83.5	15.4	84.4	30.1	88.0	56.7	0.1	4.7	0.0	28.7	0.2	3.9	200
Wealth quintile														
Lowest	63.8	86.8	6.4	88.7	25.8	92.3	43.6	0.8	3.5	0.0	29.5	0.0	3.9	267
Second	55.6	86.3	8.8	86.9	35.2	90.7	44.8	0.3	5.2	0.8	29.0	1.4	4.2	268
Middle	74.1	82.6	11.9	83.1	37.3	87.2	44.6	2.7	3.7	0.0	38.1	1.4	3.0	251
Fourth	66.6	81.9	10.8	83.9	29.6	88.1	46.3	3.2	4.9	0.0	36.3	1.4	3.3	235
Highest	68.2	88.0	18.7	88.4	30.4	90.3	66.0	0.5	1.0	0.0	29.9	0.0	2.1	181
Total	65.3	85.1	10.8	86.1	31.7	89.8	48.0	1.5	3.8	0.2	32.5	0.9	3.4	1,201

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended home fluids (RHF). Total includes 15 children with information missing on type of diarrhoea. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

[1] Excludes pharmacy, shop and traditional practitioner

10.7 FEEDING PRACTICES

To help reduce dehydration and minimise the adverse consequences of diarrhoea on the child's nutritional status, mothers are encouraged to continue feeding their child the same amount of food as they would if the child did not have diarrhoea, and are also encouraged to increase the child's fluid intake. In the 2013 SLDHS, mothers were asked whether they gave their child with diarrhoea less, somewhat less, the same amount, or more fluids and food than usual. Table 10.9 shows, by feeding practices, the percent distribution of children under age 5 who had diarrhoea in the two weeks preceding the survey, according to background characteristics.

The results show that 24 percent of children with diarrhoea were given the same amount of liquids as usual, and 32 percent were given more liquids than they are normally given. It is of concern that 22 percent of the children were given somewhat less to drink than usual, and 20 percent were given much less to drink during the diarrhoeal episode. Twenty-five percent of children were given the same amount of food as usual, 33 percent were given somewhat less, 28 percent were given much less food, and 6 percent were given more food. Two percent of children were not given any food during the diarrhoea episode. Overall, only 20 percent of children received increased fluid intake and continued feeding. Fifty-eight percent of children were given ORT, increased fluids, and continued feeding.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under age 5 who had diarrhoea 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 diarrhoea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhoea, by background characteristics, Sierra Leone 2013

	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	Don't know/ missing	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 diarrhoea
Age in months																		
<6	16.1	29.3	18.9	26.7	8.4	0.7	100.0	4.8	33.1	25.7	21.8	4.0	10.5	0.0	100.0	10.1	45.9	65
6-11	31.5	21.7	23.6	22.0	1.2	0.0	100.0	5.9	14.8	36.7	27.9	7.8	6.9	0.0	100.0	17.3	53.0	171
12-23	34.0	23.8	20.1	20.0	1.8	0.4	100.0	6.6	27.0	31.7	27.3	5.3	1.7	0.4	100.0	21.0	58.7	321
24-35	36.2	26.3	16.3	20.1	0.0	1.1	100.0	7.7	28.7	29.6	30.1	2.8	0.3	0.8	100.0	24.9	60.6	268
36-47	32.3	24.3	25.3	16.5	0.3	1.4	100.0	4.8	28.5	35.9	23.6	5.9	0.0	1.4	100.0	21.1	62.4	206
48-59	25.9	22.2	30.2	19.2	0.7	1.8	100.0	4.8	20.9	35.4	31.6	4.6	0.7	2.0	100.0	12.3	54.0	171
Sex																		
Male	32.1	23.4	22.3	19.3	1.6	1.3	100.0	7.4	21.8	35.5	27.3	4.9	2.0	1.2	100.0	21.7	59.4	591
Female	31.3	25.0	21.7	20.6	1.0	0.5	100.0	4.8	28.9	30.3	28.1	5.1	2.4	0.4	100.0	17.5	55.8	610
Type of diarrhoea																		
Non-bloody	32.4	25.6	22.4	18.0	1.4	0.2	100.0	7.0	27.1	33.6	25.0	4.6	2.6	0.2	100.0	20.6	61.3	926
Bloody	31.0	19.8	21.6	26.6	0.6	0.4	100.0	3.2	20.3	31.9	36.9	6.9	0.5	0.2	100.0	16.7	46.8	261
Residence																		
Urban	28.7	19.4	21.4	26.8	2.6	1.1	100.0	7.6	25.6	32.6	25.7	6.0	1.6	0.9	100.0	19.5	59.2	322
Rural	32.8	26.0	22.2	17.5	0.7	0.8	100.0	5.5	25.3	33.0	28.4	4.7	2.4	0.8	100.0	19.6	57.0	879
Region																		
Eastern	12.7	41.2	25.3	18.6	2.0	0.2	100.0	0.9	35.3	31.3	19.9	10.4	2.0	0.2	100.0	5.3	55.7	240
Northern	44.4	19.8	19.2	15.6	0.8	0.2	100.0	6.6	22.1	34.8	31.1	2.3	2.9	0.3	100.0	27.1	56.8	577
Southern	20.9	24.1	29.2	22.7	0.6	2.5	100.0	7.7	20.3	34.5	26.3	7.7	1.2	2.3	100.0	14.9	58.6	212
Western	29.0	15.5	18.0	33.1	2.6	1.8	100.0	9.4	29.0	26.6	29.1	3.5	1.0	1.4	100.0	19.8	61.3	173
District																		
Kailahun	23.7	54.5	6.8	13.0	2.0	0.0	100.0	0.0	41.5	14.0	15.7	24.6	4.3	0.0	100.0	5.8	37.3	60
Kenema	16.9	31.6	30.1	17.5	3.8	0.0	100.0	2.1	24.2	41.7	17.2	12.9	1.9	0.0	100.0	10.9	53.0	80
Kono	2.8	40.8	32.7	22.7	0.6	0.5	100.0	0.5	40.4	33.3	24.5	0.0	0.8	0.5	100.0	0.5	69.1	100
Bombali	46.2	11.8	27.5	12.9	0.0	1.5	100.0	7.3	19.9	46.8	21.6	2.0	0.9	1.5	100.0	34.5	70.6	83
Kambia	19.4	34.6	24.7	21.0	0.3	0.0	100.0	1.4	30.7	40.6	20.9	3.5	2.9	0.0	100.0	15.5	63.8	95
Koinadugu	65.5	14.4	14.6	2.9	2.6	0.0	100.0	3.5	17.3	42.1	26.9	3.8	6.1	0.3	100.0	36.4	56.3	132
Port Loko	38.4	18.7	17.5	25.4	0.0	0.0	100.0	12.5	24.3	23.7	34.9	1.7	2.9	0.0	100.0	27.1	51.8	177
Tonkolili	50.1	21.8	15.7	11.8	0.6	0.0	100.0	4.5	17.5	28.6	49.4	0.0	0.0	0.0	100.0	18.6	47.1	89
Bo	16.9	38.3	27.1	14.6	0.0	3.2	100.0	0.0	21.6	35.7	18.1	18.4	3.0	3.2	100.0	8.4	56.8	67
Bonthe	*	*	*	*	*	*	100.0	*	*	*	*	*	*	*	100.0	*	*	17
Moyamba	9.2	14.2	41.0	33.3	0.0	2.3	100.0	11.7	16.6	36.9	32.0	0.4	0.0	2.3	100.0	8.2	57.5	93
Pujehun	60.0	13.0	8.8	11.3	3.8	3.1	100.0	13.7	18.4	36.0	20.9	7.5	1.8	1.8	100.0	46.7	66.2	34
Western Area Rural	(32.3)	(21.0)	(8.0)	(32.2)	(6.6)	(0.0)	100.0	(18.2)	(35.0)	(13.3)	(32.0)	(1.5)	(0.0)	(0.0)	100.0	(29.6)	(58.5)	14
Western Area Urban	28.7	15.0	18.9	33.1	2.2	2.0	100.0	8.6	28.5	27.8	28.9	3.6	1.1	1.5	100.0	19.0	61.6	159

Continued…

Table 10.9—*Continued*

Background characteristic	Amount of liquids given							Amount of food given								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 diarrhoea
	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	Don't know/ missing	Total			
Mother's education																		
No education	32.8	24.3	22.0	18.4	1.6	1.0	100.0	6.3	24.4	33.8	27.8	4.5	2.1	1.1	100.0	20.5	58.2	833
Primary	28.5	25.0	22.5	22.8	0.4	0.8	100.0	5.2	28.0	28.3	31.3	4.1	2.8	0.4	100.0	16.9	54.2	168
Secondary or higher	30.1	23.2	21.7	24.1	0.7	0.2	100.0	6.0	27.3	32.6	24.2	7.8	2.1	0.0	100.0	17.7	57.7	200
Wealth quintile																		
Lowest	25.8	23.1	30.0	19.6	1.2	0.4	100.0	4.6	20.5	38.9	27.4	6.8	1.3	0.5	100.0	15.6	57.6	267
Second	35.2	32.9	18.1	11.9	0.8	1.2	100.0	5.1	30.4	30.9	25.7	4.0	2.9	1.0	100.0	19.8	60.1	268
Middle	37.3	19.6	21.2	21.0	0.4	0.5	100.0	4.5	24.1	33.4	31.0	4.8	1.8	0.5	100.0	22.4	54.1	251
Fourth	29.6	21.9	21.1	24.2	1.2	2.1	100.0	9.1	23.5	30.2	27.2	6.0	2.2	1.8	100.0	20.7	56.0	235
Highest	30.4	22.5	18.3	25.6	3.3	0.0	100.0	8.1	29.3	29.6	27.0	3.1	2.9	0.0	100.0	19.4	60.5	181
Total	31.7	24.2	22.0	20.0	1.2	0.9	100.0	6.1	25.4	32.9	27.7	5.0	2.2	0.8	100.0	19.5	57.6	1,201

Note: It is recommended that children should be given more liquids to drink during diarrhoea and food should not be reduced. Total includes 15 children with information missing on type of diarrhoea. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

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

10.8 KNOWLEDGE OF ORS PACKETS

A prompt increase in the child's fluid intake through some form of oral rehydration therapy is a simple and effective response to dehydration caused by diarrhoea; this may include the use of a solution prepared from packets of oral rehydration salts (ORS). Women who gave birth in the five years before the survey were asked whether they knew about ORS packets to ascertain their knowledge of ORS. Table 10.10 shows that knowledge of ORS packets or pre-packaged liquids for treatment of diarrhoea is extremely high (98 percent). There is little variation by women's age, urban-rural residence, region, and wealth quintile.

Table 10.10 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 diarrhoea by background characteristics, Sierra Leone 2013

Background characteristic	Percentage of women who know about ORS packets or ORS pre-packaged liquids	Number of women
Age		
15-19	98.5	859
20-24	98.1	1,773
25-34	98.1	3,786
35-49	98.3	2,229
Residence		
Urban	98.6	2,387
Rural	98.0	6,260
Region		
Eastern	99.3	2,054
Northern	98.4	3,385
Southern	97.1	1,982
Western	97.5	1,226
District		
Kailahun	100.0	602
Kenema	99.0	908
Kono	99.0	544
Bombali	97.3	585
Kambia	98.1	417
Koinadugu	96.4	453
Port Loko	99.7	1,122
Tonkolili	98.9	810
Bo	97.0	792
Bonthe	97.2	324
Moyamba	96.2	481
Pujehun	98.5	385
Western Area Rural	97.7	226
Western Area Urban	97.5	1,000
Education		
No education	98.2	5,768
Primary	97.5	1,203
Secondary or higher	98.7	1,676
Wealth quintile		
Lowest	98.3	1,901
Second	98.0	1,809
Middle	98.2	1,797
Fourth	98.1	1,694
Highest	98.5	1,447
Total	98.2	8,647

ORS = Oral rehydration salts

10.9 STOOL DISPOSAL

Disease may spread by direct contact or by animal contact with faeces. The proper disposal of children's stools is crucial in preventing the spread of disease. Table 10.11 presents information on the disposal of the stools of children under age 5 by background characteristics.

The table shows that the most commonly used method for disposing of young children's stools is putting them into a toilet or latrine (71 percent). Other methods of disposal include throwing them into the garbage (8 percent), leaving stools in the open (7 percent respectively), and rinsing them into a drain or ditch (7 percent). Four percent of children under age 5 use the toilet or latrine themselves. Overall, 75 percent of children's stools are disposed of safely, an improvement from the 58 percent reported in the 2008 SLDHS.

The percentage of children whose stools are disposed of safely increases with children's age. Increasing levels of education and wealth quintile of the mother also are associated with increased safety in disposal of children's stools. Children in urban areas are more likely than children in rural areas to have their stools disposed of safely (85 and 72 percent respectively). There is some variation in the disposal of stools across the regions. The proportion of children whose stools are safely disposed of ranges from 66 percent in the Southern region to 82 percent in the Northern region. There is also marked variation at the district level. In Port Loko and Bombali stools are disposed of safely for the largest proportion of children (89 and 88 percent respectively), while Bonthe has the lowest proportion (36 percent).

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age 5 living with the mother by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Sierra Leone 2013

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	1.9	56.5	0.8	13.9	12.6	6.8	6.2	1.2	100.0	59.3	1,210
6-11	1.2	67.2	1.1	9.9	10.5	6.4	2.8	1.0	100.0	69.5	1,119
12-23	2.1	75.3	0.3	6.0	6.8	6.5	2.3	0.7	100.0	77.7	2,026
24-35	3.4	75.1	0.6	3.3	6.3	8.5	1.4	1.4	100.0	79.2	1,513
36-47	5.3	76.0	1.0	2.5	6.7	5.8	0.7	1.9	100.0	82.3	1,112
48-59	10.5	71.3	0.3	3.2	3.7	8.2	1.0	1.8	100.0	82.2	707
Toilet facility[2]											
Improved, not shared	5.4	79.4	0.3	7.8	4.6	1.3	0.3	1.0	100.0	85.0	632
Shared[3]	3.7	82.2	0.3	4.7	4.7	1.6	1.6	1.1	100.0	86.2	2,917
Non-improved or shared	2.9	61.5	1.0	7.6	10.6	11.7	3.4	1.4	100.0	65.3	4,103
Residence											
Urban	4.4	80.1	0.1	7.7	2.4	1.8	2.3	1.1	100.0	84.6	2,012
Rural	3.1	67.6	0.8	6.1	9.8	8.8	2.5	1.3	100.0	71.6	5,674
Region											
Eastern	2.9	67.0	0.4	6.3	9.9	9.1	3.7	0.8	100.0	70.3	1,804
Northern	3.7	77.3	0.9	5.1	8.5	2.0	1.2	1.3	100.0	81.9	3,083
Southern	2.7	62.6	0.9	6.3	7.5	15.8	2.9	1.4	100.0	66.1	1,774
Western	5.2	72.4	0.1	11.8	2.6	3.1	3.1	1.7	100.0	77.7	1,026
District											
Kailahun	1.9	52.6	0.4	3.0	10.5	26.4	4.5	0.7	100.0	54.9	541
Kenema	4.8	72.1	0.4	7.1	9.4	1.5	4.0	0.8	100.0	77.3	778
Kono	0.8	75.1	0.3	8.6	10.1	1.8	2.3	0.9	100.0	76.2	485
Bombali	1.7	84.4	1.6	4.8	4.0	0.2	0.7	2.6	100.0	87.7	536
Kambia	5.8	67.6	0.0	6.2	15.9	1.6	0.1	2.8	100.0	73.4	385
Koinadugu	0.1	77.4	0.0	5.0	6.8	3.2	6.7	0.8	100.0	77.5	404
Port Loko	6.1	81.4	1.8	5.5	2.3	2.1	0.0	0.7	100.0	89.3	1,020
Tonkolili	2.7	71.5	0.2	4.0	17.6	2.6	0.9	0.6	100.0	74.4	738
Bo	4.1	78.7	0.7	5.3	5.6	3.2	1.0	1.4	100.0	83.4	710
Bonthe	3.3	31.9	1.0	9.5	6.1	44.2	3.2	0.8	100.0	36.2	297
Moyamba	1.7	49.1	1.0	4.5	13.3	27.7	0.4	2.2	100.0	51.8	434
Pujehun	0.2	73.2	1.0	8.0	5.2	1.8	9.9	0.6	100.0	74.4	333
Western Area Rural	3.6	76.4	0.5	3.9	7.1	5.1	1.1	2.3	100.0	80.5	191
Western Area Urban	5.5	71.5	0.0	13.6	1.6	2.6	3.5	1.6	100.0	77.0	834
Mother's education											
No education	3.5	68.8	0.8	6.6	9.0	7.7	2.4	1.2	100.0	73.1	5,223
Primary	3.5	72.2	0.4	6.8	5.7	7.0	2.9	1.5	100.0	76.1	1,057
Secondary or higher	3.3	77.3	0.3	6.1	5.1	4.3	2.4	1.1	100.0	81.0	1,407
Wealth quintile											
Lowest	2.3	55.9	0.8	7.6	13.5	15.8	3.2	0.9	100.0	59.0	1,727
Second	3.2	68.7	1.0	5.2	10.7	7.2	1.9	2.1	100.0	73.0	1,651
Middle	3.8	71.3	0.8	6.5	7.4	5.8	3.4	1.0	100.0	75.9	1,605
Fourth	3.7	80.9	0.5	5.9	3.5	3.2	1.6	0.9	100.0	85.0	1,491
Highest	4.8	82.1	0.0	7.7	1.8	0.4	1.9	1.3	100.0	86.9	1,213
Total	3.5	70.9	0.7	6.5	7.8	7.0	2.4	1.2	100.0	75.0	7,687

Note: Total includes 35 children with information missing on type of toilet facility.
[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the faecal matter was put/rinsed into a toilet or latrine or if it was buried.
[2] See Table 2.2 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 stunted, 9 percent are wasted, and 16 percent are underweight. Children's nutritional status has a positive relationship with the mother's health, the mother's education, and household wealth.
- The proportion of children underweight has decreased from 21 percent in 2008 to 16 percent in 2013.
- Almost all children (97 percent) are breastfed at some point. Exclusive breastfeeding is uncommon, however; only 32 percent of children under age 6 months are exclusively breastfed. The median duration for exclusive breastfeeding among Sierra Leone children is 0.6 months, unchanged since 2008.
- Sixty-two percent of children age 6-9 months are consuming the recommended breast milk and complementary foods, and 68 percent of children age 12-23 months are consuming both.
- Only 7 percent of children age 6-23 months are fed appropriately, based on recommended infant and young child feeding practices.
- Eighty percent of children age 6-59 months are anaemic.
- Nine percent of women are undernourished (BMI < 18.5), while 18 percent are overweight or obese (BMI > 25.0).

This chapter covers nutritional concerns for children and women. The chapter provides information about infant and young child feeding practices, including breastfeeding and feeding with solid or semi-solid foods. The chapter also presents findings on anthropometric assessment of nutritional status, diversity of foods consumed, micronutrient intake, and vitamin A deficiency for women and for children under age 5.

Adequate nutrition is critical to child development. The period from birth to age 2 is important for optimal growth, health, and development, but it is often marked by growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhoea and acute respiratory infections. In 2013 Sierra Leone joined the Scaling Up Nutrition (SUN) Movement, in an effort reduce malnutrition through strengthening multi-sectoral collaboration and coordination. This led to the formulation of 2013-2017 Multisectoral National Nutrition and Food Security Policy and implementation plan, with policies and strategies to support evidence-based high-impact nutrition interventions and collaboration with relevant sectors.

Infant and young child feeding practices reported in this chapter include early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at age 6 months, frequency of feeding solid/semi-solid foods, and the diversity of food groups fed to children age 6-23 months. A summary indicator that describes the quality of infant and young child feeding practices (IYCF) is included. The Sierra Leone Ministry of Health and Sanitation (MOHS) with support from various partners instituted an IYCF programme to create awareness and improve knowledge of mothers and caregivers on appropriate feeding and care practices for children age 6-23 months. The activities are conducted at both the facility and community levels through the Mother Support Groups.

A woman's nutritional status has important implications for her health as well as the health of her children. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slower recovery from illness, and heightened risks of adverse pregnancy outcomes. For example, a woman who has poor nutritional status as indicated by a low body mass index (BMI), short stature, anaemia, or other micronutrient deficiencies has a greater risk of obstructed labour, of having a baby with low birth weight, of producing lower quality breast milk, of mortality due to postpartum haemorrhage, and of morbidity of both herself and her baby.

11.1 NUTRITIONAL STATUS OF CHILDREN

Anthropometric data on height and weight collected in the 2013 SLDHS permit the measurement and evaluation of the nutritional status of young children in Sierra Leone. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

11.1.1 Measurement of Nutritional Status among Young Children

The 2013 SLDHS collected data on the nutritional status of children by measuring the height and weight of all children under age 5. Data were collected for calculating three indices—weight-for-age, height-for-age, and weight-for-height—all of which take age and sex into consideration. Weight measurements were obtained using lightweight, bathroom-type scales with a digital screen designed and manufactured under the guidance of UNICEF. Height measurements were carried out using a measuring board. Children younger than age 24 months were measured lying down (recumbent length) on the board, while standing height was measured for older children.

For this report, indicators of the nutritional status of children are calculated using new growth standards published by the World Health Organisation (WHO) in 2006. These new growth standards were generated using data collected in the WHO Multicentre Growth Reference Study (WHO, 2006). The study, whose sample included a total of 8,440 children in six countries, was designed to provide a description of how children should grow under optimal conditions. The WHO Child Growth Standards can therefore be used to assess children all over the world, regardless of ethnicity, social and economic influences, and feeding practices. Each of the three nutritional status indicators described below is expressed in standard deviation units from the median of the Multicentre Growth Reference Study sample.

Each of these indices—height-for-age, weight-for-height, and weight-for-age—provides different information about growth and body composition, which is used to assess nutritional status. 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) are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) 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 is not sensitive to recent, short-term changes in dietary intake.

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) are considered thin (wasted) 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 between -2 SD and -3 SD are considered moderately wasted, and those below minus three standard deviations (-3 SD) 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

are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) are considered severely underweight.

11.1.2 Results of Data Collection

Measurements of height and weight were obtained for all children born in the five-year period preceding the survey who were present in the households selected for the 2013 SLDHS. The results include children who were not biological offspring of the women interviewed in the survey, as well as respondents' biological children present in the household.

Valid height and weight measurements were obtained for 81 percent of the children under age 5 in the sampled households. Another 13 percent of children were considered to have implausibly high or low values for the height or weight and measurements, and 6 percent were missing the child's age in months. The analysis focuses on the children for whom complete and credible anthropometric and valid age data were collected.

11.1.3 Levels of Malnutrition

Table 11.1 and Figure 11.1 indicate the nutritional status of children under age 5 according to height-for-age, weight-for-height, and weight-for age indices, by the child's age and other demographic characteristics.

Height-for-age

The results show that, overall, 38 percent of children under age 5 are stunted, while 18 percent are severely stunted. Analysis of the indicator by age group shows that stunting is highest (49 percent) in children age 18-23 months and lowest (20 percent) in children under age 6 months. Severe stunting shows a somewhat similar trend, although stunting peaks later at 24-35 months (25 percent) and is lowest at 6-8 months (9 percent).

A slightly higher proportion of male children (39 percent) are stunted compared with 37 percent of female children. There is an inverse relationship between the length of the preceding birth interval and the proportion of children who are stunted. The longer the interval the less likely the child is to be stunted. The mother's body mass index (BMI) also has an inverse relationship with stunting levels. For example, mothers who are thin (BMI < 18.5) are more likely to have children with stunting (41 percent), while children of overweight/obese mothers (BMI ≥ 25) are less likely to be stunted (34 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, Sierra Leone 2013

	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	10.2	19.7	-0.6	4.3	9.7	17.1	0.3	5.1	10.6	7.0	-0.3	394
6-8	8.7	20.8	-0.5	4.7	14.4	8.6	-0.3	4.6	19.6	3.6	-0.7	268
9-11	13.7	31.2	-1.1	7.4	18.1	8.6	-0.4	7.1	23.2	1.7	-1.0	227
12-17	17.0	33.1	-1.1	4.7	13.5	6.1	-0.3	7.8	17.2	3.6	-0.8	557
18-23	19.5	48.9	-1.5	4.3	11.7	7.2	-0.2	5.8	18.1	3.4	-0.8	379
24-35	25.4	46.9	-1.6	4.3	7.4	6.5	0.1	5.7	15.7	3.4	-0.8	982
36-47	19.7	43.5	-1.6	3.2	7.4	5.6	0.1	5.3	17.8	1.1	-0.9	1,180
48-59	17.0	34.5	-1.6	3.2	6.8	7.2	0.0	4.6	14.6	0.4	-0.9	1,108
Sex												
Male	20.2	38.9	-1.4	4.8	10.7	6.9	-0.1	6.1	17.6	2.3	-0.9	2,461
Female	16.6	36.9	-1.3	3.3	8.0	8.0	0.1	5.0	15.4	2.6	-0.8	2,633
Birth interval in months[3]												
First birth[4]	15.9	33.8	-1.2	3.1	9.0	8.7	0.0	4.2	15.8	3.8	-0.7	801
<24	25.6	45.6	-1.7	3.9	10.0	8.6	0.0	5.4	17.1	2.1	-0.9	471
24-47	19.4	39.7	-1.5	4.1	9.2	7.5	0.0	5.9	17.3	2.3	-0.8	1,821
48+	15.2	34.1	-1.1	3.7	10.2	6.8	-0.1	6.0	14.0	2.6	-0.7	1,018
Size at birth[3]												
Very small	27.2	50.9	-1.8	3.6	14.2	8.5	-0.3	11.4	25.8	1.8	-1.3	177
Small	21.4	41.3	-1.6	3.0	9.6	7.1	-0.2	8.2	20.9	1.9	-1.0	438
Average or larger	17.5	36.7	-1.3	3.8	9.2	7.7	0.0	4.9	15.1	2.7	-0.8	3,412
Missing	22.2	39.5	-1.3	5.9	7.8	10.9	0.2	4.8	16.3	7.0	-0.6	84
Mother's interview status												
Interviewed	18.4	37.8	-1.4	3.8	9.5	7.7	0.0	5.5	16.2	2.6	-0.8	4,111
Not interviewed but in household	17.0	31.5	-1.4	4.1	10.6	9.5	-0.1	5.8	17.3	2.1	-0.9	115
Not interviewed and not in the household[5]	18.2	38.8	-1.5	5.0	8.3	6.1	-0.0	5.7	17.6	1.6	-0.9	869
Mother's nutritional status[6]												
Thin -BMI<18.5	22.9	41.0	-1.6	4.7	12.4	6.0	-0.3	9.6	20.9	0.8	-1.1	290
Normal -BMI 18.5-24.9	18.3	37.9	-1.3	3.3	9.1	7.2	0.0	5.2	16.0	2.9	-0.8	2,779
Overweight/obese -BMI ≥ 25	15.3	34.4	-1.3	4.8	8.6	10.2	0.1	3.7	12.6	2.3	-0.7	535
Residence												
Urban	11.4	29.6	-1.0	3.8	9.2	8.2	0.0	4.2	12.1	3.6	-0.6	1,170
Rural	20.4	40.3	-1.5	4.1	9.3	7.3	-0.0	6.0	17.7	2.1	-0.9	3,924
Region												
Eastern	22.1	42.2	-1.7	2.2	6.7	7.3	0.1	5.3	16.8	0.7	-0.9	1,183
Northern	16.7	35.4	-1.3	5.1	10.8	5.8	-0.2	6.1	17.9	2.6	-0.9	2,227
Southern	21.0	42.2	-1.5	4.4	9.2	10.3	0.1	5.9	16.1	2.4	-0.8	1,164
Western	11.0	28.9	-0.8	2.6	8.8	8.8	0.1	2.8	10.4	5.8	-0.4	520

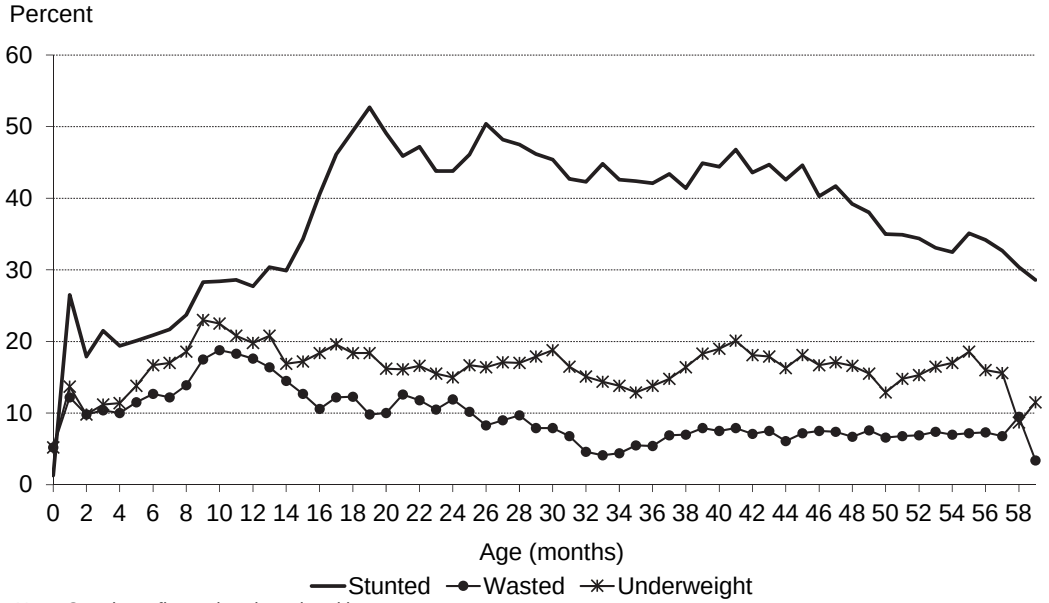
Continued…

Table 11.1—*Continued*

Background characteristic	Height-for-age[1]			Weight-for-height				Weight-for-age				Number of children
	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	
District												
Kailahun	16.3	40.7	-1.5	2.1	6.2	3.8	-0.2	6.2	19.7	0.4	-1.1	381
Kenema	20.0	39.4	-1.6	2.6	8.1	6.4	-0.0	6.3	17.6	0.3	-0.9	573
Kono	37.1	51.6	-2.2	1.1	4.3	15.3	0.8	1.2	10.1	2.4	-0.8	228
Bombali	15.1	28.2	-1.1	14.4	25.5	2.6	-0.9	12.5	24.4	1.1	-1.3	382
Kambia	17.9	36.8	-1.2	3.0	6.5	7.2	0.0	5.0	16.9	2.8	-0.7	288
Koinadugu	21.1	40.1	-1.2	4.7	10.5	10.7	-0.1	6.6	24.3	8.6	-0.8	231
Port Loko	14.7	36.6	-1.3	3.8	9.3	6.9	0.0	5.2	15.3	2.2	-0.8	744
Tonkolili	17.8	36.0	-1.4	1.9	5.5	4.0	0.0	3.5	14.8	1.6	-0.8	583
Bo	21.6	45.0	-1.7	5.5	11.9	6.6	-0.1	7.9	21.2	1.2	-1.1	434
Bonthe	19.7	41.4	-1.4	2.1	3.0	22.6	0.8	4.2	9.2	5.2	-0.2	190
Moyamba	17.5	33.6	-1.2	5.7	9.8	11.3	0.1	5.4	11.7	3.1	-0.6	260
Pujehun	24.0	46.4	-1.7	3.1	8.5	6.8	0.1	4.6	16.8	1.7	-0.9	280
Western Area Rural	15.4	27.6	-0.9	2.7	8.2	11.9	0.3	1.1	10.4	5.8	-0.3	129
Western Area Urban	9.6	29.4	-0.8	2.6	9.0	7.8	0.0	3.4	10.4	5.7	-0.5	392
Mother's education[7]												
No education	20.0	38.6	-1.4	3.6	9.4	7.8	0.0	6.0	16.8	2.8	-0.8	2,964
Primary	17.1	38.8	-1.4	4.4	10.9	6.2	-0.1	5.2	15.8	1.0	-0.9	590
Secondary or higher	12.1	32.7	-1.2	4.1	8.9	9.1	0.0	3.9	13.8	3.3	-0.7	672
Wealth quintile												
Lowest	22.5	42.6	-1.5	3.6	7.7	8.6	0.1	6.2	17.3	2.9	-0.8	1,183
Second	21.1	40.4	-1.6	5.0	10.6	6.0	-0.1	6.9	19.6	0.9	-1.0	1,196
Middle	17.7	38.1	-1.5	4.2	9.7	7.7	0.0	5.3	16.6	2.6	-0.8	1,121
Fourth	16.0	35.0	-1.2	3.5	9.6	7.1	-0.1	5.0	15.5	3.0	-0.7	946
Highest	10.2	28.1	-0.9	3.3	8.5	8.4	0.0	3.0	10.3	3.5	-0.5	648
Total	18.3	37.9	-1.4	4.0	9.3	7.5	-0.0	5.6	16.4	2.4	-0.8	5,094

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 is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is 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 11.10.1.
[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.

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 five-month moving average.

Sierra Leone, 2013

A higher proportion of children in rural areas are stunted (40 percent) compared with urban children (29 percent). At the regional level, stunting is highest in the Eastern and Southern regions (42 percent each) and lowest in the Western region (29 percent). Stunting is less prevalent among children whose mothers have secondary or higher education. The results also show that the proportion of stunted children declines with increase in the wealth quintile.

Weight-for-height

Table 11.1 shows the nutritional status of children under age 5 as measured by wasting or low weight-for-height. Overall, 9 percent of children are wasted, and 4 percent are severely wasted. Wasting increases initially with the child's age from 10 percent at under age 6 months (10 percent) to a peak of 18 percent at age 9-11 months, before declining steadily to 7 percent at age 48-59 months. A slightly higher proportion of male children than female children are wasted (11 percent versus 8 percent). Children reported to be very small at birth (14 percent) and children born to thin mothers (BMI < 18.5) (12 percent) are more likely to be wasted than other children (10 percent or less). Northern region has the highest prevalence of wasting (11 percent) and severe wasting (5 percent) compared with the other regions. It should be noted that 8 percent of children under age 5 in Sierra Leone are overweight, with Z-scores more than two standard deviations above the mean.

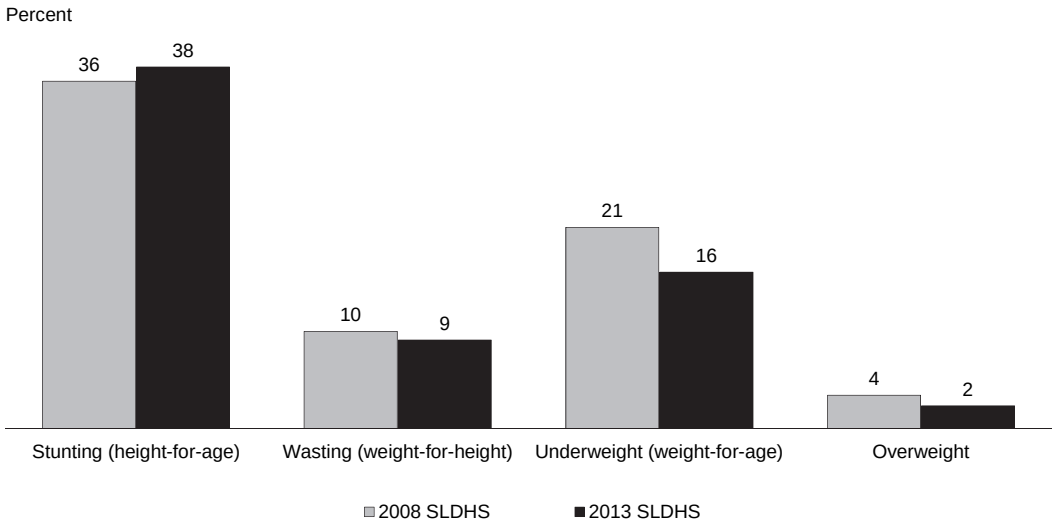
Weight-for-age

Nationally, 16 percent of children under age 5 are underweight, with 6 percent severely underweight (Table 11.1). There is not a clear weight-for-age trend across age groups. Children age 6-8 months and those age 9-11 months are most likely to be underweight (both 20 percent or greater). As with the other two nutritional indicators, male children are more likely to be underweight (18 percent) than female children (15 percent), and smaller size at birth is associated with lower weight-for-age. Children born to thin or underweight mothers are more likely to be underweight (21 percent) than children born to mothers with normal BMI (16 percent), or mothers that are overweight (13 percent). The proportion of underweight children is higher in rural areas (18 percent) than in urban areas (12 percent). Children in the Western region are least likely (10 percent) to be underweight compared with the other regions (16 percent or higher). The

proportion of children underweight decreases as mother's level of education increases. Underweight children are less prevalent among the highest wealth quintile.

Figure 11.2 shows a decrease in the proportion of underweight children since 2008, from 21 percent to 16 percent. Very small decreases are also suggested in wasting (from 10 percent to 9 percent) and in overweight among children (from 4 percent to 2 percent).

Figure 11.2 **Trends in nutritional status of children under 5, 2008 and 2013**



Note: The data for both surveys are based on the WHO Child Growth standards adopted in 2006.

11.2 INITIATION OF BREASTFEEDING

Early breastfeeding practices determine the successful establishment and duration of breastfeeding. It is recommended that children be put to the breast immediately or within one hour after birth. During the first three days after delivery, colostrum is produced and should be given to the newborn while awaiting the production of the regular breast milk. Colostrum is an important source of nutrition and protection to the newborn. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.2 shows the percentage of children born in the two years before the survey by breastfeeding status and the timing of initial breastfeeding, according to background characteristics. A large majority of children (97 percent) are breastfed at some point. Overall, 54 percent of children are breastfed within one hour of birth and 89 percent within the first day of birth. Women who were assisted during delivery by a traditional birth attendant, women who delivered at home, and women who have no education are more likely to breastfeed and more likely to initiate breastfeeding within an hour or day of childbirth. Breastfeeding and early initiation of breastfeeding are also higher in rural areas compared with urban areas. Among the regions, breastfeeding within the first hour of birth is most common in the Northern region, at 73 percent of children, but less common in the other three regions (Eastern, 31 percent; Southern, 51 percent; and Western, 41 percent).

Twenty-one percent of children are given something before breastfeeding (prelacteal feed). Children whose delivery was assisted by someone other than a health professional and children who were delivered at home are more likely to receive a prelacteal feed, as are children in urban areas. Prelacteal feeding increases with wealth quintile.

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, Sierra Leone 2013

	Among last-born children born in the past two years:				Among last-born children born in the past two 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	96.6	54.1	88.5	2,398	20.0	2,316
Female	97.4	53.6	89.6	2,422	21.6	2,359
Assistance at delivery						
Health professional[3]	96.9	49.8	88.3	3,018	19.2	2,926
Traditional birth attendant	97.5	61.3	91.0	1,640	23.0	1,600
Other	96.6	55.2	88.3	142	28.0	137
No one	*	*	*	8	*	8
Missing	*	*	*	12	*	4
Place of delivery						
Health facility	96.9	49.7	88.3	2,794	18.5	2,707
At home	97.5	59.8	90.6	2,009	23.9	1,959
Other	*	*	*	7	*	7
Missing	*	*	*	10	*	2
Residence						
Urban	95.6	42.9	83.1	1,240	22.9	1,185
Rural	97.5	57.6	91.2	3,580	20.0	3,490
Region						
Eastern	96.4	30.5	86.7	1,113	15.9	1,073
Northern	98.0	72.7	92.7	1,997	21.2	1,957
Southern	97.1	50.8	90.7	1,048	19.9	1,018
Western	94.8	40.8	79.7	662	29.1	627
District						
Kailahun	97.1	28.8	90.7	323	21.9	314
Kenema	95.8	39.2	86.3	502	11.0	481
Kono	96.7	17.4	82.8	288	17.6	278
Bombali	98.4	73.4	94.5	338	14.2	333
Kambia	97.7	57.0	88.0	251	36.3	246
Koinadugu	97.8	58.2	90.6	271	17.7	265
Port Loko	97.7	77.9	93.6	666	31.0	651
Tonkolili	98.3	81.7	93.8	471	6.5	463
Bo	98.3	32.2	95.2	382	29.5	375
Bonthe	97.9	52.7	83.7	157	6.6	154
Moyamba	95.1	68.7	89.6	294	21.4	279
Pujehun	97.4	57.8	89.6	215	10.6	210
Western Area Rural	94.8	71.5	87.8	126	27.9	119
Western Area Urban	94.7	33.6	77.8	536	29.4	508
Mother's education						
No education	97.4	55.6	90.8	3,118	20.4	3,035
Primary	95.9	54.1	87.8	735	22.6	705
Secondary or higher	96.6	47.9	84.4	967	20.5	934
Wealth quintile						
Lowest	97.8	56.1	91.4	1,110	18.4	1,086
Second	97.5	55.0	91.1	1,012	19.9	986
Middle	97.4	59.7	92.2	1,056	20.1	1,029
Fourth	96.1	54.9	86.8	923	22.6	887
Highest	95.6	38.5	81.1	719	24.3	687
Total	97.0	53.8	89.1	4,820	20.8	4,675

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. 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 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
[3] Doctor, nurse/midwife, or auxiliary 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 children be given solid or semi-solid complementary food in addition to continued breastfeeding from 6 months until 24 months or more when the child is fully weaned. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease.

Information on complementary feeding was obtained by asking mothers about the current breastfeeding status of all children under age 5 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 and Figure 11.3 show the percent distribution of youngest children under age 2 living with the mother by breastfeeding status and percentage of children under age 2 using a bottle with a nipple, according to age in months. Exclusive breastfeeding is not common; only 32 percent of children under age 6 months are exclusively breastfed. This proportion is highest for children age 0-1 month (42 percent), but it declines sharply as children grow older, so that only 1 percent of children age 18-23 months are exclusively breastfed.

Children younger than age 6 months are commonly given complementary foods in addition to breastfeeding. Seven percent of children under age 2 months and 16 percent of those under age 6 months are given complementary food in addition to breastfeeding. The proportion of children given complementary food increases dramatically between the 2-3 month and the 4-5 month age groups, from 9 percent to 31 percent. Higher proportions of young children are given plain water and non-milk liquids compared with other milk. When children reach age 6 months, the age in which complementary foods combined with breastfeeding is recommended, only 62 percent of children age 6-9 months are consuming both complementary foods and breast milk. Only 68 percent of children age 12-23 months are consuming both.

Table 11.3 Breastfeeding status by age

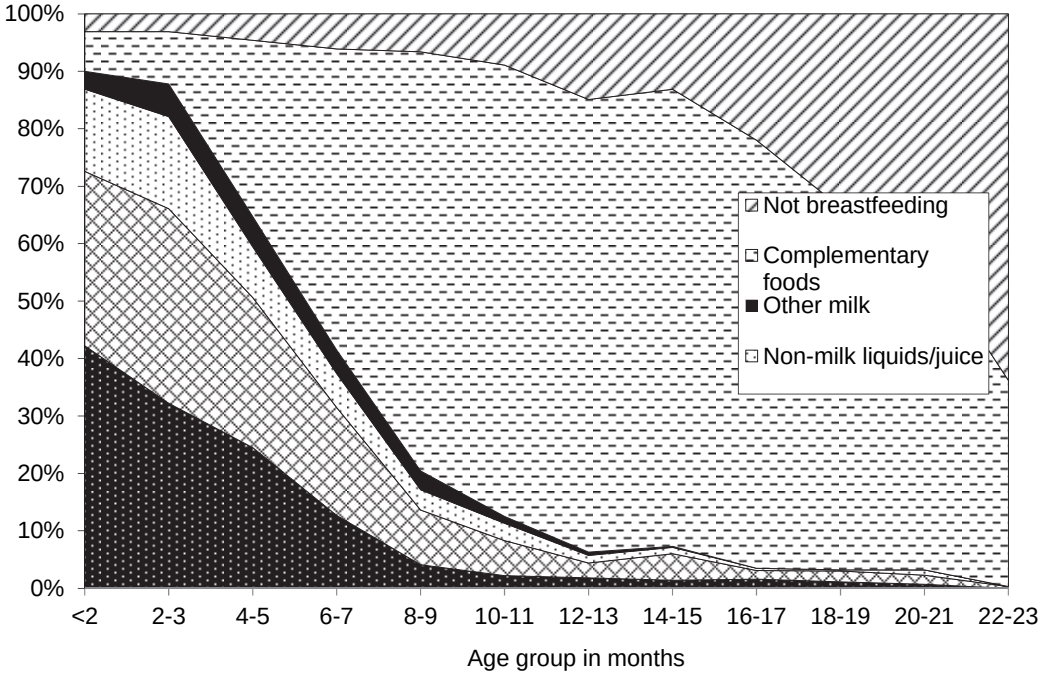
Percent distribution of youngest children under age 2 who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Sierra Leone 2013

	Breastfeeding status										
Age in months	Not breast-feeding	Exclu-sively breastfed	Breast-feeding and consum-ing plain water only	Breast-feeding and consum-ing non milk liquids[1]	Breast-feeding and consum-ing other milk	Breast-feeding and consum-ing comple-mentary foods	Total	Percent-age currently breast-feeding	Number of youngest child under two years living with their mother	Percent-age using a bottle with a nipple	Number of all children under age 2
0-1	3.1	42.2	30.3	14.3	3.1	6.9	100.0	96.9	320	12.8	332
2-3	3.1	32.2	33.9	16.0	5.7	9.1	100.0	96.9	445	18.5	455
4-5	4.6	24.5	26.2	8.8	5.3	30.7	100.0	95.4	444	19.4	464
6-8	6.0	10.2	16.9	5.0	4.1	57.8	100.0	94.0	606	18.7	618
9-11	8.4	2.5	5.9	3.3	1.6	78.3	100.0	91.6	513	14.9	537
12-17	16.5	1.6	2.9	0.9	0.3	77.7	100.0	83.5	1,238	9.9	1,295
18-23	44.5	0.7	1.4	0.4	0.0	53.1	100.0	55.5	788	6.4	874
0-3	3.1	36.4	32.4	15.3	4.6	8.2	100.0	96.9	766	16.1	787
0-5	3.6	32.0	30.1	12.9	4.9	16.4	100.0	96.4	1,210	17.3	1,251
6-9	6.3	8.7	14.5	4.8	3.7	62.0	100.0	93.7	771	18.0	792
12-15	14.0	1.6	3.6	1.2	0.4	79.1	100.0	86.0	845	10.5	882
12-23	27.4	1.2	2.3	0.7	0.2	68.1	100.0	72.6	2,026	8.5	2,169
20-23	52.1	0.3	1.0	0.5	0.0	46.2	100.0	47.9	464	6.5	521

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 semi-solids) 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

Figure 11.3 **Infant feeding practices by age**

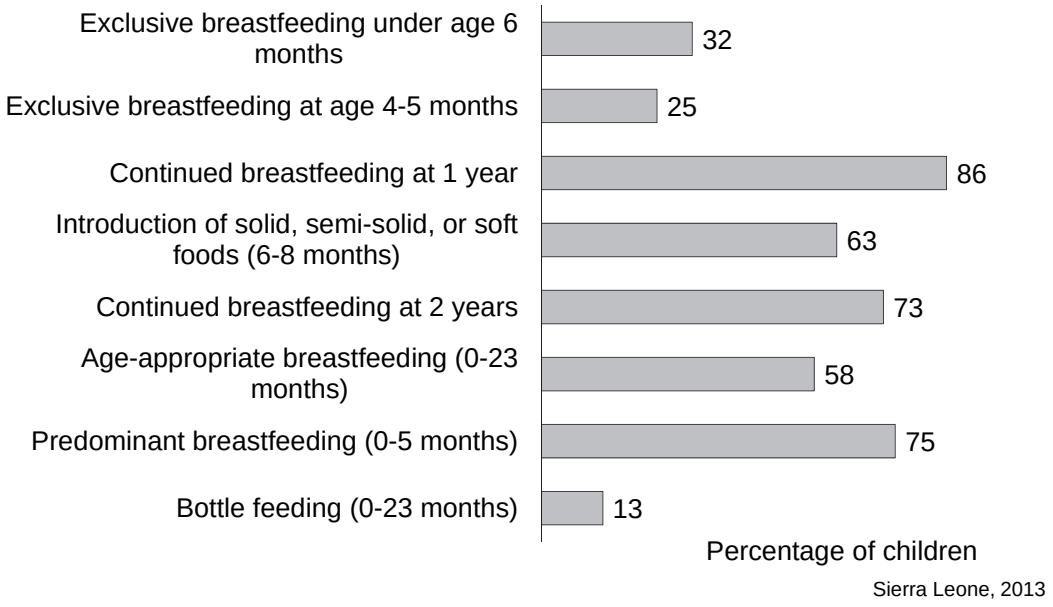


Sierra Leone, 2013

National guidelines regarding breast milk substitutes, adopted from the WHO International Code of Marketing Breast Milk Substitutes (WHO, 1981), discourage the use of bottles with nipples. The use of a bottle with a nipple, regardless of the contents (breast milk, formula, or any other liquid), requires hygienic handling to avoid contamination that may cause infection in the infant. Table 11.3 shows that bottle-feeding is still prevalent in Sierra Leone. Around 17 percent of children under age 6 months are fed using a bottle with a nipple.

Figure 11.4 shows the 2013 SLDHS results for key IYCF breastfeeding practices among children under age 2 who are living with their mothers. Thirty-two percent of children under age 6 months are exclusively breastfed, while only 25 percent are exclusively breastfed up to 4-5 months. Eighty-six percent continue breastfeeding at age 1, and 73 percent continue to breastfeed until age 2. Sixty-three percent of children start receiving complementary foods at the appropriate age of 6-8 months. Fifty-eight percent of children age 0-23 months are breastfed appropriately for their age (i.e., exclusive breastfeeding for children age 0-5 months and continued breastfeeding along with complementary foods for children age 6-23 months). Seventy-five percent of children are predominantly breastfed (breast milk and only plain water or non-milk liquids such as juice, clear broth, and other liquids); 13 percent of children under age 2 are bottle-fed.

Figure 11.4 **IYCF indicators on breastfeeding status**



Sierra Leone, 2013

11.4 DURATION OF BREASTFEEDING

Table 11.4 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration for any breastfeeding among children in Sierra Leone is 19.8 months, which is similar to the duration documented in 2008 SLDHS (19.7 months), implying that there has been little change in breastfeeding duration over time. The median duration of exclusive breastfeeding is only 0.6 months.

The median duration of any breastfeeding is approximately the same for male and female children; it is slightly longer in rural areas (20.8 months) than in urban areas (17.3 months). At the regional level, duration of breastfeeding is shortest in Western region (16.0 months) compared with 20 months or more in the other regions. Women with no education tend to breastfeed slightly longer than women with schooling. Finally, duration of breastfeeding decreases as wealth increases.

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, Sierra Leone 2013

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	19.5	0.6	5.0
Female	19.9	0.6	4.9
Residence			
Urban	17.3	(0.5)	3.3
Rural	20.8	0.7	5.5
Region			
Eastern	20.8	*	5.1
Northern	20.8	0.7	5.5
Southern	19.5	(0.6)	5.1
Western	16.4	*	(2.7)
Mother's education			
No education	20.8	0.6	5.0
Primary	19.6	*	5.2
Secondary or higher	17.0	(0.6)	4.5
Wealth quintile			
Lowest	20.9	(0.7)	5.5
Second	20.8	*	5.5
Middle	20.1	0.9	5.4
Fourth	19.7	*	4.8
Highest	16.4	*	2.9
Total	19.8	0.6	5.0
Mean for all children	18.7	2.8	6.1

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. 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.

[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding

[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

11.5 TYPES OF COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid food to infants at 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 starting at age 6 months should be fed small quantities of solid and semi-solid 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.

Table 11.5 provides information on the types of food given to youngest children under age 2 living with their mother on the day and night preceding the survey, according to their breastfeeding status. The data indicate that in Sierra Leone the practice of feeding children with any solid or semi-solid foods starts early in life. By age 4-5 months, 32 percent of breastfed children are also being fed solid or semi-solid foods. Infant formula consumption increases steadily from age 0-1 months (3 percent) to age 6-8 months (9 percent). Around 5 percent of breastfed children under age 2 receive infant formula, with a slightly higher proportion receiving other milk (6 percent) and 23 percent receiving other liquids.

The most commonly used foods given to breastfeeding children under age 2 include food made from grains (44 percent), vitamin A-rich fruits and vegetables (24 percent), and meat, fish, or poultry (18 percent). Foods made from grains appear to be one of the first solid or semi-solid foods introduced to breastfeeding children; these are introduced to children from age 0-1 months in greater proportion than other solid/semi-solid foods (4 percent). By age 4-6 months, 14 percent or more children are already receiving grains or fortified baby foods.

Nationally, 93 percent of non-breastfeeding children age 6-23 months consume solid or semi-solid food. Except for fortified baby foods, uptake of foods from each of the food groups assessed is higher in non-breastfed than breastfed children age 6-23 months.

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 the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Sierra Leone 2013

	Liquids			Solid or semi-solid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vegetables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semisolid food	Number of children
BREASTFEEDING CHILDREN														
0-1	3.2	2.8	17.8	1.9	3.9	2.3	0.4	1.0	0.5	0.4	0.4	0.4	7.2	310
2-3	5.7	3.4	20.7	3.0	3.7	1.1	0.6	0.4	0.2	0.9	0.5	0.7	9.4	432
4-5	7.8	6.0	20.3	14.6	14.0	4.3	1.0	0.9	0.7	2.0	1.1	1.5	32.1	424
6-8	9.1	9.4	19.0	25.0	30.5	12.5	3.1	5.3	6.3	8.0	3.5	2.1	61.5	570
9-11	6.3	6.8	26.3	26.2	56.5	26.8	6.1	12.4	12.8	20.5	6.5	5.0	85.5	470
12-17	4.1	6.3	25.7	14.0	72.4	40.3	12.7	22.7	18.1	31.9	8.9	4.4	93.1	1,033
18-23	1.2	5.5	22.9	9.5	76.9	50.8	10.7	24.7	18.4	38.4	8.2	2.7	95.7	437
6-23	5.2	7.0	23.8	18.0	60.7	33.3	8.9	17.2	14.5	25.5	7.1	3.7	84.9	2,510
Total	5.4	6.1	22.5	14.5	43.8	23.6	6.3	12.0	10.0	17.8	5.1	2.8	63.4	3,676
NONBREASTFEEDING CHILDREN														
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	10
2-3	*	*	*	*	*	*	*	*	*	*	*	*	*	14
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	20
6-8	(19.2)	(24.9)	(24.3)	(26.7)	(52.4)	(26.7)	(4.3)	(7.9)	(15.7)	(22.4)	(30.2)	(13.7)	(81.1)	36
9-11	(15.3)	(11.3)	(28.4)	(28.2)	(55.7)	(35.7)	(13.3)	(15.7)	(15.5)	(31.8)	(9.9)	(9.0)	(79.9)	43
12-17	4.4	13.1	29.5	15.1	71.7	48.4	15.0	25.4	19.8	41.0	11.6	4.1	91.6	205
18-23	5.9	14.1	28.7	8.7	83.3	55.3	15.9	26.9	24.7	45.3	14.6	7.7	97.2	351
6-23	6.8	14.2	28.7	13.1	75.9	50.1	14.8	24.6	22.0	41.7	14.2	7.0	93.3	635
Total	7.0	13.9	27.2	12.4	71.8	47.6	14.0	23.5	20.8	39.2	13.3	6.5	88.5	679

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Breastfeeding status and food consumed refer to a 24-hour period (yesterday and last night).

[1] Other milk includes fresh, tinned and powdered cow or other animal milk

[2] Doesn't include plain water

[3] Includes fortified baby food

[4] Includes pumpkin, carrots, sweet potatoes that are yellow or orange inside, mangoes, papaws, and dark green leafy vegetables.

11.6 INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Appropriate IYCF practices include timely initiation of feeding solid or semi-solid foods from age 6 months and improving the amount and variety of foods consumed as the child gets older, while maintaining breastfeeding. Guidelines have been established for IYCF practices among children age 0-23 months (PAHO/WHO, 2003; WHO, 2005, 2008). Although it is internationally recommended that infants should be breastfed for up to two years, some infants are not breastfed and therefore do not receive the benefits of breastfeeding, while others stop breastfeeding before age 2. Guidelines have been developed for this group of children who may not be breastfed because of the mother's known HIV-positive status, or the mother having died, or some other reason (WHO, 2005).

Appropriate nutrition includes feeding children a variety of foods a desired number of times to ensure that nutrient and caloric requirements are met. Studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients (WHO/UNICEF, 1998). Therefore, it has been advised that meat, poultry, fish, or eggs should be eaten daily or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified products are used. Fruits and vegetables rich in vitamin A should be consumed daily to achieve the proven health benefits associated with vitamin A. Children's diets should also include adequate fat content because fat provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A), and enhances dietary energy, density, and palatability. Tea and coffee contain compounds that inhibit iron absorption and are not recommended for children. Sugary drinks and excessive juice consumption should be avoided because, other than energy, they contribute little to the diet and as a result decrease the child's appetite for more nutritious foods (PAHO/WHO, 2003). It is highly likely that children consuming foods from at least four groups are consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food (e.g., grains, roots, or tubers) (WHO, 2008). These four food groups should come from the following seven categories: grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, cheese); flesh foods (meat, fish, poultry, liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

The nutritional requirements of children can be summarised as follows:

- Breastfed children age 6-23 months should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Breastfed infants age 6-8 months should be fed meals of complementary foods two or three times per day, with one or two snacks as desired; breastfed children age 9-23 months should be fed meals three or four times per day, with one or two snacks (PAHO/WHO, 2003).

- Non-breastfed 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, four food groups are considered the minimum appropriate number of food groups for non-breastfed young children. Non-breastfed children age 6-23 months should be fed meals four or five times per day, with one or two snacks as desired (WHO, 2005).

Table 11.6 and Figure 11.5 present summary indicators for three IYCF practices based on the percentage of breastfed and non-breastfed children for whom feeding practices met minimum standards with respect to food diversity (i.e., the number of food groups consumed), feeding frequency (i.e., the number of times the child was fed), and the consumption of breast milk or other milk or milk products.

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, Sierra Leone 2013

	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	3.8	50.1	3.2	570	(34.3)	(25.1)	(32.7)	(15.8)	36	96.0	5.0	49.1	3.9	606
9-11	10.8	34.5	3.3	470	(17.2)	(16.7)	(30.2)	(8.0)	43	93.0	11.3	34.1	3.7	513
12-17	17.7	40.4	10.1	1,033	11.4	23.6	15.6	2.5	205	85.4	18.7	36.3	8.9	1,238
18-23	19.1	48.2	10.1	437	13.2	28.9	26.1	6.7	351	61.4	23.5	38.3	8.6	788
Sex														
Male	12.6	42.9	6.6	1,233	13.7	25.6	21.8	5.4	316	82.4	15.2	38.6	6.4	1,549
Female	14.4	42.9	7.9	1,277	14.6	26.7	24.9	6.5	319	82.9	16.9	39.3	7.6	1,596
Residence														
Urban	19.0	50.6	10.7	556	33.1	40.2	38.2	14.4	238	80.0	25.3	46.9	11.8	794
Rural	11.9	40.7	6.3	1,955	2.7	17.7	14.4	0.9	397	83.6	12.9	36.2	5.4	2,352
Region														
Eastern	8.6	49.8	4.3	612	5.4	17.5	12.4	2.0	134	83.0	10.2	43.1	3.8	746
Northern	15.0	32.7	7.8	1,101	8.1	25.3	22.5	1.0	210	85.3	16.6	31.1	6.7	1,311
Southern	9.2	51.8	6.1	534	5.3	18.6	14.2	2.2	143	80.0	11.2	43.9	5.3	677
Western	27.4	50.9	14.6	263	39.3	42.7	43.4	20.4	147	78.2	32.9	48.2	16.7	411
District														
Kailahun	4.2	33.7	1.4	171	(0.0)	(7.4)	(0.0)	(0.0)	38	81.9	4.7	27.6	1.1	208
Kenema	7.6	65.2	4.2	286	(4.8)	(17.5)	(12.8)	(1.4)	67	82.0	9.4	55.3	3.6	352
Kono	15.3	39.1	7.6	155	(13.6)	(30.2)	(27.2)	(5.8)	30	86.1	17.7	37.2	7.3	185
Bombali	9.2	21.4	5.4	193	(8.8)	(6.2)	(15.3)	(0.0)	29	88.0	8.8	20.6	4.7	223
Kambia	17.2	59.8	13.6	122	8.5	17.4	33.1	0.4	43	76.2	17.2	52.8	10.1	165
Koinadugu	26.5	13.1	5.4	172	(3.5)	(51.9)	(4.9)	(3.5)	17	91.4	28.8	12.4	5.2	189
Port Loko	19.6	45.3	12.0	335	4.3	33.6	27.3	0.0	72	83.0	22.1	42.1	9.8	407
Tonkolili	5.3	25.9	3.3	279	(14.4)	(22.1)	(16.6)	(2.8)	48	87.4	7.8	24.5	3.2	327
Bo	7.2	58.8	3.5	196	(8.2)	(10.3)	(18.5)	(0.6)	46	82.6	7.7	51.2	3.0	242
Bonthe	5.3	46.7	5.1	81	(3.3)	(5.2)	(10.6)	(0.0)	30	73.6	5.3	36.8	3.7	111
Moyamba	3.5	46.1	3.0	135	1.9	16.5	10.3	1.9	46	75.2	6.8	37.0	2.8	181
Pujehun	21.5	50.3	14.5	122	(9.0)	(59.8)	(18.1)	(9.0)	21	86.4	27.2	45.5	13.6	144
Western Area Rural	15.4	44.1	6.3	56	17.9	21.1	20.4	4.3	23	76.1	17.1	37.2	5.7	79
Western Area Urban	30.6	52.7	16.9	207	43.2	46.7	47.7	23.4	124	78.7	36.7	50.9	19.3	331
Mother's education														
No education	12.4	40.5	6.6	1,675	7.1	18.0	17.2	2.0	377	82.9	13.5	36.2	5.8	2,052
Primary	17.0	44.4	9.0	381	9.7	35.3	17.7	4.9	78	84.7	20.1	39.9	8.3	459
Secondary or higher	14.5	50.1	8.2	454	30.8	39.3	38.8	14.7	180	80.4	21.5	46.9	10.0	634

Continued…

Table 11.6—*Continued*

Background characteristic	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:				
	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
Wealth quintile														
Lowest	10.4	37.0	3.5	612	1.9	13.6	4.2	0.3	134	82.4	11.0	31.1	2.9	746
Second	12.1	40.5	6.6	566	2.1	14.8	14.7	0.2	105	84.7	12.5	36.5	5.6	672
Middle	12.0	41.2	6.6	559	3.5	22.5	20.3	2.1	114	83.6	13.8	37.6	5.9	673
Fourth	13.5	48.8	8.7	474	13.8	32.3	23.4	5.1	127	81.8	17.5	43.5	7.9	601
Highest	25.3	53.1	15.3	300	41.1	42.4	48.0	18.3	155	79.9	31.1	51.4	16.3	454
Total	13.5	42.9	7.3	2,510	14.1	26.2	23.4	6.0	635	82.7	16.1	38.9	7.0	3,145

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

[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; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts.

[2] For breastfed children, minimum meal frequency is receiving solid or semi-solid food at least twice a day for infants 6-8 months and at least three times a day for children 9-23 months

[3] Includes two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

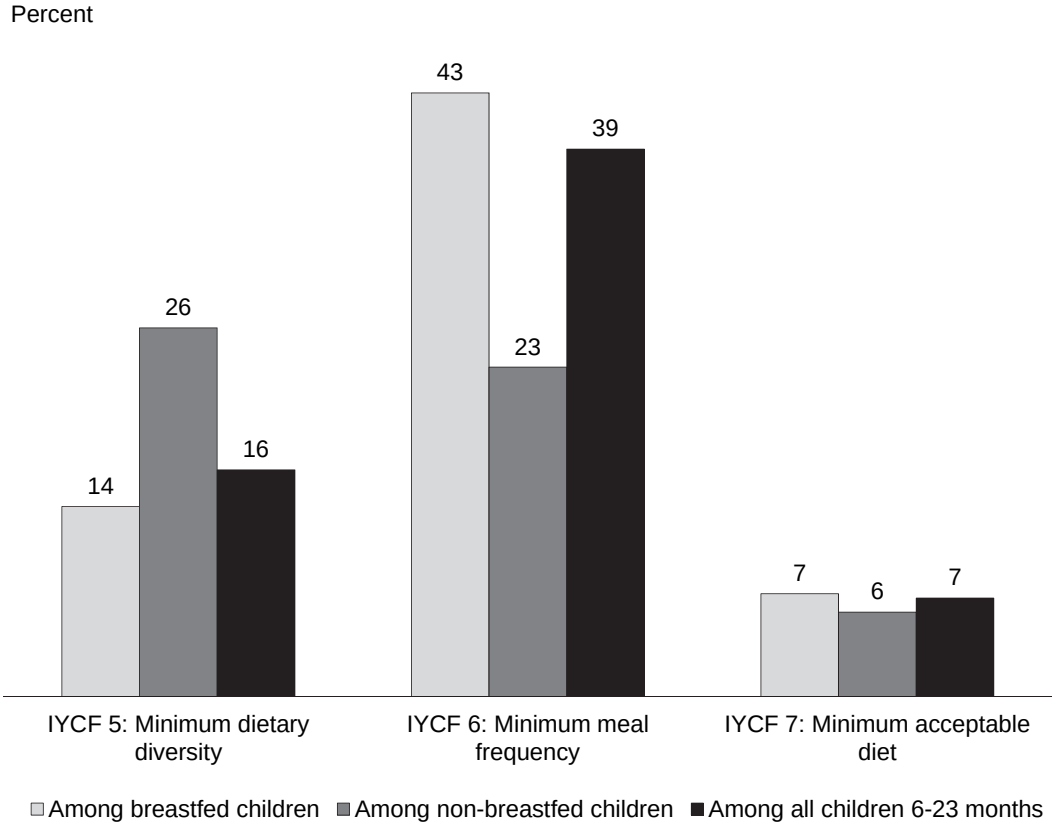
[4] For non-breastfed children age 6-23 months, minimum meal frequency is receiving solid or semi-solid food or milk feeds at least four times a day

[5] Non-breastfed 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 semi-solid 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 **IYCF indicators on minimum acceptable diet**



Sierra Leone, 2013

According to Table 11.6 and Figure 11.5, only 7 percent of children age 6-23 months and living with their mother are fed in accordance with IYCF practices. Eight in ten children (83 percent) received breast milk, milk, or milk products during the 24-hour period before the survey, 16 percent were fed according to minimum standards of food diversity (four or more food groups), and 39 percent were fed at least the minimum number of times. Older children and children in urban areas are more likely to be fed according to the IYCF practices than other children. In addition, feeding practices improve as the education level and wealth quintile of the mother increase.

Non-breastfed children are more likely than breastfed children to consume a diverse diet (26 percent versus 14 percent); however, higher proportions of breastfed children are fed in accordance with minimum frequency guidelines. Overall, breastfed children are more likely to be fed in compliance with minimum acceptable dietary recommendations.

11.7 Prevalence of Anaemia in Children

Anaemia is a serious concern for young children because it can result in impaired cognitive performance, behavioural and motor development, coordination, language development, and scholastic achievement, as well as increased morbidity from infectious diseases. Information on the prevalence of anaemia can be useful for the development of health intervention programmes designed to prevent anaemia, such as iron fortification programmes.

Table 11.7 shows that 80 percent of children age 6-59 months are anaemic. Twenty-seven percent have mild anaemia, 47 percent have moderate anaemia, and 6 percent have severe anaemia. Anaemia prevalence is highest among children age 6-8 months (87 percent) and lowest among children age 48-59 months (76 percent). Eighty-two percent of children in rural areas have anaemia compared with 72 percent of children in urban areas. There is some regional variation observed, with the Western region lower at 71

percent than the Northern region at 83 percent. There is no clear relationship between anaemia in children and the mother's education or wealth.

Table 11.7 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Sierra Leone 2013

Background characteristic	Anaemia status by haemoglobin level				
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (< 7.0 g/dl)	Number of children
Age in months					
6-8	87.1	26.9	53.0	7.1	295
9-11	83.3	21.5	54.8	7.0	266
12-17	83.1	27.1	49.0	7.0	632
18-23	85.1	28.8	47.8	8.6	426
24-35	79.4	25.8	46.3	7.3	1,091
36-47	78.8	23.4	49.6	5.8	1,298
48-59	75.6	30.5	42.0	3.1	1,230
Sex					
Male	80.6	26.1	48.5	6.0	2,553
Female	79.2	27.0	46.3	5.9	2,685
Mother's interview status					
Interviewed	80.1	26.6	47.3	6.1	4,134
Not interviewed but in household	79.8	30.8	47.0	2.0	126
Not interviewed and not in the household[5]	79.2	25.7	47.8	5.8	978
Residence					
Urban	72.4	28.6	37.9	6.0	1,274
Rural	82.3	25.9	50.4	6.0	3,963
Region					
Eastern	80.7	24.7	46.8	9.3	1,243
Northern	83.4	25.3	52.0	6.2	2,214
Southern	76.8	27.3	45.9	3.6	1,197
Western	71.3	33.9	34.4	3.0	583
District					
Kailahun	72.5	30.6	38.9	2.9	357
Kenema	77.6	30.8	39.9	6.9	558
Kono	94.9	7.7	67.0	20.2	328
Bombali	70.8	40.1	28.4	2.3	408
Kambia	86.7	21.5	57.5	7.7	286
Koinadugu	91.4	17.5	63.4	10.5	288
Port Loko	83.9	22.2	55.3	6.4	688
Tonkolili	86.4	24.3	56.4	5.7	546
Bo	67.2	20.0	43.7	3.5	439
Bonthe	79.4	36.2	41.8	1.4	238
Moyamba	85.4	26.3	53.7	5.3	254
Pujehun	82.1	32.4	45.6	4.2	266
Western Area Rural	80.0	29.4	47.2	3.4	129
Western Area Urban	68.9	35.2	30.8	3.0	454
Mother's education					
No education	80.6	25.3	48.9	6.5	3,020
Primary	82.8	27.9	49.6	5.3	549
Secondary or higher	75.5	32.4	38.6	4.5	690
Wealth quintile					
Lowest	80.9	25.5	49.2	6.2	1,244
Second	82.3	26.0	49.6	6.8	1,202
Middle	83.3	25.7	52.0	5.7	1,121
Fourth	79.4	27.2	46.4	5.9	960
Highest	69.4	30.0	34.6	4.9	711
Total	79.9	26.6	47.4	6.0	5,238

Note: Total includes one child with information missing on mother's education. Table is based on children who stayed in the household on the night before the interview and who were tested for anaemia. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Haemoglobin in grams per decilitre (g/dl).
[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.

11.8 MICRONUTRIENT INTAKE AMONG CHILDREN

A serious contributor to childhood morbidity and mortality is micronutrient deficiency. Children can receive micronutrients from consumption of 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 eye damage. VAD can also increase severity of infections such as measles and diarrhoeal diseases in children and can slow 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 the vitamin for four to six months. Periodic supplementation (usually every six months) of vitamin A is one method of ensuring that children at risk do not develop VAD. The 2013 SLDHS collected information on the consumption of foods rich in vitamin A.

Table 11.8 shows that 46 percent of youngest children age 6-23 months consumed foods rich in vitamin A the day or night preceding the survey. The proportion of children consuming vitamin A-rich foods increases with age, from 18 percent at age 6-8 months to 62 percent at age 18-23 months. Data show a difference in vitamin A consumption among children not breastfed (63 percent) compared with breastfed children (42 percent). Children in Western region (60 percent) are most likely to consume vitamin A-rich foods, while those in Southern region (39 percent) are least likely. There is little variation across mothers' age or educational status and the child's consumption of foods rich in vitamin A.

Iron is essential for cognitive development. Low iron intake can also contribute to anaemia. Iron requirements are greatest at age 6-11 months, when growth is extremely rapid. Survey data indicate that the consumption of iron-rich foods has a similar pattern to that for vitamin A-rich foods, although the proportion of children fed iron-rich foods is lower (32 percent). The consumption of iron-rich foods is higher in urban areas (39 percent) than rural areas (29 percent). Children in Western region (46 percent) are most likely to consume iron-rich foods, while those in Eastern region are least likely (25 percent). The data also show that children whose mothers have no education are less likely to consume iron-rich foods (30 percent) than those whose mothers have at least secondary or higher education (38 percent).

The 2013 SLDHS also collected data on vitamin A supplementation and iron supplementation for children under age 5. According to Table 11.8, 83 percent of children age 6-59 months were given vitamin A supplements in the six months before the survey. Generally, the proportion of children receiving vitamin A supplementation is highest among children age 9-47 months, with those age 18-23 months being most likely to have received the supplements (88 percent). Children age 6-8 months are least likely to receive vitamin A supplementation (69 percent). The proportion of children receiving vitamin A supplements is lowest in Northern region (78 percent).

Iron supplementation in the last seven days among children age 6-59 months is generally low (36 percent). The proportion of children receiving iron supplementation is highest at age 9-11 months (45 percent), a critical period for infants' growth. Data show a difference in iron supplementation among children not breastfed (33 percent) compared with breastfed children (43 percent). Children of younger mothers are more likely to have received an iron supplementation, as are children of urban mothers, mothers with secondary or higher education, and mothers in the higher wealth quintiles. Children in Eastern region (47 percent) and the Western region (45 percent) are more likely to be given iron supplements.

Certain types of intestinal parasites can cause anaemia. Periodic deworming against helminthes and schistosomiasis (bilharzia) can improve children's micronutrient status. In Sierra Leone it is recommended that children be dewormed from age 12 months and every six months subsequently. Table 11.8 shows that 58 percent children age 6-59 months received deworming medication in the six months before the survey. Urban children, those not breastfeeding, and those in Eastern region were more likely than other children to have been given deworming medication. The likelihood of receiving deworming treatment also increases with the education of the mother, the age of the mother at birth, and wealth quintile.

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, 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 iodised salt, the percentage who live in households with iodised salt, by background characteristics, Sierra Leone 2013

	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 iodised 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 iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households with iodised salt[4]	Number of children
Age in months									
6-8	17.9	11.6	606	68.8	42.7	27.5	618	79.6	555
9-11	35.2	24.2	513	84.6	45.3	35.0	537	76.0	490
12-17	53.2	36.8	1,238	85.6	42.2	52.1	1,295	79.6	1,184
18-23	62.0	44.8	788	88.1	40.4	65.4	874	79.5	806
24-35	na	na	na	84.6	37.6	64.5	2,011	79.7	1,837
36-47	na	na	na	84.3	30.9	62.1	2,237	77.5	2,014
48-59	na	na	na	81.1	29.7	61.3	1,991	83.0	1,839
Sex									
Male	44.9	31.1	1,549	82.9	35.6	56.9	4,730	79.3	4,315
Female	46.5	32.7	1,596	83.5	36.5	58.3	4,833	80.0	4,410
Breastfeeding status									
Breastfeeding	41.5	28.5	2,510	82.7	42.9	47.2	2,840	78.7	2,587
Not breastfeeding	62.8	46.1	620	84.0	33.4	62.6	6,600	80.1	6,025
Missing	*	*	14	53.1	21.9	34.5	123	77.0	114
Mother's age at birth									
15-19	43.8	30.0	351	81.3	41.5	52.0	662	78.9	602
20-29	46.3	31.9	1,556	81.9	37.0	56.0	4,473	79.4	4,112
30-39	45.0	33.0	1,020	85.4	34.9	59.9	3,490	79.4	3,148
40-49	47.1	29.4	218	83.0	32.1	60.7	938	81.9	864
Residence									
Urban	50.7	39.3	794	85.7	45.2	62.4	2,446	89.6	2,207
Rural	44.0	29.4	2,352	82.4	32.9	56.0	7,116	76.3	6,518
Region									
Eastern	41.8	24.8	746	90.3	46.6	61.5	2,304	86.6	2,081
Northern	47.0	33.7	1,311	77.6	29.1	54.9	3,745	73.8	3,403
Southern	38.7	27.6	677	86.5	32.2	58.7	2,295	77.9	2,181
Western	59.9	46.0	411	81.0	44.6	56.6	1,219	88.4	1,060
District									
Kailahun	31.1	16.7	208	96.1	60.3	56.2	687	97.9	639
Kenema	48.6	30.5	352	89.0	32.9	63.2	1,000	75.3	938
Kono	41.0	23.1	185	85.8	53.6	64.5	617	93.4	503
Bombali	31.2	17.8	223	69.7	25.1	54.6	636	78.2	515
Kambia	67.1	54.0	165	77.9	28.6	44.0	474	56.5	456
Koinadugu	61.0	48.0	189	82.2	30.5	64.4	516	95.7	451

Continued…

Table 11.8—*Continued*

Background characteristic	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 iodised salt	
	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 iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Number of children	Percentage living in households with iodised salt[4]	Number of children
Age in months									
Port Loko	49.2	40.4	407	82.0	33.3	51.4	1,211	63.0	1,174
Tonkolili	36.7	17.6	327	74.5	25.9	60.2	907	84.2	806
Bo	37.8	25.8	242	89.2	29.4	65.1	888	94.1	847
Bonthe	42.2	38.4	111	90.1	23.4	56.4	404	63.5	391
Moyamba	29.4	10.7	181	79.1	28.4	49.0	549	47.5	504
Pujehun	49.3	43.7	144	87.1	50.1	60.1	455	94.6	439
Western Area Rural	49.0	24.8	79	68.9	27.8	53.2	228	65.2	216
Western Area Urban	62.5	51.1	331	83.8	48.4	57.4	991	94.3	844
Mother's education									
No education	44.6	29.6	2,052	82.1	32.3	56.8	6,631	77.6	6,040
Primary	48.3	33.8	459	84.1	39.3	57.3	1,301	81.7	1,202
Secondary or higher	47.2	38.0	634	87.0	48.9	61.2	1,630	86.4	1,483
Wealth quintile									
Lowest	42.0	25.1	746	85.4	31.5	57.5	2,266	76.2	2,094
Second	42.4	29.9	672	80.6	32.2	55.4	2,077	77.8	1,893
Middle	47.9	31.8	673	81.3	36.2	54.4	1,963	75.7	1,812
Fourth	46.4	34.6	601	83.4	37.7	59.4	1,819	79.2	1,648
Highest	52.4	42.4	454	86.1	46.6	63.3	1,437	94.4	1,278
Total	45.7	31.9	3,145	83.2	36.1	57.6	9,563	79.6	8,725

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Information on vitamin A is based on both mother's recall and the immunisation card (where available). Information on iron supplements and deworming medication is based on the mother's recall.
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.
[2] Includes meat (including 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.

11.9 PRESENCE OF IODISED SALT IN HOUSEHOLDS

The 2013 SLDHS tested salt for iodine in all households possessing salt (90 percent of households). Dietary deficiency of iodine is a major global public health concern. A lack of sufficient iodine is known to cause goiter, cretinism (a severe form of neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine deficiency disorder (IDD) is the single most common cause of preventable mental retardation and brain damage. Since the body cannot store iodine for long periods, tiny amounts are needed regularly. Where soil and therefore crops and grazing animals do not provide sufficient dietary iodine to the population, and where seafood is not regularly consumed, food fortification has proven to be a highly successful and sustainable intervention. The fortification of salt with iodine is the most common method of preventing IDD.

Table 11.9 shows that in Sierra Leone 80 percent of households are consuming salt with iodine. Urban households (90 percent) are more likely to have iodised salt than rural households (76 percent). A higher proportion of households in the Western region have iodised salt (90 percent). Across wealth quintiles, the proportion of households with iodised salt ranges from 74 percent in the lowest wealth quintile to 94 percent in the highest quintile.

Table 11.9 Presence of iodised 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 iodised salt, according to background characteristics, Sierra Leone 2013

	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 iodised salt	Number of households
Residence					
Urban	87.3	12.7	3,993	90.1	3,486
Rural	90.7	9.3	8,636	75.7	7,836
Region					
Eastern	88.4	11.6	3,041	85.7	2,690
Northern	90.7	9.3	4,556	73.3	4,130
Southern	93.3	6.7	2,874	78.8	2,681
Western	84.4	15.6	2,158	89.4	1,822
District					
Kailahun	91.1	8.9	939	98.5	856
Kenema	92.0	8.0	1,401	75.5	1,289
Kono	77.6	22.4	702	89.8	545
Bombali	85.8	14.2	1,022	77.6	876
Kambia	96.3	3.7	487	49.8	469
Koinadugu	88.8	11.2	584	95.5	519
Port Loko	95.6	4.4	1,355	63.0	1,295
Tonkolili	87.6	12.4	1,109	82.7	971
Bo	95.0	5.0	1,037	94.6	985
Bonthe	93.3	6.7	530	66.4	494
Moyamba	90.1	9.9	723	51.1	651
Pujehun	94.1	5.9	585	94.7	550
Western Area Rural	92.7	7.3	361	70.5	334
Western Area Urban	82.8	17.2	1,797	93.7	1,487
Wealth quintile					
Lowest	91.6	8.4	2,709	74.4	2,482
Second	90.6	9.4	2,562	76.9	2,320
Middle	90.8	9.2	2,385	76.6	2,166
Fourth	89.3	10.7	2,363	79.9	2,110
Highest	86.0	14.0	2,611	93.6	2,245
Total	89.7	10.3	12,629	80.2	11,322

11.10 NUTRITIONAL STATUS OF WOMEN AND MEN

Anthropometric data on height and weight were collected for women age 15-49 and for men age 15-59. For women, two indicators of nutritional status based on these data are presented: the percentage with very short stature (less than 145 cm) and the body mass index (BMI). Additionally, BMI data is presented for men.

BMI, or the Quetelet index, is used to measure thinness or obesity. BMI is defined as weight in kilograms divided by height squared in meters (kg/m2). A cut-off 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.

Table 11.10.1 presents the mean values of the two indicators of nutritional status and the proportions of women in various categories of BMI 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. Overall, only 2 percent of women fall below the 145 cm cut-off point. Although there is not substantial variation across background characteristics, there is an inverse relationship with short stature and age, education, and wealth.

Table 11.10.1 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, Sierra Leone 2013

	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	2.9	1,733	21.1	77.0	15.4	10.7	4.8	7.6	6.2	1.4	1,582
20-29	2.0	2,687	22.4	77.3	7.0	5.1	2.0	15.7	12.0	3.7	2,310
30-39	1.9	2,262	23.1	69.1	7.8	5.9	1.9	23.1	16.3	6.7	1,981
40-49	1.8	1,303	23.7	64.0	6.7	4.5	2.3	29.3	20.4	8.9	1,264
Residence											
Urban	1.3	2,861	23.5	66.0	7.2	5.3	1.9	26.8	17.6	9.2	2,642
Rural	2.6	5,124	21.9	76.5	10.2	7.1	3.0	13.4	10.9	2.5	4,495
Region											
Eastern	2.2	1,675	22.3	71.9	9.7	6.4	3.3	18.5	14.5	3.9	1,503
Northern	2.0	3,048	22.0	76.7	10.0	7.4	2.6	13.3	10.3	3.0	2,695
Southern	3.1	1,683	22.5	71.8	9.2	6.6	2.6	19.0	14.5	4.5	1,484
Western	1.3	1,577	23.7	66.6	6.6	4.6	1.9	26.8	16.8	10.0	1,455
District											
Kailahun	2.1	458	22.0	73.2	11.1	8.4	2.8	15.7	12.9	2.8	404
Kenema	3.0	806	22.7	71.4	6.9	4.8	2.1	21.7	16.7	5.0	724
Kono	0.9	411	21.9	71.3	13.6	7.3	6.3	15.1	11.9	3.1	375
Bombali	1.3	658	22.9	68.8	9.7	7.8	1.9	21.5	16.8	4.8	601
Kambia	1.2	352	21.5	79.2	11.5	7.9	3.5	9.4	7.6	1.8	312
Koinadugu	3.4	348	21.5	80.8	10.2	7.3	2.9	9.0	6.5	2.5	300
Port Loko	2.4	975	21.8	79.5	9.2	6.7	2.5	11.3	8.5	2.8	853
Tonkolili	1.8	716	21.8	77.1	10.6	7.6	3.0	12.3	9.9	2.4	628
Bo	1.7	681	22.7	69.6	9.8	7.2	2.5	20.6	15.6	5.0	596
Bonthe	1.6	300	22.2	74.5	9.3	6.2	3.2	16.2	13.1	3.1	284
Moyamba	3.2	406	21.9	76.9	10.4	6.7	3.7	12.7	8.7	4.0	348
Pujehun	7.4	296	23.4	66.9	6.2	5.4	0.8	26.9	21.2	5.7	256
Western Area Rural	1.6	273	23.1	69.5	7.9	6.4	1.5	22.6	16.9	5.7	244
Western Area Urban	1.3	1,304	23.8	66.1	6.3	4.3	2.0	27.7	16.7	10.9	1,211
Education											
No education	2.3	4,476	22.5	73.7	8.3	6.1	2.2	18.0	13.9	4.1	3,949
Primary	3.2	1,107	22.2	73.2	10.5	6.8	3.7	16.3	11.7	4.6	977
Secondary or higher	1.3	2,401	22.7	70.4	9.8	6.9	2.9	19.8	13.2	6.6	2,211
Wealth quintile											
Lowest	3.1	1,438	21.6	78.8	11.1	7.6	3.5	10.1	8.0	2.0	1,254
Second	2.8	1,523	21.8	76.5	10.3	6.9	3.4	13.3	11.3	2.0	1,314
Middle	1.9	1,538	22.1	76.1	9.6	7.1	2.5	14.3	12.0	2.3	1,368
Fourth	1.5	1,569	22.6	70.5	9.0	6.5	2.4	20.6	15.2	5.4	1,424
Highest	1.6	1,916	23.9	64.3	6.5	4.7	1.8	29.2	18.3	11.0	1,777
Total	2.1	7,984	22.5	72.6	9.1	6.4	2.6	18.3	13.4	5.0	7,137

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

The mean BMI for women age 15-49 is 22.5; 9 percent of women are considered to be thin (BMI < 18.5), while 18 percent of women are considered overweight or obese (BMI > 25.0). Women age 15-19 are more likely to be thin (15 percent) than older women (8 percent or less). Rural women and women in the Northern and Eastern regions are also more likely to have a low BMI. The proportion of women with an overweight or obese BMI increases with age and wealth. For example, the proportion of overweight or obese women rises from 8 percent of women age 15-19 to 29 percent of women age 40-49. Urban women (27 percent) are substantially more likely to be overweight or obese than rural women (13 percent). The proportion of overweight or obese women ranges from 13 percent in Northern region to 27 percent in Western region.

Table 11.10.2 presents the proportions of men in various categories of BMI, according to background characteristics. The mean BMI for men age 15-49 is 21.4; 11 percent of men are considered to be thin (BMI < 18.5), while 8 percent of men are considered overweight or obese (BMI > 25.0). The proportion of thin men is highest in Northern region (13 percent). Similarly to women, the proportion of men with an overweight or obese BMI increases with age and wealth.

Table 11.10.2 Nutritional status of men

Among men age 15-49, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Sierra Leone 2013

	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	20.1	71.0	26.4	17.6	8.8	2.6	2.2	0.4	1,387
20-29	21.5	86.5	7.7	6.8	0.9	5.8	5.2	0.7	1,923
30-39	21.9	84.1	6.1	5.0	1.1	9.9	8.5	1.4	1,688
40-49	22.1	78.9	7.7	6.2	1.4	13.5	9.9	3.6	1,255
Residence									
Urban	21.6	78.4	11.9	9.3	2.6	9.6	7.4	2.2	2,345
Rural	21.3	82.4	11.1	8.1	2.9	6.6	5.7	0.9	3,908
Region									
Eastern	21.2	83.8	10.5	6.9	3.6	5.7	4.9	0.8	1,391
Northern	21.2	79.5	12.9	10.2	2.7	7.6	6.3	1.3	2,211
Southern	21.6	79.8	10.5	7.3	3.2	9.7	8.0	1.7	1,334
Western	21.7	81.3	10.6	8.8	1.8	8.1	6.3	1.8	1,318
District									
Kailahun	20.8	86.3	11.6	9.5	2.1	2.1	2.0	0.1	358
Kenema	21.3	82.4	10.8	6.4	4.4	6.8	5.9	0.9	704
Kono	21.5	83.9	8.9	5.4	3.5	7.2	5.8	1.4	329
Bombali	22.1	69.4	12.1	9.5	2.6	18.5	15.0	3.5	476
Kambia	21.5	81.8	11.5	8.8	2.6	6.7	5.1	1.6	251
Koinadugu	21.1	88.5	7.9	6.9	1.1	3.6	3.1	0.4	263
Port Loko	20.7	80.7	15.8	12.5	3.3	3.5	3.5	0.0	655
Tonkolili	20.9	81.4	13.3	10.3	3.0	5.3	4.2	1.1	565
Bo	22.0	78.3	9.5	7.0	2.5	12.3	8.9	3.4	521
Bonthe	21.8	79.5	9.3	7.0	2.2	11.2	10.8	0.4	254
Moyamba	20.9	79.1	14.8	9.6	5.2	6.1	6.0	0.1	339
Pujehun	21.8	84.6	7.6	5.0	2.7	7.8	5.8	2.0	220
Western Area Rural	21.7	80.7	9.6	7.6	2.1	9.7	8.5	1.2	221
Western Area Urban	21.7	81.4	10.8	9.1	1.7	7.8	5.9	1.9	1,098
Education									
No education	21.5	82.1	9.7	7.3	2.4	8.2	7.3	0.9	2,519
Primary	21.1	80.6	14.3	10.3	4.0	5.1	4.0	1.1	793
Secondary or higher	21.4	79.9	12.1	9.2	2.9	8.0	6.2	1.9	2,941
Wealth quintile									
Lowest	21.1	82.1	12.1	8.7	3.3	5.8	5.5	0.3	1,149
Second	21.2	82.2	11.5	8.9	2.6	6.4	5.7	0.7	1,143
Middle	21.3	81.0	11.6	8.1	3.6	7.4	6.0	1.4	1,153
Fourth	21.3	81.1	11.8	9.0	2.9	7.1	5.9	1.2	1,123
Highest	21.8	79.0	10.4	8.3	2.1	10.6	7.9	2.7	1,686
Total 15-49	21.4	80.9	11.4	8.6	2.8	7.7	6.3	1.4	6,253
50-59	21.8	76.9	10.5	7.8	2.7	12.5	9.8	2.7	648
Total 15-59	21.4	80.5	11.3	8.5	2.8	8.2	6.7	1.5	6,901

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m2).

11.11 PREVALENCE OF ANAEMIA AMONG WOMEN AND MEN

Nutritional status has important implications for health. For women, poor nutritional status can mean greater risk of adverse pregnancy outcomes and greater risk of giving birth to a baby who is underweight. Tables 11.11.1 and 11.11.2, respectively, show the prevalence of anaemia among women and men age 15-49.

Table 11.11.1 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia, by background characteristics, Sierra Leone 2013

	Anaemia status by haemoglobin level				
Background characteristic	Any (NP <12.0 g/dl / P <11.0 g/dl)	Mild (NP 10.0-11.9 g/dl / P 10.0-10.9 g/dl)	Moderate (NP 7.0-9.9 g/dl / P 7.0-9.9 g/dl)	Severe (NP < 7.0 g/dl / P < 7.0 g/dl)	Number of women
Age					
15-19	49.5	37.4	11.4	0.6	1,694
20-29	44.2	33.8	10.0	0.5	2,661
30-39	43.6	33.9	9.2	0.6	2,238
40-49	41.7	33.1	7.9	0.7	1,277
Number of children ever born					
0	44.1	34.2	9.4	0.6	1,890
1	43.7	33.0	10.5	0.3	1,097
2-3	45.4	34.2	10.8	0.4	1,874
4-5	43.3	33.8	8.7	0.8	1,601
6+	47.2	37.2	9.2	0.8	1,408
Maternity status					
Pregnant	54.0	25.1	27.7	1.2	667
Breastfeeding	48.5	38.7	9.4	0.5	1,967
Neither	42.2	34.1	7.6	0.5	5,236
Using IUD					
Yes	(46.6)	(35.2)	(11.4)	(0.0)	17
No	44.8	34.5	9.7	0.6	7,854
Smoking status					
Smokes cigarettes/tobacco	43.4	31.9	11.3	0.2	661
Does not smoke	44.9	34.7	9.6	0.6	7,200
Residence					
Urban	36.8	29.4	7.0	0.5	2,823
Rural	49.2	37.3	11.3	0.6	5,047
Region					
Eastern	44.2	33.2	10.3	0.7	1,667
Northern	50.0	37.6	11.8	0.6	3,006
Southern	49.1	39.1	9.5	0.5	1,648
Western	30.7	25.0	5.3	0.4	1,550
District					
Kailahun	41.2	32.4	8.0	0.9	454
Kenema	46.4	33.7	11.6	1.0	804
Kono	43.2	32.9	10.2	0.1	409
Bombali	51.3	39.2	11.7	0.4	657
Kambia	45.1	37.2	7.6	0.3	344
Koinadugu	48.4	37.7	9.3	1.4	331
Port Loko	46.1	35.4	9.8	0.9	964
Tonkolili	57.0	39.2	17.8	0.0	710
Bo	37.9	30.6	6.9	0.5	666
Bonthe	65.5	56.5	8.6	0.3	301
Moyamba	39.9	31.6	8.0	0.3	385
Pujehun	69.5	50.3	18.4	0.8	296
Western Area Rural	37.0	27.8	9.0	0.2	264
Western Area Urban	29.4	24.4	4.5	0.5	1,285
Education					
No education	47.0	35.7	10.7	0.6	4,413
Primary	47.4	36.8	9.5	1.1	1,095
Secondary or higher	39.4	31.2	7.9	0.4	2,362
Wealth quintile					
Lowest	50.6	39.4	10.8	0.4	1,420
Second	48.7	36.6	11.3	0.8	1,502
Middle	48.3	36.5	11.2	0.6	1,513
Fourth	45.2	34.3	10.2	0.7	1,544
Highest	34.1	27.6	6.1	0.4	1,891
Total	44.8	34.5	9.7	0.6	7,870

Note: Figures in parentheses are based on 25 to 49 unweighted cases. Total includes nine women with information missing on smoking status. Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC, 1998.

Forty-five percent of women are anaemic: 35 percent have mild anaemia, 10 percent have moderate anaemia, and less than 1 percent have severe anaemia. The prevalence of anaemia is highest among women age 15-19 (50 percent), those in rural areas (49 percent), and those in the lowest wealth quintile (51 percent). Pregnant women are more likely be anaemic (54 percent) than breastfeeding women (49 percent) and women who are neither pregnant nor breastfeeding (42 percent). One pregnant woman in every four (25 percent) has mild anaemia, 27 percent have moderate anaemia, and 1 percent, severe anaemia. By region, prevalence of anaemia ranges from 31 percent of women in the Western region to 50 percent of women in the Northern region.

Anaemia is less prevalent among men than women. About a third (32 percent) of men age 15-49 have some level of anaemia compared with 45 percent of women. Younger men age 15-19 are more likely to be anaemic (42 percent) than older men. Regionally, men in Western region are least likely to be anaemic (19 percent), while approximately one-third of men in the other regions are anaemic.

Table 11.11.2 Prevalence of anaemia in men

Percentage of men age 15-49 with anaemia, by background characteristics, Sierra Leone 2013

Background characteristic	Anaemia status by haemoglobin level: Any anaemia <13.0 g/dl	Number of men
Age		
15-19	42.0	1,366
20-29	27.2	1,894
30-39	29.2	1,657
40-49	31.2	1,240
Smoking status		
Smokes cigarettes/tobacco	34.0	1,689
Does not smoke	31.0	4,466
Residence		
Urban	24.4	2,309
Rural	36.3	3,849
Region		
Eastern	31.4	1,366
Northern	37.6	2,200
Southern	35.4	1,301
Western	18.9	1,292
District		
Kailahun	23.0	341
Kenema	33.6	696
Kono	35.3	329
Bombali	36.0	483
Kambia	38.6	243
Koinadugu	38.1	258
Port Loko	35.7	653
Tonkolili	40.6	562
Bo	21.9	516
Bonthe	57.7	254
Moyamba	32.0	312
Pujehun	46.1	219
Western Area Rural	28.7	211
Western Area Urban	16.9	1,081
Education		
No education	35.6	2,476
Primary	34.9	770
Secondary or higher	27.8	2,912
Wealth quintile		
Lowest	37.8	1,130
Second	34.7	1,121
Middle	36.6	1,138
Fourth	35.1	1,114
Highest	20.3	1,656
Total 15-49	31.8	6,158
50-59	39.1	631
Total 15-59	32.5	6,789

Note: Total includes 4 women with information missing on smoking status. Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC, 1998.

11.12 Micronutrient Intake among Mothers

Adequate micronutrient intake has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation given to women during pregnancy protects the mother and infant against anaemia, which is estimated to cause one-fifth of perinatal mortality and one-tenth of maternal mortality. Anaemia also 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 information on a number of measures which are useful in assessing the extent to which women are receiving crucial micronutrients during pregnancy and the two months after birth (postpartum). The results indicate that more than three-quarters of women (77 percent) receive a vitamin A dose postpartum, a substantial increase from the 55 percent reported in the 2008 SLDHS.

As Table 11.12 shows, among women age 15-49 with a child born in the past five years, the percentage who receiving vitamin A postpartum shows slight variation across background characteristics. Young women age 15-19 were least likely to receive a vitamin A supplement (74 percent), as were women in Northern region (73 percent). Postpartum vitamin A supplementation increases with women's education and wealth.

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 iodised salt, the percentage who live in households with iodised salt, by background characteristics, Sierra Leone 2013

Background characteristic	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 iodised salt	
		None	<60	60-89	90+	Don't know/ missing	Total			Percentage living in house-holds with iodised salt[2]	Number of women
Age											
15-19	73.6	5.9	27.1	9.0	30.2	27.8	100.0	68.7	859	79.0	777
20-29	77.4	5.4	27.9	9.4	30.0	27.3	100.0	73.3	3,915	80.5	3,599
30-39	77.2	5.5	28.8	8.8	29.9	27.0	100.0	72.5	2,998	79.1	2,712
40-49	77.3	6.3	28.2	9.7	30.4	25.4	100.0	71.7	875	82.1	801
Residence											
Urban	79.0	4.3	23.8	8.7	37.6	25.6	100.0	75.9	2,387	89.8	2,163
Rural	76.1	6.1	29.8	9.3	27.2	27.6	100.0	71.1	6,260	76.3	5,726
Region											
Eastern	74.6	1.3	22.7	10.6	37.9	27.5	100.0	64.1	2,054	86.6	1,865
Northern	73.2	8.6	28.9	7.0	27.9	27.5	100.0	70.3	3,385	74.2	3,078
Southern	81.8	3.9	33.6	13.4	22.2	26.9	100.0	80.3	1,982	78.2	1,870
Western	83.1	7.2	26.3	5.8	35.4	25.3	100.0	79.6	1,226	88.4	1,076
District											
Kailahun	85.8	1.7	29.8	15.9	44.7	7.8	100.0	79.2	602	98.1	564
Kenema	64.5	0.5	14.5	10.0	39.4	35.5	100.0	66.7	908	75.5	855
Kono	79.1	2.1	28.6	5.8	27.6	35.8	100.0	43.1	544	93.4	446
Bombali	73.5	4.6	12.8	3.8	34.3	44.5	100.0	71.2	585	78.6	478
Kambia	81.4	23.7	49.1	8.7	6.1	12.4	100.0	75.4	417	54.8	396
Koinadugu	50.4	12.4	35.2	13.9	24.3	14.3	100.0	57.4	453	95.4	397
Port Loko	79.1	6.4	29.6	5.9	33.1	25.0	100.0	77.5	1,122	64.0	1,088
Tonkolili	73.5	4.6	25.8	6.1	29.6	33.9	100.0	64.2	810	85.8	719
Bo	86.3	1.5	19.5	15.5	39.8	23.7	100.0	87.5	792	94.0	754
Bonthe	82.5	3.6	49.0	3.3	3.6	40.5	100.0	67.0	324	63.4	311
Moyamba	77.7	8.6	44.0	15.5	17.3	14.7	100.0	71.7	481	47.4	437
Pujehun	77.1	3.1	36.7	15.1	7.9	37.2	100.0	87.3	385	94.7	367
Western Area Rural	89.4	12.6	43.9	3.4	28.4	11.7	100.0	82.9	226	67.6	213
Western Area Urban	81.7	5.9	22.3	6.4	37.0	28.4	100.0	78.8	1,000	93.6	863
Education											
No education	74.9	6.1	28.9	9.1	26.9	29.0	100.0	70.0	5,768	77.6	5,249
Primary	79.6	5.1	28.5	10.9	33.7	21.9	100.0	76.2	1,203	81.2	1,107
Secondary or higher	82.1	4.1	25.6	8.0	38.3	23.9	100.0	78.0	1,676	87.7	1,533
Wealth quintile											
Lowest	74.3	5.9	31.1	10.6	24.8	27.6	100.0	67.8	1,901	76.2	1,754
Second	74.8	5.9	30.9	9.3	27.0	26.9	100.0	70.9	1,809	77.2	1,646
Middle	76.2	6.4	30.2	8.7	26.7	28.0	100.0	72.6	1,797	75.6	1,654
Fourth	78.2	5.0	25.8	8.6	33.7	26.8	100.0	74.1	1,694	80.3	1,539
Highest	82.5	4.3	21.0	8.4	40.7	25.5	100.0	78.2	1,447	94.1	1,296
Total	76.9	5.6	28.2	9.2	30.0	27.0	100.0	72.4	8,647	80.0	7,889

[1] In the first two months after delivery of last birth
[2] Excludes women in households where salt was not tested.

With regard to iron supplementation during pregnancy, 6 percent of women did not take any iron supplements during pregnancy, and 28 percent reported taking iron tablets or syrup for less than 60 days during the pregnancy of their most recent birth. A comparison with 2008 SLDHS data suggests that the proportion of women taking iron supplements during pregnancy for less than 60 days has not changed over time, although the proportion taking iron for more than 90 days increased from 17 percent in 2008 to 30 percent in 2013. A relatively large proportion of women, 27 percent, said they did not know if they had received iron tables or syrup during pregnancy. Iron supplementation intake varies considerably by region and district.

Seventy-two percent of women took deworming medication during the pregnancy of their last birth. Women in Eastern region (64 percent) and in Northern region (70 percent) are least likely to take deworming medicine. Intake of deworming medication during pregnancy increases with women's education and wealth.

The survey results also show that 80 percent of women who had a birth in the five years before the survey live in households with iodised salt. The patterns observed among background characteristics are similar to those for children, presented in Table 11.8. For example, women in urban areas (90 percent) are more likely to be in households with iodised salt compared with women in rural areas (76 percent).

MALARIA 12

Key Findings

- Ownership of mosquito nets has increased substantially in recent years, from 40 percent of households in the 2008 SLDHS to 65 percent in the 2013 SLDHS. Ownership of insecticide-treated nets (ITNs) has increased from 37 percent in 2008 to 64 percent in 2013.
- Only 15 percent of households have universal coverage of long-lasting insecticidal nets (LLINs)—that is, at least one LLIN for every two persons who slept in the household the night before the survey.
- Half of all children (49 percent) slept under an ITN or an LLIN the night before the survey. Among households with at least one ITN, 73 percent of children slept under an ITN the night before the survey.
- Sixty-two percent of women with a live birth in the two years preceding the survey reported taking any antimalarial drugs (SP/Fansidar) during an ANC visit, and 45 percent reported taking two or more doses of SP/Fansidar and received at least one dose during an ANC visit.
- Even though the burden of malaria is greater in rural areas, the 2013 SLDHS found that pregnant women in urban areas are more likely to take SP/Fansidar (68 percent) compared with their rural counterparts (60 percent) but are less likely to receive intermittent preventive treatment during pregnancy (IPTp).

Malaria is endemic in Sierra Leone and a major public health problem, as the entire population is at risk of developing the disease (Malaria policy, 2010). It is the leading cause of morbidity and mortality in children under age 5 and pregnant women (Malaria policy, 2010). *Plasmodium falciparum* is the dominant parasite mainly responsible for all severe cases and over 90 percent of uncomplicated cases. However, there are also cases of clinical malaria caused by *Plasmodium malariae and ovale* or a mixture of these and *falciparum (*Malaria policy, 2010). Malaria transmission is largely determined by climatic factors, including temperature, humidity, and rainfall. A recent study conducted in Freetown showed that *Anopheles gambiae s.s* is the dominant sibling species of *Anopheles gambiae* complex in Freetown. Other species are *Anopheles funestus* and *Anopheles melas* (de Souza DK et al, 2013). Sierra Leone is mountainous as well as forested and with mangroves and inland swamps which provide ideal breeding places for the anopheline vectors of malaria (NMCSP, 2011). Transmission is high and stable with seasonal peaks at the beginning and end of the rainy season.

To reduce the burden of malaria in the country, the Ministry of Health and Sanitation established the National Malaria Control Programme (NMCP) in 1994.The guiding document for malaria control is the National Malaria Control Programme Strategic Plan 2011–2015. This strategy informs all interventions and sets national targets based on established indicators.

The Sierra Leone 2011-2015 National Malaria Strategic Plan strives to achieve both the RBM Abuja Goals and the Health Millennium Development Goals (MDGs). Intervention targets were outlined as follows:

1. To increase prompt and effective treatment of malaria from 50 percent in 2010 to 80 percent for all age groups by 2015.

2. To reduce by 50 percent the proportion of severe malaria cases by 2015.

3. To increase access to the uptake of at least two doses of intermittent preventive treatment (IPTp) among pregnant women at health facility and community levels from 72.3 percent to 90 percent by 2015.

4. To increase the percentage of people having access to at least one prevention method such as long-lasting insecticidal nets (LLINs), indoor residual spraying (IRS), and or other methods from 25.9 percent to 80 percent by end of 2015.

5. To increase the use of at least one prevention method, LLINs, IRS, and/or other appropriate methods among the entire population to 80 percent by 2015.

6. To increase the knowledge, attitudes, and skills of the general population towards the use of preventive and control measures against malaria from the current levels to 80 percent by 2015.

7. To strengthen the management and implementation capacity of the National Malaria Control Programme through effective coordination of partners.

8. To strengthen surveillance, monitoring, evaluation and operational research for effective programme management.

Global and regional political commitment to prevent and control malaria has steadily increased in the past decade. The African Union heads of state jointly manifested this commitment in 2000 under the Abuja Declaration by calling for universal access to HIV/AIDS, tuberculosis, and malaria services by 2010 for all Africans (RBM/WHO, 2003).

The government of Sierra Leone, its bilateral and multilateral partners, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), The UK Department for International Development (DfID), as well as the World Health Organisation (WHO), and other agencies under the United Nations system, have increased their provisions of financial and technical resources for malaria control interventions in response to the continuing high burden. These resources have broadened coverage for malaria intervention within the past few years. However, there are still some challenges, such as: 1) supply chain management of antimalarial medications and timely distribution of antimalarial commodities to service delivery points, 2) minimal involvement of the private sector and non adherence to malaria policy, 3) incomplete and irregular reporting of malaria cases especially from hospitals, 4) low coverage of insecticide-treated nets (ITNs) per household, and 5) low levels of use of proven LLINs.

12.1 Mosquito Nets

The ownership and use of mosquito nets (treated and untreated) is the primary prevention strategy for reducing malaria transmission in Sierra Leone. The mosquito net policy includes free distribution of ITNs through the following delivery channels: integrated ITN campaigns, stand-alone ITN campaigns, routine ITN delivery with the expanded programme on immunisation, and routine ITN delivery with antenatal care services (ANC). To increase coverage, timely mass ITN distribution campaigns are conducted. Since 2006, Sierra Leone has been moving to the use of LLINs. In the past five years, over 6 million ITNs have been distributed countrywide in Sierra Leone (NMCP Database, 2013).

This chapter presents the 2013 Sierra Leone DHS (SLDHS) findings at the household level on the ownership and use of mosquito nets, particularly by children under age 5 and pregnant women.

12.1.1 Ownership of Mosquito Nets

All household respondents in the 2013 SLDHS were asked if 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 the percentage of households with at least one mosquito net (treated or untreated), the percentage with at least one insecticide-treated net (ITN), and the percentage with at least one long-lasting insecticidal net (LLIN), by background characteristics. In addition, table 12.1 shows the percentage of households with at least one net for every two persons who stayed in the household the night before the interview, by background characteristics.

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, Sierra Leone 2013

	Percentage of households with at least one mosquito net			Average number of nets per household				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
Background characteristic	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)	Number of households	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	
Residence											
Urban	58.3	57.7	57.6	1.0	1.0	1.0	3,993	15.0	14.6	14.5	3,987
Rural	68.3	67.6	67.5	1.3	1.2	1.2	8,636	15.5	15.1	15.1	8,622
Region											
Eastern	64.7	64.2	63.9	1.1	1.1	1.1	3,041	15.6	15.4	15.4	3,041
Northern	65.4	65.1	65.1	1.2	1.2	1.2	4,556	11.7	11.5	11.5	4,551
Southern	78.6	77.0	76.9	1.5	1.5	1.5	2,874	21.7	20.8	20.8	2,865
Western	47.5	46.7	46.7	0.8	0.7	0.7	2,158	14.1	13.7	13.7	2,152
District											
Kailahun	60.8	60.5	60.5	1.0	1.0	1.0	939	17.2	17.1	17.1	939
Kenema	71.8	71.1	70.6	1.3	1.3	1.3	1,401	18.3	18.1	17.9	1,400
Kono	55.7	55.4	55.2	0.9	0.9	0.9	702	8.1	8.0	8.0	702
Bombali	71.6	71.0	71.0	1.3	1.2	1.2	1,022	12.0	11.7	11.7	1,022
Kambia	66.8	66.5	66.5	1.3	1.3	1.3	487	10.7	10.5	10.5	487
Koinadugu	80.3	80.0	79.9	1.6	1.6	1.6	584	18.5	18.1	18.0	580
Port Loko	61.2	61.2	61.2	1.2	1.2	1.2	1,355	10.5	10.5	10.5	1,355
Tonkolili	56.4	56.0	55.9	0.9	0.9	0.9	1,109	9.6	9.5	9.5	1,108
Bo	79.3	77.9	77.8	1.4	1.4	1.4	1,037	16.6	15.9	15.9	1,029
Bonthe	76.7	72.1	72.1	1.4	1.3	1.3	530	18.2	16.1	16.1	530
Moyamba	72.1	71.4	71.4	1.5	1.5	1.5	723	24.1	23.9	23.9	723
Pujehun	87.2	86.6	86.6	1.7	1.7	1.7	585	31.0	30.0	30.0	584
Western Area Rural	51.5	51.3	51.0	0.9	0.8	0.8	361	13.7	13.6	13.6	361
Western Area Urban	46.7	45.8	45.8	0.7	0.7	0.7	1,797	14.2	13.7	13.7	1,791
Wealth quintile											
Lowest	65.0	63.8	63.6	1.1	1.1	1.1	2,709	16.0	15.5	15.4	2,708
Second	65.7	65.3	65.2	1.2	1.2	1.2	2,562	14.1	13.9	13.8	2,555
Middle	71.0	70.4	70.3	1.3	1.3	1.3	2,385	15.2	14.7	14.7	2,382
Fourth	69.9	69.4	69.3	1.3	1.3	1.3	2,363	15.1	14.9	14.9	2,359
Highest	55.3	54.4	54.4	1.0	0.9	0.9	2,611	16.2	15.7	15.7	2,605
Total	65.2	64.4	64.3	1.2	1.2	1.2	12,629	15.3	14.9	14.9	12,609

[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

Nearly two thirds (65 percent) of all households owned at least one mosquito net, and a slightly lower proportion of households owned at least one ITN (64 percent) or an LLIN (64 percent). By residence, 58 percent of households in urban areas reported owning at least one net compared with 68 percent of households in rural areas. By region, household ownership of ITNs is slightly higher in the Southern region (77 percent) relative to the Northern (65 percent), Eastern (64 percent), and Western regions (48 percent). The proportion is similar with regard to ownership of LLINs, since most ITNs in Sierra Leone are LLINs.

Wealthier households are less likely to own mosquito nets. Fifty-five percent of the households in the highest wealth quintile own any type of mosquito net, 54 percent own an ITN, and 54 percent own an LLIN. The highest percentage of household ownership is seen among the middle wealth quintile, at 71 percent for any type of mosquito net, and 70 percent each for ITNs and LLINs. Sixty-four percent of households in the lowest wealth quintile own at least one ITN or LLIN.

There has been remarkable progress in ownership of mosquito nets in Sierra Leone. Net ownership increased from 40 percent in the 2008 SLDHS to 65 percent in the 2013 SLDHS. With regard to ITNs, ownership increased from 37 percent in 2008 to 64 percent in 2013.

Mosquito net ownership can indicate success in reducing human-vector contact. Therefore, it is important to determine if a household has a sufficient number of nets for the number of people sleeping in the household. Overall, only 15 percent of households in Sierra Leone have universal LLIN coverage—measured as having at least one LLIN for every two persons who slept in the household the night before the survey. Universal LLIN coverage does not differ substantially by residence or wealth quintile. In fact, the majority of variation in universal coverage is associated with the location variables, namely region and district.

12.1.2 Access to an Insecticide-Treated Net (ITN)

The 2013 SLDHS asked about access to mosquito nets among household members during the night before the survey. Having access to an ITN on the night before the survey is taken as typical net usage. The proportion of the household population sleeping under an ITN is a key indicator of the effectiveness of the malaria programme in Sierra Leone.

Table 12.2 shows that, overall, 38 percent of the de facto population who stayed in the household the night before the survey could sleep under an ITN if each net were used by a maximum of two people. Access to an ITN varies according to the number of people who stayed in the household the night before the survey. In general, ITN access tends to decrease as household size increases. For example, 56 percent of persons who stayed in households where two people stayed the night before the survey had access to an ITN, whereas 31 percent of persons who stayed in households where eight or more people stayed the night before the survey had access to an ITN.

Table 12.2 Access to an insecticide-treated net (ITN)

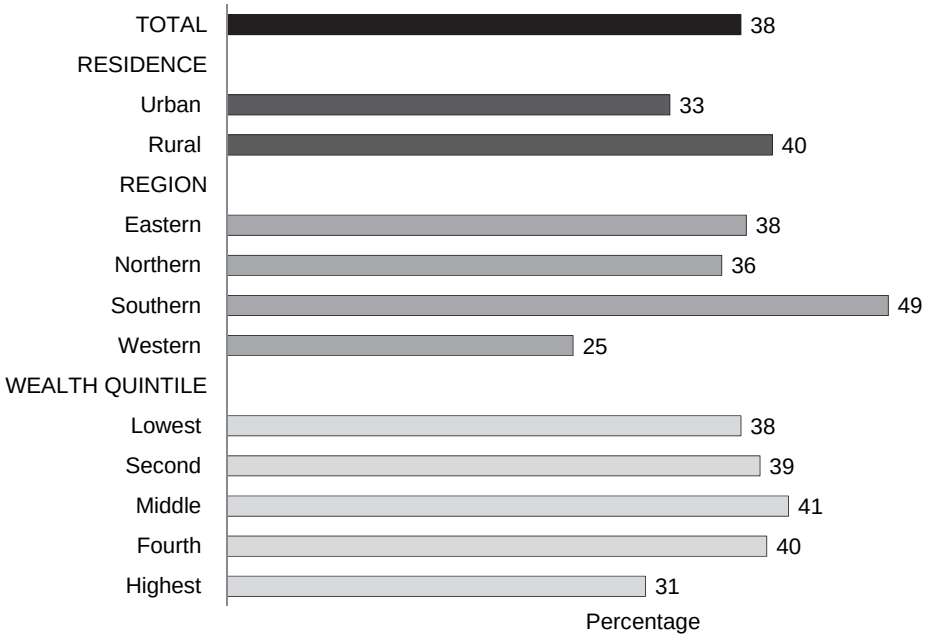
Percent distribution of the de facto household population by number of ITNs the household owns, according to number of persons who stayed in the household the night before the survey, Sierra Leone 2013

	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	47.1	43.8	37.3	36.7	35.5	32.8	31.8	33.8	34.4
1	47.9	44.5	43.7	38.8	31.3	29.5	20.6	14.7	24.7
2	4.2	9.7	15.9	18.1	23.0	23.8	25.2	18.4	20.3
3	0.8	1.9	3.1	6.5	10.0	13.6	21.9	28.6	18.6
4	0.0	0.1	0.0	0.0	0.2	0.2	0.4	1.8	0.8
5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.6	0.7
6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.4
7+	0.0	0.0	0.0	0.0	0.0	0.0	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	555	1,425	3,934	7,293	10,340	10,858	9,849	29,538	73,791
Percent with access to an ITN[1]	52.9	56.2	48.1	43.9	41.1	39.6	39.6	31.0	37.7

[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

Figure 12.1 shows the percentage of the de facto population who could sleep under an ITN if each ITN in the household were used by one or two people. The figure shows that rural areas fare better than urban areas (40 percent and 33 percent respectively). By region, nearly half of the de facto population in the Southern region (49 percent) have access to an ITN in the household, compared with 38 percent in the Eastern region, 36 percent in the Northern region, and 25 percent in the Western region. By wealth quintile, the highest quintile has the lowest percentage of the de facto population with access to an ITN in the household.

Figure 12.1 **Percentage of the de facto population with access to an ITN in the household**



Sierra Leone, 2013

12.1.3 Use of Mosquito Nets by Persons in the Household

Table 12.3 shows the percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated), under an ITN, under an LLIN, and under an ITN or in a dwelling in which the interior walls were sprayed against mosquitoes in the past 12 months. Results indicate that 42 percent of the household population slept under any net, ITN, or LLIN the night before the interview. Among households that own at least one ITN, 64 percent of the household population slept under an ITN the night before the survey. This information serves as a baseline for the government policy promoting universal coverage or access to LLINs.

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), 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 background characteristics, Sierra Leone 2013

	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	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
Age							
<5	49.5	49.0	48.9	51.5	12,323	73.0	8,274
5-14	31.6	31.2	31.1	34.4	21,477	47.3	14,171
15-34	38.7	38.3	38.2	41.7	21,325	60.1	13,569
35-39	55.5	54.8	54.7	56.8	9,923	82.4	6,597
50+	52.0	51.3	51.2	53.2	8,723	77.2	5,799
DK/missing	*	*	*	*	21	*	13
Sex							
Male	40.4	39.9	39.8	42.9	35,460	60.7	23,323
Female	44.0	43.5	43.4	46.1	38,332	66.4	25,100
Residence							
Urban	33.1	32.6	32.5	37.0	22,978	54.8	13,676
Rural	46.4	45.9	45.8	48.0	50,813	67.1	34,747
Region							
Eastern	42.8	42.5	42.1	43.5	16,987	65.3	11,052
Northern	41.4	41.1	41.1	43.0	28,827	62.7	18,918
Southern	57.1	55.8	55.8	58.5	16,268	70.9	12,807
Western	23.2	22.8	22.7	30.7	11,710	47.2	5,646
District							
Kailahun	42.7	42.5	42.5	42.5	4,833	69.6	2,952
Kenema	46.7	46.2	45.5	46.7	7,905	63.6	5,746
Kono	35.7	35.4	35.3	38.7	4,249	63.9	2,354
Bombali	45.3	44.8	44.8	52.2	6,139	63.3	4,343
Kambia	42.7	42.4	42.4	43.5	3,428	63.0	2,310
Koinadugu	55.3	55.0	55.0	55.3	3,559	65.9	2,972
Port Loko	40.0	39.9	39.9	40.0	8,760	64.3	5,434
Tonkolili	31.8	31.7	31.6	32.2	6,941	57.0	3,858
Bo	52.7	51.8	51.8	58.9	6,158	65.4	4,880
Bonthe	54.0	50.4	50.4	50.6	3,011	68.1	2,227
Moyamba	55.6	55.2	55.2	55.2	4,046	73.8	3,027
Pujehun	70.9	70.0	70.0	70.1	3,053	80.0	2,673
Western Area Rural	29.5	29.3	29.2	37.7	2,034	57.1	1,044
Western Area Urban	21.8	21.4	21.4	29.2	9,676	45.0	4,602
Wealth quintile							
Lowest	44.9	44.0	43.8	45.5	14,734	69.0	9,411
Second	45.4	45.0	44.9	47.4	14,736	67.1	9,887
Middle	47.5	47.1	47.0	49.6	14,783	65.6	10,603
Fourth	44.6	44.1	44.1	46.4	14,786	63.8	10,236
Highest	29.0	28.6	28.5	34.1	14,752	50.9	8,286
Total	42.3	41.8	41.7	44.6	73,791	63.7	48,423

[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 non-governmental organisation

12.1.4 Use of existing ITNs

Table 12.4 shows the percentage ITNs used in the household by anyone the night before the interview, by background characteristics. Overall, 92 percent of ITNs were used by anyone in the household the night before the survey. Net use was higher in rural areas (94 percent) than in urban areas (85 percent). At the regional level, use is highest in the Northern region (95 percent) compared with the Southern (93 percent), Eastern (91 percent), and Western regions (78 percent). The second and middle wealth quintiles have the highest use of existing ITNs (95 percent), and the highest wealth quintile has the lowest percentage of ITNs used by anyone the night before the survey (81 percent).

Figure 12.2 shows that 64 percent of households have at least one ITN. Only 15 percent of households have at least one ITN for every two persons who stayed in the household the night before the survey. Thirty-eight percent of the de facto population who stayed in the household the night before the survey would have slept under an ITN if each net were used by a maximum of two people, but a slightly higher proportion of the household population (42 percent) slept under an ITN.

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, Sierra Leone 2013

Background characteristic	Percentage of existing ITNs[1] used last night	Number of ITNs[1]
Residence		
Urban	84.9	3,954
Rural	94.4	10,653
Region		
Eastern	91.0	3,404
Northern	95.4	5,410
Southern	93.4	4,201
Western	77.9	1,592
District		
Kailahun	90.7	962
Kenema	90.0	1,789
Kono	94.1	653
Bombali	96.8	1,263
Kambia	97.9	647
Koinadugu	93.3	924
Port Loko	95.1	1,562
Tonkolili	94.2	1,014
Bo	94.5	1,436
Bonthe	95.9	693
Moyamba	91.5	1,075
Pujehun	92.1	998
Western Area Rural	89.9	304
Western Area Urban	75.0	1,288
Wealth quintile		
Lowest	93.7	2,928
Second	94.5	3,016
Middle	95.2	3,173
Fourth	92.7	3,068
Highest	81.1	2,422
Total	91.9	14,607

[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

12.1.5 Use of Mosquito Nets by Children under Age 5

Age is an important factor in determining levels of acquired immunity against malaria. In the first six months of life, children are protected against malaria by the antibodies they acquired from their mother. As children age, however, the immunity is gradually lost as they begin to develop their own immunity. For this reason, children under age 5 are most vulnerable to severe complications of malarial infection due to their reduced immunity. Table 12.5 presents use of mosquito nets by children under age 5 in all households and in households with an ITN, by background characteristics. Half of all children (50 percent) slept under a mosquito net the night before the survey, and just under half (49 percent) slept under an ITN/LLIN (almost all ITNs in Sierra Leone are LLINs). Among households with at least one ITN, 73 percent of children slept under an ITN the night before the survey.

Figure 12.2 Ownership of, access to, and use of ITNs

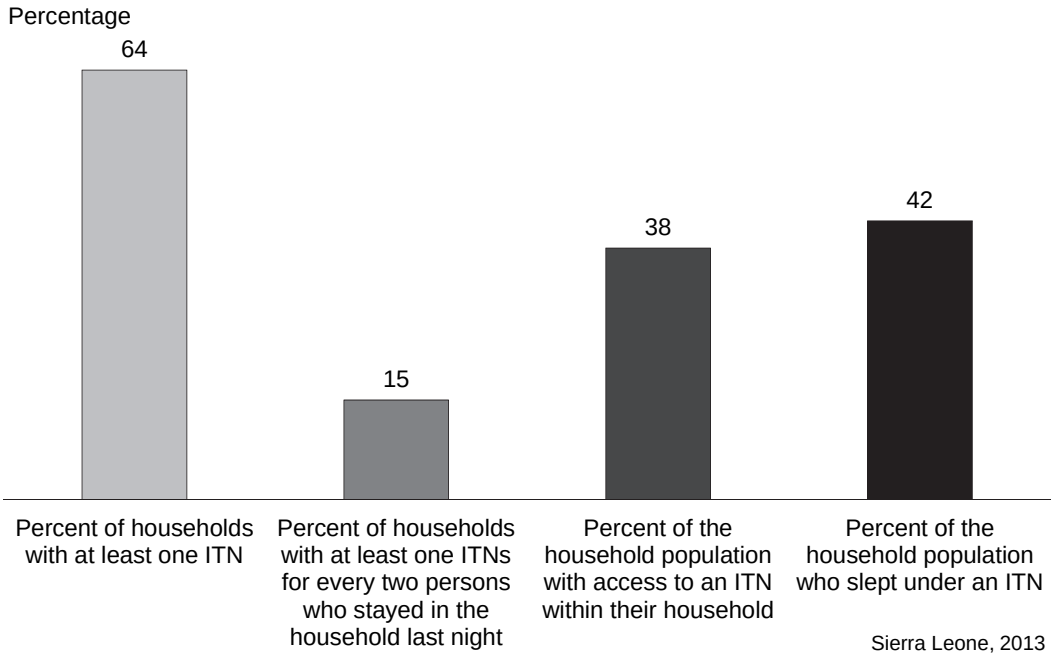


Table 12.5 Use of mosquito nets by children

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), 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 background characteristics, Sierra Leone 2013

	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	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
Age (in months)							
<12	53.3	52.9	52.8	55.9	2,472	76.6	1,707
12-23	51.9	51.6	51.3	53.6	2,286	77.0	1,531
24-35	49.4	49.0	49.0	50.9	2,272	74.5	1,495
36-47	48.5	48.0	47.7	50.8	2,726	71.5	1,829
48-59	44.9	44.2	44.2	46.5	2,568	66.4	1,712
Sex							
Male	49.8	49.3	49.2	52.0	6,087	73.0	4,110
Female	49.3	48.8	48.7	50.9	6,237	73.0	4,164
Residence							
Urban	40.4	40.0	39.8	43.2	3,039	66.2	1,834
Rural	52.5	52.0	51.9	54.2	9,285	75.0	6,440
Region							
Eastern	49.4	49.0	48.6	49.9	2,902	75.5	1,884
Northern	48.0	47.7	47.7	49.3	5,062	72.4	3,338
Southern	63.8	62.7	62.6	65.9	2,900	77.5	2,344
Western	27.0	26.5	26.5	33.3	1,460	54.8	707
District							
Kailahun	50.6	50.4	50.4	50.4	864	80.8	539
Kenema	54.9	54.3	53.5	54.7	1,231	73.6	909
Kono	39.7	39.3	39.1	42.2	807	72.8	436
Bombali	50.3	49.5	49.5	55.9	904	72.4	618
Kambia	47.2	47.0	47.0	48.5	651	69.2	442
Koinadugu	67.6	67.6	67.6	67.9	659	79.5	560
Port Loko	49.4	49.2	49.2	49.3	1,609	77.1	1,027
Tonkolili	34.3	34.3	34.2	35.0	1,239	61.6	690
Bo	60.6	59.5	59.4	68.2	1,083	72.0	893
Bonthe	58.8	56.3	56.3	56.3	533	75.1	400
Moyamba	59.8	59.4	59.4	59.4	700	78.1	533
Pujehun	78.9	78.3	78.3	78.3	584	88.2	518

Continued…

Table 12.5—*Continued*

Background characteristic	Children under age 5 in all households					Children under age 5 in households with at least one ITN[1]	
	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
Western Area Rural	33.3	33.0	33.0	43.7	278	63.8	144
Western Area Urban	25.5	25.0	25.0	30.8	1,182	52.5	564
Wealth quintile							
Lowest	51.0	50.4	50.2	51.6	2,930	77.4	1,908
Second	51.6	51.2	51.2	53.6	2,688	76.0	1,813
Middle	53.6	53.2	53.2	56.0	2,589	72.6	1,900
Fourth	51.1	50.6	50.4	52.8	2,369	71.9	1,667
Highest	35.7	35.0	34.9	39.5	1,747	62.0	986
Total	49.5	49.0	48.9	51.5	12,323	73.0	8,274

Note: Table is based on children 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.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or non-governmental organisation

By gender, there is no variation in children's use of ITNs and LLINs. By residence, children in rural areas are more likely to have slept under an ITN or LLIN (52 percent) compared with children in urban areas (40 percent). Results by region show that children in the Western region were least likely to use a mosquito net (27 percent), while children in the Southern region were most likely (64 percent). Children in the highest wealth quintile were less likely to have slept under a mosquito net compared with children in the other wealth quintiles.

It is worth noting that these estimates for net use among children under age 5 are slightly higher than those found in the Malaria Indicator Survey 2013 (SLMIS 2013). The differences may in part be due to the seasonal nature of malaria transmission and the timing of data collection for the two surveys. The fieldwork for the 2013 MIS was conducted between February and March, the low peak malaria transmission season. Fieldwork for the 2013 DHS, in contrast, was conducted from June to October, when malaria transmission rates are high. The results for net ownership at the household level are comparable between the two surveys.

12.1.6 Use of Mosquito Nets by Pregnant Women

To prevent complications from malaria such as anaemia, low birth weight, and trans-placental parasitaemia, all pregnant women are encouraged to sleep under ITNs. Table 12.6 shows for all households, and for households with at least one ITN, the percentage of the de facto population of pregnant women who slept under a mosquito net (treated or untreated) the past night, who slept under an ITN the last night, and who slept under an LLIN the last night, by background characteristics. Results show that more than half (53 percent) of all pregnant women age 15-49 slept under a mosquito net the night before the survey, almost all an ITN or an LLIN. Use of any net as well as ITNs was higher among rural pregnant women than urban pregnant women. However, among pregnant women in households with at least one ITN, 78 percent of all pregnant women age 15-49 slept under an ITN the night before the survey. With regard to residence, among pregnant women living in households with an ITN, more rural women slept under an ITN (82 percent) compared with their urban counterparts (66 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 or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; 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, Sierra Leone 2013

	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	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of women	Percentage who slept under an ITN[1] last night	Number of women
Residence							
Urban	42.1	41.4	41.3	43.9	349	65.9	220
Rural	56.9	56.3	55.9	57.4	1,086	81.5	750
Region							
Eastern	55.1	54.7	53.9	54.8	326	81.0	220
Northern	52.7	52.5	52.2	53.9	604	79.4	399
Southern	66.2	64.2	64.2	65.8	325	82.2	254
Western	28.6	28.6	28.6	32.8	180	53.7	96
District							
Kailahun	49.7	49.7	49.7	49.7	95	83.2	57
Kenema	64.4	63.7	61.9	63.7	151	81.0	119
Kono	43.9	43.9	43.9	44.1	80	78.2	45
Bombali	60.4	60.4	60.4	67.2	102	83.9	74
Kambia	55.0	55.0	55.0	55.0	64	76.8	46
Koinadugu	69.9	69.9	69.9	69.9	71	80.8	61
Port Loko	51.0	50.3	50.3	51.0	214	77.2	139
Tonkolili	41.1	41.1	40.1	41.1	152	79.5	79
Bo	58.9	58.0	58.0	61.8	138	74.2	108
Bonthe	64.4	58.9	58.9	58.9	48	(78.9)	36
Moyamba	66.2	64.6	64.6	64.6	77	86.0	58
Pujehun	84.3	81.6	81.6	81.6	61	96.7	52
Western Area Rural	27.6	27.6	27.6	38.3	54	(62.4)	24
Western Area Urban	29.0	29.0	29.0	30.4	126	(50.8)	72
Education							
No education	58.2	57.3	56.8	58.6	913	83.4	627
Primary	50.4	50.4	50.2	51.8	217	74.3	147
Secondary or higher	40.6	40.5	40.5	42.4	305	63.1	196
Wealth quintile							
Lowest	55.9	55.1	54.9	55.8	334	80.6	229
Second	57.4	57.2	56.7	58.7	327	82.0	228
Middle	57.4	56.8	56.8	59.3	295	80.9	207
Fourth	53.8	53.0	52.3	53.4	271	81.3	177
Highest	36.3	35.3	35.3	38.1	209	56.8	130
Total	53.3	52.6	52.4	54.1	1,436	78.0	970

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.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or non-governmental organisation

According to education level, pregnant women with a secondary or higher education were less likely to have slept under any net, an ITN, or an LLIN (41 percent for all) the night before the survey compared with pregnant women with primary education and no education. Among pregnant women age 15-49 in households with at least one ITN, nearly two-thirds of pregnant women (63 percent) slept under an ITN the night before the interview.

12.2 INDOOR RESIDUAL SPRAYING (IRS)

Indoor residual spraying (IRS) is vector control intervention used to control malaria transmission. IRS is the spraying of the interior walls and ceilings of a dwelling with long-lasting insecticide. It reduces transmission of malaria by killing adult female mosquitoes when they rest on the walls of the dwelling after feeding. In Sierra Leone the IRS programme is not countrywide; to date IRS has only been conducted in selected chiefdoms within four districts (Bo, Bombali, Kono, and Western Area Rural). Limited private spraying has also been done in Freetown City and Western Area Urban. To obtain information on the prevalence of indoor residual spraying, all households interviewed in the 2013 SLDHS were asked whether

the interior walls of their dwelling had been sprayed to protect against mosquitoes in the 12-month period preceding the survey and, if so, who sprayed the dwelling.

Table 12.7 shows, for households with IRS, households with at least one ITN and/or IRS, and households with at least one ITN for every two persons and/or IRS, the percentage of households in which someone had come into the dwelling to spray the interior walls against mosquitoes, by background characteristics. Results indicate that 5 percent of all households were sprayed in the past 12 months. By combining data on IRS with data on use of an ITN, it is possible to look at a combined indicator of malaria protection at the household level. Overall, 66 percent of households are protected either by owning an ITN or having received IRS in the past 12 months. Only 19 percent of households are protected either by owning an ITN for every two persons or having received IRS in the past 12 months.

Table 12.7 Indoor residual spraying against mosquitoes

Percentage of households in which someone has come into the dwelling to spray the interior walls against mosquitoes (IRS) in the past 12 months, the percentage of households with at least one ITN and/or IRS in the past 12 months, and the percentage of households with at least one ITN for every two persons and/or IRS in the past 12 months, by background characteristics, Sierra Leone 2013

Background characteristic	Percentage of households with IRS[1] in the past 12 months	Percentage of households with at least one ITN[2] and/or IRS in the past 12 months	Percentage of households with at least one ITN[2] for every two persons and/or IRS in the past 12 months	Number of households
Residence				
Urban	5.7	60.0	19.2	3,993
Rural	4.4	68.3	18.9	8,636
Region				
Eastern	2.2	64.5	17.2	3,041
Northern	3.6	66.2	14.7	4,556
Southern	6.1	77.4	25.9	2,874
Western	9.3	50.8	21.3	2,158
District				
Kailahun	0.2	60.5	17.1	939
Kenema	0.9	71.2	18.8	1,401
Kono	7.2	56.5	14.3	702
Bombali	13.4	75.3	24.2	1,022
Kambia	1.8	67.3	12.1	487
Koinadugu	0.4	80.0	18.3	584
Port Loko	0.4	61.2	10.7	1,355
Tonkolili	0.8	56.0	10.2	1,109
Bo	16.8	79.1	29.7	1,037
Bonthe	0.2	72.1	16.3	530
Moyamba	0.0	71.4	23.9	723
Pujehun	0.2	86.6	30.1	585
Western Area Rural	12.2	55.8	24.2	361
Western Area Urban	8.7	49.8	20.7	1,797
Wealth quintile				
Lowest	3.5	64.3	18.3	2,709
Second	4.9	66.1	18.0	2,562
Middle	4.4	71.4	18.7	2,385
Fourth	4.3	70.2	18.6	2,363
Highest	6.9	57.5	21.3	2,611
Total	4.8	65.7	19.0	12,629

[1] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or non-governmental organisation
[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

By residence, results indicate that a small proportion of urban and rural households have had IRS, while the proportion of urban households with IRS (6 percent) exceeded that for rural households (4 percent). Among the regions, the Western region has the highest proportion of households with IRS (9 percent) and the Eastern region has the smallest proportion (2 percent).

Most of the spraying in the past 12 months was done by government workers and in few cases by private companies (data not shown).

12.3 INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY

Pregnant women—especially those pregnant for the first time—are particularly vulnerable to malaria because their immune systems are suppressed. In some cases, malaria can remain asymptomatic but may result in anaemia, low birth weight, and spontaneous abortion. For over nine years now the Ministry of Health and Sanitation (MOHS) has been implementing intermittent preventive treatment during pregnancy (IPTp) by provision of at least two doses of sulfadoxine-pyrimethamine (SP)/Fansidar to protect the mother and her child from malaria during routine antenatal care visits in the second and third trimesters of pregnancy.

Table 12.8 presents results for use of IPTp by women during pregnancy for their last live birth in the two years preceding the survey. Sixty-two percent of women with a live birth in the two years preceding the survey reported taking any antimalarial drugs (SP/Fansidar) during an ANC visit, and 45 reported taking two or more doses of SP/Fansidar and received at least one dose during an ANC visit.

The percentage of women who received any SP/Fansidar during an ANC visit for prevention during pregnancy and those who received IPTp in 2013 almost tripled (62 percent) relative to the 2008 SLDHS (17 percent). The proportion of women who received IPTp increased from 10 percent in the 2008 SLDHS to 45 percent in the 2013 SLDHS.

Table 12.8 Use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who, during the pregnancy preceding the last birth, received any SP/Fansidar during an ANC visit, and who took at least two doses of SP/Fansidar and received at least one dose during an ANC visit, by background characteristics, Sierra Leone 2013

Background characteristic	Percentage who received any SP/Fansidar during an ANC visit	Percentage who took 2+ doses of SP/Fansidar and received at least one during ANC visit	Number of women with a live birth in the two years preceding the survey
Residence			
Urban	67.7	47.0	1,240
Rural	60.1	44.4	3,580
Region			
Eastern	53.8	32.9	1,113
Northern	61.0	50.6	1,997
Southern	68.7	46.0	1,048
Western	68.7	47.5	662
District			
Kailahun	73.1	39.0	323
Kenema	52.8	37.3	502
Kono	33.9	18.4	288
Bombali	59.4	39.3	338
Kambia	64.7	61.5	251
Koinadugu	50.9	34.5	271
Port Loko	73.2	67.0	666
Tonkolili	48.6	38.9	471
Bo	73.3	47.1	382
Bonthe	53.5	39.9	157
Moyamba	70.9	39.0	294
Pujehun	68.8	58.3	215
Western Area Rural	73.9	52.4	126
Western Area Urban	67.5	46.3	536
Education			
No education	59.0	43.0	3,118
Primary	66.7	48.2	735
Secondary or higher	68.4	49.6	967
Wealth quintile			
Lowest	59.7	41.0	1,110
Second	58.7	42.4	1,012
Middle	60.8	46.3	1,056
Fourth	63.3	49.5	923
Highest	70.7	47.7	719
Total	62.1	45.1	4,820

Even though the burden of malaria is greater in rural areas, the 2013 SLDHS found that pregnant women in urban areas are more likely to take SP/Fansidar (68 percent) than their rural counterparts (60 percent), but are slightly less likely to receive IPTp. Across all four regions, more than half of women who had a live birth in the two years preceding the survey received any SP/Fansidar during an ANC visit. The Eastern region has the lowest proportion of pregnant women who took SP/Fansidar (54 percent) compared with the other regions. There is a positive association with regard to education and wealth quintile. For example, the percentage of women taking two or more doses of SP/Fansidar during pregnancy and receiving at least one dose during ANC increases from 59 percent among women with no education to 68 percent among women with a secondary or higher education.

12.4 PREVALENCE AND PROMPT TREATMENT OF CHILDREN WITH FEVER

Malaria case management, including the identification, 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 Sierra Leone. Most malarial fevers occur at home, and prompt and effective treatment is crucial to prevent severe and complicated malaria and/or mortality related to malaria.

In March 2004 a consensus meeting was held on validated drug efficacy results; participants extensively discussed the advantages and disadvantages of ACT, and a decision was made to adopt ACTs and review the current antimalarial treatment policy. As a result, treatment of uncomplicated malaria is with artesunate+amodiaquine (AS+AQ) except for pregnant women in the first trimester and children below 5kg body weight. Artmether+Lumefantrine (AL) is the alternative treatment when there is contraindication to artesunate+amodiaquine or unwanted side effects.

In all patients suspected of having malaria, NMCP has scaled up prompt parasitological confirmation by microscopy or alternatively by rapid diagnostic tests (RDTs). The target is to increase prompt and effective treatment of malaria from 50 percent in 2010 to 80 percent for all age groups by 2015 (NMCSP, 2011-2015).

Table 12.9 presents information on children under age 5 with fever in the two weeks preceding the survey, including the percentage who sought advice or treatment, the percentage who had blood taken from a finger or heel for testing, the percentage who took any ACT, the percentage who took any ACT on the same or next day, the percentage who took antimalarial drugs, and the percentage who took antimalarial drugs on the same or next day. Results indicate that that 25 percent of children under age 5 had fever at some point within two weeks before being interviewed. There is little variation in the percentage of children who had fever by background characteristics. Among children under age 5 with fever, 40 percent had blood taken from a finger or heel for testing.

Table 12.9 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with fever in the two weeks preceding the survey; and among children under age 5 with 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, Sierra Leone 2013

	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	24.0	2,406	76.5	37.7	27.0	21.1	39.5	30.1	576
12-23	32.6	2,169	75.6	43.6	39.9	29.1	50.2	37.6	706
24-35	28.3	2,011	68.0	38.0	37.7	26.3	48.4	35.4	570
36-47	22.1	2,237	70.3	38.8	44.9	32.5	54.3	39.5	493
48-59	20.4	1,991	64.7	38.9	37.3	26.4	50.1	37.6	406
Sex									
Male	25.4	5,360	73.5	40.0	38.1	27.0	49.4	36.2	1,360
Female	25.5	5,454	69.9	39.3	36.4	27.2	47.2	35.7	1,392
Residence									
Urban	27.1	2,749	73.3	33.9	33.0	23.1	45.0	31.7	744
Rural	24.9	8,065	71.1	41.8	38.8	28.5	49.5	37.5	2,008
Region									
Eastern	23.6	2,566	84.1	46.7	46.4	33.9	60.0	44.5	605
Northern	26.8	4,286	67.7	39.8	32.6	26.7	45.8	37.8	1,148
Southern	25.3	2,574	70.5	39.8	43.3	28.1	47.8	31.4	650
Western	25.1	1,389	65.1	26.5	25.1	14.2	37.2	23.5	348
District									
Kailahun	25.4	776	83.9	48.6	50.3	25.8	58.8	33.2	197
Kenema	25.6	1,100	83.6	49.1	52.1	43.5	64.7	53.0	281
Kono	18.5	690	85.4	38.7	27.6	25.4	51.7	43.1	127

Continued…

Table 12.9—*Continued*

Background characteristic	Among children under age 5: Percentage with fever in the two weeks preceding the survey	Among children under age 5: Number of children	Among children under age 5 with fever: 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
Bombali	23.0	727	88.4	45.1	66.5	59.5	76.7	67.8	167
Kambia	31.2	549	71.2	34.6	16.0	10.4	42.5	35.7	172
Koinadugu	51.5	573	57.0	34.9	37.0	31.7	42.4	35.5	295
Port Loko	23.9	1,423	63.8	46.3	27.4	19.9	42.2	33.2	339
Tonkolili	17.2	1,014	70.5	35.7	19.3	16.2	32.0	23.9	175
Bo	25.4	996	72.5	39.5	53.3	37.2	55.5	39.0	253
Bonthe	11.5	442	82.6	46.5	21.8	8.9	39.1	21.4	51
Moyamba	25.6	627	67.0	32.9	37.0	20.6	41.4	22.6	160
Pujehun	36.5	509	67.6	44.3	41.0	27.5	45.3	31.2	186
Western Area Rural	18.7	259	80.8	38.8	15.2	6.1	34.8	21.8	48
Western Area Urban	26.6	1,130	62.6	24.5	26.7	15.6	37.6	23.8	300
Mother's education									
No education	25.2	7,447	69.2	38.9	36.8	26.7	46.9	34.7	1,878
Primary	26.9	1,508	72.0	36.8	34.9	23.8	48.6	37.5	406
Secondary or higher	25.1	1,859	81.4	45.2	40.9	31.5	53.8	39.3	468
Wealth quintile									
Lowest	24.7	2,542	67.9	40.9	41.2	27.8	49.3	33.7	627
Second	24.8	2,338	69.7	37.2	36.2	25.4	46.9	35.5	580
Middle	24.9	2,261	74.9	43.8	35.5	28.3	48.9	38.6	564
Fourth	26.9	2,054	76.6	43.2	40.6	30.9	51.4	39.5	552
Highest	26.5	1,619	69.2	31.0	30.6	21.5	44.1	31.8	429
Total	25.4	10,814	71.7	39.6	37.2	27.1	48.3	35.9	2,752

[1] Excludes market and traditional practitioner

Furthermore, 48 percent of children under age 5 with fever took antimalarial drugs. However, only 36 percent took antimalarial drugs the same day or the day after the fever started. By region, there is substantial variation among children under age 5 who took antimalarial drugs the same or next day. Eastern region is highest (45 percent) followed by Northern region (38 percent), and the lowest proportions are in Western region (24 percent) and Southern region (32 percent). Lastly, results show that among children with fever, mother's education has a positive association with seeking advice or treatment, taking ACT or antimalarials, as well as taking ACT or antimalarials on the same or next day.

In line with the revised NMCP malaria treatment policy, introduced in December 2010, all fevers are to be treated with ACTs (NMCP, 2010). Table 12.11 shows that 77 percent of children under age 5 with fever took any ACTs, 1 percent took quinine, 7 percent took SP/Fansidar, 9 percent took chloroquine and 7 percent took Artesunate.

Table 12.10 Source of advice or treatment for children with fever

Percentage of children under age 5 with 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 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, Sierra Leone 2013

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	63.4	85.7
Government hospital	8.9	12.0
Government health centre	42.3	57.1
Government health post	10.4	14.1
Mobile clinic	0.6	0.8
Outreach worker	0.9	1.3
Community health worker	2.2	3.0
Other	0.1	0.1
Any private sector source	9.8	13.3
Private hospital/clinic	2.0	2.7
Pharmacy	6.6	8.9
Private doctor	0.1	0.2
Mobile clinic	0.6	0.9
Outreach worker	0.4	0.5
Other private medical sector	0.2	0.3
Any other source	3.5	4.7
Shop	0.5	0.6
Traditional practitioner	1.0	1.4
Market	0.3	0.4
Other	1.7	2.2
Number of children	2,752	2,036

Table 12.11 Type of antimalarial drugs used

Among children under age 5 with fever in the two weeks preceding the survey who took any antimalarial medication, the percentage who took specific antimalarial drugs, by background characteristics, Sierra Leone 2013

Background characteristic	Percentage of children who took drug:						Number of children with fever who took antimalarial drug
	Any ACT	Quinine	SP/Fansidar	Chloroquine	Artesunate	Other anti-malarial	
Age (in months)							
<12	68.2	1.1	8.6	11.4	8.6	7.4	228
12-23	79.5	2.1	6.6	9.4	5.8	1.8	354
24-35	77.9	0.2	8.2	8.7	6.5	2.3	275
36-47	82.6	0.4	4.4	8.1	4.8	1.2	268
48-59	74.4	3.1	4.4	8.9	8.7	3.5	204
Sex							
Male	77.0	1.7	7.5	10.2	4.6	2.3	672
Female	77.1	1.0	5.5	8.3	8.8	3.7	657
Residence							
Urban	73.3	2.1	10.1	11.6	7.5	3.2	335
Rural	78.3	1.1	5.3	8.4	6.4	2.9	994
Region							
Eastern	77.2	1.5	1.9	9.6	7.6	3.5	363
Northern	71.3	1.6	9.3	12.0	7.4	2.9	525
Southern	90.6	1.0	4.1	0.7	2.6	1.8	311
Western	67.4	0.7	13.7	18.0	11.0	4.9	130
District							
Kailahun	85.5	1.6	2.4	2.6	9.0	0.0	116
Kenema	80.5	2.0	1.6	5.8	4.5	7.1	182
Kono	53.4	0.0	2.1	32.2	13.5	0.0	66
Bombali	86.7	0.7	10.0	1.4	0.7	1.2	128
Kambia	37.6	6.1	16.9	29.3	26.1	1.7	73
Koinadugu	87.3	0.6	0.0	9.1	2.1	2.5	125
Port Loko	65.0	1.6	7.9	17.0	8.4	5.1	143
Tonkolili	(60.3)	(0.0)	(22.1)	(7.1)	(7.3)	(3.2)	56
Bo	96.1	0.6	1.3	0.8	2.2	0.0	141
Bonthe	(55.8)	(0.0)	(36.4)	(0.0)	(0.0)	(7.7)	20
Moyamba	89.4	0.0	4.9	0.0	2.2	4.9	66
Pujehun	90.5	2.9	0.5	1.0	4.3	0.8	84
Western Area Rural	(43.6)	(5.7)	(33.5)	(26.2)	(10.0)	(6.8)	17
Western Area Urban	71.0	0.0	10.8	16.7	11.2	4.6	113
Mother's education							
No education	78.5	1.5	5.8	7.7	6.7	2.9	881
Primary	71.9	1.1	9.1	17.5	7.3	1.7	197
Secondary or higher	76.1	1.0	7.1	8.0	6.1	4.3	251
Wealth quintile							
Lowest	83.7	1.0	3.1	6.7	5.2	2.1	309
Second	77.3	1.7	6.3	7.5	5.9	4.9	272
Middle	72.7	1.4	6.2	12.8	6.7	2.4	276
Fourth	78.9	0.3	9.4	7.3	5.9	2.3	284
Highest	69.5	3.0	8.5	13.8	11.3	3.6	189
Total	77.1	1.4	6.5	9.2	6.7	3.0	1,330

ACT = Artemisinin-based combination therapy

12.5 PREVALENCE OF ANAEMIA IN CHILDREN

Anaemia decreases the amount of oxygen reaching the tissues and organs of the body, reducing their capacity to function. It is associated with impaired cognitive and motor development in children. Although there are many causes of anaemia, inadequate intake of iron folate, vitamin B12, or other nutrients usually account for the majority of cases in many populations. Severe malaria also accounts for a large proportion of anaemia in children under 5 in malaria endemic areas. Other causes of anaemia include thalassemia, sickle cell disease, and intestinal worm infestation. In areas of constant, high malaria transmission, partial immunity develops within the first two years of life. Many people, including children, may have malaria parasites in their blood without showing any outward signs of infection. Such asymptomatic infection not only contributes to further transmission of malaria but also takes a toll on the health of individuals by contributing to anaemia. Anaemia is a major cause of morbidity and mortality associated with malaria, making prevention and treatment of malaria among children and pregnant women very important.

Table 12.12 shows the percentage of children age 6-59 months classified as having severe anaemia (haemoglobin concentration of less than 8.0 grams per decilitre) by background characteristics. A haemoglobin level below 8.0 grams per decilitre is often associated with malaria infection in malaria-endemic regions. Sixteen percent of children age 6-59 months had a haemoglobin count lower than 8.0 g/dl. A greater percentage of children under age three (less than 36 months) experience a haemoglobin count lower than 8.0 g/dl. Among children less than three years old, the proportion with a haemoglobin count lower than 8.0 g/dl ranged from 18 percent of children age 6-8 months to 19 percent of children age 24-35 months.

The Eastern and Northern regions have the highest levels of anaemia (24 percent and 18 percent, respectively) while levels in the Western Area and Southern regions are lowest (9 percent). Rates of anaemia in rural children were slightly higher than those in urban children (17 percent and 14 percent, respectively). Haemoglobin below 8.0 g/dl is negatively associated with wealth status; decreasing from 17 percent of children in the lowest wealth quintile to 12 percent of children in the highest wealth quintile.

Table 12.12 Haemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with haemoglobin lower than 8.0 g/dl, by background characteristics, Sierra Leone 2013

Background characteristic	Haemoglobin < 8.0 g/dl	Number of children
Age (in months)		
6-8	17.7	295
9-11	21.0	266
12-17	19.8	632
18-23	16.6	426
24-35	18.9	1,091
36-47	16.4	1,298
48-59	10.7	1,230
Sex		
Male	16.4	2,553
Female	16.3	2,685
Mother's interview status		
Interviewed	16.7	4,134
Not interviewed but in household	10.1	126
Not interviewed, and not in the household[1]	15.4	978
Residence		
Urban	13.9	1,274
Rural	17.1	3,963
Region		
Eastern	24.2	1,243
Northern	17.9	2,214
Southern	9.0	1,197
Western	8.6	583
District		
Kailahun	10.0	357
Kenema	16.5	558
Kono	52.9	328
Bombali	6.8	408
Kambia	22.7	286
Koinadugu	25.7	288
Port Loko	20.5	688
Tonkolili	16.2	546
Bo	7.5	439
Bonthe	5.1	238
Moyamba	11.7	254
Pujehun	12.6	266
Western Area Rural	13.4	129
Western Area Urban	7.2	454
Mother's education[2]		
No education	17.0	3,020
Primary	17.4	549
Secondary or higher	14.0	690
Missing	*	1
Wealth quintile		
Lowest	17.1	1,244
Second	18.5	1,202
Middle	17.0	1,121
Fourth	15.4	960
Highest	11.5	711
Total	16.3	5,238

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anemia is based on haemoglobin levels and is adjusted for altitude using CDC formulas (CDC, 1998). Haemoglobin is measured in grams per decilitre (g/dl).

[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.

ADULT AND MATERNAL MORTALITY 13

Key Findings

- The level of adult mortality is slightly higher among women (5.6 deaths per 1,000 population) than among men (5.0 deaths per 1,000 population).
- Women and men have approximately the same probabilities of dying between age 15 and age 50 (181 deaths per 1,000 women age 15 and 176 deaths per 1,000 men age 15).
- Maternal deaths account for 36 percent of all deaths among women age 15-49. The maternal mortality rate for the seven-year period preceding the survey was 1.97 maternal deaths per 1,000 woman-years of exposure.
- The maternal mortality ratio was 1,165 maternal deaths per 100,000 live births for the seven-year period preceding the survey. This ratio is not statistically significantly different from the ratio reported in the 2008 SLDHS.
- At current mortality rates, six percent of the women in Sierra Leone will die from maternal causes during their reproductive lifetime.

Adult and maternal mortality indicators are used in assessing the health status of a population, especially in developing countries such as Sierra Leone. Estimation of these mortality rates requires complete and accurate data on adult and maternal deaths. In the 2013 SLDHS, data were collected on the survivorship of respondents' siblings. These data allow for estimation of adult mortality. The inclusion of questions to determine if deaths among female siblings were maternity-related permits estimation of the level of maternal mortality, a major indicator of maternal health and well-being.

The term "maternal mortality" used in this chapter corresponds to the term "pregnancy-related mortality" as defined in the latest version of the International Classification of Diseases (ICD-10). The ICD-10 definition of a pregnancy-related death is the death of a woman while she is pregnant or within 42 days of the termination of her pregnancy, irrespective of the cause of death (WHO, World Bank, UNFPA, and UNICEF, 2012). In keeping with this definition, the maternal and adult mortality module used in the DHS surveys measures the timing of deaths but not cause of death. However, the data collected in the 2013 SLDHS questionnaire are based on information about deaths during the two months following a birth, rather than 42 days following a birth.

This chapter includes results based on sibling history data collected in the sibling survival module (commonly referred to as the maternal mortality module) that is part of the Woman's Questionnaire. In addition to reporting adult mortality rates for five-year age groups, this chapter includes a summary measure (35q15) that represents the probability of dying between exact ages 15 and 50. In order to compare this measure with the 2008 SLDHS, the adult mortality probabilities (35q15) for the 2008 SLDHS have been calculated and presented in Table 13.3.

13.1 DATA

To obtain a sibling history, the 2013 SLDHS first asked each female respondent to list all children born to her biological mother, starting with the firstborn. The survey then asked the respondent whether each of these siblings was still alive.

For living siblings, the interviewer asked the current age of each sibling. For deceased siblings, the age at death and the number of years since death were recorded. When a respondent could not provide precise information on age at death or years since death, approximate but quantitative answers were accepted. For sisters who died at age 12 or older, the 2013 SLDHS asked three questions to determine whether the death was maternal: "Was [NAME OF SISTER] pregnant when she died?" and, if the response was negative, "Did she die during childbirth?" and, if negative again, "Did she die within two months after the end of a pregnancy or childbirth?" Estimation of adult and maternal mortality requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number who have died, and (for maternal mortality) the number of sisters who died of maternity-related causes. Although there is no definitive procedure for establishing the completeness of retrospective data on sibling survivorship, Table 13.1 presents several indicators that can be used to assess the quality of sibling survivorship data.

The data do not show any obvious defects that would indicate poor data quality or significant underreporting. A total of 69,363 siblings were recorded in the sibling histories, with less than one percent). Among surviving siblings, current age was not reported for less than 1 percent. For 96 percent of deceased siblings, both age at death (AD) and years since death (YSD) were reported; in 1 percent of cases, both age at death and years since death (or year of death) were missing. Rather than excluding siblings with missing data from further analysis, information on the birth order of siblings in conjunction with other information was used to impute the missing data.[1] The mean number of siblings is 5.2. The sex ratio of the enumerated siblings (the ratio of brothers to sisters) is 101, which is lower than the expected value of 103-105 and implies some under reporting for brothers than sisters (Appendix Table C.9).

13.1 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), Sierra Leone 2013

	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	34,662	100.0	34,701	100.0	69,363	100.0
Living	29,180	84.2	29,232	84.2	58,412	84.2
Dead	5,450	15.7	5,444	15.7	10,894	15.7
Survival status unknown	32	0.1	25	0.1	57	0.1
Living siblings	29,180	100.0	29,232	100.0	58,412	100.0
Age reported	28,916	99.1	29,024	99.3	57,940	99.2
Age missing	264	0.9	208	0.7	472	0.8
Dead siblings	5,450	100.0	5,444	100.0	10,894	100.0
AD and YSD reported	5,251	96.3	5,237	96.2	10,488	96.3
Missing only AD	112	2.1	130	2.4	242	2.2
Missing only YSD	31	0.6	17	0.3	48	0.4
Missing AD and YSD	56	1.0	60	1.1	116	1.1

[1] The imputation procedure was based on the assumption that the reported birth ordering of siblings in the history was correct. The first step was to calculate birth dates for each living sibling with a reported age and each dead sibling with complete information on both age at death and years since death. For a sibling missing these data, a birth date was imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age was then calculated from the imputed birth date. In the case of dead siblings, if either age at death or years since death were reported, that information was combined with the birth date to produce the missing information. If both pieces of information were missing, the distribution of the ages at death for siblings for whom years since death were not reported but age at death was reported was used as a basis for imputing age at death.

13.2 ESTIMATES OF ADULT MORTALITY

One way to assess the quality of data used to estimate maternal mortality is to evaluate the plausibility and stability of overall adult mortality. It is reasoned that if rates of overall adult mortality are implausible, rates based on a subset on deaths—i.e., maternal mortality in particular—are unlikely to be free of serious problems.

The reported ages at death and years since death of respondents' brothers and sisters are used in making direct estimates of adult mortality. Because of the differentials in exposure to the risk of dying, this report presents age-specific and sex-specific death rates. Table 13.2 and Figure 13.1 show age-specific mortality rates among women and men (age 15-49) for the seven years preceding the 2013 SLDHS. Mortality rates are calculated by dividing the number of deaths in each age group of women and men by the total person-years of exposure to the risk of dying in that age group during a specified period preceding the survey. To ensure a sufficiently large number of adult deaths to generate a robust estimate, the rates are calculated for the seven-year period preceding the survey (roughly mid-2006 to mid-2013). Nevertheless, age-specific mortality rates obtained in this manner are subject to considerable sampling variation. Use of this seven-year period was a compromise between the desire for the most recent data and the need to minimise the level of sampling error.

Table 13.2 Adult mortality rates

Direct estimates of female and male mortality rates for the seven years preceding the survey, by five-year age groups, Sierra Leone 2013

Age	Deaths	Exposure years	Mortality rates[1]
FEMALE			
15-19	166	29,604	5.60
20-24	203	32,670	6.21
25-29	135	29,797	4.54
30-34	154	24,056	6.40
35-39	87	18,051	4.82
40-44	68	11,064	6.13
45-49	41	6,452	6.33
15-49	853	151,694	5.62[a]
MALE			
15-19	122	30,321	4.01
20-24	152	33,084	4.58
25-29	115	30,752	3.74
30-34	132	24,068	5.50
35-39	69	17,655	3.89
40-44	98	11,065	8.87
45-49	54	6,698	8.05
15-49	741	153,643	4.97[a]

[1] Expressed per 1,000 population
[a] Age-adjusted rate

Figure 13.1 **Estimates of adult mortality rates**

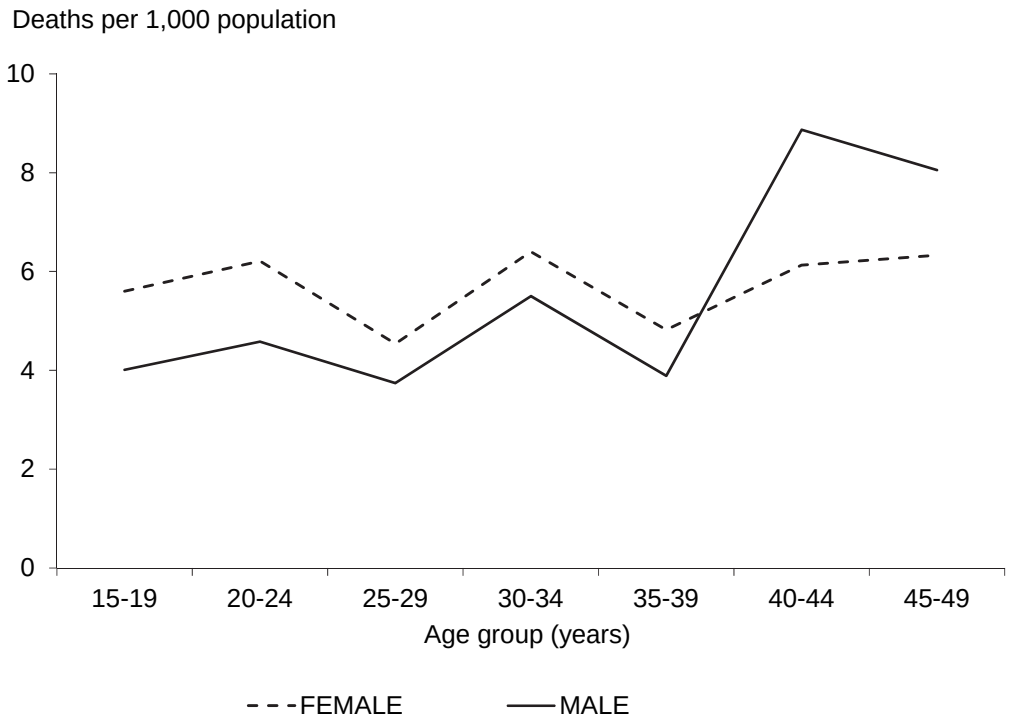


Table 13.2 and Figure 13.1 show age-specific mortality rates for women and men age 15-49 for the seven-year period preceding the survey. The rates show an up-and-down pattern at younger ages. Overall, the level of adult mortality is slightly higher among women (5.6 deaths per 1,000 population) than among men (5.0 deaths per 1,000 population). Mortality rates are higher among women than men in the younger age groups (below age 35), while the reverse is true in the older age groups (age 40 and above).

Table 13.3 provides a summary measure of the risk of dying between exact ages 15 and 50 (35q15). That is, 35q15 represents the risk of a 15-year-old man or woman dying before age 50. The 2013 SLDHS data show that women and men have approximately the same probabilities of dying between age 15 and age 50 (181 of 1,000 women age 15 and 176 deaths of 1,000 men age 15). The 35q15 estimates based on the 2008 SLDHS and the 2013 SLDHS show that, in 2008, women had a lower probability of dying between exact ages 15 and 50 (186 deaths per 1,000 persons who reached age 15) than men (218 deaths per 1,000 persons who reached age 15).

Table 13.3 Adult mortality probabilities

Probability of dying between the ages of 15 and 50 for women and men over the seven years preceding the survey, Sierra Leone 2013

	$_{35}q_{15}$[1]	
Survey	Female	Male
2013 SLDHS	181 (CI : 162-201)	176 (CI : 157-194)
2008 SLDHS	186 (CI : 158-214)	218 (CI : 187-248)

CI: Confidence interval
[1] The probability of dying between exact ages 15 and 50, expressed per 1,000 person-years of exposure

In the five years between the two surveys, the 35q15 decreased from 186 deaths per 1,000 women age 15 to 181 deaths. However, the confidence intervals for the 35q15 estimates for the 2008 SLDHS and the 2013 SLDHS overlap. Because it is still possible for a difference to be statistically significant even if the confidence intervals overlap, a statistical test of significance was conducted. The test concluded that the difference between the estimates of the 35q15 for the 2008 and 2013 surveys is not statistically significant[2]. Any change that may have occurred between the two surveys was not large enough to be statistically significant with the sample sizes of the surveys.

In the same period, the probability of dying between exact ages 15 and 50 decreased from 218 deaths per 1,000 men age 15 to 176 deaths. However, as above, the confidence intervals for the 35q15 estimates for the 2008 SLDH and the 2013 SLDHS overlap. In this case, the statistical test of significance conducted indicated that the difference between the estimates of the 35q15 for the two surveys was statistically significant[3].

Based on these results, the main conclusion is that there is no evidence to suggest that the risk of a 15-year-old woman dying before age 50 changed between the two surveys. However, the data indicate a significant decrease over years of the probability of dying between exact ages 15 and 50 among men.

13.3 ESTIMATES OF MATERNAL MORTALITY

Two procedures using sisterhood data (sibling history data) are generally used to estimate maternal mortality in developing countries; these employ an indirect variant (Graham et al., 1989) and a direct estimation method (Rutenberg et al., 1991). In this report, the direct estimation procedure is applied. Age-specific mortality rates are calculated by dividing the number of maternal deaths by woman-years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility for women interviewed in the SLDHS is age 50), the overall rate for women age 15-49 is standardised by the age distribution of the survey respondents. Maternal deaths are defined as any deaths that occurred during pregnancy or childbirth

[2] The Z-score associated with the difference in the 35q15 for women is 0.263 with a p-value of 0.793, which indicates that the difference between the two estimates is not statistically significant.

[3] The Z-score associated with the difference in the 35q15 for men is 2.360 and a p-value of 0.018, indicating that the difference between the two estimates is statistically significant.

or that occurred within two months of the birth or termination of a pregnancy[4]. Estimates of maternal mortality are therefore based solely on the timing of the death in relationship to the pregnancy.

Table 13.4 presents direct estimates of maternal mortality for the seven-year period prior to the survey. The data indicate that the rate of mortality associated with pregnancy and childbearing is 2 maternal deaths per 1,000 woman-years of exposure. The estimated age-specific mortality rates are higher at the younger ages, being highest at age 15-19. However, the age-specific mortality pattern should be interpreted with caution as there were only 306 maternal deaths in the seven-year period preceding the survey. Maternal deaths accounted for 36 percent of all deaths to women age 15-49. The results also show that at current mortality rates, 6 percent of the women in Sierra Leone will die from maternal causes during their reproductive lifetime.

Table 13.4 Maternal mortality

Direct estimates of maternal mortality rates for the seven years preceding the survey, by five-year age groups, Sierra Leone 2013

Age	Percentage of female deaths that are maternal	Maternal deaths	Exposure years	Maternal mortality rate[1]
15-19	46.8	78	29,604	2.62
20-24	34.4	70	32,670	2.13
25-29	37.7	51	29,797	1.71
30-34	37.6	58	24,056	2.41
35-39	37.0	32	18,051	1.78
40-44	18.5	13	11,064	1.13
45-49	11.3	5	6,452	0.72
15-49	35.8	306	151,694	1.97
General fertility rate (GFR)[2]				169[a]
Maternal mortality ratio (MMR)[3]			1,165	(CI : 951-1,379)
Lifetime risk of maternal death[4]				0.062
		2008 SLDHS		
Maternal mortality ratio (MMR)[3]			857	(CI : 615-1,099)

CI: Confidence interval
[1] Expressed per 1,000 woman-years of exposure
[2] Expressed per 1,000 woman 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 seven years preceding the survey
[a] Age-adjusted rate

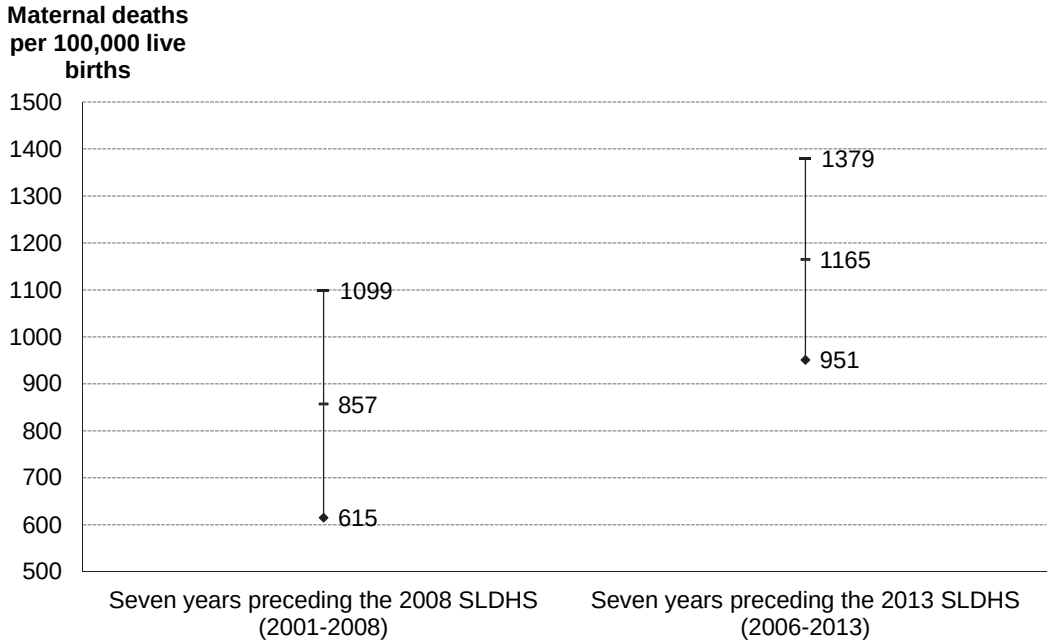
The maternal mortality rate can be converted to a maternal mortality ratio and expressed per 100,000 live births by dividing the rate by the general fertility rate of 0.169, which prevailed during the same time period. Using this procedure, the maternal mortality ratio (MMR) during the seven-year period before the survey (2006-2012) is estimated as 1,165 maternal deaths per 100,000 live births.

As shown in Figure 13.2, the confidence intervals for the maternal mortality ratio for the 2008 SLDHS and the 2013 SLDHS overlap. A statistical test of significance was conducted and concluded that the difference between the estimates of the MMR for the 2008 and 2013 surveys is not statistically significant[5]. This implies that it is not possible to conclude that maternal mortality has increased. The 2013 SLDHS results show that maternal mortality in Sierra Leone remains high.

[4] This time-dependent definition includes all deaths that occurred during pregnancy and two months after pregnancy, even if the death is due to non-maternal causes. However, this definition is unlikely to result in over-reporting of maternal deaths because most deaths to women during the two-month period are due to maternal causes, and maternal deaths are more likely to be under-reported than over-reported.

[5] The difference in the MMR between the two surveys is 308 deaths per 100,000 live births. The difference in the MMR is not significant, with a Z-score of 1.911 and a p-value of 0.056.

Figure 13.2 **Maternal Mortality Ratio (MMR) with confidence intervals for the seven years preceding the 2008 SLDHS and the 2013 SLDHS**



HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

14

Key Findings

- More than 90 percent of men and women in all four regions of Sierra Leone have heard about AIDS, and 25 percent of women and 31 percent of men age 15-49 have comprehensive knowledge about HIV/AIDS prevention and transmission.
- Eighty-three percent of men and 73 percent of women age 15-49 said they would be willing to care at home for a family member sick with AIDS.
- Most respondents are aware of a place to get tested, but only 38 percent of women and 14 percent of men have ever been tested for HIV and received the results.
- While, most women and men seek treatment from a clinic, hospital, private doctor, or other health professional, 26 percent of women and 14 percent of men do not get any advice or treatment.
- The risk of HIV transmission from medical injections is low, because for 97 percent of women and 98 percent of men who received injections, the syringe and needle were taken from a new, unopened package.
- Nearly half (43 percent) of women who gave birth in the past two years received counselling on HIV, were tested for HIV, and received the results during an antenatal care (ANC) visit.

Acquired Immune Deficiency Syndrome (AIDS) is caused by a human immunodeficiency virus (HIV), which weakens the immune system, making the body susceptible to and unable to recover from other opportunistic diseases, and eventually results in death through these secondary infections. The predominant mode of HIV transmission is through sexual contact, followed in magnitude by perinatal transmission, in which the mother passes the virus to the child during pregnancy, delivery, or breastfeeding. Other modes of transmission include infected blood and unsafe injections.

In collaboration with multisectoral stakeholders, the National AIDS Commission developed the National Strategic Plan on HIV/AIDS 2011–2015 to help guide the national AIDS response and is being coordinated by National AIDS Secretariat. Even though HIV prevalence seems to have stabilised over the past decade, new HIV infections have been estimated at 4,100 per year in 2013 and indicate a declining trend in HIV incidence. Therefore, the main aim of the plan is to drive the response towards zero new infections in Sierra Leone.

The principal objective of this chapter is to establish the prevalence of relevant knowledge, perceptions, and behaviours at the national level and also within geographic and socioeconomic subpopulations. In this way, prevention programmes can target those groups of individuals most in need of information and most at risk of HIV infection. Indicators of HIV and AIDS knowledge, attitudes, and related behaviours are presented for the general adult population age 15-49. The chapter then focuses on HIV and AIDS knowledge and patterns of sexual activity among young people age 15-24, as young adults are the main target of many HIV prevention efforts.

14.1 HIV/AIDS KNOWLEDGE OF TRANSMISSION AND PREVENTION METHODS

14.1.1 Awareness of HIV/AIDS

The 2013 SLDHS asked respondents whether they had heard of an illness called AIDS. Those who reported having heard of AIDS were asked a number of questions about whether and how AIDS could be avoided. Table 14.1 shows that awareness of HIV/AIDS is almost universal, with 94 percent of women and 96 percent of men age 15-49 having heard of AIDS. The prevalence of knowledge of AIDS has increased dramatically since the 2008 SLDHS, from 69 percent of women and 83 percent of men. Awareness of AIDS is lowest for women and men in Koinadugu district (73 percent and 85 percent respectively). Awareness of AIDS is highest among never-married women who have ever had sex (98 percent) and never-married men who have ever had sex (98 percent). In contrast, awareness is lowest among women who are currently married or living with a man as if married (93 percent) and among never-married men who have never had sex (91 percent).

Table 14.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Sierra Leone 2013

	Women		Men	
Background characteristic	Has heard of AIDS	Number of respondents	Has heard of AIDS	Number of respondents
Age				
15-24	94.6	6,561	95.3	2,481
15-19	94.4	3,878	93.6	1,475
20-24	94.9	2,683	97.7	1,007
25-29	94.1	2,843	97.7	1,017
30-39	93.7	4,547	96.7	1,764
40-49	92.3	2,707	96.7	1,319
Marital status				
Never married	96.6	4,730	95.7	2,849
Ever had sex	98.1	3,273	98.2	1,907
Never had sex	93.2	1,458	90.8	942
Married/living together	92.5	10,903	96.8	3,514
Divorced/separated/widowed	95.9	1,025	96.5	219
Residence				
Urban	98.5	5,933	98.1	2,508
Rural	91.4	10,725	95.3	4,073
Region				
Eastern	93.5	3,614	95.7	1,442
Northern	90.9	6,292	95.6	2,300
Southern	95.0	3,514	95.7	1,414
Western	99.1	3,238	98.8	1,425
District				
Kailahun	92.6	984	99.2	371
Kenema	94.3	1,651	92.9	719
Kono	93.0	979	97.9	352
Bombali	90.6	1,377	93.9	499
Kambia	94.9	738	96.7	270
Koinadugu	73.2	719	84.5	268
Port Loko	92.0	1,994	97.8	679
Tonkolili	96.5	1,464	98.9	584
Bo	95.7	1,398	97.4	533
Bonthe	97.4	678	95.2	283
Moyamba	90.4	843	94.5	368
Pujehun	96.9	595	94.3	230
Western Area Rural	99.4	528	99.8	230
Western Area Urban	99.0	2,710	98.6	1,195
Education				
No education	91.1	9,293	94.0	2,651
Primary	94.0	2,331	94.5	825
Secondary or higher	99.0	5,034	98.8	3,106
Wealth quintile				
Lowest	91.6	3,089	93.4	1,218
Second	89.4	3,046	94.6	1,175
Middle	92.3	3,140	95.5	1,195
Fourth	95.3	3,388	98.1	1,183
Highest	99.2	3,994	98.9	1,811
Total 15-49	93.9	16,658	96.3	6,582
50-59	na	na	95.4	680
Total 15-59	na	na	96.2	7,262

na = Not applicable

By residence, women and men in urban areas (99 and 98 percent respectively) are more likely to have heard about AIDS than their counterparts in rural areas (91 and 95 percent respectively). By region, results show improvements in AIDS knowledge. In the 2008 SLDHS there were substantial differences by region. The 2013 SLDHS indicates improvements in the Eastern, Northern, and Southern regions, and more importantly, in all four regions more than 90 percent of men and women have heard about AIDS.

14.1.2 Knowledge of HIV Prevention Methods

HIV is mainly transmitted through sexual contact between an infected partner and a non-infected partner. Consequently, HIV prevention programmes focus their messages and efforts on important aspects of sexual behaviour that include: condom use, limiting the number of sexual partners, and staying faithful to one partner.

To ascertain whether programmes have effectively communicated these messages, the 2013 SLDHS asked respondents if people can reduce their chances of getting the AIDS virus by using a condom every time they have sex and by having just one HIV-negative sexual partner who has no other sex partners.

Table 14.2 shows that knowledge of methods to avoid HIV transmission is generally widespread in Sierra Leone. A greater percentage of men than women know of methods to avoid HIV transmission. For example, 68 percent of women and 79 percent of men know that the risk of getting HIV can be reduced by using condoms every time they have sex. Similarly, 75 percent of women and 83 percent of men know that limiting sex to one uninfected partner who has no other sex partners reduces chances of getting HIV. Furthermore, 63 percent of women and 74 percent of men know that using condoms and limiting sexual intercourse to one uninfected partner reduces the chances of getting HIV.

Knowledge of all the key HIV-prevention methods is lowest among women and men in the Eastern region compared with other regions. Results further indicate that men and women in urban areas are more knowledgeable about all methods of reducing the risk of HIV infection than their rural counterparts. The level of awareness differs substantially across districts.

The level of education attained by women and men age 15-49 is positively associated with their knowledge of ways to avoid contracting HIV. Women and men with no education show much lower levels of knowledge of HIV/AIDS-prevention methods than those with secondary or higher education. The data further show that a lower proportion of women and men in the lowest wealth quintile know of methods to reduce the risk of getting HIV/AIDS.

Figure 14.1 shows that there are differences in knowledge of the various HIV-prevention methods among both women and men age 15-49. Even though the majority of men and women are knowledgeable about all three key HIV prevention methods, results show that, relative to women, a greater percentage of men know all three key HIV-prevention methods.

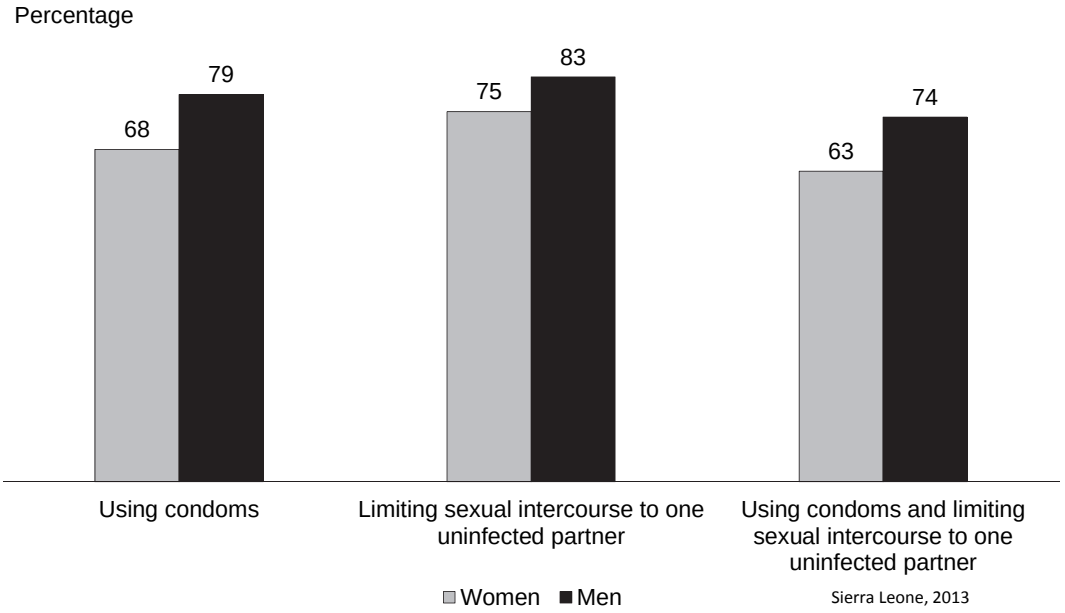
Table 14.2 Knowledge of HIV prevention methods

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, Sierra Leone 2013

	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	70.7	77.6	66.3	6,561	78.4	81.0	73.1	2,481
15-19	68.3	76.1	64.3	3,878	76.2	78.7	71.0	1,475
20-24	74.1	79.7	69.3	2,683	81.7	84.4	76.2	1,007
25-29	69.6	75.3	64.6	2,843	82.9	88.3	79.1	1,017
30-39	65.7	74.2	61.3	4,547	78.4	81.1	73.4	1,764
40-49	61.7	72.0	57.7	2,707	77.5	82.8	73.8	1,319
Marital status								
Never married	73.3	80.1	69.4	4,730	79.3	81.9	74.3	2,849
Ever had sex	80.0	85.5	76.1	3,273	84.1	85.6	79.0	1,907
Never had sex	58.2	67.8	54.4	1,458	69.6	74.3	64.8	942
Married/living together	64.8	72.8	60.2	10,903	78.7	83.0	74.3	3,514
Divorced/separated/widowed	71.9	81.0	67.7	1,025	77.5	82.6	73.7	219
Residence								
Urban	76.9	82.4	72.0	5,933	80.7	83.3	75.4	2,508
Rural	62.6	71.5	58.4	10,725	77.8	82.0	73.5	4,073
Region								
Eastern	58.1	66.8	54.0	3,614	74.2	77.4	68.8	1,442
Northern	69.2	75.3	64.5	6,292	78.2	81.3	73.7	2,300
Southern	60.4	71.8	56.2	3,514	76.4	82.5	72.5	1,414
Western	83.2	88.9	78.9	3,238	87.3	89.7	82.5	1,425
District								
Kailahun	43.5	63.7	40.8	984	90.5	93.3	87.8	371
Kenema	56.2	59.2	50.7	1,651	63.1	69.0	58.6	719
Kono	76.0	82.8	72.7	979	79.9	77.9	69.5	352
Bombali	74.6	82.4	71.8	1,377	65.7	67.3	59.6	499
Kambia	64.9	69.5	59.9	738	81.4	86.6	78.0	270
Koinadugu	45.7	59.4	44.1	719	73.7	78.9	72.3	268
Port Loko	74.8	76.9	68.4	1,994	83.7	89.5	81.3	679
Tonkolili	70.4	77.2	64.8	1,464	83.0	82.2	75.6	584
Bo	47.8	63.2	43.7	1,398	83.1	83.4	78.3	533
Bonthe	86.4	91.7	84.5	678	49.2	77.4	46.6	283
Moyamba	50.0	68.3	46.0	843	86.1	87.3	82.7	368
Pujehun	75.3	74.3	67.6	595	78.7	79.2	74.4	230
Western Area Rural	87.8	91.2	86.1	528	86.6	84.7	81.5	230
Western Area Urban	82.3	88.5	77.5	2,710	87.5	90.6	82.7	1,195
Education								
No education	60.9	69.7	56.4	9,293	72.2	77.6	67.6	2,651
Primary	67.4	75.7	63.4	2,331	73.8	76.8	67.4	825
Secondary or higher	80.3	85.7	76.0	5,034	86.0	88.3	81.8	3,106
Wealth quintile								
Lowest	60.7	70.6	57.0	3,089	72.0	77.6	67.1	1,218
Second	59.5	70.2	55.7	3,046	76.2	79.7	71.4	1,175
Middle	63.8	71.0	58.5	3,140	80.7	85.0	77.0	1,195
Fourth	70.1	76.5	65.7	3,388	79.6	82.2	74.8	1,183
Highest	80.3	85.4	75.6	3,994	83.7	86.3	78.8	1,811
Total 15-49	67.7	75.4	63.3	16,658	78.9	82.5	74.3	6,582
50-59	na	na	na	na	71.9	78.3	66.8	680
Total 15-59	na	na	na	na	78.3	82.1	73.6	7,262

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Figure 14.1 **Women's and men's knowledge of HIV prevention methods**



14.1.3 Rejection of Misconceptions about HIV/AIDS

In addition to knowing about effective ways to avoid contracting HIV, it is important for women and men to be able to identify incorrect beliefs about AIDS. Common misconceptions about AIDS include that all HIV-infected people always appear ill and that the virus can be transmitted through mosquito or other insect bites, by sharing food with someone who is infected, or by witchcraft and other supernatural means. Tables 14.3.1 and 14.3.2 present findings about these misconceptions.

Table 14.3.1 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 a comprehensive knowledge about AIDS by background characteristics, Sierra Leone 2013

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 the 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 a comprehensive knowledge about AIDS[2]	Number of women
Age							
15-24	63.4	60.4	62.5	57.5	35.1	28.8	6,561
15-19	62.1	60.7	62.0	57.3	34.6	28.0	3,878
20-24	65.3	60.0	63.3	57.8	35.7	29.9	2,683
25-29	60.2	55.9	60.3	54.5	31.3	25.2	2,843
30-39	57.0	53.3	58.0	50.2	26.9	21.9	4,547
40-49	54.3	52.5	56.2	47.9	26.3	21.3	2,707
Marital status							
Never married	68.5	67.4	68.5	65.0	42.4	35.1	4,730
Ever had sex	73.5	70.1	70.4	69.1	46.4	39.4	3,273
Never had sex	57.5	61.2	64.5	55.8	33.6	25.6	1,458
Married/living together	55.9	51.7	56.1	48.6	25.9	20.9	10,903
Divorced/separated/widowed	57.9	55.8	60.0	51.4	27.9	23.7	1,025
Residence							
Urban	74.5	70.2	74.1	69.1	46.5	38.0	5,933
Rural	51.4	48.8	52.0	44.8	22.0	17.9	10,725
Region							
Eastern	51.7	55.9	66.7	51.9	28.5	20.3	3,614
Northern	56.5	48.1	48.8	46.7	25.1	22.1	6,292
Southern	59.3	60.1	57.6	49.1	28.3	19.9	3,514
Western	74.9	69.1	76.2	72.8	46.9	41.8	3,238
District							
Kailahun	30.9	47.6	73.7	58.2	14.8	4.8	984
Kenema	57.3	58.7	63.6	41.9	28.6	17.8	1,651
Kono	63.2	59.5	65.2	62.5	41.9	40.1	979
Bombali	64.5	46.6	45.9	42.7	25.1	22.4	1,377
Kambia	59.7	50.0	50.5	45.1	28.2	23.5	738
Koinadugu	39.9	27.0	36.0	31.1	12.1	9.8	719
Port Loko	55.8	50.5	56.5	49.8	26.6	24.0	1,994
Tonkolili	56.5	55.7	46.4	54.9	28.1	24.5	1,464
Bo	54.0	66.0	58.3	55.2	34.5	21.0	1,398
Bonthe	82.3	68.7	61.5	41.4	31.0	28.1	678
Moyamba	39.2	62.7	63.0	59.0	23.8	15.5	843
Pujehun	74.0	32.9	44.0	29.7	16.9	14.3	595
Western Area Rural	62.2	59.8	54.9	61.5	31.6	30.4	528
Western Area Urban	77.3	70.9	80.3	75.1	49.9	44.0	2,710
Education							
No education	51.6	47.3	51.3	43.1	21.0	16.5	9,293
Primary	55.4	55.5	60.0	51.6	26.3	21.0	2,331
Secondary or higher	76.4	73.7	75.6	73.4	50.9	42.8	5,034
Wealth quintile							
Lowest	49.0	48.7	54.1	44.0	20.6	16.9	3,089
Second	50.2	47.9	51.1	44.9	22.7	18.1	3,046
Middle	52.6	49.1	54.0	45.7	22.3	17.7	3,140
Fourth	62.3	58.3	56.8	52.2	30.9	24.5	3,388
Highest	78.4	73.1	78.3	74.4	51.3	43.0	3,994
Total 15-49	59.6	56.4	59.9	53.4	30.7	25.1	16,658

[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 AIDS.
[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 14.3.2 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 a comprehensive knowledge about AIDS by background characteristics, Sierra Leone 2013

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 the AIDS	Percentage who say that a healthy looking person can have the AIDS virus and who reject the two most common local miscon-ceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of men
Age							
15-24	68.9	56.7	61.4	60.9	32.9	30.0	2,481
15-19	66.1	54.9	58.7	58.5	31.0	28.5	1,475
20-24	72.9	59.5	65.4	64.5	35.6	32.0	1,007
25-29	71.8	62.8	68.3	62.7	40.2	37.2	1,017
30-39	66.5	56.4	61.9	59.3	34.0	30.6	1,764
40-49	63.1	53.8	58.3	60.0	33.0	29.9	1,319
Marital status							
Never married	71.1	58.2	63.3	61.9	35.3	32.0	2,849
Ever had sex	76.2	62.0	68.1	66.2	39.5	36.1	1,907
Never had sex	60.7	50.6	53.6	53.2	26.6	23.9	942
Married/living together	65.4	56.0	60.6	59.6	33.8	30.8	3,514
Divorced/separated/widowed	55.9	56.8	67.1	60.2	30.9	28.4	219
Residence							
Urban	76.0	63.0	70.2	66.3	41.5	36.5	2,508
Rural	62.3	53.3	56.9	57.1	30.0	28.1	4,073
Region							
Eastern	58.9	47.6	54.3	52.7	22.2	20.4	1,442
Northern	60.5	58.5	55.6	62.3	30.9	27.7	2,300
Southern	72.0	52.0	61.4	58.8	38.7	35.1	1,414
Western	83.3	69.0	80.7	67.5	47.9	44.2	1,425
District							
Kailahun	54.0	73.1	74.4	56.1	29.8	29.4	371
Kenema	55.7	28.2	35.3	44.5	11.1	10.7	719
Kono	70.4	60.5	71.8	65.9	36.8	30.8	352
Bombali	60.4	64.4	46.3	54.0	33.9	25.5	499
Kambia	63.6	36.4	49.2	43.9	10.6	9.9	270
Koinadugu	15.9	59.0	57.6	56.9	8.2	7.2	268
Port Loko	61.4	54.1	61.0	63.0	26.6	25.7	679
Tonkolili	78.5	68.7	59.4	79.7	53.0	49.5	584
Bo	78.7	56.4	60.7	63.2	45.6	44.7	533
Bonthe	61.2	56.3	56.8	54.5	38.7	27.5	283
Moyamba	73.2	54.3	56.7	71.0	39.6	38.2	368
Pujehun	67.8	33.1	76.1	34.3	21.1	17.4	230
Western Area Rural	82.3	59.6	67.6	60.5	41.4	39.5	230
Western Area Urban	83.5	70.8	83.2	68.9	49.2	45.1	1,195
Education							
No education	56.7	46.0	50.4	49.2	23.5	21.5	2,651
Primary	60.1	52.2	54.6	54.2	27.5	25.5	825
Secondary or higher	78.8	67.7	73.8	72.1	45.4	41.1	3,106
Wealth quintile							
Lowest	55.6	49.1	54.5	53.8	24.8	22.4	1,218
Second	60.1	51.0	53.2	53.8	27.6	25.8	1,175
Middle	63.5	55.6	57.4	60.0	32.6	30.8	1,195
Fourth	71.5	58.6	61.0	63.0	36.4	32.9	1,183
Highest	80.4	66.1	76.5	68.4	44.9	39.9	1,811
Total 15-49	67.5	57.0	62.0	60.6	34.3	31.3	6,582
50-59	63.7	52.5	54.5	53.5	29.4	26.5	680
Total 15-59	67.2	56.6	61.3	59.9	33.9	30.8	7,262

[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 AIDS

[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.

The data indicate that misconceptions about the way the AIDS is transmitted still exist among the Sierra Leonean population. Sixty percent of women and 67 percent of men know that a healthy-looking person can have HIV. With regard to transmission, more than half of women and men (56 percent and 57 percent respectively) know that AIDS cannot be transmitted by mosquito bites, less than two-thirds of women and men (60 percent and 61 percent respectively) know that that the AIDS virus cannot be transmitted by supernatural means, and 53 percent of women and 60 percent of men know that the AIDS virus cannot be transmitted by sharing food with a person who has the AIDS virus. Results show that 31 percent of women and 34 percent of men correctly say that a healthy-looking person can have the AIDS virus and reject the two most common misconceptions about the transmission of AIDS—namely that AIDS can be transmitted by mosquito bites or by sharing food and utensils with someone who has AIDS.

In addition, Tables 14.3.1 and 14.3.2 provide an assessment of the level of comprehensive knowledge of HIV/AIDS-prevention and transmission. Comprehensive knowledge of HIV/AIDS is a useful composite measure and is defined as: 1) knowing that both condom use and having just one uninfected partner are HIV/AIDS-prevention methods, 2) knowing that a healthy-looking person can have HIV, and 3) rejecting the two most common local misconceptions about the transmission of HIV/AIDS, namely, that AIDS cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS. Results indicate that 25 percent of women and 31 percent of men have comprehensive knowledge about HIV/AIDS-prevention and transmission. This indicates an improvement since 2008, when 14 percent of women and 24 percent of men had a comprehensive knowledge about HIV/AIDS prevention and transmission

Knowledge about AIDS transmission among women and men age 15-49 residing in rural areas is lower compared with their urban counterparts. For example, Table 14.3.1 shows that 38 percent of women in urban areas have comprehensive knowledge about AIDS compared with 18 percent of rural women. Similarly, 37 percent of men in urban areas have comprehensive knowledge about AIDS compared with 28 percent of men in rural areas. Among both women and men, the level of comprehensive knowledge is higher in the Western region than in any other region.

Among women and men age 15-49, education is positively associated with knowledge about HIV/AIDS prevention and transmission. The proportion of men and women with a comprehensive knowledge increases with the level of education, from 17 percent of women with no education to 43 percent of women with secondary or higher education, and from 22 percent of men with no education to 41 percent of men with secondary or higher education.

The level of knowledge about HIV prevention and transmission also increases with household wealth, from 17 percent of women in the lowest wealth quintile to 43 percent of women in the highest wealth quintile. Among men, 22 percent of men in the lowest wealth quintile have comprehensive knowledge about AIDS compared with 40 percent of the men in the highest wealth quintile.

14.1.4 Knowledge of Mother-to-Child Transmission of HIV

Increasing general knowledge about transmission of HIV from mother to child and reducing the risk of transmission through the use of antiretroviral drugs is critical to reducing mother-to-child transmission (MTCT) of HIV. Sierra Leone has endeavoured to improve this indicator since 2012 through the scale up of MTCT services and the implementation of Early Infant Diagnosis. To assess MTCT knowledge, respondents in the 2013 SLDHS were asked if the virus that causes AIDS can be transmitted from a mother to child through breastfeeding and whether a mother with HIV can reduce the risk of transmission to the baby by taking certain drugs during pregnancy.

Table 14.4 shows that women are more likely than men to know of the risk of mother-to-child transmission of HIV through breastfeeding (70 percent of women and 48 percent of men). Awareness of treatment for maternal transmission has increased since 2008; the proportion of respondents who were aware that the risk of mother-to-child transmission can be reduced by the mother taking certain drugs during

pregnancy has increased, from 14 percent of women in 2008 to 54 percent in 2013, and from 24 percent of men in 2008 to 44 percent in 2013.

Table 14.4 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 mother taking special drugs during pregnancy, by background characteristics, Sierra Leone 2013

	Women				Men			
Background characteristic	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
Age								
15-24	68.0	53.5	48.4	6,561	45.0	43.8	30.6	2,481
15-19	63.2	48.7	44.0	3,878	41.1	39.5	27.6	1,475
20-24	74.9	60.4	54.7	2,683	50.7	50.2	35.1	1,007
25-29	72.7	56.6	51.9	2,843	48.3	46.8	32.0	1,017
30-39	73.2	55.1	50.6	4,547	49.1	43.4	31.0	1,764
40-49	69.1	50.5	46.1	2,707	49.7	43.4	32.6	1,319
Marital status								
Never married	67.9	56.2	51.0	4,730	45.0	45.4	31.3	2,849
Ever had sex	74.2	63.1	57.3	3,273	48.3	50.7	34.7	1,907
Never had sex	53.7	40.9	36.8	1,458	38.5	34.7	24.3	942
Married/living together	71.2	52.9	48.3	10,903	49.8	43.2	31.8	3,514
Divorced/separated/widowed	72.6	55.1	50.7	1,025	43.5	40.9	24.9	219
Currently pregnant								
Pregnant	72.9	55.4	49.7	1,429	na	na	na	na
Not pregnant or not sure	70.1	53.9	49.2	15,229	na	na	na	na
Residence								
Urban	75.4	67.9	62.0	5,933	50.0	53.3	36.2	2,508
Rural	67.6	46.3	42.1	10,725	46.0	38.4	28.3	4,073
Region								
Eastern	76.1	58.2	56.2	3,614	51.5	43.0	29.8	1,442
Northern	69.7	50.3	45.6	6,292	43.5	38.4	26.0	2,300
Southern	60.8	40.7	34.6	3,514	44.3	45.4	33.8	1,414
Western	75.7	71.1	64.4	3,238	53.1	53.1	39.2	1,425
District								
Kailahun	73.7	52.2	48.9	984	54.0	25.5	21.4	371
Kenema	75.3	58.7	56.9	1,651	54.3	60.4	40.2	719
Kono	79.7	63.3	62.4	979	43.3	26.0	17.2	352
Bombali	75.7	56.1	54.0	1,377	31.4	35.3	18.3	499
Kambia	65.6	42.8	34.7	738	40.3	12.0	11.5	270
Koinadugu	49.9	23.7	22.7	719	39.0	31.4	23.3	268
Port Loko	66.4	55.4	45.9	1,994	48.4	32.1	25.8	679
Tonkolili	80.3	54.5	53.9	1,464	51.8	63.6	40.8	584
Bo	47.1	37.8	27.1	1,398	34.1	50.0	30.8	533
Bonthe	74.5	59.4	58.1	678	36.3	35.3	25.7	283
Moyamba	53.8	34.5	28.4	843	62.1	58.9	52.2	368
Pujehun	87.3	35.2	34.3	595	49.1	25.5	21.2	230
Western Area Rural	70.1	74.2	63.7	528	56.0	42.9	38.5	230
Western Area Urban	76.8	70.4	64.5	2,710	52.6	55.1	39.3	1,195
Education								
No education	67.8	47.9	43.7	9,293	44.3	35.6	25.8	2,651
Primary	66.8	50.2	45.1	2,331	43.3	36.2	27.7	825
Secondary or higher	76.8	67.1	61.3	5,034	51.4	53.4	37.1	3,106
Wealth quintile								
Lowest	67.3	47.0	43.3	3,089	48.8	39.2	30.2	1,218
Second	66.0	45.2	40.2	3,046	43.6	36.1	25.1	1,175
Middle	67.0	46.3	41.8	3,140	45.0	36.2	26.3	1,195
Fourth	72.7	56.2	51.5	3,388	49.4	46.2	34.4	1,183
Highest	76.7	70.3	64.5	3,994	49.7	56.3	37.5	1,811
Total 15-49	70.4	54.0	49.2	16,658	47.5	44.1	31.4	6,582
50-59	na	na	na	na	47.0	45.1	31.9	680
Total 15-59	na	na	na	na	47.5	44.2	31.4	7,262

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Combined knowledge of both these indicators refers to: 1) knowing that HIV can be transmitted by breastfeeding and 2) knowing that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy. Combined knowledge has also increased among respondents since the 2008 SLDHS. The proportion of respondents age 15-49 with combined knowledge increased from 13 percent to 49 percent for women and from 20 percent to 31 percent for men.

Knowledge of transmission through breastfeeding and of MTCT-reducing drugs is lower for women and men with no education and women and men in rural areas. It is substantially lower for women in the Southern region than in other region. Sierra Leonean women and men age 15-49 with no education as well as those with primary education are less likely to know about HIV transmission through breastfeeding than women and men with secondary or higher education. With regard to residence, there are considerable differences in knowledge between women and men in rural and urban areas. Only 42 percent of women in rural areas are knowledgeable about transmission through breastfeeding and MTCT-reducing drugs compared with 62 percent of women in urban areas. Similarly, men in rural areas have a lower level of combined knowledge than men in urban areas (28 percent in rural areas and 36 percent in urban areas).

14.2 ATTITUDES TOWARDS PEOPLE LIVING WITH AIDS

Widespread stigma and discrimination in a population can adversely affect people's willingness to be tested as well as their adherence to antiretroviral therapy. Even though people living with HIV are protected by the National AIDS Act of 2011, they still experience stigma and discrimination on a daily basis. Reduction of stigma and discrimination is, thus, an important indicator of the success of programmes targeting HIV/AIDS prevention and control.

To assess the level of stigma, survey respondents who had heard of AIDS were asked: 1) if they would be willing to care for a family member sick with AIDS in their own household, 2) if they would be willing to buy fresh vegetables from a market vendor who has the AIDS virus, 3) if they thought that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and 4) if they would want to keep a family member's HIV status secret. Tables 14.5.1 and 14.5.2 show results for women and men respectively.

A greater percentage of women (73 percent) and men (83 percent) expressed positive attitudes concerning the question on care for a family member sick with AIDS than responded positively to the questions about purchasing vegetables from an HIV-positive shopkeeper or about an HIV-positive female teacher. The fact that the majority of women and men would be willing to care for a family member sick with AIDS in their home indicates that individuals are generally supportive in providing a caring environment for family members if they were to get sick with AIDS.

The percentage of women and men expressing acceptance on all four indicators of stigma is low. Only 7 percent of women and 6 percent of men show acceptance on all four measures. By age, a slightly smaller percentage of women age 30-39 express accepting attitudes towards people infected with HIV/AIDS on all four measures compared with women in the other age groups (Table 14.5.1). For men, a considerably lower percentage of respondents' age 15-19 express accepting attitudes towards people infected with HIV/AIDS on all four measures compared with men of other ages. Place of residence also has an association with attitudes on all four measures (Table 14.5.2). Even though the difference is modest, urban women are less likely than rural women to have accepting attitudes on all four measures. Conversely, urban men are nearly four times more likely than their rural counterparts to have accepting attitudes on all four measures towards people infected with HIV/AIDS.

Table 14.5.1 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, Sierra Leone 2013

Background characteristic	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 acceptance attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	73.1	46.0	53.3	39.5	7.1	6,205
15-19	71.8	45.0	53.5	40.0	7.2	3,660
20-24	74.9	47.5	53.0	38.8	6.9	2,546
25-29	73.7	46.8	46.6	41.4	6.6	2,677
30-39	72.3	41.7	43.1	44.4	6.2	4,261
40-49	71.2	40.6	40.7	47.1	6.3	2,499
Marital status						
Never married	75.9	51.4	59.6	34.4	7.3	4,569
Ever had sex	78.7	54.6	61.6	34.0	8.2	3,211
Never had sex	69.1	43.8	54.8	35.5	5.1	1,358
Married/living together	71.1	41.2	42.3	46.0	6.3	10,090
Divorced/separated/widowed	74.3	40.0	43.2	41.7	7.2	983
Residence						
Urban	79.7	53.2	62.3	27.3	5.7	5,841
Rural	68.5	38.7	38.5	51.4	7.2	9,801
Region						
Eastern	68.9	43.7	50.8	53.7	7.2	3,379
Northern	70.3	40.3	37.1	48.5	9.2	5,720
Southern	69.9	40.4	43.2	44.8	4.8	3,337
Western	83.6	55.2	66.5	16.8	3.4	3,207
District						
Kailahun	75.3	42.7	53.8	63.9	15.7	912
Kenema	55.9	37.2	40.2	58.5	2.7	1,556
Kono	84.8	55.7	65.9	35.4	6.3	910
Bombali	65.4	50.8	44.6	57.2	16.4	1,247
Kambia	75.0	31.6	33.9	26.1	0.6	700
Koinadugu	47.5	30.0	37.1	49.1	5.8	526
Port Loko	72.5	40.8	35.5	42.3	6.5	1,834
Tonkolili	78.1	38.7	34.0	59.9	11.8	1,412
Bo	70.5	43.0	46.0	38.7	6.2	1,337
Bonthe	78.4	37.7	51.1	40.1	5.5	660
Moyamba	76.1	53.2	47.6	32.3	3.3	762
Pujehun	50.9	20.5	21.6	81.0	2.6	577
Western Area Rural	91.3	61.3	66.5	19.8	3.6	525
Western Area Urban	82.1	54.0	66.5	16.3	3.4	2,682
Education						
No education	69.4	37.8	37.9	48.2	5.9	8,469
Primary	69.8	38.7	41.8	43.9	4.7	2,192
Secondary or higher	79.5	57.3	66.0	31.8	8.7	4,982
Wealth quintile						
Lowest	69.3	40.0	40.5	51.4	7.0	2,830
Second	67.5	39.5	37.3	52.3	7.4	2,723
Middle	68.6	38.3	38.7	49.8	6.6	2,899
Fourth	73.1	40.9	45.3	44.0	7.5	3,228
Highest	81.3	57.1	67.3	22.3	5.1	3,962
Total 15-49	72.7	44.1	47.4	42.4	6.6	15,643

Table 14.5.2 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, Sierra Leone 2013

Background characteristic	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 acceptance attitudes on all four indicators	Number of respondents who have heard of AIDS
Age						
15-24	82.7	43.8	55.3	34.3	5.8	2,365
15-19	81.1	41.4	51.9	33.0	5.1	1,381
20-24	84.9	47.1	60.1	36.2	6.9	984
25-29	84.4	46.0	54.2	35.9	7.3	994
30-39	81.6	41.1	53.7	37.7	6.0	1,706
40-49	83.1	42.1	51.4	38.9	6.2	1,275
Marital status						
Never married	83.7	46.9	57.0	34.7	7.5	2,727
Ever had sex	84.8	50.1	60.8	35.5	8.9	1,872
Never had sex	81.4	39.8	48.7	32.9	4.6	856
Married/living together	82.0	40.2	51.9	38.0	5.4	3,401
Divorced/separated/widowed	82.6	40.1	47.0	32.1	2.2	212
Residence						
Urban	86.7	53.4	62.8	37.3	11.2	2,460
Rural	80.2	36.5	48.3	35.8	3.0	3,880
Region						
Eastern	89.5	29.4	43.2	52.1	6.6	1,381
Northern	80.7	41.9	57.3	29.6	2.8	2,198
Southern	73.5	42.3	43.6	32.6	2.3	1,353
Western	88.3	59.0	69.2	35.3	14.9	1,408
District						
Kailahun	94.9	18.5	41.7	51.0	3.2	368
Kenema	86.9	33.6	34.7	62.0	6.6	668
Kono	88.7	32.9	61.5	33.9	10.1	345
Bombali	64.5	48.7	55.9	24.6	1.7	469
Kambia	97.4	24.0	50.9	48.5	2.3	261
Koinadugu	66.9	31.9	49.0	60.7	4.5	226
Port Loko	81.6	29.4	57.5	27.3	4.5	664
Tonkolili	90.5	62.7	64.2	15.7	1.2	577
Bo	61.7	35.7	39.7	28.3	3.6	519
Bonthe	62.6	47.3	23.2	47.5	0.9	269
Moyamba	92.6	63.7	69.4	18.7	1.5	348
Pujehun	84.7	17.7	36.6	46.3	2.1	217
Western Area Rural	86.3	51.0	67.0	35.7	14.3	229
Western Area Urban	88.7	60.6	69.6	35.2	15.1	1,179
Education						
No education	80.1	33.8	43.0	38.5	3.2	2,493
Primary	79.1	33.2	48.4	37.2	3.6	780
Secondary or higher	85.9	53.1	64.2	34.5	9.3	3,068
Wealth quintile						
Lowest	78.2	37.0	45.7	43.4	3.6	1,137
Second	81.6	33.5	46.7	35.5	2.2	1,112
Middle	77.4	36.2	49.5	35.0	2.1	1,141
Fourth	84.4	44.3	54.3	33.4	7.0	1,160
Highest	88.7	56.4	66.3	35.4	12.4	1,791
Total 15-49	82.8	43.1	53.9	36.4	6.2	6,340
50-59	81.8	39.6	51.6	37.7	6.2	649
Total 15-59	82.7	42.8	53.7	36.5	6.2	6,989

Education and socioeconomic status do not appear to be related to attitudes towards people who are HIV-positive. There is no clear pattern with regard to education and acceptance of all four measures among women. For men, there is a positive association, with acceptance of all four measures with increasing level of education. Women in the highest wealth quintile are less likely than women in the lowest quintile to express accepting attitudes on all four measures towards people infected with HIV/AIDS (5 percent and 7 percent, respectively). Conversely, 12 percent of men in the highest wealth quintile express accepting attitudes on all four measures compared with 4 percent of men in the lowest wealth quintile.

The data show improvement between 2008 and 2013 in attitudes towards those with HIV. Women and men express increased willingness to care in their own households for a relative who is sick with AIDS—an increase of 24 percent for women and 10 percent for men since 2008. Similarly, there have been improvements in attitudes with regard to the willingness to buy fresh vegetables from a vendor who has the AIDS virus. Since 2008, there has been a 24 percent increase for women and a 3 percent increase for men. Lastly, the proportion of respondents who believe that a female teacher who has the AIDS virus should be allowed to continue teaching has increased from 31 percent of women and 43 percent of men in 2008 to 47 percent of women and 54 percent of men in 2013.

14.3 Attitudes towards Negotiating Safer Sex

Knowledge about HIV transmission and ways to prevent it are not useful if people feel powerless to negotiate safer sex practices with their partners. In an effort to assess the ability of women to negotiate safer sex with a spouse who has a sexually transmitted infection (STI), women and men were asked if they thought that a wife is justified in refusing to have sexual intercourse with her husband or asking that he use a condom if she knows that he has sex with other women or that he has an STI.

Table 14.6 shows that 58 percent of women and 66 percent of men agree that a woman is justified in refusing to have sex with her husband if she knows he has sexual intercourse with other women. Furthermore, most women and men (72 percent and 82 percent respectively) believe that a woman is justified in asking her husband to use a condom if he has an STI.

Attitudes towards negotiating safer sex differ by background characteristics. Rural respondents, younger respondents (age 15-19), and women and men who never had sex are generally less supportive of women negotiating safer sex practices with their husbands, compared with other women and men. Education and wealth quintile are positively associated with support for women negotiating safer sex with their husbands.

Table 14.6 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, Sierra Leone 2013

	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	56.5	71.5	6,561	64.1	78.4	2,481
15-19	53.9	67.4	3,878	62.3	72.7	1,475
20-24	60.2	77.3	2,683	66.7	86.9	1,007
25-29	61.2	75.4	2,843	65.1	86.7	1,017
30-39	59.5	72.5	4,547	68.0	83.7	1,764
40-49	56.1	68.9	2,707	65.4	83.7	1,319
Marital status						
Never married	57.3	74.2	4,730	66.0	79.7	2,849
Ever had sex	64.7	83.3	3,273	70.8	88.1	1,907
Never had sex	40.5	53.9	1,458	56.4	62.7	942
Married/living together	58.0	70.3	10,903	65.6	84.1	3,514
Divorced/separated/widowed	62.2	79.8	1,025	59.6	83.4	219
Residence						
Urban	63.3	83.5	5,933	70.5	86.8	2,508
Rural	55.2	65.7	10,725	62.5	79.4	4,073
Region						
Eastern	66.0	73.7	3,614	62.4	79.1	1,442
Northern	51.4	65.2	6,292	64.0	78.0	2,300
Southern	62.1	70.7	3,514	58.4	82.0	1,414
Western	57.7	84.7	3,238	78.4	92.2	1,425
District						
Kailahun	53.6	53.7	984	83.7	91.6	371
Kenema	74.9	81.5	1,651	62.9	74.8	719
Kono	63.6	80.9	979	39.1	74.7	352
Bombali	55.2	67.2	1,377	54.9	83.4	499
Kambia	54.7	59.7	738	80.3	84.2	270
Koinadugu	38.4	28.3	719	59.0	74.4	268
Port Loko	52.2	69.5	1,994	55.9	81.3	679
Tonkolili	51.4	78.5	1,464	75.7	68.3	584
Bo	61.8	58.2	1,398	61.8	76.3	533
Bonthe	57.4	83.9	678	21.6	72.3	283
Moyamba	57.3	68.4	843	70.2	91.9	368
Pujehun	74.9	88.2	595	77.3	91.5	230
Western Area Rural	64.4	87.6	528	91.8	96.3	230
Western Area Urban	56.5	84.1	2,710	75.9	91.4	1,195
Education						
No education	54.7	66.3	9,293	58.9	77.2	2,651
Primary	56.6	69.0	2,331	61.5	79.1	825
Secondary or higher	65.0	84.0	5,034	72.3	87.3	3,106
Wealth quintile						
Lowest	57.1	65.6	3,089	57.6	78.1	1,218
Second	55.6	63.3	3,046	60.2	79.3	1,175
Middle	53.1	66.7	3,140	65.9	78.1	1,195
Fourth	59.3	74.6	3,388	63.9	81.6	1,183
Highest	63.6	85.6	3,994	75.3	89.9	1,811
Total 15-49	58.1	72.0	16,658	65.6	82.2	6,582
50-59	na	na	na	64.5	78.1	680
Total 15-59	na	na	na	65.5	81.8	7,262

na = Not applicable

14.4 ATTITUDES TOWARDS CONDOM EDUCATION FOR YOUTH

Condom use is one of the main strategies for combating the spread of HIV. Social acceptance of condom use among young people is an important determinant of condom use to prevent sexual transmission of HIV and other STIs, as well as preventing early pregnancy. In Sierra Leone, teenage pregnancy is a priority, as evidenced by the creation of the National Strategy for the Reduction of Teenage Pregnancy in 2013. Unfortunately, educating youth about condom use is sometimes controversial, with some saying it promotes early sexual experimentation. To gauge attitudes towards condom education, SLDHS respondents were asked if they thought that children age 12-14 should be taught about condom use to avoid getting AIDS. Table 14.7 shows the results. Since the table focuses on adult opinion, results are tabulated for respondents age 18-49.

Table 14.7 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, Sierra Leone 2013

	Women		Men	
Background characteristic	Percentage who agree	Number	Percentage who agree	Number
Age				
18-24	48.8	4,242	43.7	1,533
18-19	49.5	1,559	44.3	526
20-24	48.4	2,683	43.4	1,007
25-29	43.6	2,843	39.9	1,017
30-39	41.7	4,547	36.9	1,764
40-49	37.5	2,707	34.7	1,319
Marital status				
Never married	57.6	2,607	42.5	1,903
Married/living together	39.9	10,714	36.8	3,511
Divorced/separated/widowed	43.2	1,018	38.3	219
Residence				
Urban	55.8	5,003	47.0	2,099
Rural	36.7	9,336	33.9	3,534
Region				
Eastern	35.4	3,127	35.4	1,251
Northern	37.1	5,379	37.1	1,977
Southern	50.7	3,040	35.4	1,198
Western	56.4	2,793	48.4	1,207
District				
Kailahun	28.9	894	25.9	331
Kenema	29.2	1,463	32.6	622
Kono	54.6	770	51.6	298
Bombali	45.5	1,129	51.9	420
Kambia	24.9	641	32.9	230
Koinadugu	18.5	612	28.6	237
Port Loko	43.0	1,709	39.1	572
Tonkolili	36.9	1,288	28.6	519
Bo	56.2	1,193	31.2	454
Bonthe	56.5	577	15.0	234
Moyamba	31.4	732	33.8	299
Pujehun	58.8	538	69.5	211
Western Area Rural	54.2	449	39.0	192
Western Area Urban	56.8	2,344	50.2	1,016
Education				
No education	36.8	8,909	31.5	2,500
Primary	41.5	1,749	39.4	622
Secondary or higher	60.3	3,681	45.8	2,511
Wealth quintile				
Lowest	35.1	2,719	30.5	1,065
Second	33.6	2,668	35.7	1,032
Middle	39.0	2,740	34.9	1,022
Fourth	46.0	2,836	41.2	980
Highest	59.2	3,377	47.6	1,535
Total 18-49	43.4	14,339	38.8	5,633
50-59	na	na	37.1	680
Total 18-59	na	na	38.6	6,314

na = Not applicable

The table shows that women are more likely than men to agree that children age 12-14 should be taught about condom use to avoid AIDS (43 percent of women and 39 percent of men age 18-49). By residence, urban men and women are more likely than their rural counterparts to agree on education about condom use for youth. By region, women and men in the Eastern region are least likely to agree that children age 12-14 should be taught about using condoms to avoid AIDS (35 percent each). Women and men in the Western region are most likely to support condom education for children age 12-14 (56 percent of women and 48 percent of men). Both education and wealth quintile have a positive relationship with support for teaching children about using condoms to avoid AIDS. As education or wealth quintile increases, support for children's education also increases.

14.5 HIGHER-RISK SEX

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV. The 2013 SLDHS included questions on respondents' sexual partners during their lifetimes and in the 12 months preceding the survey. For male respondents, an additional question was asked about whether they paid anyone in exchange for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual encounter with each type of partner was collected for women and men. These questions are sensitive, and it is recognised that some respondents may have been reluctant to provide information on recent sexual behaviour.

14.5.1 Multiple Partners and Condom Use

Tables 14.8.1 and 14.8.2 show the percentage of women and men, respectively, who had more than one sexual partner, the percentage who reported using a condom during last sexual intercourse among respondents who had more than one partner in the past 12 months, and the mean number of sexual partners among respondents who ever had sexual intercourse.

Results show that men are more likely than women to have had two or more sexual partners in the 12 months preceding the survey (25 percent for men and 6 percent for women). Since the 2008 SLDHS, there has been a 16 percent increase in multiple partnerships for men and a 4 percent increase for women.

With regard to background characteristics, Tables 14.8.1 and 14.8.2 show that the percentages of respondents with multiple sexual partnerships differ by age, education, and wealth. Women age 20-24 are most likely to have had two or more sexual partners in the last 12 months (8 percent), whereas men age 30-39 are most likely to have had two or more sexual partners in the last 12 months (32 percent). With regard to education and wealth quintile, as education or wealth increases, the percentage of men and women who had more than one partner in the past 12 months also increases.

In addition, the 2013 SLDHS shows that among men and women age 15-49 who ever had sexual intercourse, the mean number of lifetime sexual partners is higher for men. On average, men who ever had sexual intercourse had an average of seven lifetime partners and women had an average of three lifetime partners.

The 2013 SLDHS also assessed condom use among women and men with multiple partners in the 12 months preceding the survey. Relative to the 2008 SLDHS, the 2013 SLDHS indicates a decrease in reported condom use, from 7 percent to 5 percent for women and from 14 percent to 13 percent for men among respondents who had two or more sexual partners in the 12 months preceding the survey.

In the 2013 SLDHS, the younger generation fares better with regard to condom use during their last sexual intercourse. Compared with older age groups, young women and men age 15-19 were most likely to use condoms during their last sexual intercourse (10 percent for women and 24 percent for men).

Table 14.8.1 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, Sierra Leone 2013

	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	6.2	6,561	5.9	407	2.1	5,019
15-19	5.2	3,878	9.7	204	1.8	2,462
20-24	7.6	2,683	2.1	204	2.4	2,557
25-29	7.2	2,843	4.9	204	2.6	2,768
30-39	5.7	4,547	3.7	260	2.8	4,402
40-49	4.4	2,707	2.1	120	2.8	2,611
Marital status						
Never married	8.4	4,730	8.3	399	2.4	3,210
Married/living together	4.8	10,903	1.7	521	2.5	10,632
Divorced/separated/widowed	7.0	1,025	5.6	72	3.3	958
Residence						
Urban	7.4	5,933	5.5	440	2.8	5,039
Rural	5.1	10,725	4.0	552	2.4	9,762
Region						
Eastern	5.9	3,614	5.9	215	2.8	3,190
Northern	3.9	6,292	4.8	246	2.2	5,762
Southern	8.8	3,514	2.1	310	2.6	3,136
Western	6.8	3,238	6.8	221	2.9	2,712
District						
Kailahun	7.1	984	0.0	70	2.8	923
Kenema	6.6	1,651	7.9	109	3.1	1,428
Kono	3.6	979	11.8	35	2.3	838
Bombali	3.3	1,377	(0.0)	45	1.9	1,237
Kambia	1.5	738	*	11	2.1	678
Koinadugu	3.3	719	(6.0)	24	1.8	642
Port Loko	4.2	1,994	0.0	83	2.3	1,847
Tonkolili	5.6	1,464	10.6	82	2.4	1,358
Bo	13.8	1,398	1.6	192	2.9	1,184
Bonthe	4.7	678	2.0	32	2.2	605
Moyamba	2.3	843	*	19	2.1	783
Pujehun	11.2	595	2.9	67	2.9	564
Western Area Rural	5.2	528	4.9	27	3.1	468
Western Area Urban	7.2	2,710	7.1	194	2.9	2,244
Education						
No education	4.8	9,293	4.1	443	2.5	8,873
Primary	6.0	2,331	1.1	139	2.7	1,861
Secondary or higher	8.1	5,034	6.4	409	2.6	4,066
Wealth quintile						
Lowest	4.2	3,089	4.9	130	2.3	2,825
Second	5.1	3,046	5.8	154	2.4	2,775
Middle	5.4	3,140	3.0	171	2.3	2,870
Fourth	7.0	3,388	2.8	236	2.6	2,987
Highest	7.5	3,994	6.4	300	2.9	3,343
Total 15-49	6.0	16,658	4.7	992	2.5	14,800

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Place of residence is correlated with higher-risk sexual behaviour. Women and men in urban areas are more likely than those in rural areas to have had sex in the previous 12 months with two or more sexual partners and to have had more lifetime sexual partners. Furthermore, women in the Southern region and men in Western region are more likely to have had sexual intercourse with more than one two or more sexual partners in the 12 months preceding the survey than women and men in other regions. A lower percentage of women in the Southern region used condoms at their last sexual intercourse than women in other regions.

Table 14.8.2 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, Sierra Leone 2013

	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 intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	15.7	2,481	20.9	389	4.4	1,449
15-19	8.2	1,475	23.5	121	2.8	630
20-24	26.6	1,007	19.8	267	5.7	819
25-29	30.6	1,017	19.3	312	6.4	866
30-39	31.9	1,764	10.6	564	7.9	1,368
40-49	30.6	1,319	2.0	403	8.2	1,069
Marital status						
Never married	19.5	2,849	25.6	554	5.4	1,714
Married/living together	30.4	3,514	5.5	1,068	7.3	2,856
Divorced/separated/widowed	20.3	219	(19.2)	44	7.6	181
Type of union						
In polygynous union	67.6	699	1.8	473	8.5	560
In non-polygynous union	21.2	2,814	8.5	596	7.0	2,296
Not currently in union	19.5	3,068	25.1	599	5.6	1,895
Residence						
Urban	29.0	2,508	19.9	728	7.2	1,646
Rural	23.1	4,073	6.9	939	6.3	3,106
Region						
Eastern	26.6	1,442	8.6	384	7.2	1,107
Northern	21.8	2,300	8.1	502	5.9	1,758
Southern	23.6	1,414	11.6	334	6.8	1,006
Western	31.4	1,425	21.6	447	7.2	881
District						
Kailahun	20.2	371	4.9	75	5.6	298
Kenema	36.6	719	9.7	263	8.1	549
Kono	13.0	352	8.8	46	6.9	260
Bombali	21.2	499	5.8	106	4.4	373
Kambia	14.3	270	8.6	39	4.9	196
Koinadugu	26.0	268	15.5	70	2.5	222
Port Loko	19.2	679	5.7	130	6.6	478
Tonkolili	27.1	584	8.4	158	8.4	488
Bo	21.8	533	12.0	116	5.5	337
Bonthe	5.7	283	(4.0)	16	4.0	182
Moyamba	21.8	368	13.2	80	7.6	282
Pujehun	52.7	230	11.0	121	10.2	205
Western Area Rural	35.3	230	5.5	81	6.0	153
Western Area Urban	30.6	1,195	25.2	366	7.4	728
Education						
No education	23.6	2,651	4.4	627	6.7	2,112
Primary	20.8	825	10.5	171	6.4	524
Secondary or higher	28.0	3,106	18.9	869	6.6	2,116
Wealth quintile						
Lowest	22.1	1,218	7.4	269	6.3	934
Second	22.1	1,175	4.6	260	6.4	912
Middle	23.3	1,195	6.9	279	6.1	874
Fourth	26.2	1,183	10.6	309	6.6	853
Highest	30.4	1,811	22.8	550	7.5	1,179
Total 15-49	25.3	6,582	12.6	1,667	6.6	4,752
50-59	32.5	680	4.5	221	7.9	524
Total 15-59	26.0	7,262	11.6	1,888	6.8	5,275

Note: Figures in parentheses are based on 25 to 49 unweighted cases
[1] Means are calculated excluding respondents who gave non-numeric responses.

Condom use generally increases with the level of education. For men, results show that the level of education is correlated with use of condoms among men who had two or more sexual partners in the last 12 months. A greater percentage of men with no education and men in the lowest wealth quintile report multiple sexual partners in the 12 months preceding the survey, and lower levels of condom use with such partners compared with other men. Similarly, women with no education and those who are in the lowest wealth quintile are more likely than other women to report having multiple sexual partners in the 12 months before the survey.

14.5.2 Concurrent Sexual Partners

According to UNAIDS, 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 these partnerships are serial or concurrent. Concurrent sexual partnerships are theoretically more risky than serial sexual partnerships because concurrent partnerships can create large interconnected sexual networks whose members are at heightened risk of infection.

The 2013 SLDHS contains information on the time since the first and most recent sexual intercourse with each sexual partner in the past 12 months. This information is used to determine if sexual intercourse with one partner overlaps with sexual intercourse with another partner, i.e. whether two partnerships are concurrent. Two indicators measure concurrent sexual partnerships: point prevalence of concurrent sexual partners and cumulative prevalence of concurrent sexual partners. *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. *Cumulative prevalence of concurrent sexual partnerships* is defined as the proportion of women and men age 15-49 who 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 only includes relationships ongoing on a particular day rather than over an entire year. For men, overlapping polygynous unions are considered concurrent partnerships in both the point prevalence and cumulative prevalence concurrency indicators.

Results presented in Table 14.9 show substantial differences for men and women with regard to point prevalence and cumulative prevalence. Among respondents age 15-49, the point prevalence of concurrent sexual partners is 4 percent for women and 17 percent for men. The cumulative prevalence of concurrent sexual partners is nearly five times higher for men (23 percent) than women (5 percent).

Differences by background characteristics are minor with regard to women. For men, however, results show that men age 20 or older are more likely to have two or more sexual partners that are concurrent than younger men. Furthermore, married men (28 percent) have a higher cumulative prevalence of concurrent sexual partners than never-married men (17 percent) and divorced, separated, or widowed men (16 percent).

Table 14.9 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), 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, Sierra Leone 2013

	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	3.7	5.2	6,561	84.2	407
15-19	3.0	4.4	3,878	84.7	204
20-24	4.6	6.4	2,683	83.7	204
25-29	4.5	6.0	2,843	84.2	204
30-39	3.7	5.2	4,547	90.4	260
40-49	3.0	3.8	2,707	86.3	120
Marital status					
Never married	5.1	7.0	4,730	83.4	399
Married/living together	3.1	4.2	10,903	88.1	521
Divorced/separated/widowed	3.6	6.1	1,025	86.2	72
Residence					
Urban	4.4	6.0	5,933	80.9	440
Rural	3.4	4.6	10,725	90.2	552
Total 15-49	3.7	5.1	16,658	86.1	992
		MEN			
Age					
15-24	8.5	13.5	2,481	86.1	389
15-19	4.1	6.7	1,475	80.9	121
20-24	14.9	23.5	1,007	88.5	267
25-29	18.7	27.7	1,017	90.3	312
30-39	22.7	29.6	1,764	92.7	564
40-49	22.4	28.9	1,319	94.5	403
Marital status					
Never married	11.8	17.2	2,849	88.1	554
Married/living together	21.1	28.3	3,514	93.2	1,068
Divorced/separated/widowed	8.6	16.3	219	(80.4)	44
Type of union					
In polygynous union	49.1	63.8	699	94.4	473
In non-polygynous union	14.1	19.5	2,814	92.2	596
Not currently in union	11.6	17.1	3,068	87.6	599
Residence					
Urban	18.5	25.6	2,508	88.0	728
Rural	15.5	21.6	4,073	93.6	939
Total 15-49	16.6	23.1	6,582	91.2	1,667
50-59	24.1	29.5	680	90.9	221
Total 15-59	17.3	23.7	7,262	91.1	1,888

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

14.5.3 Transactional Sex

Transactional sex involves exchange of sex for money, favours, or gifts. Transactional sex is associated with high risk of contracting HIV and other STIs due to compromised power relations and the tendency to have multiple partnerships as a result. In the 2013 SLDHS, male respondents who had sex in the 12 months preceding the survey were asked what their relationship was with their partners, with the option of reporting a sex worker as a partner. In addition, they were asked a direct question as to whether they had paid anyone in exchange for having sex in the previous 12 months. Men who engaged in transactional sex were asked about condom use during the last paid sexual encounter.

Table 14.10 shows the percentage of men who ever paid for sexual intercourse, the percentage who paid for sexual intercourse in the past 12 months, and among men who paid for sex in the past 12 months the percentage who reported using a condom at the last paid sexual intercourse. Results indicate that men age 20-24 and men age 25-29 are more likely than men in other age groups to have ever paid for sexual intercourse, as well as more likely to have paid for sexual intercourse in the past 12 months.

Table 14.10 Payment for sexual intercourse and condom use at last paid 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, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Sierra Leone 2013

	Among all men:			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	5.5	3.9	2,481	42.0	96
15-19	3.7	2.5	1,475	(29.2)	37
20-24	8.2	5.8	1,007	50.1	59
25-29	9.9	5.2	1,017	54.1	52
30-39	7.1	3.8	1,764	44.7	66
40-49	4.1	2.1	1,319	(45.3)	28
Marital status					
Never married	7.7	4.9	2,849	46.0	140
Married/living together	5.1	2.7	3,514	43.0	93
Divorced/separated/widowed	8.0	4.1	219	*	9
Residence					
Urban	8.3	3.7	2,508	54.1	92
Rural	5.1	3.7	4,073	40.6	151
Region					
Eastern	7.5	2.9	1,442	(34.8)	41
Northern	2.3	1.2	2,300	(57.3)	28
Southern	9.6	8.4	1,414	40.4	119
Western	8.5	3.8	1,425	(59.8)	54
District					
Kailahun	3.2	2.5	371	*	9
Kenema	12.5	3.9	719	*	28
Kono	2.0	1.1	352	*	4
Bombali	1.9	0.9	499	*	5
Kambia	1.1	1.1	270	*	3
Koinadugu	1.6	0.8	268	*	2
Port Loko	2.7	1.9	679	*	13
Tonkolili	3.0	1.0	584	*	6
Bo	5.0	4.5	533	*	24
Bonthe	8.5	6.6	283	*	19
Moyamba	18.2	17.3	368	35.1	64
Pujehun	7.6	5.5	230	*	13
Western Area Rural	3.4	1.4	230	*	3
Western Area Urban	9.5	4.3	1,195	(59.4)	51
Education					
No education	5.5	3.4	2,651	33.8	91
Primary	6.9	4.7	825	(40.1)	38
Secondary or higher	6.9	3.7	3,106	57.1	114
Wealth quintile					
Lowest	7.9	5.8	1,218	25.9	70
Second	4.8	3.4	1,175	(49.6)	40
Middle	4.1	2.9	1,195	(45.3)	35
Fourth	4.7	2.5	1,183	(55.3)	30
Highest	8.9	3.8	1,811	60.0	68
Total 15-49	6.3	3.7	6,582	45.7	243
50-59	4.4	2.3	680	*	16
Total 15-59	6.1	3.6	7,262	45.3	258

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases

There are differences in transactional sex by marital status, location, education, and wealth quintile. Men who are divorced, separated, or widowed (8 percent) and men who have never married (8 percent) are more likely to have paid for sex compared with married men (5 percent). Men in urban areas are more likely than rural men to have ever paid for sexual intercourse (8 percent and 5 percent respectively). By region, men in the Northern region are less likely to pay for sex (2 percent) compared with men in the Eastern (8 percent), Southern (10 percent), and Western (9 percent) regions. Men with primary and secondary education are more likely (7 percent) than men with no education to have ever paid for sexual intercourse. With regard to the wealth quintile, results show that a greater percentage of men in the lowest and highest quintiles reported ever paying for sexual intercourse (8 percent and 9 percent respectively) relative to men in the other wealth quintiles.

14.6 COVERAGE OF HIV COUNSELLING AND TESTING

14.6.1 General HIV Testing

Knowledge of HIV status helps people who are HIV-negative make specific decisions to reduce risk and practice safer sex so that they can remain disease-free. Similarly, knowledge of HIV status helps people who are HIV-positive take action to protect their sexual partners, access treatment, and plan for the future. To assess the awareness and coverage of HIV testing services, respondents in the 2013 SLDHS were asked whether they had ever been tested for HIV. If they had never been tested, respondents were asked if they knew a place where they could go to be tested. If respondents had been tested, they were asked whether they received results of their last test and where they were tested. Tables 14.11.1 and 14.11.2 present the results regarding prior HIV testing, for women and men respectively.

Table 14.11.1 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, Sierra Leone 2013

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women/men 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	66.8	31.3	8.6	60.1	100.0	39.9	13.7	6,561
15-19	58.6	21.0	5.0	74.0	100.0	26.0	11.0	3,878
20-24	78.5	46.3	13.8	39.9	100.0	60.1	17.7	2,683
25-29	79.0	50.1	16.7	33.2	100.0	66.8	18.3	2,843
30-39	75.4	45.6	14.7	39.7	100.0	60.3	14.2	4,547
40-49	62.2	31.2	8.0	60.9	100.0	39.1	7.3	2,707
Marital status								
Never married	65.4	27.0	5.9	67.0	100.0	33.0	11.7	4,730
Ever had sex	74.2	36.7	8.0	55.3	100.0	44.7	15.0	3,273
Never had sex	45.6	5.4	1.3	93.3	100.0	6.7	4.2	1,458
Married/living together	72.5	43.0	14.3	42.7	100.0	57.3	14.6	10,903
Divorced/separated/widowed	72.5	41.1	8.8	50.1	100.0	49.9	11.4	1,025
Residence								
Urban	78.4	43.3	11.9	44.8	100.0	55.2	16.7	5,933
Rural	66.1	35.6	11.4	53.0	100.0	47.0	11.8	10,725
Region								
Eastern	68.7	43.0	9.5	47.5	100.0	52.5	13.7	3,614
Northern	66.1	33.5	11.2	55.3	100.0	44.7	12.2	6,292
Southern	71.6	39.3	10.6	50.1	100.0	49.9	13.1	3,514
Western	79.8	41.6	15.7	42.6	100.0	57.4	16.7	3,238
District								
Kailahun	69.7	49.0	8.1	42.9	100.0	57.1	13.6	984
Kenema	62.5	39.4	10.0	50.6	100.0	49.4	14.3	1,651
Kono	78.1	43.2	10.0	46.8	100.0	53.2	12.9	979
Bombali	58.1	26.7	12.9	60.4	100.0	39.6	10.5	1,377
Kambia	69.1	42.3	13.2	44.5	100.0	55.5	18.9	738
Koinadugu	44.8	10.2	16.1	73.7	100.0	26.3	3.5	719
Port Loko	71.2	45.7	6.4	47.9	100.0	52.1	15.6	1,994
Tonkolili	75.6	30.4	12.6	57.0	100.0	43.0	10.0	1,464

Continued…

Table 14.11.1—*Continued*

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women/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 women
Bo	67.7	39.2	8.2	52.6	100.0	47.4	13.0	1,398
Bonthe	78.4	44.7	11.7	43.6	100.0	56.4	16.9	678
Moyamba	68.1	31.1	13.0	55.8	100.0	44.2	11.2	843
Pujehun	77.9	44.9	11.3	43.7	100.0	56.3	11.8	595
Western Area Rural	79.8	45.9	15.4	38.7	100.0	61.3	17.5	528
Western Area Urban	79.7	40.8	15.8	43.4	100.0	56.6	16.5	2,710
Education								
No education	67.2	37.5	13.0	49.5	100.0	50.5	11.1	9,293
Primary	69.1	38.4	10.0	51.6	100.0	48.4	16.0	2,331
Secondary or higher	77.2	40.0	9.6	50.4	100.0	49.6	17.1	5,034
Wealth quintile								
Lowest	65.8	34.0	13.5	52.5	100.0	47.5	11.4	3,089
Second	64.5	34.6	11.0	54.3	100.0	45.7	10.4	3,046
Middle	66.7	36.5	10.8	52.7	100.0	47.3	12.5	3,140
Fourth	72.8	41.7	9.5	48.7	100.0	51.3	14.3	3,388
Highest	79.6	43.3	12.7	44.0	100.0	56.0	18.0	3,994
Total 15-49	70.5	38.4	11.6	50.1	100.0	49.9	13.6	16,658

[1] Includes 'don't know/missing'

In Sierra Leone, 7 in every 10 respondents (both women and men) know where to get tested for HIV. Young women and men age 15-19 are less likely than older respondents to know of a place to get an HIV test. Women residing in urban areas are more likely than women in rural areas to know where one can get an HIV test. In the Western region 8 out of 10 women and 9 out of 10 men know of a place for HIV testing, a higher proportion than in the other regions of Sierra Leone.

Even though most respondents are aware of a place to get tested, few have ever been tested for HIV and received the results—38 percent of women and 14 percent of men. This is a considerable improvement from the 2008 SLDHS, however, which showed that only 9 percent of women and 7 percent of men had ever been tested and received results for HIV. Young women and men age 15-19 are less likely to have ever been tested than those in older age groups. A greater percentage of women residing in the Eastern region (43 percent) and men residing in the Western region (24 percent) have ever been tested and received results, relative to other regions. Coverage of HIV testing is also positively associated with education and wealth quintile.

Tables 14.11.1 and 14.11.2 show that 14 percent of women and 6 percent of men age 15-49 were tested for HIV and received their results in the 12 months preceding the survey. The percentage of women and men who have ever been tested and received results, as well as the percentage of women and men who have been tested and received results in the past 12 months, increases with education and wealth quintile.

Table 14.11.2 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, Sierra Leone 2013

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women/men 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 men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	69.8	9.7	3.5	86.9	100.0	13.1	4.7	2,481
15-19	66.3	5.7	3.1	91.2	100.0	8.8	3.0	1,475
20-24	74.9	15.5	4.1	80.4	100.0	19.6	7.1	1,007
25-29	74.8	17.2	2.9	79.9	100.0	20.1	6.7	1,017
30-39	70.9	17.2	4.2	78.6	100.0	21.4	6.7	1,764
40-49	68.9	17.0	3.1	80.0	100.0	20.0	7.9	1,319
Marital status								
Never married	72.9	11.7	3.4	84.9	100.0	15.1	5.3	2,849
Ever had sex	79.3	15.8	3.4	80.8	100.0	19.2	7.1	1,907
Never had sex	60.0	3.4	3.5	93.2	100.0	6.8	1.7	942
Married/living together	68.9	15.9	3.5	80.6	100.0	19.4	6.8	3,514
Divorced/separated/widowed	71.6	21.8	4.6	73.6	100.0	26.4	7.1	219
Residence								
Urban	81.1	22.0	2.8	75.2	100.0	24.8	9.3	2,508
Rural	64.3	9.6	3.9	86.5	100.0	13.5	4.3	4,073
Region								
Eastern	67.2	13.0	3.0	84.1	100.0	15.9	4.3	1,442
Northern	64.2	12.9	2.9	84.2	100.0	15.8	6.3	2,300
Southern	66.0	8.1	5.4	86.5	100.0	13.5	4.3	1,414
Western	89.5	24.1	3.2	72.7	100.0	27.3	9.7	1,425
District								
Kailahun	72.9	8.9	1.9	89.2	100.0	10.8	3.7	371
Kenema	72.5	17.0	3.9	79.2	100.0	20.8	4.1	719
Kono	50.3	9.0	2.2	88.8	100.0	11.2	5.5	352
Bombali	66.1	16.8	1.8	81.5	100.0	18.5	6.6	499
Kambia	62.0	17.6	8.0	74.4	100.0	25.6	15.2	270
Koinadugu	50.5	4.6	2.2	93.2	100.0	6.8	1.9	268
Port Loko	53.2	11.3	2.5	86.2	100.0	13.8	5.8	679
Tonkolili	82.8	13.0	2.2	84.8	100.0	15.2	4.6	584
Bo	77.4	10.5	2.8	86.7	100.0	13.3	5.0	533
Bonthe	38.5	2.4	5.0	92.6	100.0	7.4	1.5	283
Moyamba	73.8	4.9	10.0	85.1	100.0	14.9	3.2	368
Pujehun	60.7	14.6	4.8	80.6	100.0	19.4	8.0	230
Western Area Rural	93.7	12.1	2.1	85.8	100.0	14.2	5.1	230
Western Area Urban	88.7	26.4	3.4	70.2	100.0	29.8	10.5	1,195
Education								
No education	59.7	8.9	3.5	87.7	100.0	12.3	4.1	2,651
Primary	64.9	8.7	3.3	88.0	100.0	12.0	3.8	825
Secondary or higher	81.7	20.4	3.6	76.0	100.0	24.0	8.6	3,106
Wealth quintile								
Lowest	59.1	5.1	4.7	90.2	100.0	9.8	2.2	1,218
Second	65.4	9.6	3.8	86.6	100.0	13.4	4.3	1,175
Middle	63.9	9.8	3.5	86.7	100.0	13.3	5.4	1,195
Fourth	72.3	15.5	2.9	81.6	100.0	18.4	6.9	1,183
Highest	85.5	25.7	2.9	71.4	100.0	28.6	10.2	1,811
Total 15-49	70.7	14.3	3.5	82.2	100.0	17.8	6.2	6,582
50-59	69.2	15.4	3.6	81.1	100.0	18.9	6.9	680
Total 15-59	70.6	14.4	3.5	82.1	100.0	17.9	6.2	7,262

[1] Includes 'don't know/missing'

14.6.2 HIV Counselling and Testing during Pregnancy

HIV can be transmitted between a mother and her child during pregnancy, at the time of delivery, or through breastfeeding. As part of the strategy for the prevention of mother-to-child transmission (PMTCT) of HIV, all women should be counselled about HIV/AIDS during antenatal care and offered an HIV test. The importance of this strategy has resulted in Sierra Leone implementing a national PMTCT strategy and scaling up its activities since 2012. In the 2013 SLDHS, women age 15-49 who gave birth in the two years preceding the survey were asked whether they received counselling during antenatal care (ANC) for their

most recent birth, whether they were offered and accepted a test for the AIDS virus as part of their antenatal care, and, if tested, whether they received the test results.

Table 14.12 presents information on HIV counselling and testing during pregnancy for women age 15-49 who gave birth in the two years preceding the survey. Results show that 66 percent of women who gave birth in the two years preceding the survey received HIV counselling during antenatal care, 38 percent were tested for HIV during antenatal care and received the results as well as post-test counselling, and lastly, 43 percent of women who gave birth in the past two years received counselling on HIV, were tested for HIV, and received the results during an ANC visit.

Table 14.12 Pregnant women counselled 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 counselling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counselling, and percentage who received an HIV test at the time during ANC or labour for their most recent birth by whether they received their test results, according to background characteristics, Sierra Leone 2013

Background characteristic	Percentage who received counselling on HIV during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who:			Percentage who received counselling on HIV and an HIV test during ANC, and the results	Percentage who had an HIV test during ANC or labour and who:[2]		Number of women who gave birth in the past two years[3]
		Received results and received post-test counselling	Received results and did not receive post-test counselling	Did not receive results		Received results	Did not receive results	
Age								
15-24	66.7	38.1	12.6	15.0	43.9	51.2	15.6	1,759
15-19	64.2	36.6	12.4	14.8	42.1	49.4	15.5	649
20-24	68.1	39.0	12.7	15.1	45.0	52.3	15.6	1,110
25-29	68.3	38.0	12.9	15.5	45.6	51.4	15.9	1,257
30-39	63.3	38.3	10.5	17.3	40.2	49.3	17.9	1,490
40-49	62.7	34.2	10.1	12.5	39.9	44.9	12.5	313
Marital status								
Never married	74.6	42.4	15.1	16.4	49.9	58.8	16.4	559
Married/living together	64.5	37.3	11.2	15.9	41.9	48.9	16.4	4,083
Divorced/separated/widowed	67.0	37.1	17.0	9.1	45.1	54.8	10.7	178
Residence								
Urban	75.5	45.9	16.8	19.4	50.9	63.7	19.9	1,240
Rural	62.4	35.1	10.2	14.4	40.2	45.6	14.9	3,580
Region								
Eastern	70.4	34.6	22.7	13.6	50.9	58.1	14.2	1,113
Northern	61.1	35.7	5.9	16.4	36.7	41.9	16.6	1,997
Southern	65.9	43.2	5.9	10.1	44.9	49.6	11.1	1,048
Western	72.0	41.5	21.2	25.7	45.2	63.5	26.2	662
District								
Kailahun	71.3	21.7	37.5	10.9	54.0	60.4	12.2	323
Kenema	74.2	31.4	20.4	16.1	45.8	52.6	16.1	502
Kono	62.6	54.7	10.0	12.5	56.4	64.9	13.2	288
Bombali	70.9	25.6	11.1	23.6	35.7	36.7	23.6	338
Kambia	57.8	38.1	7.6	18.5	38.2	46.6	18.5	251
Koinadugu	31.6	6.3	5.3	20.4	10.0	11.5	20.5	271
Port Loko	63.5	54.8	4.9	9.8	49.8	59.9	10.0	666
Tonkolili	69.6	31.8	2.9	17.1	33.7	35.2	17.6	471
Bo	63.1	45.5	5.6	9.3	43.1	51.0	11.0	382
Bonthe	77.5	48.5	10.8	8.4	56.7	59.7	9.0	157
Moyamba	56.4	31.4	4.4	11.2	34.3	37.0	11.7	294
Pujehun	75.2	51.4	4.9	11.4	54.0	56.7	12.1	215
Western Area Rural	80.9	58.6	9.6	24.6	55.5	68.5	24.6	126
Western Area Urban	69.9	37.4	24.0	25.9	42.8	62.3	26.6	536
Education								
No education	61.2	34.0	10.7	15.7	38.3	45.1	16.2	3,118
Primary	68.3	40.9	12.9	13.4	45.9	54.3	14.3	735
Secondary or higher	78.6	48.2	14.9	17.4	55.8	63.9	17.6	967
Wealth quintile								
Lowest	61.3	28.8	11.4	16.0	36.1	40.6	16.5	1,110
Second	60.4	34.5	10.1	14.3	39.7	44.9	14.6	1,012
Middle	61.8	36.4	11.0	13.8	39.3	47.8	14.2	1,056
Fourth	72.8	48.9	9.9	13.1	52.1	59.2	14.2	923
Highest	77.1	44.7	18.9	23.0	51.8	64.8	23.5	719
Total 15-49	65.8	37.9	11.9	15.7	42.9	50.3	16.2	4,820

[1] In this context, "pretest counselling" 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 labour 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

Among all women who gave birth in the two years preceding the survey, the percentage who had an HIV test during ANC or labour and who received the results is lowest among women age 30 and above. By region, the Eastern region has the highest percentage of women who received counselling on HIV during an ANC visit and were tested for HIV and received the results (51 percent), whereas the Northern region has the lowest percentage (37 percent). HIV counselling and testing during antenatal care increases with education and wealth quintile. For example, the proportion of women who were counselled about HIV during antenatal care, tested, and received results ranges from 36 percent of women in the lower wealth quintile to 52 percent in the highest wealth quintile.

14.7 Self-reporting of Sexually Transmitted Infections

STIs are closely associated with HIV because they increase the likelihood of contracting HIV and share similar risk factors. In the 2013 SLDHS, respondents who had ever had sex were asked if they had an STI or symptoms of an STI (including bad-smelling/abnormal genital discharge and genital sore or ulcer) in the previous 12 months. Table 14.14 shows the self-reported prevalence of STIs and STI symptoms among male and female respondents.

Among male and female respondents alike, 11 percent reported having an STI or experiencing STI symptoms in the 12 months preceding the survey. With regard to specific symptoms, 18 percent of women and 10 percent of men had a bad-smelling or abnormal genital discharge, while 14 percent of women and 5 percent of men reported having a genital sore or ulcer in the 12 months before the survey. Overall, about 23 percent of women and 14 percent of men age 15-49 had either an STI or symptoms of an STI in the 12 months preceding the survey.

Table 14.14 shows that women and men who are married or living together have the lowest prevalence of STI or STI symptoms relative to those of other marital statuses. Women in the Northern region and men in the Eastern region (27 percent and 17 percent respectively) have a higher prevalence of self-reported STIs or symptoms of an STI relative to women and men from other regions. Men and women with higher levels of education also have the highest prevalence of STIs and STI symptoms (25 percent for women with primary education and 16 percent for men with secondary or higher education).

Table 14.13 Self-reported prevalence of sexually-transmitted infections (STIs) and STIs symptoms

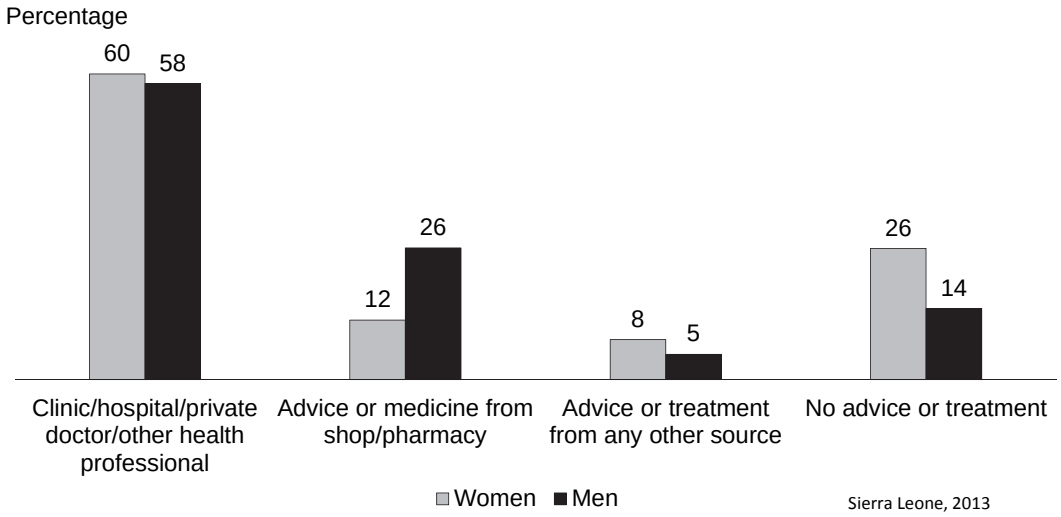
Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Sierra Leone 2013

	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	10.5	18.0	13.4	23.3	5,103	13.4	12.8	6.7	17.3	1,565
15-19	9.2	16.5	12.2	21.3	2,490	9.6	8.7	4.9	13.4	655
20-24	11.8	19.4	14.6	25.3	2,613	16.1	15.8	8.0	20.1	911
25-29	11.2	18.5	15.4	24.3	2,832	13.0	12.7	5.6	16.8	997
30-39	10.8	18.6	14.6	23.5	4,540	10.5	9.6	4.3	13.2	1,754
40-49	9.3	14.0	10.4	18.3	2,702	5.5	6.3	4.3	8.5	1,317
Marital status										
Never married	12.1	18.1	13.6	24.0	3,273	14.7	13.4	7.0	18.4	1,907
Ever had sex	12.1	18.1	13.6	24.0	3,273	14.7	13.4	7.0	18.4	1,907
Married/living together	10.1	17.3	13.3	22.2	10,880	8.2	8.5	4.3	11.4	3,508
Divorced/separated/widowed	9.9	18.3	16.6	23.7	1,024	12.9	12.1	4.3	14.2	219
Male circumcision										
Circumcised	na	na	na	na	na	10.5	10.3	5.2	13.8	5,612
Not circumcised	na	na	na	na	na	*	*	*	*	9
Don't know/missing	na	na	na	na	na	*	*	*	*	12
Residence										
Urban	11.5	17.3	13.7	23.7	5,201	11.7	10.6	6.3	15.1	2,082
Rural	10.0	17.7	13.5	22.1	9,977	9.9	10.1	4.6	13.1	3,551
Region										
Eastern	9.7	16.3	9.9	20.3	3,321	15.3	14.7	4.1	16.9	1,259
Northern	13.1	20.7	18.7	27.4	5,813	6.0	7.2	4.0	10.3	1,961
Southern	6.0	14.8	8.8	16.7	3,246	12.4	11.5	6.5	15.1	1,218
Western	11.4	15.7	12.9	22.6	2,798	11.1	9.4	7.1	15.3	1,195
District										
Kailahun	1.6	12.8	8.2	15.0	941	11.9	11.0	1.5	12.8	319
Kenema	8.9	16.5	11.5	20.7	1,522	21.0	20.5	6.0	22.5	643
Kono	20.0	19.9	8.8	25.2	857	6.6	6.1	2.6	9.0	297
Bombali	11.5	17.2	11.9	20.6	1,250	9.5	8.9	8.3	18.9	426
Kambia	22.9	25.8	23.1	29.7	679	3.6	5.7	6.7	8.4	223
Koinadugu	4.8	11.8	6.5	14.8	644	6.5	9.3	2.8	11.4	225
Port Loko	13.5	20.6	21.5	29.4	1,853	3.7	4.8	1.8	5.5	585
Tonkolili	13.0	25.5	24.9	35.7	1,388	6.6	8.3	2.1	8.8	503
Bo	5.1	14.5	10.1	16.7	1,272	9.2	7.8	4.3	10.9	471
Bonthe	7.7	17.4	11.2	18.4	617	8.0	4.7	2.5	11.3	219
Moyamba	6.3	14.5	8.3	17.0	786	15.2	14.9	5.4	18.2	315
Pujehun	5.5	13.2	3.9	14.3	570	19.7	21.8	17.4	24.0	212
Western Area Rural	11.5	13.6	13.2	17.9	470	7.9	4.6	4.7	8.8	201
Western Area Urban	11.4	16.1	12.8	23.5	2,327	11.8	10.4	7.6	16.7	993
Education										
No education	9.6	17.3	13.4	21.6	9,093	8.5	8.7	4.7	12.2	2,458
Primary	12.5	19.8	16.0	24.9	1,927	9.2	9.7	5.0	12.2	630
Secondary or higher	11.7	17.0	12.8	23.9	4,158	12.9	11.9	5.8	15.9	2,544
Wealth quintile										
Lowest	8.1	15.1	10.4	18.3	2,885	11.2	11.5	5.3	14.5	1,067
Second	9.6	17.4	12.9	21.7	2,845	10.2	11.2	4.2	14.0	1,033
Middle	10.8	19.1	15.5	24.1	2,935	7.7	7.7	4.6	10.7	1,028
Fourth	12.0	19.1	14.8	24.7	3,077	10.2	9.2	4.5	12.9	986
Highest	11.8	17.0	14.1	24.0	3,437	12.5	11.2	6.8	16.1	1,519
Total 15-49	10.5	17.5	13.6	22.7	15,177	10.6	10.3	5.2	13.9	5,633
50-59	na	na	na	na	na	3.8	3.3	3.3	6.4	676
Total 15-59	na	na	na	na	na	9.8	9.5	5.0	13.1	6,308

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases
na = Not applicable

Figure 14.2 shows the proportion of women and men reporting an STI or symptoms of an STI who sought advice or treatment from various sources. Most women and men seek treatment from a clinic, hospital, private doctor, or other health professional (60 percent of women and 58 percent of men). However, 26 percent of women and 14 percent of men do not get any advice or treatment.

Figure 14.2 **Women and men age 15-49 who sought advice or treatment for STIs**



14.8 PREVALENCE OF MEDICAL INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices such as reuse of injection equipment. To measure the potential risk of HIV transmission associated with medical injections, respondents in the 2013 SLDHS were asked if they had received an injection in the past 12 months, and if so they were asked if their last injection was given with a syringe from a new, unopened package. It should be noted that medical injections can be self-administered (e.g., insulin for diabetes). These injections are not included in the data.

Table 14.14 shows that 40 percent of women and 39 percent of men received a medical injection in the past 12 months. The average number of injections is 1.8 for women and 2.1 for men. The potential risk of transmission of HIV associated with such injections is very low because a large majority of respondents—97 percent of women and 98 percent of men—who received medical injections reported that the syringe and needle were taken from a new, unopened package.

Table 14.14 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, Sierra Leone 2013

	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 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
Age										
15-24	37.6	1.5	6,561	97.3	2,464	32.6	1.3	2,481	97.7	810
15-19	33.5	1.2	3,878	97.1	1,297	26.5	1.0	1,475	95.9	391
20-24	43.5	1.8	2,683	97.5	1,167	41.6	1.8	1,007	99.4	419
25-29	46.3	2.1	2,843	97.9	1,317	42.3	2.4	1,017	96.7	431
30-39	42.1	2.0	4,547	95.8	1,914	43.1	2.7	1,764	97.1	761
40-49	38.1	2.1	2,707	97.3	1,032	43.1	2.6	1,319	98.7	568
Marital status										
Never married	36.5	1.5	4,730	97.5	1,728	34.6	1.5	2,849	97.4	986
Ever had sex	43.3	1.8	3,273	98.2	1,419	40.6	1.8	1,907	97.9	775
Never had sex	21.2	0.7	1,458	94.7	309	22.4	0.8	942	95.5	211
Married/living together	41.9	1.9	10,903	96.9	4,568	42.5	2.6	3,514	97.7	1,495
Divorced/separated/widowed	42.1	2.4	1,025	95.5	432	40.3	2.5	219	98.5	88
Residence										
Urban	45.0	2.3	5,933	97.9	2,670	44.0	2.6	2,508	97.8	1,103
Rural	37.8	1.6	10,725	96.4	4,057	36.0	1.8	4,073	97.4	1,466
Region										
Eastern	42.7	2.1	3,614	96.3	1,543	43.9	2.4	1,442	95.5	633
Northern	40.1	1.7	6,292	97.3	2,520	34.8	1.8	2,300	98.8	799
Southern	31.8	1.2	3,514	96.0	1,117	38.7	1.7	1,414	97.4	547
Western	47.8	2.5	3,238	97.7	1,547	41.4	2.7	1,425	98.4	590
District										
Kailahun	49.5	3.2	984	97.1	487	35.7	2.0	371	98.0	132
Kenema	37.8	1.6	1,651	94.2	623	47.4	2.4	719	93.6	341
Kono	44.2	2.1	979	98.5	433	45.3	2.9	352	97.5	160
Bombali	30.7	1.4	1,377	97.0	423	36.6	2.2	499	98.6	183
Kambia	50.3	1.8	738	98.2	371	43.3	1.5	270	99.0	117
Koinadugu	27.8	1.0	719	95.0	200	23.0	1.0	268	100.0	62
Port Loko	44.8	1.9	1,994	97.8	894	29.8	1.5	679	98.5	202
Tonkolili	43.2	2.1	1,464	97.1	632	40.4	2.3	584	98.6	236
Bo	31.1	1.1	1,398	94.6	434	36.2	1.6	533	98.5	193
Bonthe	32.8	1.0	678	98.5	223	32.5	1.5	283	98.1	92
Moyamba	29.4	1.1	843	95.1	248	38.3	1.7	368	95.2	141
Pujehun	35.7	1.5	595	97.4	212	52.7	2.4	230	97.6	121
Western Area Rural	48.6	2.1	528	95.5	257	34.9	2.0	230	97.9	80
Western Area Urban	47.6	2.6	2,710	98.2	1,290	42.6	2.8	1,195	98.5	510
Education										
No education	38.0	1.7	9,293	96.6	3,530	36.7	1.9	2,651	97.1	972
Primary	39.7	1.9	2,331	97.2	926	36.0	2.0	825	95.6	297
Secondary or higher	45.1	2.1	5,034	97.5	2,272	41.9	2.3	3,106	98.4	1,300
Wealth quintile										
Lowest	32.5	1.3	3,089	97.1	1,004	33.1	1.6	1,218	94.5	404
Second	39.8	1.8	3,046	96.1	1,211	36.6	1.9	1,175	98.7	430
Middle	37.4	1.5	3,140	95.7	1,175	34.7	1.7	1,195	98.0	414
Fourth	41.9	1.9	3,388	97.6	1,420	40.4	2.0	1,183	97.1	478
Highest	48.0	2.4	3,994	97.8	1,917	46.5	2.9	1,811	98.6	843
Total 15-49	40.4	1.8	16,658	97.0	6,727	39.0	2.1	6,582	97.6	2,570
50-59	na	na	na	na	na	41.9	2.4	680	99.4	285
Total 15-59	na	na	na	na	na	39.3	2.1	7,262	97.8	2,854

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker
na = Not applicable

The likelihood of a syringe and needle being taken from a new, unopened package is high in both rural and urban settings, with only a marginal difference between the two. At district level, Kenema has the lowest percentage of men and women who received their last medical injection from a new and unopened package at the last injection (94 percent for women and for men).

14.9 HIV/AIDS Knowledge and Sexual Behaviour among Youth

This section addresses HIV/AIDS-related knowledge and sexual behaviour among youth age 15-24. In addition to knowledge of HIV transmission, data are presented on age at first sex, condom use, age differences between sexual partners, sex related to alcohol use, and voluntary counselling and testing for HIV.

14.9.1 HIV/AIDS-related Knowledge among Young Adults

Young respondents were asked the same set of questions on beliefs about HIV transmission as older respondents. Table 14.15 provides information on the level of comprehensive knowledge about HIV and AIDS among youth age 15-24 and the percentage of youth who know a source where they can obtain condoms.

Table 14.15 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, Sierra Leone 2013

	Women			Men		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of respondents	Percentage with comprehensive knowledge of AIDS[2]	Percentage who know a condom source[1]	Number of respondents
Age						
15-19	28.0	58.4	3,878	28.5	75.1	1,475
15-17	27.5	52.6	2,319	25.2	71.3	948
18-19	28.8	67.1	1,559	34.6	81.9	526
20-24	29.9	72.7	2,683	32.0	87.0	1,007
20-22	29.1	72.6	1,841	31.2	86.5	707
23-24	31.8	72.9	842	33.9	88.1	300
Marital status						
Never married	33.0	63.6	4,124	30.0	79.8	2,263
Ever had sex	37.0	77.9	2,676	33.9	88.0	1,348
Never had sex	25.5	37.3	1,449	24.4	67.7	915
Ever married	21.7	65.3	2,437	29.0	81.3	219
Residence						
Urban	38.1	68.8	2,739	32.4	86.0	1,136
Rural	22.2	61.0	3,822	27.9	74.8	1,346
Education						
No education	16.6	56.9	1,847	16.5	65.3	453
Primary	18.5	51.8	1,225	19.4	70.1	364
Secondary or higher	38.9	72.6	3,489	35.9	86.0	1,664
Total	28.8	64.3	6,561	30.0	79.9	2,481

[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 14.2, 14.3.1 and 14.3.2.
[2] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Table 14.15 shows the level of the composite indicator of 'comprehensive knowledge' among young people by background characteristics. Results show that in Sierra Leone 29 percent of young women and 30 percent of young men age 15-24 have comprehensive knowledge about AIDS. Despite the low levels of comprehensive knowledge, they are an improvement from the 2008 SLDHS, in which 17 percent of women and 28 percent of men had comprehensive knowledge of AIDS. Furthermore, the 2013 survey shows that 64 percent of young women and 80 percent of young men age 15-24 know a place where people can get condoms—a substantial improvement relative to 2008, when 27 percent of women and 43 percent of men age 15-24 knew of a place where they could get condoms.

A greater percentage of women and men age 20-24 have comprehensive knowledge about AIDS and knowledge of a source for condoms compared with women and men age 15-19. Both indicators are higher for women and men who have never married but who have had sex than for women and men of another marital status. Women and men residing in an urban area are more likely to have comprehensive knowledge about AIDS and also to know a source of condoms than rural women and men. Knowledge of a source of condoms and comprehensive knowledge about AIDS increase with educational level. For example, the proportion of young women with comprehensive knowledge about AIDS increases from 17 percent among those with no education to 39 percent among those who have attended secondary school. Similarly, comprehensive knowledge about AIDS increases from 17 percent among men with no education to 36 percent among those who have attended secondary school.

14.9.2 Trends in Age at First Sex

Because HIV transmission in Sierra Leone occurs primarily through heterosexual intercourse, age at first intercourse marks the time at which most individuals first risk exposure to the virus. Table 14.16 shows the percentage of young women and men age 15-24 who had sex before age 15, and before age 18. The data show that young women age 15-19 are almost twice as likely to engage in sexual intercourse before age 15 compared with young men age 15-19 (20 percent versus 11 percent). Also, among women and men age 20-24, a greater percentage of women than men have sexual intercourse before age 18 (69 percent and 54 percent respectively).

Age at first sexual intercourse varies by residence and gender. A greater percentage of women in rural areas (24 percent) have sexual intercourse before age 15 compared with women in urban areas (14 percent). Furthermore, in both urban and rural areas women are more likely than men to have initiated sexual intercourse before age 15.

Level of education is not strongly associated with age at first sex. Young women with no education (74 percent) and primary education (81 percent) are slightly more likely than those with secondary or higher education (68 percent) to have initiated sexual intercourse before age 18. In comparison, young men with no education (49 percent) and primary education (52 percent) are less likely than men with secondary or higher education (57 percent) to have initiated sexual intercourse before age 18.

14.9.3 Knowledge of Condom Sources among Young Adults

Condom use among young adults plays an important role in minimizing the transmission of HIV, other STIs, and unwanted pregnancies. Younger people can be at higher risk of contracting STIs because they may experiment with sex before marriage. Knowledge of a source for condoms helps young adults obtain and effectively use condoms. As shown in Table 14.16, there are considerable differences in knowledge of condom source among men and women who first have sexual intercourse before age 15 or before age 18. Among women who had sexual intercourse before age 15, 20 percent knew of a condom source whereas women who first had sexual intercourse before age 18, 64 percent knew of a condom source. A similar pattern emerged for men. Among men who had sexual intercourse before age 15, only 11 percent knew of a condom source, whereas among men who first had sexual intercourse before age 18, 57 percent knew of a condom source.

Table 14.16 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, Sierra Leone 2013

	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	19.3	3,878	na	na	10.4	1,475	na	na
15-17	18.8	2,319	na	na	11.2	948	na	na
18-19	20.1	1,559	77.7	1,559	8.8	526	55.8	526
20-24	19.8	2,683	68.5	2,683	10.7	1,007	53.9	1,007
20-22	20.7	1,841	70.0	1,841	11.3	707	56.5	707
23-24	17.7	842	65.3	842	9.4	300	48.0	300
Marital status								
Never married	14.2	4,124	65.3	2,001	10.3	2,263	52.7	1,318
Ever married	28.5	2,437	77.7	2,241	12.3	219	65.9	215
Knows condom source[1]								
Yes	20.3	4,217	74.3	2,996	11.1	1,983	56.6	1,307
No	18.0	2,344	65.9	1,246	8.0	499	42.9	226
Residence								
Urban	13.7	2,739	64.3	1,810	11.4	1,136	57.4	727
Rural	23.6	3,822	77.5	2,433	9.8	1,346	52.0	806
Education								
No education	26.4	1,847	74.4	1,463	10.7	453	48.7	301
Primary	22.9	1,225	80.6	643	8.7	364	52.1	162
Secondary or higher	14.6	3,489	67.5	2,136	10.8	1,664	56.6	1,070
Total	19.5	6,561	71.9	4,242	10.5	2,481	54.6	1,533

na = Not available
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

14.9.4 Abstinence and Premarital Sex

Premarital sex and the interval between sexual initiation and marriage are among the factors that predispose people to the risk of HIV infection. Table 14.17 shows among never-married young adults the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the 12 months preceding the survey, and among those who had sexual intercourse in the past 12 months, the percentage who used a condom at last sexual intercourse.

Table 14.17 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, Sierra Leone 2013

	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	44.4	52.2	3,114	6.4	1,626	56.2	39.3	1,460	14.1	573
15-17	56.4	41.3	2,124	6.4	877	66.9	29.3	945	8.8	277
18-19	18.6	75.6	991	6.4	749	36.5	57.6	514	19.1	296
20-24	6.7	82.8	1,010	7.0	836	11.8	83.2	803	18.4	668
20-22	7.5	81.5	754	6.5	614	13.3	80.4	588	19.6	472
23-24	4.2	86.6	256	8.5	221	7.6	90.8	215	15.5	196
Knows condom source[1]										
Yes	20.6	74.0	2,624	7.0	1,943	34.3	61.0	1,805	17.6	1,100
No	60.5	34.6	1,500	5.3	519	64.6	30.8	458	7.4	141
Residence										
Urban	34.0	60.6	2,118	8.2	1,284	37.8	56.7	1,086	23.1	616
Rural	36.3	58.7	2,006	4.8	1,178	42.9	53.1	1,177	9.8	625
Education										
No education	31.8	61.5	573	4.5	353	46.9	49.7	384	11.9	191
Primary	56.4	38.8	707	3.7	274	57.1	38.9	325	4.5	127
Secondary or higher	30.5	64.5	2,844	7.5	1,835	35.3	59.5	1,554	19.0	924
Total	35.1	59.7	4,124	6.6	2,462	40.4	54.9	2,263	16.4	1,241

[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Almost 60 percent of never-married women and 55 percent of never-married men age 15-24 indicated that they had sexual intercourse in the 12 months before the survey. Never-married young women and men age 15-19 are less likely to have had sex in the past 12 months preceding the survey than women and men age 20-24. Never-married women age 15-19 are more likely to have had sex in the last 12 months before the survey compared with never-married men (52 percent for women and 39 percent for men). For those age 20-24 there is no difference in the proportion of never-married women and men who had sex in the 12 months before the survey (83 percent for both women and men).

Young never-married men are more than twice as likely to have used condoms at their most recent sexual intercourse (16 percent) compared with young never-married women (7 percent). Young never-married urban residents and those who know a source for condoms are more likely to have used condoms at their last sexual intercourse compared with rural residents and those who do not know a source for condoms.

14.9.5 Multiple Sexual Partners

To prevent transmission of HIV among sexually active young people, practicing safer-sex is important. The most commonly advocated behaviours for preventing HIV transmission are the “ABC” methods (abstinence, being faithful to one HIV-negative partner, and condom use). The 2013 SLDHS investigated the extent of safer-sex practices among young people by asking women and men age 15-24 whether they had sexual intercourse with more than one sexual partner in the past 12 months, and among those having more than one partner in the past 12 months, whether they used a condom at last sexual intercourse. Tables 14.18.1 and 14.18.2 present the proportion of young women and men age 15-24 who had sexual intercourse with more than one sexual partner in the past 12 months, and among those who had more than one sexual partner the percentage who reported using a condom at last sexual intercourse.

Table 14.18.1 Multiple sexual partners in the past 12 months among young people: Women

Among all young women age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Sierra Leone 2013

	Women age 15-24		Women age 15-24 who had 2+ partners in the past 12 months	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who reported using a condom at last intercourse	Number of women
Age				
15-19	5.2	3,878	9.7	204
15-17	3.4	2,319	6.0	78
18-19	8.1	1,559	11.9	126
20-24	7.6	2,683	2.1	204
20-22	7.6	1,841	1.8	140
23-24	7.6	842	2.9	64
Marital status				
Never married	7.7	4,124	7.5	319
Ever married	3.6	2,437	0.0	88
Knows condom source[1]				
Yes	8.3	4,217	6.0	349
No	2.5	2,344	(5.3)	58
Residence				
Urban	7.0	2,739	4.7	192
Rural	5.6	3,822	7.0	215
Education				
No education	4.4	1,847	5.1	82
Primary	4.0	1,225	(0.9)	49
Secondary or higher	7.9	3,489	7.0	277
Total 15-24	6.2	6,561	5.9	407

Note: Figures in parentheses are based on 25 to 49 unweighted cases
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Table 14.18.2 Multiple sexual partners in the past 12 months among young people: Men

Among all young men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Sierra Leone 2013

	Men age 15-24		Men age 15-24 who had 2+ partners in the past 12 months	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom at last intercourse	Number of men
Age				
15-19	8.2	1,475	23.5	121
15-17	4.7	948	(13.4)	45
18-19	14.6	526	29.4	77
20-24	26.6	1,007	19.8	267
20-22	25.5	707	22.5	181
23-24	29.0	300	14.1	87
Marital status				
Never married	15.3	2,263	22.4	347
Ever married	19.1	219	9.1	42
Knows condom source[1]				
Yes	18.2	1,983	21.9	362
No	5.4	499	(8.8)	27
Residence				
Urban	19.5	1,136	27.8	222
Rural	12.4	1,346	11.8	167
Education				
No education	11.1	453	13.6	50
Primary	8.1	364	*	29
Secondary or higher	18.6	1,664	22.7	309
Total 15-24	15.7	2,481	20.9	389

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Young women and men age 20-24 were more likely to have had two or more sexual partners in the past 12 months compared with women and men age 15-19. By marital status, results show that never-married women are more likely to have had more than one sexual partner than ever-married women (8 percent and 4 percent respectively). In contrast, ever-married men (19 percent) are more likely to have had more than one sexual partner compared with never-married men (15 percent). Young women and men with secondary or higher education are more likely to have had two or more partners than young women and men without education. Among respondents who had two or more sexual partners in the past 12 months, only 6 percent of women and 21 percent of men reported using a condom. Condom use decreases with age among young women. Only 2 percent of women age 20-24 with two or more sexual partners in the past 12 months reported using a condom compared with 10 percent of women age 15-19. Young men have a similar pattern, 20 percent of men age 20-24 who report having two or more sexual partners in the past 12 months used a condom at last sexual intercourse compared with 24 percent of young men age 15-19.

14.9.6 Cross-generational Sexual Partners

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, if a younger HIV-negative partner has sex with an older HIV-positive partner, the virus can be transmitted to the younger HIV-negative cohort. To examine age differences between sexual partners, women age 15-19 who had sexual intercourse in the 12 months preceding the survey were asked the age of their partners. If they did not know a partner's age, they were asked if the partner was older or younger than they were, and if older, whether the partner was 10 or more years older. Table 14.19 presents the results.

As Table 14.19 shows, 22 percent of women age 15-19 reported having sexual intercourse with a man 10 or more years older than they were. Women age 18-19, women in rural areas, and women with no education are more likely than other women to report having sexual intercourse with a man 10 or more years older. Men age 18-19 report very small instances of cross-generational sexual intercourse.

Table 14.19 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, Sierra Leone 2013

	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 man 10+ years older	Number of women	Percentage who had sexual intercourse with a woman 10+ years older	Number of men
Age				
15-17	17.3	1,045	0.5	280
18-19	25.6	1,199	0.1	308
Marital status				
Never married	15.1	1,626	0.3	573
Ever married	39.3	618	*	15
Knows condom source[1]				
Yes	21.3	1,609	0.3	504
No	22.9	635	0.0	84
Residence				
Urban	19.8	850	0.5	261
Rural	23.0	1,394	0.1	327
Education				
No education	33.5	507	0.0	77
Primary	24.8	354	0.6	61
Secondary or higher	16.7	1,383	0.3	450
Total	21.8	2,243	0.3	588

Note: 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

14.9.7 Voluntary HIV Counselling and Testing among Young Adults

Knowledge of an individual's own HIV status can motivate him or her to practice safer sexual behaviour. Knowledge of an HIV-negative status may result in an individual taking precaution to avoid HIV infection, while knowledge of an HIV-positive status may make an individual more likely to take precautions to avoid transmitting HIV to others. Table 14.20 shows the coverage of HIV counselling and testing by background characteristics for youth age 15-24. Young women age 15-24 are more likely than young men of the same age to have been tested for HIV and receiving the results in the 12 months preceding the survey (17 percent and 7 percent respectively).

Table 14.20 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, Sierra Leone 2013

	Women age 15-24 who have had sexual intercourse in the past 12 months:		Men age 15-24 who have had sexual intercourse in the past 12 months:	
Background characteristic	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women	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	14.7	2,243	4.7	588
15-17	11.3	1,045	1.0	280
18-19	17.7	1,199	8.1	308
20-24	20.1	2,170	7.7	863
20-22	19.1	1,473	8.5	589
23-24	22.5	697	6.0	275
Marital status				
Never married	13.6	2,462	6.7	1,241
Ever married	22.1	1,952	5.2	210
Knows condom source[1]				
Yes	19.0	3,264	7.1	1,273
No	12.7	1,149	1.9	178
Residence				
Urban	18.9	1,825	6.5	665
Rural	16.3	2,589	6.4	786
Education				
No education	16.3	1,347	3.2	256
Primary	19.5	686	5.7	162
Secondary or higher	17.4	2,381	7.4	1,033
Total	17.4	4,414	6.5	1,451

[1] For this table, the following responses are not considered a source for condoms: friends, family members and home

HIV testing among young men increases with the level of education; only 3 percent of young men age 15-24 with no education reported having an HIV test in the past 12 months and receiving the results compared with 7 percent of young men with secondary or higher education.

HIV PREVALENCE 15

Key Findings

- The prevalence of HIV is estimated at 1.5 percent among adults age 15-49. Adult HIV prevalence remained constant between the 2008 SLDHS and the 2013 SLDHS.
- Among women, HIV prevalence is 1.7 percent and is highest for women age 35-39, at 2.6 percent; among men, HIV prevalence is 1.3 percent and peaks at 2.9 percent for men age 30-34.
- HIV prevalence in urban areas is twice that in rural areas, at 2.3 percent among adults age 15-49 in urban areas compared with 1.0 percent in rural areas.
- The Western region has the highest HIV prevalence (2.7 percent), about twice the level compared with the other regions. By district, Western Rural has the highest HIV prevalence, at 3.4 percent.
- Overall, 1.1 percent of youth age 15-24 are HIV-positive.
- Fifty-nine percent of the respondents who were tested for HIV in the 2013 SLDHS tested HIV-positive and have never been tested before (85 percent of men and 43 percent of women).
- About 3,500 cohabiting couples were tested for HIV in the 2013 SLDHS, and for 97 percent of them, both partners tested HIV-negative, while for 0.2 percent, both partners tested HIV-positive; 2.6 percent of cohabiting couples are discordant, that is, one partner is HIV-positive and the other is HIV-negative.

In Sierra Leone, national HIV prevalence estimates have been derived primarily from sentinel surveillance of pregnant women and from two national sero-prevalence surveys conducted in 2002 and 2005. In April 2002 the first national sero-prevalence survey, conducted jointly by the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia (USA) and Statistics Sierra Leone (SSL), reported a national HIV prevalence of 1 percent, 2 percent in Freetown, and around 1 percent outside of Freetown. In April 2004 the first antenatal care sentinel surveillance based on eight sentinel sites was conducted by the Health Sector Response Group (ARG) within the National AIDS Secretariat (NAS). This survey reported a national HIV prevalence among pregnant women of 3 percent; the level among pregnant women in Freetown was 4 percent. In 2005 a second national sero-prevalence survey was commissioned by the National AIDS Secretariat and conducted jointly by the Nimba Research Institute in Ghana and Statistics Sierra Leone. This survey reported a national HIV prevalence of about 2 percent, with similar rates of 2 percent for both women and men age 15-49. The second ANC sentinel surveillance, which was conducted in 2006, reported a national HIV prevalence of 4 percent among pregnant women attending ANC services at 13 sentinel sites.

The inclusion of HIV testing in the 2013 SLDHS offers the opportunity to better understand the magnitude and patterns of infection within the general reproductive-age population not included in sentinel surveillance surveys, especially for men age 15-59. The first such exercise was conducted as part of the 2008 SLDHS. The 2013 SLDHS is the second SLDHS survey to anonymously link HIV testing results with key behavioural and socio-demographic characteristics of survey respondents.

This chapter presents information on the HIV testing coverage rates among women age 15-49 and men age 15-59, the prevalence of HIV infection among those tested, and the factors associated with HIV infection in the population. The chapter first presents information on the coverage of testing by gender,

urban-rural residence, region, socio-demographic factors, and behavioural indicators. Then, HIV prevalence rates are presented by socio-demographic, behavioural, and other risk factors. Chapter 1 describes the HIV specimen collection and testing methodologies used in the 2013 SLDHS.

15.1 COVERAGE RATES FOR HIV TESTING

Table 15.1 shows the distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status. Ninety-one percent of all SLDHS respondents who were eligible for testing were interviewed and consented to HIV testing. Four percent of respondents were interviewed but refused to be tested for HIV and did not provide a blood sample. Coverage rates were higher for women than for men (93 and 89 percent, respectively). The proportion of women who were interviewed and consented to the HIV test was equal in urban and rural areas (93 percent); however, for men the percentage was higher in rural areas than in urban areas (91 and 88 percent, respectively). Bo district has the largest proportion of female and male respondents who consented to HIV testing (97 percent).

Table 15.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and region (unweighted), Sierra Leone 2013

	Testing status									
	DBS Tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/ missing[2]			
Residence and region	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Total	Number
WOMEN 15-49										
Residence										
Urban	93.0	1.1	3.1	1.4	0.2	0.2	0.6	0.2	100.0	3,449
Rural	92.5	1.2	3.2	1.2	0.3	0.3	1.0	0.3	100.0	5,032
Region										
Eastern	93.8	1.2	2.7	1.0	0.4	0.1	0.4	0.4	100.0	1,634
Northern	94.5	0.6	2.2	0.8	0.3	0.3	1.1	0.2	100.0	3,164
Southern	91.2	1.6	4.0	1.5	0.2	0.4	0.8	0.2	100.0	2,247
Western	90.0	1.6	4.4	2.3	0.3	0.4	0.7	0.3	100.0	1,436
District										
Kailahun	94.5	0.2	2.9	0.9	0.4	0.2	0.4	0.4	100.0	456
Kenema	95.7	1.7	1.5	0.3	0.0	0.0	0.3	0.3	100.0	586
Kono	91.4	1.5	3.7	1.7	0.8	0.0	0.3	0.5	100.0	592
Bombali	96.0	0.3	2.0	0.6	0.2	0.5	0.3	0.2	100.0	645
Kambia	90.8	0.5	3.1	0.6	0.5	0.0	4.5	0.0	100.0	641
Koinadugu	94.0	0.4	3.8	0.9	0.2	0.2	0.2	0.4	100.0	552
Port Loko	97.2	0.4	1.7	0.3	0.0	0.1	0.1	0.1	100.0	713
Tonkolili	94.1	1.5	0.8	1.6	0.5	0.5	0.5	0.5	100.0	613
Bo	97.5	0.5	1.2	0.5	0.0	0.1	0.0	0.1	100.0	775
Bonthe	86.8	4.6	6.6	1.6	0.4	0.0	0.0	0.0	100.0	500
Moyamba	83.6	1.0	6.9	2.4	0.4	1.2	3.8	0.6	100.0	494
Pujehun	93.5	0.8	2.7	2.1	0.2	0.4	0.0	0.2	100.0	478
Western Rural	92.1	1.1	4.2	1.4	0.0	0.6	0.3	0.3	100.0	643
Western Urban	88.3	2.0	4.5	3.0	0.6	0.3	1.0	0.3	100.0	793
Total	92.7	1.2	3.1	1.3	0.3	0.3	0.8	0.3	100.0	8,481
MEN 15-59										
Residence										
Urban	87.6	1.1	6.1	2.0	0.4	1.1	0.9	0.8	100.0	3,137
Rural	90.6	0.7	5.2	1.5	0.5	0.3	1.1	0.2	100.0	4,400
Region										
Eastern	91.1	0.9	5.0	1.2	0.4	0.3	0.5	0.7	100.0	1,513
Northern	91.5	0.4	4.0	1.5	0.4	0.5	1.2	0.4	100.0	2,685
Southern	89.3	0.9	6.8	1.2	0.4	0.3	1.0	0.2	100.0	1,982
Western	83.2	1.7	7.5	3.5	0.7	1.8	1.0	0.4	100.0	1,357

Continued…

Table 15.1—*Continued*

Residence and region	Testing status: DBS Tested[1] Inter-viewed	DBS Tested[1] Not inter-viewed	Refused to provide blood Inter-viewed	Refused to provide blood Not inter-viewed	Absent at the time of blood collection Inter-viewed	Absent at the time of blood collection Not inter-viewed	Other/ missing[2] Inter-viewed	Other/ missing[2] Not inter-viewed	Total	Number
District										
Kailahun	88.5	0.2	7.8	1.2	0.2	0.5	0.7	0.7	100.0	408
Kenema	94.2	1.0	2.4	0.9	0.3	0.3	0.0	0.9	100.0	583
Kono	89.8	1.1	5.6	1.5	0.6	0.0	1.0	0.4	100.0	522
Bombali	92.4	0.2	2.4	4.1	0.2	0.2	0.4	0.2	100.0	540
Kambia	85.0	0.9	8.1	0.7	0.6	0.0	4.6	0.0	100.0	540
Koinadugu	93.2	0.0	4.0	0.4	0.0	1.2	0.4	0.8	100.0	499
Port Loko	94.1	0.5	2.5	0.7	0.4	0.5	0.2	1.1	100.0	561
Tonkolili	92.8	0.4	3.1	1.7	0.9	0.6	0.4	0.2	100.0	545
Bo	96.0	0.5	1.9	1.2	0.2	0.0	0.2	0.2	100.0	645
Bonthe	86.3	1.8	8.8	2.5	0.4	0.0	0.0	0.2	100.0	445
Moyamba	80.7	0.8	13.4	0.6	0.6	0.6	3.3	0.0	100.0	492
Pujehun	92.5	0.5	4.3	0.5	0.3	0.8	0.8	0.5	100.0	400
Western Rural	86.0	0.9	6.4	3.1	0.9	2.2	0.3	0.2	100.0	579
Western Urban	81.1	2.3	8.4	3.9	0.6	1.5	1.5	0.6	100.0	778
Total 15-49	89.3	0.9	5.6	1.8	0.5	0.6	0.9	0.4	100.0	7,262
Total 15-59	89.4	0.8	5.6	1.7	0.5	0.6	1.0	0.4	100.0	7,537
TOTAL (WOMEN 15-49 and MEN 15-59)										
Residence										
Urban	90.4	1.1	4.5	1.7	0.3	0.6	0.7	0.5	100.0	6,586
Rural	91.6	0.9	4.1	1.3	0.4	0.3	1.0	0.2	100.0	9,432
Region										
Eastern	92.5	1.0	3.8	1.1	0.4	0.2	0.4	0.5	100.0	3,147
Northern	93.1	0.5	3.1	1.1	0.3	0.4	1.2	0.3	100.0	5,849
Southern	90.3	1.3	5.3	1.4	0.3	0.4	0.9	0.2	100.0	4,229
Western	86.7	1.6	5.9	2.9	0.5	1.1	0.9	0.4	100.0	2,793
District										
Kailahun	91.7	0.2	5.2	1.0	0.3	0.3	0.6	0.6	100.0	864
Kenema	95.0	1.4	2.0	0.6	0.2	0.2	0.2	0.6	100.0	1,169
Kono	90.7	1.3	4.6	1.6	0.7	0.0	0.6	0.4	100.0	1,114
Bombali	94.3	0.3	2.2	2.2	0.2	0.3	0.3	0.2	100.0	1,185
Kambia	88.1	0.7	5.4	0.7	0.5	0.0	4.6	0.0	100.0	1,181
Koinadugu	93.6	0.2	3.9	0.7	0.1	0.7	0.3	0.6	100.0	1,051
Port Loko	95.8	0.5	2.0	0.5	0.2	0.3	0.2	0.5	100.0	1,274
Tonkolili	93.5	0.9	1.9	1.6	0.7	0.5	0.4	0.3	100.0	1,158
Bo	96.8	0.5	1.5	0.8	0.1	0.1	0.1	0.1	100.0	1,420
Bonthe	86.6	3.3	7.6	2.0	0.4	0.0	0.0	0.1	100.0	945
Moyamba	82.2	0.9	10.1	1.5	0.5	0.9	3.5	0.3	100.0	986
Pujehun	93.1	0.7	3.4	1.4	0.2	0.6	0.3	0.3	100.0	878
Western Rural	89.2	1.0	5.2	2.2	0.4	1.4	0.3	0.2	100.0	1,222
Western Urban	84.7	2.2	6.4	3.4	0.6	0.9	1.3	0.4	100.0	1,571
Total	91.1	1.0	4.3	1.5	0.4	0.4	0.9	0.3	100.0	16,018

[1] Includes all Dried Blood 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 15.2 shows HIV testing coverage rates for women age 15-49 and men age 15-59 by age, level of education, and wealth quintile. Among women, HIV testing coverage does not vary much by age and is 93-94 percent for all age groups except women 40-44, where the coverage is 90 percent. Likewise, coverage among women does not vary much by education or wealth quintile.

Age differences in HIV testing coverage are more pronounced among men than among women, with HIV testing coverage among men ranging from 88 percent for men age 50-59 to 91 percent for men age 35-39. As with women, HIV testing coverage does not vary much by education; however, more variation in coverage is observed among wealth quintiles. Men in the highest wealth quintile have the lowest proportion of coverage (86 percent) compared with men in the lower wealth quintiles. Additional tables describing the relationship between participation in the HIV testing and characteristics related to HIV risks are presented in Appendix A.

Table 15.2 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), Sierra Leone 2013

	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 15-49										
Age										
15-19	92.7	1.1	3.3	1.0	0.5	0.2	0.8	0.5	100.0	1,963
20-24	92.7	0.9	3.0	1.8	0.3	0.4	0.7	0.3	100.0	1,375
25-29	92.6	1.2	3.3	1.4	0.2	0.2	0.9	0.2	100.0	1,395
30-34	93.5	1.1	2.5	1.0	0.2	0.6	1.0	0.1	100.0	1,162
35-39	93.1	1.5	3.1	1.1	0.2	0.2	0.7	0.2	100.0	1,211
40-44	90.2	1.7	3.8	1.9	0.6	0.4	1.0	0.3	100.0	687
45-49	93.9	0.7	3.3	0.9	0.1	0.0	1.0	0.0	100.0	688
Education										
No education	92.4	1.4	3.1	1.4	0.3	0.3	0.9	0.2	100.0	4,708
Primary	93.5	0.9	2.0	2.0	0.4	0.2	0.7	0.4	100.0	1,133
Secondary or higher	93.1	0.8	3.7	0.8	0.3	0.2	0.8	0.3	100.0	2,640
Wealth quintile										
Lowest	92.2	1.0	3.9	1.6	0.3	0.3	0.5	0.3	100.0	1,546
Second	93.7	1.4	2.6	0.6	0.1	0.2	1.0	0.5	100.0	1,449
Middle	92.8	1.5	3.0	0.7	0.5	0.1	1.3	0.3	100.0	1,512
Fourth	93.3	0.7	2.9	1.3	0.3	0.4	0.8	0.1	100.0	2,011
Highest	91.9	1.3	3.3	1.9	0.3	0.3	0.7	0.3	100.0	1,963
Total	92.7	1.2	3.1	1.3	0.3	0.3	0.8	0.3	100.0	8,481
MEN 15-59										
Age										
15-19	89.1	1.1	6.2	1.0	0.6	0.4	1.3	0.3	100.0	1,569
20-24	90.4	1.0	4.6	1.7	0.3	0.5	0.8	0.7	100.0	1,059
25-29	89.1	0.1	5.7	2.1	0.7	0.9	1.0	0.5	100.0	1,033
30-34	88.6	1.0	6.0	2.1	0.5	0.5	0.9	0.4	100.0	801
35-39	91.2	0.5	4.6	1.4	0.5	0.6	0.8	0.3	100.0	957
40-44	89.1	0.8	5.0	2.1	0.6	1.0	1.2	0.3	100.0	725
45-49	89.1	1.5	5.7	1.8	0.1	0.9	0.7	0.1	100.0	672
50-59	87.7	0.8	6.5	2.6	0.1	0.7	0.7	0.8	100.0	721
Education										
No education	89.4	0.8	5.7	1.6	0.5	0.6	0.9	0.5	100.0	3,184
Primary	89.0	1.0	6.4	1.2	0.3	0.3	1.3	0.3	100.0	900
Secondary or higher	89.5	0.9	5.2	2.0	0.4	0.8	1.0	0.4	100.0	3,453
Wealth quintile										
Lowest	90.2	0.6	6.6	1.3	0.4	0.4	0.4	0.1	100.0	1,390
Second	92.8	0.8	3.8	1.0	0.4	0.1	0.9	0.2	100.0	1,255
Middle	89.9	0.8	5.0	1.8	0.2	0.4	1.5	0.4	100.0	1,332
Fourth	89.3	0.4	5.2	1.9	0.6	0.7	1.1	0.8	100.0	1,661
Highest	86.0	1.5	6.7	2.4	0.5	1.3	1.1	0.5	100.0	1,899
Total	89.4	0.8	5.6	1.7	0.5	0.6	1.0	0.4	100.0	7,537

[1] Includes all Dried Blood 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.

15.2 HIV PREVALENCE

15.2.1 HIV Prevalence by Age and Sex

Table 15.3 shows that 1.5 percent of adults age 15-49 in Sierra Leone are infected with HIV. Among women age 15-49, the HIV prevalence rate is 1.7 percent, while among men age 15-49 the HIV prevalence rate is 1.3 percent. For women, HIV prevalence is highest among women age 35-39 (2.6 percent). For men, HIV prevalence increases with age and peaks at 2.9 percent among men age 30-34, thereafter declining to 1.1 percent among men age 40-49. Figure 15.1 illustrates the age pattern of HIV prevalence for women and men.

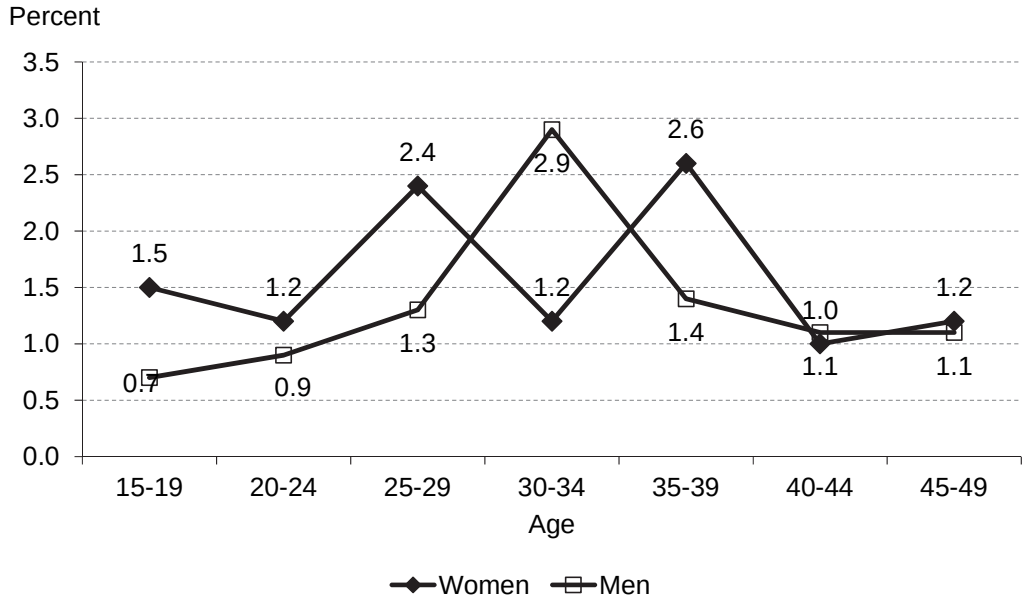
Table 15.3 HIV prevalence by age

Among de facto women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV-positive, by age, Sierra Leone 2013

	Women		Men		Total	
Age	Percentage HIV-positive	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
15-19	1.5	1,675	0.7	1,383	1.1	3,058
20-24	1.2	1,267	0.9	968	1.1	2,235
25-29	2.4	1,332	1.3	971	1.9	2,303
30-34	1.2	1,092	2.9	760	1.9	1,852
35-39	2.6	1,093	1.4	925	2.0	2,019
40-44	1.0	617	1.1	655	1.1	1,272
45-49	1.2	620	1.1	597	1.1	1,216
Total 15-49	1.7	7,695	1.3	6,261	1.5	13,956
Total 15-59	na	na	1.2	6,905	na	na

na = Not applicable

Figure 15.1 **HIV prevalence by sex and age**



15.2.2 Trends in HIV Prevalence

Table 15.4 shows trends in HIV prevalence over time, by age. In Sierra Leone, adult HIV prevalence remained constant between the 2008 SLDHS and the 2013 SLDHS, at 1.5 percent. A closer observation of the findings for women and men shows changes in HIV prevalence within the 30-34 and 35-39 age groups between 2008 and 2013.

Figure 15.2 shows the age pattern for HIV prevalence among women and men for the 2008 and 2013 SLDHS surveys.

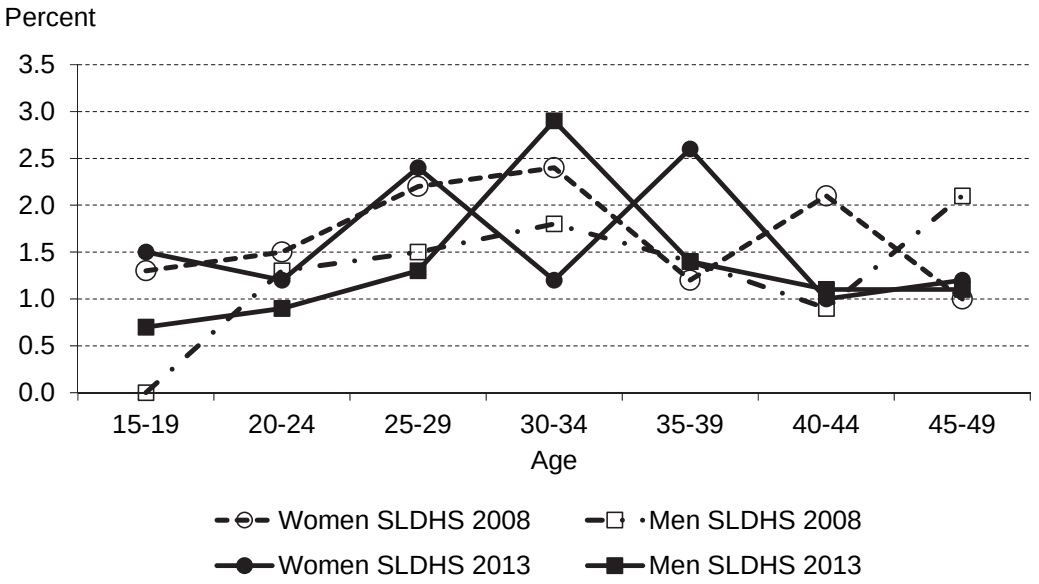
Table 15.4 Trends in HIV prevalence by age

Among de facto women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV-positive, by age, Sierra Leone 2008 and 2013

	Women				Men				Total			
	SLDHS 2008		SLDHS 2013		SLDHS 2008		SLDHS 2013		SLDHS 2008		SLDHS 2013	
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	1.3	529	1.5	1,675	0.0	487	0.7	1,703	0.7	1,016	1.1	3,058
20-24	1.5	559	1.2	1,267	1.3	365	0.9	1,176	1.4	924	1.1	2,235
25-29	2.2	772	2.4	1,332	1.5	407	1.3	1,041	2.0	1,179	1.9	2,303
30-34	2.4	471	1.2	1,092	1.8	352	2.9	885	2.1	823	1.9	1,852
35-39	1.2	568	2.6	1,093	1.4	499	1.4	757	1.3	1,067	2.0	2,019
40-44	2.1	308	1.0	617	0.9	309	1.1	506	1.5	617	1.1	1,272
45-49	1.0	241	1.2	620	2.1	306	1.1	429	1.6	547	1.1	1,216
50-59	na	na	na	na	0.6	301	0.7	341	na	na	na	na
Total 15-49	1.7	3,448	1.7	7,695	1.2	2,726	1.3	6,905	1.5	6,174	1.5	13,956
Total men 15-59	na	na	na	na	1.2	3,027	1.2	6,839	na	na	na	na

na = Not applicable

Figure 15.2 **HIV prevalence by sex and age, SLDHS 2008 and 2013**



15.2.3 HIV Prevalence by Socioeconomic Characteristics

Table 15.5 shows the variation in HIV prevalence by selected socioeconomic characteristics, including ethnicity, religion, employment, residence, region, district, education, and wealth quintile.

Respondents who identify themselves specifically as Kono and Creole have the highest HIV prevalence (3.1 and 3.0 percent, respectively) compared with other ethnic groups. Within the Creole ethnic group, HIV prevalence is 14 times higher for women than for men, at 5.4 percent for women compared with 0.4 percent for men. In the Kono ethnic group, HIV prevalence among women is three times higher than among men (4.3 and 1.6 percent, respectively). In the Limba and Sherbro ethnic groups, HIV prevalence in higher among men than women. HIV prevalence among Limba men is three times higher than among women in the same ethnic group (3.9 and 1.3 percent, respectively). HIV prevalence among Sherbro men is eight times higher than among Sherbro women (3.1 and 0.4 percent, respectively).

By religion and employment status, HIV prevalence is similar among women and men.

Table 15.5 HIV prevalence by socioeconomic characteristics

Percentage HIV-positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Sierra Leone 2013

Background characteristic	Women		Men		Total	
	Percentage HIV-positive	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Ethnic group						
Creole	5.4	79	0.4	77	3.0	155
Fullah	1.8	232	2.3	231	2.0	463
Kono	4.3	314	1.6	250	3.1	564
Limba	1.3	473	3.9	368	2.4	841
Loko	1.5	227	<0.1	171	0.9	397
Mandingo	1.9	198	<0.1	162	1.0	359
Mende	1.2	2,570	0.7	2,060	1.0	4,630
Sherbro	0.4	198	3.1	195	1.7	393
Temne	1.7	2,765	1.3	2,271	1.5	5,036
Koranko	2.1	219	1.1	166	1.6	385
Other Sierra Leone	1.3	386	0.9	273	1.2	659
Other Foreign	(0.9)	23	*	29	0.4	52
Religion						
Christian	1.9	1,605	1.2	1,222	1.6	2,827
Islam	1.6	6,045	1.3	5,016	1.4	11,061
Other	*	19	*	14	(<0.1)	33
None	*	3	*	4	*	7
Employment (last 12 months)						
Not employed	1.8	1,964	0.8	1,198	1.5	3,161
Employed	1.6	5,727	1.4	5,063	1.5	10,790
Residence						
Urban	2.5	2,742	2.0	2,379	2.3	5,122
Rural	1.2	4,952	0.8	3,881	1.0	8,834
Region						
Eastern	1.7	1,613	1.0	1,371	1.4	2,984
Northern	1.4	2,914	0.7	2,187	1.1	5,101
Southern	1.5	1,649	0.6	1,352	1.1	3,001
Western	2.3	1,518	3.1	1,351	2.7	2,870
District						
Kailahun	0.9	438	1.0	352	0.9	790
Kenema	1.1	767	0.9	684	1.0	1,450
Kono	3.6	408	1.2	335	2.5	743
Bombali	1.6	629	0.6	473	1.2	1,102
Kambia	0.9	345	0.9	255	0.9	601
Koinadugu	1.2	329	0.7	255	1.0	585
Port Loko	1.7	923	1.2	649	1.5	1,573
Tonkolili	1.0	687	0.3	553	0.7	1,241
Bo	1.8	648	1.0	508	1.4	1,156
Bonthe	1.3	312	0.5	270	0.9	583
Moyamba	1.3	400	0.6	354	1.0	753
Pujehun	1.5	290	<0.1	220	0.8	509
Western Rural	3.3	266	3.6	219	3.4	485
Western Urban	2.1	1,252	3.0	1,133	2.5	2,384
Education						
No education	1.3	4,324	1.2	2,504	1.3	6,828
Primary	1.5	1,077	0.5	781	1.1	1,858
Secondary or higher	2.3	2,294	1.5	2,975	1.9	5,269
Wealth quintile						
Lowest	0.9	1,407	0.7	1,160	0.8	2,567
Second	1.2	1,468	0.9	1,130	1.1	2,598
Middle	1.2	1,479	0.7	1,142	1.0	2,621
Fourth	1.8	1,507	1.3	1,124	1.6	2,631
Highest	2.8	1,834	2.3	1,704	2.6	3,538
Total 15-49	1.7	7,695	1.3	6,261	1.5	13,956
50-59	na	na	1.1	644	1.1	644
Total 15-59	na	na	1.2	6,905	1.2	6,905

Note: Total includes 11 women and 20 men with information missing on ethnic group; 23 women and 28 men with information missing on religion; and 4 women and 4 men with information missing on employment. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable

HIV prevalence in urban areas is twice that in rural areas: in urban areas 2.3 percent of women and men age 15-49 are infected with HIV compared with 1.0 percent in rural areas. The Western region has the highest HIV prevalence (2.7 percent), which is about twice that of the other regions. By district, Western Rural has the highest HIV prevalence, at 3.4 percent.

By education, HIV prevalence in Sierra Leone is highest among respondents with a secondary or higher education (1.9 percent). The same pattern is seen when observing the data by gender.

HIV prevalence increases with increasing wealth, from 0.8 percent among respondents in the lowest wealth quintile to 2.6 percent among those in the highest quintile. Women and men in the highest wealth quintile are three times as likely to be HIV-positive as their counterparts in the lowest wealth quintile.

15.2.4 HIV Prevalence by Demographic Characteristics

Table 15.6 shows HIV prevalence among women and men by various demographic characteristics. These include marital status, type of union, the number of times the respondent slept away from home in the 12 months before the survey, the total time away in the past 12 months, pregnancy status, ANC attendance, and male circumcision. Among both women and men age 15-49, HIV prevalence is closely related to marital status. Three percent of divorced, separated, and widowed respondents are HIV-positive (2.9-2.6 percent). Two percent of respondents who are married or living together as if married are HIV-positive (1.5 percent). Among respondents who have never been married, HIV prevalence is 1.4 percent for those who have had sex and 0.8 percent for those who have never had sex. This result suggests that some women and men incorrectly reported that they were not sexually active, or that there is some degree of nonsexual HIV transmission occurring (e.g., through blood transfusions or non-sterile injections). HIV prevalence is similar for currently married women and men (1.4 and 1.7 percent, respectively), while it is lower among divorced or separated men than among women who are divorced or separated (less than 0.1 percent for men compared with 4.7 percent for women).

HIV prevalence is higher among respondents who reported that they are in a non-polygynous union compared with those in a polygynous union (1.7 versus 1.2 percent), and 1.2 percent for respondents who are not currently in a union. The pattern varies when observing the disaggregated data for women and men by type of union. For women, HIV prevalence is highest among women who are not currently in a union (2.1 percent), and lowest among women who are in a polygynous union (1.1 percent). Among men, HIV prevalence is highest among men who are in a non-polygynous union (1.7 percent), and lowest among men who are not currently in a union (0.8 percent).

HIV prevalence is highest among respondents who slept away from home five or more times in the past 12 months (1.8 percent): 3.1 percent among women and 1.1 percent among men. Among men only, HIV prevalence is highest for men who reported that they have not slept away from home in the past 12 months (1.5 percent).

Women who were pregnant at the time of the survey were less likely to be HIV-positive than women who were not pregnant or who were unsure of their pregnancy status (1.1 and 1.7 percent respectively). HIV prevalence is higher among women who did not receive antenatal care for their last birth or who did not have a birth in the past three years (1.9 percent) compared with those who received ANC care. Among women who received ANC services, HIV prevalence is 1.4 percent for those using the public sector and less than 0.1 percent for those using services outside of the public sector.

HIV prevalence is 1.3 percent among men who reported that they are circumcised. For men who are not circumcised, the prevalence is less than 0.1 percent.

Table 15.6 HIV prevalence by demographic characteristics

Percentage HIV-positive among women and men age 15-49 who were tested, by demographic characteristics, Sierra Leone 2013

	Women		Men		Total	
Demographic characteristic	Percentage HIV-positive[1]	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Marital status						
Never married	1.6	2,089	0.8	2,700	1.2	4,789
Ever had sexual intercourse	2.0	1,436	0.9	1,820	1.4	3,256
Never had sexual intercourse	0.8	653	0.7	880	0.8	1,533
Married/living together	1.4	5,116	1.7	3,355	1.5	8,471
Divorced or separated	4.7	278	<0.1	176	2.9	454
Widowed	2.9	213	(0.7)	29	2.6	242
Type of union						
In polygynous union	1.1	1,844	1.5	672	1.2	2,516
In non-polygynous union	1.7	3,188	1.7	2,683	1.7	5,871
Not currently in union	2.1	2,579	0.8	2,905	1.4	5,484
Times slept away from home in past 12 months						
None	1.4	4,748	1.5	3,086	1.4	7,834
1-2	1.7	1,485	1.1	960	1.5	2,444
3-4	1.6	807	1.0	900	1.3	1,707
5+	3.1	650	1.1	1,312	1.8	1,962
Time away in past 12 months						
Away for more than 1 month	2.2	1,217	1.0	1,558	1.5	2,775
Away for less than 1 month	1.9	1,706	1.1	1,610	1.5	3,316
No away	1.4	4,748	1.5	3,086	1.4	7,834
Currently pregnant						
Pregnant	1.1	660	na	na	na	na
Not pregnant or not sure	1.7	7,035	na	na	na	na
ANC for last birth in the last 3 years						
ANC provided by the public sector	1.4	2,951	na	na	na	na
ANC provided by other than the public sector	<0.1	89	na	na	na	na
No ANC/No birth in last 3 years	1.9	4,638	na	na	na	na
Male circumcision						
Circumcised	na	na	1.3	6,230	na	na
Not circumcised	na	na	(<0.1)	16	na	na
Total 15-49	1.7	7,695	1.3	6,261	1.5	13,956
50-59	na	na	1.1	644	na	na
Total 15-59	na	na	1.2	6,905	na	na

Total includes 84 women with information missing on type of union; 4 women and 3 men with information missing on the times slept away from home in past 12 months; 24 women and 6 men with information missing on time away in past 12 months; 17 women with information missing on ANC for last birth in the last 3 years; and 14 men with information missing on male circumcision. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable

15.2.5 HIV Prevalence by Sexual Risk Behaviour

Table 15.7 presents HIV prevalence rates among respondents who have ever had sexual intercourse by sexual behaviour indicators. In reviewing these results, it is important to note that responses to questions about sexual risk behaviours may be subject to reporting bias. Also, sexual behaviour 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 transmission. Among all respondents age 15-49 who have ever had sex and were tested for HIV, 1.6 percent are HIV-positive: 1.7 percent of women and 1.4 percent of men.

Among women whose sexual debut was at age 15 or younger, 1.9 percent are HIV-positive, a figure that decreases to 1.2 percent among women whose sexual debut was at age 16-17, and peaks at 2.4 percent for those whose sexual debut was at age 18-19. Among men the pattern is reversed, HIV prevalence is highest for men whose sexual debut was at age 15 or younger (1.9 percent) and lowest for men whose sexual debut was at age 18-19 (less than 0.1 percent).

Table 15.7 HIV prevalence by sexual behaviour

Percentage HIV-positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behaviour characteristics, Sierra Leone 2013

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV-positive	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Age at first sexual intercourse						
<16	1.9	3,242	1.9	1,446	1.9	4,688
16-17	1.2	1,863	1.6	1,586	1.4	3,449
18-19	2.4	896	0.6	1,284	1.4	2,180
20+	1.3	348	1.2	988	1.2	1,337
Missing	1.4	684	<0.1	70	1.3	754
Multiple sexual partners and partner concurrency in past 12 months						
0	1.7	1,082	0.7	346	1.4	1,429
1	1.7	5,492	1.3	3,420	1.5	8,912
2+	2.3	433	1.7	1,603	1.8	2,035
Had concurrent partners[2]	2.8	263	2.1	1,048	2.2	1,311
None of the partners were concurrent	1.5	170	1.1	555	1.2	724
Condom use at last sexual intercourse in past 12 months						
Used condom	1.3	193	1.7	476	1.6	669
Did not use condom	1.7	5,710	1.4	4,537	1.6	10,246
No sexual intercourse in last 12 months	1.6	1,111	0.7	351	1.4	1,462
Number of lifetime partners						
1	1.4	2,128	0.4	585	1.2	2,713
2	1.8	2,065	1.1	729	1.6	2,794
3-4	1.5	1,968	1.4	1,174	1.5	3,143
5-9	3.3	638	1.4	1,131	2.1	1,769
10+	<0.1	57	0.8	920	0.8	977
Missing	1.2	179	2.6	835	2.4	1,014
Paid for sexual intercourse in past 12 months						
Yes	na	na	2.1	225	na	na
Used condom	na	na	2.1	106	na	na
Did not use condom	na	na	2.1	119	na	na
No (No paid sexual intercourse/no sexual intercourse in last 12 months)	na	na	1.3	5,149	na	na
Total 15-49	1.7	7,035	1.4	5,374	1.6	12,409
50-59	na	na	0.9	640	na	na
Total 15-59	na	na	1.3	6,014	na	na

Note: Total includes 28 women and 4 men with information missing on multiple sexual partners and partner concurrency in past 12 months; and 21 women and 10 men with information missing on condom use at last sexual intercourse in past 12 months. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
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.)

HIV prevalence by the number of sexual partners in the past 12 months varies by gender. Fewer women than men report having more than one sexual partner. Therefore, it is more informative to observe these data disaggregated by gender. Among women, HIV prevalence is highest for women who report having two or more sexual partners in the last 12 months (2.3 percent). HIV prevalence is 1.7 percent for women who report that they did not have a sexual partner or had only one partner in the past 12 months. Among men who report having two or more sexual partners in the past 12 months, HIV prevalence is 1.7 percent, and 0.7 percent among men who report that they did not have a sexual partner in the past 12 months.

Among women and men who report that they have concurrent sexual partners, that is, those who report having two or more different sexual partners at the same time, HIV prevalence is 2.2 percent: 2.8 percent for women and 2.1 percent for men.

HIV prevalence is the same among women and men who reported using a condom at the last sexual intercourse within the past 12 months, as it is for those who did not use a condom at last sexual intercourse (1.6 percent). Women who did not use a condom have higher HIV prevalence (1.7 percent) than those who

used a condom (1.3 percent). By contrast, men who did not use a condom have lower HIV prevalence (1.4 percent) than those who used a condom (1.7 percent)

HIV prevalence increases as the number of lifetime sexual partners increases, for both women and men. Prevalence among women increases from 1.4 percent for women with one lifetime partner to 3.3 percent for five to nine lifetime partners. Among men, HIV prevalence ranges from 0.4 percent for men with one lifetime partner to 1.4 percent for men with five to nine lifetime partners.

Among men who paid for sexual intercourse in the past 12 months, 2.1 percent are HIV-positive. HIV prevalence is the same for men who used a condom as it is for men who did not use a condom (2.1 percent). HIV prevalence is lower for men who did not report paying for sex in the past 12 months (1.3 percent).

15.3 HIV Prevalence among Youth

Table 15.8 shows HIV prevalence among women and men age 15-24. Overall, 1.1 percent of youth age 15-24 tested positive for HIV, and prevalence is higher among young women (1.4 percent) than among young men (0.7 percent). Among young women, HIV prevalence is highest for women age 18-19 (2.4 percent). Among young men, HIV prevalence does not vary much by age. For young men age 15-19, HIV prevalence is 0.7 percent, and for young men age 20-24 it is 0.9 percent.

Among youth who have never been married, those who have never had sex have lower prevalence (0.8 percent) than those who have had sex (1.3 percent). The differences in prevalence rates are more pronounced among young women than among young men. Young female respondents who have never been married have higher HIV prevalence (1.5 percent) than those who are married or living together (1.3 percent).

Among young women, HIV prevalence is 1.5 percent for women who are not pregnant or are not sure whether they are pregnant, and 0.7 percent for women who are pregnant.

HIV prevalence is higher in urban areas than in rural areas, both for young women and young men. The difference is pronounced among women: women in urban areas are twice as likely to be infected with HIV as women in rural areas (2.0 percent versus 0.9 percent). By region, HIV prevalence is highest in the Eastern region (1.8). By district, HIV prevalence for young women and men is highest in Kono (4.2 percent).

Young women and men with a secondary or higher education have higher HIV prevalence compared with young women and men with less education (1.4 and 0.7 percent, respectively). When the data are disaggregated by gender, the pattern is similar for women and men.

Overall, HIV prevalence and youth increases with increasing wealth, from 0.5 percent in the lowest wealth quintile to 1.4 percent in the highest quintile. However, the patterns for young women and young men differ. For young women, the pattern is similar to the overall trend, with prevalence steadily increasing as wealth increases, from 0.3 percent in the lowest wealth quintile to 1.7-2.0 percent in the highest and fourth quintiles. For young men, HIV prevalence is 0.2 percent in the second wealth quintile and 1.1-1.2 percent in the highest and middle quintiles.

Table 15.8 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, Sierra Leone 2013

Background characteristic	Women		Men		Total	
	Percentage HIV-positive	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Age						
15-19	1.5	1,675	0.7	1,383	1.1	3,058
15-17	0.9	1,003	0.7	888	0.8	1,891
18-19	2.4	671	0.6	496	1.6	1,167
20-24	1.2	1,267	0.9	968	1.1	2,235
20-22	1.4	869	0.9	674	1.2	1,543
23-24	1.0	398	0.9	295	0.9	692
Marital status						
Never married	1.5	1,795	0.7	2,137	1.1	3,933
Ever had sex	1.9	1,146	0.7	1,283	1.3	2,429
Never had sex	0.8	649	0.7	854	0.8	1,503
Married/living together	1.3	1,081	1.2	199	1.3	1,281
Divorced/separated/widowed	0.6	65	*	15	0.5	80
Currently pregnant						
Pregnant	0.7	257	na	na	na	na
Not pregnant or not sure	1.5	2,684	na	na	na	na
Residence						
Urban	2.0	1,275	0.9	1,086	1.5	2,361
Rural	0.9	1,666	0.6	1,266	0.8	2,932
Region						
Eastern	2.0	540	1.7	455	1.8	994
Northern	1.2	1,082	0.3	820	0.8	1,902
Southern	1.5	601	0.5	471	1.0	1,072
Western	1.2	719	0.8	606	1.0	1,325
District						
Kailahun	<0.1	114	1.7	90	0.8	204
Kenema	1.1	262	0.9	254	1.0	516
Kono	4.9	164	3.3	110	4.2	274
Bombali	0.9	257	0.2	199	0.6	456
Kambia	1.4	108	<0.1	89	0.7	197
Koinadugu	0.9	120	0.8	91	0.8	211
Port Loko	1.6	373	<0.1	249	0.9	622
Tonkolili	1.0	224	0.9	192	0.9	415
Bo	1.3	246	0.8	178	1.1	424
Bonthe	1.0	135	0.7	107	0.9	243
Moyamba	3.3	120	<0.1	120	1.6	241
Pujehun	0.3	99	<0.1	66	0.2	164
Western Rural	1.5	121	2.6	97	2.0	218
Western Urban	1.1	598	0.5	509	0.8	1,106
Education						
No education	0.7	808	0.6	417	0.7	1,225
Primary	1.1	560	0.2	341	0.8	901
Secondary or higher	1.8	1,573	0.9	1,594	1.4	3,167
Wealth quintile						
Lowest	0.6	472	0.4	345	0.5	818
Second	1.1	471	0.2	354	0.7	825
Middle	1.1	475	1.2	390	1.2	864
Fourth	2.0	644	0.5	475	1.4	1,119
Highest	1.7	880	1.0	787	1.4	1,667
Total	1.4	2,941	0.7	2,352	1.1	5,293

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

15.3.1 HIV Prevalence by Sexual Behaviour among Youth

The 2013 SLDHS collected data on behaviours that correlate with sexually transmitted infection (STI) rates. Information on sexual behavioural characteristics is important in designing, targeting, and monitoring HIV-prevention interventions for the young adult population. Three behaviours that correlate with STI rates include the number of sexual partners, age at first sexual intercourse, and condom use. It is important to note that responses about sexual behaviour are subject to reporting bias. This section examines data on sexual behaviour related to the spread of HIV and other STIs among respondents who have ever had sexual intercourse.

Table 15.9 shows HIV prevalence among youth by sexual behaviour. Among young adults, HIV prevalence by the number of sexual partners in the past 12 months varies by gender. Among young women, HIV prevalence is similar regardless of the number of sexual partners. Among young men who report having two or more partners in the past 12 months, HIV prevalence is highest at 1.5 percent. It is interesting that HIV prevalence is highest (2.0 percent) among women and men who report that none of the partners were concurrent.

HIV prevalence is higher among women who reported using a condom at the last sexual intercourse within the past 12 months (2.2 percent) than women who did not use a condom (1.6 percent). By contrast, men who did not use a condom have a lower HIV prevalence (0.4 percent) than men who used a condom (0.8 percent).

Table 15.9 HIV prevalence among young people by sexual behaviour

Percentage HIV-positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behaviour, Sierra Leone 2013

	Women		Men		Total	
Sexual behaviour characteristic	Percentage HIV-positive[1]	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Multiple sexual partners and partner concurrency in past 12 months						
0	1.4	305	0.6	113	1.2	418
1	1.6	1,797	0.5	1,005	1.2	2,801
2+	1.5	171	1.6	375	1.5	545
Had concurrent partners[1]	0.9	99	1.3	199	1.1	298
None of the partners were concurrent	2.4	72	1.9	175	2.0	247
Condom use at last sexual intercourse in past 12 months						
Used condom	2.2	95	0.4	211	1.0	306
Did not use condom	1.6	1,867	0.8	1,166	1.3	3,033
No sexual intercourse in last 12 months	1.3	320	0.6	117	1.1	437
Total	1.6	2,288	0.8	1,496	1.2	3,784

Note: Total includes 15 women and 4 men with information missing on multiple sexual partners and partner concurrency in past 12 months and 5 women and 2 men with information missing on condom use at last sexual intercourse in past 12 months. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
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).

15.4 HIV PREVALENCE BY OTHER CHARACTERISTICS

15.4.1 HIV Prevalence and STIs

A strong link exists between STIs and the sexual transmission of HIV. Many studies have demonstrated that STIs are a co-factor for HIV transmission. Management and treatment of STIs may potentially play an important role in the reduction of HIV transmission. Respondents in the 2013 SLDHS 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 15.10 shows HIV prevalence, among women and men age 15-49 who have ever had sex, by whether respondents reported an STI in the 12 months preceding the survey. The data show that respondents with a history of STIs or STI symptoms have substantially higher HIV prevalence compared with respondents with no history of STIs or STI symptoms.

Women who had an STI or STI symptoms in the past 12 months are equally likely to be HIV-positive as women who did not have an STI or STI symptoms (2.1 and 1.7 percent, respectively). Similarly, men who reported having an STI or STI symptoms in the past 12 months are equally likely to be HIV-positive as men who did not report an STI or STI symptoms (1.2 and 1.4 percent, respectively).

Table 15.10 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 had an STI in the past 12 months and by prior testing for HIV, Sierra Leone 2013

	Women		Men		Total	
Characteristic	Percentage HIV-positive	Number	Percentage HIV-positive	Number	Percentage HIV-positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	2.1	1,633	1.2	744	1.8	2,377
No STI, no symptoms	1.7	5,317	1.4	4,575	1.5	9,892
Prior HIV testing						
Ever tested	1.9	3,791	1.1	1,045	1.7	4,836
Received results	2.1	2,940	1.1	857	1.8	3,796
Did not received results	1.4	851	1.3	189	1.4	1,040
Never tested	1.5	3,200	1.4	4,328	1.5	7,528
Total 15-49	1.7	7,035	1.4	5,374	1.6	12,409

Note: Total includes 85 women and 55 men with information missing on sexually transmitted infection in past 12 months and 44 women with information missing on prior HIV testing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable

15.4.2 Prior HIV Testing

Respondents in the 2013 SLDHS were asked if they had previously ever had an HIV test. Table 15.11 presents data HIV status by previous testing. Overall, 34 percent of respondents who are HIV-positive in the SLDHS had previously been tested and received their result at the last test. Fifty-nine percent of respondents are HIV-positive and had never been tested before. The data disaggregated by gender show that among men who are HIV-positive, 85 percent have never previously been tested. Among women who are HIV positive, 43 percent have never previously been tested.

Table 15.11 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, Sierra Leone 2013

	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	47.7	37.6	12.1	14.2	34.0	27.1
Did not receive result of last test	9.5	12.2	3.0	3.6	7.0	8.3
Not previously tested	42.8	49.6	84.9	82.2	59.0	64.3
Missing	<0.1	0.6	<0.1	<0.1	<0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	127	7,568	79	6,181	207	13,749

15.5 HIV PREVALENCE AMONG COHABITING COUPLES

In the 2013 SLDHS, about 3,500 cohabiting couples were interviewed and tested for HIV. Table 15.12 shows that for 97 percent of cohabiting couples, both partners are HIV-negative, while for 0.2 percent, both partners are HIV-positive. Three (2.6) percent of cohabiting couples are discordant, that is, one partner is HIV-positive and the other is not. In 1.4 percent of couples, the male partner is HIV-positive and the female partner is HIV-negative, while in 1.2 percent cases the female partner is HIV-positive and the male partner is HIV-negative.

Table 15.12 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, Sierra Leone 2013

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	0.4	2.4	1.0	96.2	100.0	238
20-29	0.4	1.9	1.1	96.6	100.0	1,394
30-39	<0.1	0.9	1.6	97.4	100.0	1,382
40-49	<0.1	0.5	0.6	98.9	100.0	541
Man's age						
15-19	*	*	*	*	100.0	4
20-29	<0.1	1.8	1.0	97.1	100.0	564
30-39	0.4	1.5	1.0	97.0	100.0	1,381
40-49	<0.1	1.2	1.6	97.2	100.0	1,108
50-59	<0.1	0.7	1.0	98.3	100.0	498
Age difference between partners						
Woman older	<0.1	1.7	1.9	96.3	100.0	202
Same age/man older by 0-4 years	<0.1	0.8	1.1	98.2	100.0	942
Man older by 5-9 years	0.3	1.7	1.3	96.6	100.0	1,104
Man older by 10-14 years	0.2	1.2	0.9	97.7	100.0	769
Man older by 15+ years	0.2	1.7	1.4	96.7	100.0	538
Type of union						
Non-polygynous	0.1	1.5	1.4	97.0	100.0	2,369
Polygynous	0.3	1.0	0.8	97.9	100.0	1,146
Multiple partners in past 12 months[1]						
Both no	0.2	1.3	1.3	97.2	100.0	2,175
Man yes, woman no	0.2	1.5	1.0	97.3	100.0	1,235
Woman yes, man no	<0.1	<0.1	<0.1	100.0	100.0	65
Both yes	<0.1	1.2	2.0	96.8	100.0	62
Concurrent sexual partners in past 12 months[2]						
Both no	0.2	1.2	1.2	97.4	100.0	2,591
Man yes, woman no	0.2	1.8	1.2	96.8	100.0	886
Woman yes, man no	(<0.1)	(<0.1)	(2.9)	(97.1)	100.0	44
Both yes	(<0.1)	(2.0)	(<0.1)	(98.0)	100.0	36
Residence						
Urban	0.2	3.4	1.8	94.6	100.0	892
Rural	0.2	0.7	1.0	98.2	100.0	2,663
Region						
Eastern	<0.1	0.5	1.4	98.2	100.0	762
Northern	0.2	0.8	0.8	98.1	100.0	1,460
Southern	<0.1	0.8	1.0	98.2	100.0	852
Western	0.6	5.4	2.5	91.4	100.0	481
District						
Kailahun	<0.1	0.5	0.3	99.2	100.0	233
Kenema	<0.1	0.6	1.0	98.3	100.0	332
Kono	<0.1	0.2	3.2	96.6	100.0	197
Bombali	0.5	0.6	1.0	97.9	100.0	275
Kambia	<0.1	2.2	0.8	97.0	100.0	191
Koinadugu	<0.1	0.6	1.5	97.9	100.0	182
Port Loko	0.4	1.2	0.3	98.1	100.0	462
Tonkolili	<0.1	<0.1	0.8	99.2	100.0	351
Bo	<0.1	1.3	1.1	97.7	100.0	331
Bonthe	<0.1	0.7	1.8	97.5	100.0	138
Moyamba	<0.1	0.5	1.0	98.5	100.0	227
Pujehun	<0.1	0.2	<0.1	99.8	100.0	155
Western Rural	1.2	2.9	3.5	92.4	100.0	102
Western Urban	0.5	6.1	2.3	91.2	100.0	380
Woman's education						
No education	0.1	1.3	1.3	97.3	100.0	2,535
Primary	<0.1	1.3	0.5	98.1	100.0	451
Secondary or higher	0.5	1.5	1.5	96.5	100.0	570
Man's education						
No education	<0.1	1.2	1.1	97.6	100.0	2,134
Primary	0.3	0.3	0.5	98.8	100.0	392
Secondary or higher	0.4	2.1	1.6	95.9	100.0	1,029
Wealth quintile						
Lowest	<0.1	0.4	0.8	98.7	100.0	777
Second	0.4	0.9	0.9	97.9	100.0	829
Middle	<0.1	0.9	1.1	98.1	100.0	786
Fourth	0.2	1.3	1.2	97.3	100.0	595
Highest	0.4	4.1	2.4	93.2	100.0	569
Total	0.2	1.4	1.2	97.3	100.0	3,556

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners. Total includes 41 couples with information missing on Type of union and19 couples with information missing on multiple partners in past 12 months. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

[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.)

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES 16

Key Findings

- Eighty-five percent of currently married women are employed, but more than half (54 percent) are not paid for their work. In comparison, 98 percent of married men are employed and 36 percent are unpaid.
- Less than half of married, employed women (42 percent) decide how their own cash earnings are used, and 78 percent earn less income than their husbands. Among men, 60 percent are the main decision-makers in the use of their own cash earnings.
- Women are more likely to jointly own a house or land, while men are more likely to have sole ownership of such assets.
- Married women have limited say in making household decisions; less than 11 percent of women are the main decision-makers on their own healthcare or visits to their family or relatives. At least half of married men report that the husband makes these decisions.
- Sixty-three percent of women compared with 34 percent of men think that wife beating is justifiable in some circumstances.

This chapter presents information on indicators of women's empowerment, gender differences in select demographic and health measures, and two empowerment indicators. The study of women's status and empowerment is important on its own but takes on special significance in conjunction with the study of demographic and health outcomes. As caretakers for children, women are the focus of a number of population, health, and nutrition programmes. The constraints women face in obtaining information about these programmes and in accessing and using them are inherently tied to their status in society and also to their status in the home.

The 2013 SLDHS Woman's and Man's Questionnaires collected data on general background characteristics (e.g., age, education, wealth quintile, and employment status) and also issues more specific to women's empowerment, such as receipt of cash earnings, magnitude of cash earnings relative to those of a husband or partner, and control over cash earnings. The 2013 SLDHS also collected information about women's and men's participation in household decision-making and their attitudes towards wife beating.

Two separate indicators of empowerment were developed based on women's responses about the number of household decisions in which the woman participates, and women's attitudes towards wife beating. The ranking of women on these two indicators is then related to selected demographic and health outcomes, including contraceptive use, ideal family size, unmet need for family planning, and maternal and child health care.

16.1 EMPLOYMENT AND FORM OF EARNINGS

Employment can be a source of empowerment for both women and men, especially if it puts them in control of income. Table 16.1 shows details of employment and earnings for currently married women and men who were employed in the 12 months preceding the survey. Eighty-five percent of currently married women are employed compared with 98 percent of married men. For both women and men, the percentage employed in the past 12 months increases with age, before levelling off at age 30-34.

There is considerable difference in the proportion of women and men who were paid for their employment and among those the number who received cash earnings. More than half of currently married

women employed in the past 12 months (54 percent) are not paid at all for their work compared with 36 percent of men. Twenty-nine percent of women and 45 percent of men are paid in cash for their work; 12 percent of women receive cash or in-kind payment compared with 18 percent of men. For both women and men, the percent paid in cash is lowest in the youngest age groups and highest among women age 30-34 and men age 35-39.

Table 16.1 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, Sierra Leone 2013

	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 respondents
				WOMEN					
15-19	72.9	729	25.3	12.1	4.8	57.2	0.7	100.0	532
20-24	77.3	1,570	30.7	12.8	3.1	53.2	0.2	100.0	1,214
25-29	83.9	2,323	30.7	10.4	5.2	53.0	0.7	100.0	1,950
30-34	88.7	2,033	32.1	11.1	3.7	52.2	0.9	100.0	1,804
35-39	88.0	1,974	28.2	12.2	4.4	54.5	0.6	100.0	1,737
40-44	88.4	1,170	28.0	14.0	3.7	53.9	0.4	100.0	1,034
45-49	91.2	1,103	25.2	13.1	3.2	57.9	0.5	100.0	1,006
Total 15-49	85.1	10,903	29.3	12.0	4.1	54.0	0.6	100.0	9,278
				MEN					
15-19	76.1	13	*	*	*	*	*	*	10
20-24	92.5	190	34.0	17.5	0.0	48.5	0.0	100.0	176
25-29	97.7	569	43.4	20.8	0.5	35.2	0.0	100.0	556
30-34	98.1	657	45.4	19.0	0.3	35.0	0.3	100.0	645
35-39	99.1	858	48.0	16.4	1.3	34.3	0.0	100.0	850
40-44	99.3	646	44.8	19.7	1.6	33.8	0.0	100.0	642
45-49	99.2	580	43.8	17.5	0.8	37.8	0.0	100.0	576
Total 15-49	98.3	3,514	44.8	18.5	0.9	35.8	0.1	100.0	3,455
50-59	97.1	635	42.1	16.4	2.2	39.2	0.1	100.0	616
Total 15-59	98.1	4,148	44.4	18.1	1.1	36.3	0.1	100.0	4,071

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

16.2 CONTROL OVER EARNINGS

16.2.1 Control over Wife's Earnings

Currently married and employed women who earn cash for their work were asked who the main decision-maker is with regard to the use of their earnings. In addition, these women were asked about the magnitude of their earnings in comparison with the earnings of their husbands or partners. This information may provide insight into women's power within the family and the extent of their control over household decision-making. Employment and earnings are more likely to empower women if women themselves control their own earnings and perceive their earnings as significant relative to those of their husbands or partners.

Table 16.2.1 shows the percent distribution of currently married women who received cash earnings in the past 12 months, by the person who controls their earnings and by their perception of the magnitude of their earnings relative to their husband's earnings. Overall, 42 percent of women say that they mainly decide how their cash earnings are used, 31 percent of women indicate that the decision is made jointly with their husbands, and 27 percent say that use of their earnings is decided mainly by their husbands. Table 16.2.1 also shows that 9 percent of women earn more than their husbands, 78 percent earn less than their husbands, and 7 percent earn about the same amount as their husbands. Less than 2 percent of women say that their husbands have no cash earnings.

Table 16.2.1 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, Sierra Leone 2013

	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 hus-band jointly	Mainly hus-band	Other	Missing	Total	More	Less	About the same	Hus-band has no earn-ings	Don't know/ missing	Total	Number of women
Age													
15-19	33.8	28.5	37.0	0.1	0.6	100.0	2.9	86.5	5.6	2.4	2.6	100.0	199
20-24	36.2	30.6	32.1	0.1	1.2	100.0	6.6	82.0	6.3	1.4	3.7	100.0	528
25-29	42.6	29.0	28.0	0.1	0.3	100.0	9.7	80.0	4.9	1.4	3.9	100.0	802
30-34	41.1	33.1	25.2	0.0	0.5	100.0	8.8	77.2	8.4	1.1	4.5	100.0	780
35-39	42.5	31.4	25.6	0.0	0.5	100.0	9.2	77.3	7.4	1.2	4.9	100.0	703
40-44	44.8	28.8	26.0	0.0	0.4	100.0	13.6	75.0	3.7	2.9	4.8	100.0	434
45-49	51.3	31.7	15.9	0.0	1.0	100.0	13.2	69.8	8.2	0.8	8.1	100.0	386
Number of living children													
0	37.1	32.7	28.9	0.1	1.2	100.0	9.9	75.2	8.3	1.7	4.9	100.0	248
1-2	43.2	29.5	26.7	0.1	0.5	100.0	8.4	79.0	7.4	1.6	3.5	100.0	1,374
3-4	42.3	30.7	26.8	0.0	0.2	100.0	10.3	77.6	5.4	1.3	5.5	100.0	1,346
5+	41.4	32.1	25.4	0.0	1.1	100.0	9.6	77.8	6.1	1.5	4.9	100.0	864
Residence													
Urban	46.7	33.6	19.1	0.1	0.6	100.0	13.3	72.1	6.2	1.9	6.5	100.0	1,435
Rural	39.3	29.0	31.0	0.0	0.6	100.0	7.1	81.5	6.7	1.2	3.5	100.0	2,397
Region													
Eastern	52.8	23.4	23.6	0.2	0.0	100.0	11.3	80.8	3.6	1.2	3.2	100.0	903
Northern	33.1	31.0	35.2	0.0	0.7	100.0	7.3	81.9	6.6	1.6	2.6	100.0	1,165
Southern	44.5	28.7	26.1	0.0	0.7	100.0	4.7	81.6	7.1	1.0	5.6	100.0	902
Western	40.3	40.1	18.7	0.0	0.9	100.0	15.2	66.0	8.8	2.2	7.9	100.0	863
District													
Kailahun	46.2	37.2	16.0	0.6	0.0	100.0	11.2	82.6	4.6	0.0	1.7	100.0	153
Kenema	52.4	20.3	27.3	0.0	0.0	100.0	9.3	83.0	3.3	0.8	3.7	100.0	534
Kono	58.4	21.4	19.9	0.3	0.1	100.0	16.4	74.0	3.5	3.0	3.1	100.0	216
Bombali	26.0	45.1	28.1	0.0	0.9	100.0	6.9	82.6	8.4	1.2	0.9	100.0	73
Kambia	23.5	25.0	49.0	0.0	2.6	100.0	11.9	81.0	5.7	0.0	1.5	100.0	90
Koinadugu	51.7	23.8	24.5	0.0	0.0	100.0	11.9	82.9	3.7	0.3	1.3	100.0	272
Port Loko	33.7	36.0	29.7	0.0	0.6	100.0	6.0	76.4	11.9	2.9	2.8	100.0	415
Tonkolili	20.8	29.0	49.4	0.0	0.9	100.0	4.0	88.4	2.0	1.4	4.1	100.0	315
Bo	57.9	24.7	17.4	0.0	0.0	100.0	6.1	75.4	7.1	2.2	9.2	100.0	246
Bonthe	41.7	35.2	23.1	0.0	0.0	100.0	10.9	68.4	10.4	2.3	8.1	100.0	107
Moyamba	31.3	13.3	55.1	0.0	0.4	100.0	4.6	79.6	12.0	0.5	3.3	100.0	244
Pujehun	45.4	41.9	10.8	0.0	1.9	100.0	1.6	92.8	1.8	0.1	3.6	100.0	304
Western Area Rural	46.6	25.9	27.0	0.1	0.4	100.0	9.5	61.8	14.3	2.2	12.3	100.0	190
Western Area Urban	38.5	44.1	16.3	0.0	1.0	100.0	16.8	67.2	7.3	2.2	6.6	100.0	674
Education													
No education	41.1	28.7	29.4	0.0	0.7	100.0	8.5	80.5	5.8	1.2	4.0	100.0	2,594
Primary	46.9	28.0	24.6	0.1	0.6	100.0	10.3	76.3	6.8	1.8	4.9	100.0	538
Secondary or higher	41.9	40.2	17.6	0.1	0.1	100.0	12.3	70.0	8.7	2.3	6.8	100.0	700
Wealth quintile													
Lowest	34.9	28.8	35.8	0.0	0.5	100.0	4.5	85.3	7.1	0.5	2.7	100.0	716
Second	39.9	27.7	31.5	0.0	0.9	100.0	8.1	80.3	7.7	1.5	2.5	100.0	633
Middle	37.6	32.8	28.9	0.1	0.6	100.0	7.6	83.3	5.0	0.7	3.3	100.0	661
Fourth	48.3	24.9	26.3	0.1	0.4	100.0	9.9	75.3	5.7	2.4	6.7	100.0	861
Highest	46.3	37.9	15.2	0.0	0.6	100.0	14.9	69.7	6.9	1.9	6.5	100.0	961
Total	42.1	30.7	26.6	0.0	0.6	100.0	9.4	78.0	6.5	1.5	4.6	100.0	3,832

For women who mainly determine the use of their cash earnings, overall control of these earnings increases with age. Thirty-four percent of women age 15-19 have control over their earnings compared with 51 percent of women age 45-49. Women in urban areas, women in Eastern region, and women in the two highest wealth quintiles are more likely than other women to decide how their own cash earnings are used.

Women who earn more than their husbands are more likely to reside in urban areas, be older, have more education, and be in the highest wealth quintile. For example, only 7 percent of women in rural areas earn more than their husbands compared with 13 percent in urban areas. Three percent of women age 15-19 earn more than their husbands compared with 14 percent of women age 40-44. At the regional level, a higher proportion of women in Western region (15 percent) earn more than their husbands, followed by Eastern region (11 percent); the lowest proportion is in Southern region (5 percent).

16.2.2 Control over Husband's Earnings

Currently married and employed men who earn cash for their work and currently married women whose husbands earn cash were asked who mainly decides about use of the man's earnings. Table 16.2.2 shows data about control over the husband's cash earnings by background characteristics. Among currently married men age 15-49 who receive cash earnings, 60 percent say they mainly make decisions on their own about how to use the earnings, while 27 percent say they and their wife decide jointly. Only 12 percent of men say that their wives mainly decide on how to use the husband's earnings. Similarly, 55 percent of married women report that their husbands mainly decide how the husband's earnings are used, while 36 percent report joint decision-making. Eight percent of women say they mainly decide how the husband's earnings are used.

Table 16.2.2 Control over men's cash earnings

Percent distribution of currently married men age 15-49 who receive cash earnings and percent distribution 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, Sierra Leone 2013

	Men							Women						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number
Age														
15-19	*	*	*	*	*	100.0	8	7.0	32.2	57.5	1.5	1.8	100.0	704
20-24	11.8	26.8	60.7	0.7	0.0	100.0	90	6.9	34.2	57.9	0.2	0.7	100.0	1,543
25-29	11.7	21.6	65.3	0.1	1.2	100.0	357	6.2	36.8	56.3	0.1	0.7	100.0	2,296
30-34	12.8	23.7	62.4	0.1	0.9	100.0	416	6.5	38.2	54.6	0.0	0.6	100.0	2,016
35-39	11.6	29.0	58.9	0.3	0.2	100.0	548	8.0	35.8	55.5	0.1	0.6	100.0	1,959
40-44	10.5	31.2	58.2	0.0	0.1	100.0	414	7.5	38.7	53.2	0.1	0.6	100.0	1,153
45-49	15.0	30.0	55.0	0.0	0.0	100.0	353	11.9	37.0	50.6	0.0	0.4	100.0	1,094
Number of living children														
0	14.8	25.8	55.9	0.8	2.6	100.0	132	6.1	36.2	54.5	0.9	2.4	100.0	818
1-2	10.6	25.2	63.5	0.0	0.8	100.0	759	7.5	35.6	56.1	0.2	0.6	100.0	3,745
3-4	11.9	27.9	60.0	0.3	0.0	100.0	681	7.4	37.2	55.0	0.0	0.4	100.0	3,703
5+	14.5	29.1	56.2	0.0	0.2	100.0	614	8.0	36.7	54.6	0.0	0.7	100.0	2,499
Residence														
Urban	9.7	27.6	61.8	0.0	0.9	100.0	814	9.6	40.7	48.9	0.2	0.6	100.0	2,866
Rural	13.9	26.9	58.7	0.2	0.2	100.0	1,373	6.7	34.9	57.5	0.2	0.7	100.0	7,898
Region														
Eastern	2.7	34.7	62.5	0.1	0.1	100.0	523	12.4	22.9	64.2	0.1	0.4	100.0	2,528
Northern	29.7	10.6	59.4	0.2	0.1	100.0	674	4.8	36.8	57.4	0.2	0.8	100.0	4,350
Southern	3.6	38.3	57.7	0.2	0.2	100.0	526	4.9	44.2	50.0	0.2	0.7	100.0	2,411
Western	7.9	30.2	60.1	0.0	1.8	100.0	464	11.0	45.7	42.3	0.1	0.9	100.0	1,476
District														
Kailahun	3.3	50.8	45.9	0.0	0.0	100.0	94	9.4	17.7	72.3	0.0	0.5	100.0	755
Kenema	2.2	28.1	69.7	0.0	0.0	100.0	357	15.8	24.7	59.0	0.0	0.5	100.0	1,148
Kono	4.1	46.2	48.3	0.9	0.5	100.0	72	9.8	25.9	63.9	0.4	0.1	100.0	625
Bombali	36.7	5.5	55.7	2.1	0.0	100.0	74	7.1	31.7	60.4	0.4	0.5	100.0	802
Kambia	48.0	16.0	35.6	0.0	0.4	100.0	118	7.1	54.1	37.6	0.2	1.0	100.0	559
Koinadugu	8.4	20.0	71.6	0.0	0.0	100.0	97	2.5	18.8	77.8	0.0	0.9	100.0	541
Port Loko	26.0	12.1	61.9	0.0	0.0	100.0	209	4.6	37.9	56.8	0.1	0.5	100.0	1,432
Tonkolili	30.6	2.0	67.4	0.0	0.0	100.0	176	3.3	39.4	55.7	0.3	1.3	100.0	1,016
Bo	3.9	19.5	76.6	0.0	0.0	100.0	254	4.4	31.9	62.8	0.3	0.7	100.0	920
Bonthe	1.3	33.1	65.6	0.0	0.0	100.0	95	2.8	64.4	32.4	0.0	0.4	100.0	412
Moyamba	13.8	33.8	50.4	0.0	2.0	100.0	52	7.0	51.5	40.1	0.2	1.2	100.0	629
Pujehun	0.7	82.3	16.3	0.7	0.0	100.0	126	5.2	40.6	53.6	0.3	0.4	100.0	450
Western Area Rural	3.1	65.2	30.5	0.0	1.1	100.0	86	11.0	39.8	48.9	0.0	0.3	100.0	293
Western Area Urban	8.9	22.3	66.9	0.0	1.9	100.0	378	11.0	47.2	40.7	0.1	1.1	100.0	1,183
Education														
No education	12.4	28.8	58.2	0.2	0.4	100.0	1,115	7.1	35.7	56.5	0.1	0.6	100.0	7,802
Primary	11.7	30.6	57.1	0.0	0.7	100.0	266	8.9	33.8	56.3	0.2	0.7	100.0	1,403
Secondary or higher	12.4	23.8	63.1	0.1	0.5	100.0	806	7.9	42.6	47.8	0.7	0.9	100.0	1,559
Wealth quintile														
Lowest	12.4	29.9	56.9	0.6	0.2	100.0	414	7.2	36.8	55.1	0.2	0.7	100.0	2,315
Second	14.8	26.3	58.9	0.0	0.0	100.0	399	6.6	33.7	58.7	0.1	0.9	100.0	2,301
Middle	14.6	23.8	61.4	0.0	0.1	100.0	409	6.9	36.0	56.2	0.2	0.7	100.0	2,290
Fourth	11.3	27.5	60.7	0.2	0.3	100.0	386	7.8	32.9	58.5	0.3	0.4	100.0	2,048
Highest	9.7	28.0	61.1	0.0	1.3	100.0	580	9.1	43.9	46.1	0.1	0.8	100.0	1,810
Total 15-49	12.3	27.2	59.9	0.1	0.5	100.0	2,187	7.5	36.4	55.2	0.2	0.7	100.0	10,765
50-59	16.1	29.1	54.8	0.0	0.0	100.0	360	na	na	na	na	na	na	na
Total 15-59	12.9	27.4	59.2	0.1	0.4	100.0	2,547	na	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

Men with secondary or higher education are slightly more likely to report having control over their own earnings (63 percent) compared with men with less education (58 percent or less). Men residing in urban areas (62 percent), men age 25-29 (65 percent), and men in the higher three wealth quintiles also are more likely to control their own earnings compared with rural men, men in other age groups, and men in the

lower two wealth quintiles. Women's responses on who controls the husband's earnings follow a pattern similar to men's except for rural-urban residence; women in urban areas are less likely than women in rural areas to say the husband mainly decides how his earnings are used (49 percent versus 58 percent respectively).

16.3 WOMEN'S CONTROL OVER EARNINGS BY MAGNITUDE OF EARNINGS

Table 16.3 shows women's control over cash earnings by the magnitude of their earnings relative to those of their husbands. Specifically, for currently married women who earned cash in the past 12 months, the table shows who decides how women's earnings are used, and for all currently married women whose husbands earned cash in the past 12 months, it shows who decides how the husband's earnings are used, according to the relation between wife's and husband's cash earnings.

Women are the main decision-makers in the use of their own cash earnings among 63 percent of women whose earnings exceed the earnings of their husbands, 40 percent of women whose earnings are less than the husbands' earnings, and 54 percent of women whose husbands have no cash earnings. Among women who have the same earnings as their husbands, 57 percent say that decisions about their own earnings are made jointly.

Men are less likely to be the main decision-makers in the use of their own earnings if their wives earn more than they earn (42 percent) than if their wives earn less than they earn (55 percent). When women and men earn the same, decisions about the husband's earnings are made jointly in 83 percent of cases. Among women who work but do not earn cash and women who do not work, it is mainly the husband who controls his earnings.

Table 16.3 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, Sierra Leone 2013

	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	Other	Missing	Total	Number	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband	62.6	22.5	14.6	0.2	0.0	100.0	361	25.3	32.4	42.1	0.2	0.0	100.0	361
Less than husband	40.2	29.8	29.7	0.0	0.2	100.0	2,988	6.8	37.4	55.7	0.0	0.0	100.0	2,988
Same as husband	21.4	62.0	16.5	0.0	0.0	100.0	249	0.9	83.4	15.7	0.0	0.0	100.0	249
Husband has no cash earnings or did not work	53.7	34.7	11.6	0.0	0.0	100.0	57	na	na	na	na	na	na	0
Woman worked but has no cash earnings	na	na	na	na	na	na	0	7.8	35.3	55.9	0.2	0.9	100.0	5,414
Woman did not work	na	na	na	na	na	na	0	3.5	33.0	61.6	0.5	1.4	100.0	1,576
Total[1]	42.1	30.7	26.6	0.0	0.6	100.0	3,832	7.5	36.4	55.2	0.2	0.7	100.0	10,765

na = Not applicable
[1] Includes 177 cases where a woman does not know whether she earns more or less than her husband

16.4 OWNERSHIP OF ASSETS

Ownership of assets, especially a house or land, can add to a woman's status in both the household and the community. Additionally, access to and control over such assets can be a great economic resource for women. Women and men were asked if they owned any house or land either alone or jointly with someone else. Table 16.4.1 and 16.4.2 show the percent distribution of ownership by background characteristics for women and men, respectively.

Women are more likely to report joint ownership of a house or land, while men are more likely to report sole ownership. In fact, few women report sole ownership: 5 percent of women own a house alone, and 5 percent own land alone. In comparison, 18 percent of men report sole ownership of a house and 17 percent report sole ownership of land. Twenty-nine percent of women jointly own a house compared with 14 percent of men; 26 percent of women jointly own land compared with 16 percent of men. Similar numbers of women and men report not owning a house or land; for example, 61 of women and 62 percent of men do not own a house.

Table 16.4.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Sierra Leone 2013

	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	2.1	10.3	2.5	84.7	0.3	100.0	2.5	9.2	2.0	85.9	0.4	100.0	3,878
20-24	2.9	21.5	4.1	71.4	0.1	100.0	2.8	20.0	3.1	74.1	0.1	100.0	2,683
25-29	4.1	29.3	6.2	60.1	0.3	100.0	3.3	28.4	4.7	63.3	0.3	100.0	2,843
30-34	4.4	37.4	6.4	51.6	0.3	100.0	5.1	33.7	4.6	56.3	0.4	100.0	2,287
35-39	7.2	40.5	6.7	45.5	0.2	100.0	7.2	37.0	4.7	50.7	0.4	100.0	2,260
40-44	8.1	42.9	8.2	40.3	0.4	100.0	9.9	39.7	4.9	45.1	0.4	100.0	1,362
45-49	11.7	44.2	7.1	36.7	0.4	100.0	12.6	41.0	6.7	39.2	0.6	100.0	1,344
Residence													
Urban	3.1	14.8	2.5	79.4	0.2	100.0	3.5	13.6	2.0	80.5	0.3	100.0	5,933
Rural	5.8	36.2	6.9	50.8	0.3	100.0	6.0	33.5	5.1	55.2	0.3	100.0	10,725
Region													
Eastern	5.1	41.1	10.5	43.2	0.2	100.0	4.2	36.6	9.8	49.1	0.2	100.0	3,614
Northern	3.8	26.1	4.4	65.5	0.2	100.0	5.6	24.2	3.0	67.0	0.2	100.0	6,292
Southern	8.6	41.1	5.0	44.8	0.5	100.0	7.1	39.0	2.1	51.2	0.6	100.0	3,514
Western	2.5	6.0	1.6	89.7	0.2	100.0	2.9	5.8	1.3	89.7	0.3	100.0	3,238
District													
Kailahun	8.4	50.4	18.1	23.2	0.0	100.0	6.2	42.6	17.4	33.8	0.0	100.0	984
Kenema	1.7	39.0	11.5	47.5	0.3	100.0	1.1	35.2	10.7	52.6	0.4	100.0	1,651
Kono	7.7	35.2	1.1	55.9	0.0	100.0	7.5	32.8	0.8	58.8	0.2	100.0	979
Bombali	3.1	31.2	2.4	63.4	0.0	100.0	7.4	30.3	2.1	60.2	0.0	100.0	1,377
Kambia	10.7	26.4	12.0	50.3	0.7	100.0	13.0	22.1	6.4	57.8	0.7	100.0	738
Koinadugu	1.8	46.4	5.5	45.7	0.6	100.0	2.8	35.5	2.2	58.8	0.7	100.0	719
Port Loko	4.0	21.5	3.5	70.7	0.3	100.0	4.6	22.8	2.2	70.1	0.3	100.0	1,994
Tonkolili	1.8	17.3	3.2	77.6	0.0	100.0	3.0	15.8	3.5	77.6	0.0	100.0	1,464
Bo	1.1	36.8	8.4	52.8	0.8	100.0	1.4	35.2	2.7	59.8	0.8	100.0	1,398
Bonthe	29.6	33.5	2.5	34.2	0.1	100.0	19.9	33.3	0.6	46.0	0.3	100.0	678
Moyamba	7.4	47.8	1.7	42.7	0.4	100.0	8.2	47.5	1.1	42.5	0.7	100.0	843
Pujehun	3.8	49.9	4.7	41.4	0.2	100.0	4.6	42.3	3.8	49.2	0.2	100.0	595
Western Area Rural	4.1	9.9	0.3	85.6	0.1	100.0	1.4	7.6	0.4	90.5	0.1	100.0	528
Western Area Urban	2.1	5.2	1.9	90.5	0.2	100.0	3.1	5.5	1.5	89.5	0.3	100.0	2,710
Education													
No education	6.4	37.5	6.5	49.3	0.3	100.0	6.5	34.4	4.7	53.9	0.4	100.0	9,293
Primary	3.9	26.3	6.1	63.4	0.3	100.0	4.0	24.8	4.2	66.6	0.3	100.0	2,331
Secondary or higher	2.5	13.1	2.8	81.4	0.2	100.0	3.0	12.3	2.4	82.0	0.2	100.0	5,034
Wealth quintile													
Lowest	7.8	44.4	6.5	41.1	0.1	100.0	6.9	41.6	5.4	45.9	0.2	100.0	3,089
Second	5.3	37.0	7.1	50.1	0.4	100.0	5.5	34.0	5.2	54.9	0.5	100.0	3,046
Middle	5.1	33.1	6.5	55.0	0.3	100.0	5.7	29.9	4.8	59.2	0.4	100.0	3,140
Fourth	4.8	22.0	4.9	67.9	0.3	100.0	4.9	20.2	3.7	70.8	0.4	100.0	3,388
Highest	2.0	11.9	2.4	83.6	0.1	100.0	3.0	11.4	1.5	83.8	0.2	100.0	3,994
Total	4.9	28.6	5.3	61.0	0.3	100.0	5.1	26.4	4.0	64.2	0.3	100.0	16,658

na = Not applicable

In general, men and women who are more likely to own a house or land are older, reside in rural areas, have less education, and are in the lower wealth quintiles.

Table 16.4.2 Ownership of assets: Men

Percent distribution of men age 15-49 by ownership of housing and land, according to background characteristics, Sierra Leone 2013

	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	1.2	7.2	6.3	85.3	0.0	100.0	1.4	6.9	4.4	87.2	0.1	100.0	1,475
20-24	3.4	12.4	7.5	76.4	0.3	100.0	5.5	10.2	5.5	78.8	0.0	100.0	1,007
25-29	10.7	12.7	7.0	69.6	0.0	100.0	12.2	12.3	5.3	70.2	0.0	100.0	1,017
30-34	22.5	15.4	6.4	55.6	0.1	100.0	22.7	14.9	4.3	58.0	0.1	100.0	804
35-39	31.3	18.9	6.4	43.3	0.2	100.0	29.1	18.7	5.2	46.9	0.2	100.0	961
40-44	38.9	20.4	7.4	33.3	0.0	100.0	34.0	19.0	7.6	39.4	0.0	100.0	690
45-49	40.8	17.5	7.1	34.5	0.1	100.0	39.9	17.1	6.1	36.9	0.1	100.0	629
Residence													
Urban	5.8	7.8	6.7	79.5	0.1	100.0	8.0	7.3	3.7	81.0	0.1	100.0	2,508
Rural	25.0	17.7	6.9	50.3	0.0	100.0	23.2	16.8	6.4	53.6	0.0	100.0	4,073
Region													
Eastern	18.6	15.2	13.7	52.4	0.0	100.0	18.9	14.8	9.2	57.1	0.0	100.0	1,442
Northern	25.3	12.6	5.4	56.7	0.0	100.0	27.1	12.3	4.5	56.0	0.0	100.0	2,300
Southern	16.7	21.1	5.7	56.4	0.1	100.0	10.9	19.1	5.6	64.4	0.1	100.0	1,414
Western	5.5	7.7	3.2	83.3	0.3	100.0	6.9	7.0	2.5	83.5	0.2	100.0	1,425
District													
Kailahun	27.6	17.1	9.0	46.3	0.0	100.0	25.2	19.5	10.3	45.0	0.0	100.0	371
Kenema	14.9	13.7	22.5	48.9	0.0	100.0	19.1	15.6	12.6	52.7	0.0	100.0	719
Kono	16.8	16.3	0.8	66.1	0.1	100.0	11.9	8.4	0.9	78.7	0.1	100.0	352
Bombali	21.7	9.3	2.5	66.6	0.0	100.0	21.1	6.1	1.7	71.1	0.0	100.0	499
Kambia	17.7	26.3	24.8	31.2	0.0	100.0	17.6	26.2	23.9	32.4	0.0	100.0	270
Koinadugu	36.4	23.6	0.8	39.3	0.0	100.0	43.6	22.2	0.4	33.8	0.0	100.0	268
Port Loko	22.4	11.6	4.0	62.1	0.0	100.0	23.5	14.9	3.3	58.3	0.0	100.0	679
Tonkolili	30.4	5.1	2.7	61.7	0.0	100.0	33.3	3.7	1.2	61.7	0.0	100.0	584
Bo	17.6	9.0	7.2	65.9	0.3	100.0	8.4	9.2	6.8	75.3	0.3	100.0	533
Bonthe	14.8	28.4	8.1	48.7	0.0	100.0	11.6	28.5	9.0	50.8	0.0	100.0	283
Moyamba	20.3	25.1	0.4	54.1	0.0	100.0	14.1	12.9	0.8	72.3	0.0	100.0	368
Pujehun	11.0	33.7	7.6	47.7	0.0	100.0	10.7	40.4	5.9	42.9	0.0	100.0	230
Western Area Rural	11.7	12.9	8.1	67.2	0.0	100.0	9.9	10.1	3.5	76.5	0.0	100.0	230
Western Area Urban	4.4	6.7	2.2	86.4	0.3	100.0	6.3	6.4	2.3	84.9	0.2	100.0	1,195
Education													
No education	29.0	19.0	7.3	44.6	0.1	100.0	26.6	17.7	6.5	49.1	0.1	100.0	2,651
Primary	15.5	12.6	5.8	66.1	0.0	100.0	15.2	12.6	5.2	67.0	0.0	100.0	825
Secondary or higher	8.7	9.9	6.6	74.6	0.1	100.0	10.2	9.5	4.4	75.9	0.1	100.0	3,106
Wealth quintile													
Lowest	29.2	22.6	7.3	41.0	0.0	100.0	26.9	19.3	7.2	46.6	0.0	100.0	1,218
Second	25.3	16.7	8.2	49.8	0.0	100.0	23.1	17.6	7.1	52.2	0.0	100.0	1,175
Middle	23.6	15.3	6.7	54.3	0.1	100.0	21.7	14.2	6.1	57.8	0.1	100.0	1,195
Fourth	12.4	11.0	7.0	69.6	0.0	100.0	13.3	11.2	5.0	70.4	0.0	100.0	1,183
Highest	4.7	7.3	5.6	82.2	0.2	100.0	7.3	6.8	2.6	83.2	0.1	100.0	1,811
Total 15-49	17.7	13.9	6.8	61.5	0.1	100.0	17.4	13.2	5.3	64.0	0.1	100.0	6,582
50-59	46.6	18.0	8.6	26.6	0.1	100.0	41.2	16.0	7.5	35.2	0.1	100.0	680
Total 15-59	20.4	14.3	7.0	58.2	0.1	100.0	19.7	13.4	5.5	61.3	0.1	100.0	7,262

na = Not applicable

16.5 PARTICIPATION IN DECISION-MAKING

The 2013 SLDHS collected information on women's and men's participation in decision-making within the household. Household decision-making is a common measure of empowerment since it is assumed that an individual's ability to make decisions about daily life reflect the ability to control broader life circumstances as well. Currently married respondents were asked to indicate who usually makes decisions about three selected issues: personal health care, major household purchases, and visits to family or relatives (asked of women only). Table 16.5 displays the percent distribution of currently married women and men age 15-49 by the person who usually makes decisions on each of these issues.

For the most part, married women have limited say in these three common household decisions. Less than 11 percent of women are the main decision-makers for their own health care, household purchases, and visits to their own family. Most women report that these decisions are made jointly with their husbands (between 46 and 51 percent) while substantial numbers of women report their husbands are the main decision-makers: 45 percent for the wife's health care, 43 percent for major household purchases, and 37 percent for the wife's visits to family and friends.

Married men report that they mainly make the common household decisions. Fifty-seven percent of men make decisions about their personal health care, and 49 percent make decisions on major household purchases. Interestingly, 13 percent report that the wife is the main decision-maker for the man's healthcare, and 17 percent report that the wife mainly makes major household purchases.

Table 16.5 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, Sierra Leone 2013

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of respondents
WOMEN								
Own health care	8.1	45.7	44.9	0.4	0.3	0.7	100.0	10,903
Major household purchases	7.5	47.8	43.2	0.4	0.4	0.7	100.0	10,903
Visits to her family or relatives	10.5	51.4	37.2	0.2	0.1	0.7	100.0	10,903
MEN								
Own health care	12.6	29.5	57.3	0.2	0.0	0.5	100.0	3,514
Major household purchases	17.3	32.9	49.0	0.2	0.0	0.4	100.0	3,514

Table 16.6.1 and Table 16.6.2 present the percentage of respondents who make decisions on their own or jointly with their spouse, by background characteristics. In general, women's participation in household decisions increases with age, with a slight plateau at age 30-34 and 35-39 before increasing again. Thirty-eight percent of women age 15-19 participate in all three decisions compared with 53 percent of women age 45-49. Additionally, women who are employed and earn cash, women with three or more children, urban women, and women in the Southern region are more likely to participate in household decisions. There do not appear to be great differences in women's household decision-making across education levels. The patterns are slightly different among men. Urban men are more likely to participate in household decisions, but there are no clear patterns in men's decision-making by age, number of children, education, or wealth quintile.

Table 16.6.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Sierra Leone 2013

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	44.9	45.8	56.9	37.9	39.0	729
20-24	50.3	50.0	57.8	42.0	36.5	1,570
25-29	51.9	52.6	60.6	43.8	32.7	2,323
30-34	54.9	56.6	63.5	46.3	29.8	2,033
35-39	55.4	56.9	61.5	46.1	29.6	1,974
40-44	56.1	59.5	65.9	48.2	27.3	1,170
45-49	60.8	65.2	67.8	52.7	24.3	1,103
Employment (last 12 months)						
Not employed	38.5	39.5	51.1	32.6	44.3	1,613
Employed for cash	59.1	60.0	66.2	48.1	24.8	3,832
Employed, not for cash	54.8	56.9	62.3	47.5	31.5	5,389
Number of living children						
0	47.7	46.5	55.2	39.3	39.2	830
1-2	52.1	53.2	61.3	43.8	32.4	3,808
3-4	54.8	56.9	63.2	47.0	29.9	3,734
5+	56.7	59.1	63.2	47.5	28.4	2,531
Residence						
Urban	55.3	56.7	63.1	44.6	28.1	2,923
Rural	53.2	54.8	61.5	45.7	32.3	7,980
Region						
Eastern	34.2	40.3	51.9	27.2	39.4	2,558
Northern	57.8	58.7	65.2	50.6	29.6	4,399
Southern	64.6	63.8	66.2	56.3	27.8	2,434
Western	57.5	57.3	62.6	43.7	27.3	1,512
District						
Kailahun	26.0	33.7	26.2	15.0	58.2	760
Kenema	40.7	45.9	61.9	35.4	33.4	1,161
Kono	32.4	38.0	64.5	26.9	27.9	637
Bombali	57.4	62.7	61.4	51.8	32.6	805
Kambia	63.0	64.5	65.5	55.4	26.6	563
Koinadugu	45.8	48.5	60.1	37.6	34.3	547
Port Loko	70.2	64.7	70.2	61.5	24.8	1,456
Tonkolili	44.1	49.1	63.5	38.4	33.1	1,027
Bo	52.9	51.6	49.6	43.1	41.6	933
Bonthe	83.0	84.1	84.9	78.9	11.6	418
Moyamba	62.5	68.9	70.3	58.7	25.1	632
Pujehun	74.6	62.9	77.3	59.0	18.0	452
Western Area Rural	55.1	52.9	61.0	47.5	36.0	305
Western Area Urban	58.2	58.4	63.0	42.7	25.0	1,207
Education						
No education	54.1	55.4	61.8	45.8	31.1	7,870
Primary	51.0	54.4	60.4	44.0	34.0	1,426
Secondary or higher	54.6	55.8	64.2	44.9	29.1	1,607
Wealth quintile						
Lowest	54.2	56.4	64.4	47.6	29.7	2,341
Second	49.0	52.0	58.9	41.6	34.5	2,323
Middle	54.9	54.7	60.5	47.0	33.2	2,307
Fourth	55.1	56.9	63.7	47.0	30.0	2,087
Highest	56.2	57.1	62.3	43.7	27.6	1,845
Total	53.8	55.3	61.9	45.4	31.2	10,903

Note: Total includes 69 women with information missing on employment in the past 12 months

Table 16.6.2 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, Sierra Leone 2013

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	*	*	*	*	13
20-24	86.4	81.5	79.2	11.2	190
25-29	88.5	83.5	81.3	9.4	569
30-34	86.1	81.2	80.0	12.7	657
35-39	87.9	82.7	80.7	10.0	858
40-44	86.2	81.9	79.8	11.7	646
45-49	85.3	81.1	79.6	13.1	580
Employment (last 12 months)					
Not employed	64.2	57.7	57.7	35.8	59
Employed for cash	85.5	78.2	76.0	12.3	2,187
Employed, not for cash	89.9	89.6	88.3	8.8	1,266
Number of living children					
0	87.1	81.5	78.3	9.7	219
1-2	86.6	81.9	79.8	11.3	1,204
3-4	87.2	81.7	80.7	11.7	1,082
5+	86.3	82.4	80.3	11.7	1,010
Residence					
Urban	88.3	85.7	83.9	9.8	983
Rural	86.1	80.5	78.7	12.1	2,530
Region					
Eastern	91.3	93.8	89.0	3.9	847
Northern	77.9	76.6	75.9	21.5	1,300
Southern	94.7	77.2	76.3	4.4	839
Western	88.4	84.0	82.5	10.1	528
District					
Kailahun	96.6	97.4	96.1	2.1	241
Kenema	88.6	89.8	83.8	5.4	391
Kono	90.3	96.8	90.3	3.2	215
Bombali	70.5	70.1	69.5	29.0	260
Kambia	60.8	60.6	59.5	38.1	156
Koinadugu	81.7	82.7	79.2	14.8	156
Port Loko	83.9	79.4	79.4	16.1	396
Tonkolili	82.8	82.8	82.8	17.2	331
Bo	95.3	53.4	53.4	4.7	313
Bonthe	98.9	90.8	90.3	0.6	151
Moyamba	90.9	89.6	88.0	7.5	226
Pujehun	95.1	94.6	92.5	2.7	149
Western Area Rural	95.1	96.3	95.1	3.7	106
Western Area Urban	86.7	80.9	79.4	11.7	422
Education					
No education	86.7	82.6	80.4	11.1	1,979
Primary	87.5	82.7	81.3	11.0	419
Secondary or higher	86.5	80.6	79.2	12.1	1,116
Wealth quintile					
Lowest	87.4	84.4	82.5	10.6	800
Second	85.5	79.8	78.4	13.1	744
Middle	86.0	78.5	76.9	12.4	733
Fourth	88.4	84.1	82.5	10.0	573
Highest	86.7	83.4	80.8	10.7	664
Total 15-49	86.7	82.0	80.1	11.4	3,514
50-59	83.5	79.6	78.2	15.1	635
Total 15-59	86.2	81.6	79.8	12.0	4,148

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
Total includes 2 men with information missing on employment in the last 12 months

16.6 ATTITUDES TOWARDS WIFE BEATING

Respondents were asked whether a husband is justified in beating his wife under a series of circumstances, including if the wife burns the food, argues with him, goes out without telling him, neglects the children, or refuses sexual relations. While this measure demonstrates the extent to which women and men justify wife beating, it also provides insight into respondents' views on women's status. Individuals who believe that a husband is justified in hitting or beating his wife for any reason may believe that women

are low in status, both absolutely and relative to men. Such perceptions could prevent women from accessing health care for themselves and their children, affect their attitudes towards contraceptive use, and influence their overall well-being. Tables 16.7.1 and 16.7.2 show the percentage of women and men who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics.

Table 16.7.1 Attitude towards 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, Sierra Leone 2013

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	16.6	41.9	46.0	46.0	19.1	55.2	3,878
20-24	17.3	47.8	52.4	53.6	25.2	64.0	2,683
25-29	18.1	47.9	55.0	54.8	27.6	65.2	2,843
30-34	21.6	51.8	57.7	57.0	28.9	66.9	2,287
35-39	18.9	49.0	55.2	54.3	27.5	64.4	2,260
40-44	17.4	49.9	55.9	55.5	29.3	65.5	1,362
45-49	19.8	50.6	54.6	55.8	30.5	64.6	1,344
Employment (last 12 months)							
Not employed	11.5	36.3	42.3	41.7	17.9	51.3	4,247
Employed for cash	17.0	47.5	49.4	51.4	26.2	61.2	5,064
Employed not for cash	23.3	54.3	61.7	60.6	30.2	70.9	7,249
Number of living children							
0	14.5	38.9	43.5	43.5	17.9	53.0	4,500
1-2	18.8	48.8	54.2	54.7	26.4	64.7	5,235
3-4	19.1	50.3	56.4	56.3	28.6	66.4	4,159
5+	22.2	55.2	60.7	59.8	33.2	69.7	2,765
Marital status							
Never married	13.7	37.2	41.8	43.0	16.0	51.4	4,730
Married or living together	20.6	52.4	58.1	57.5	30.5	67.9	10,903
Divorced/separated/widowed	15.1	43.6	49.6	50.3	21.2	60.8	1,025
Residence							
Urban	11.0	37.9	45.0	44.6	16.9	55.9	5,933
Rural	22.3	52.9	57.3	57.5	30.7	66.6	10,725
Region							
Eastern	18.8	45.0	52.9	54.0	23.0	61.2	3,614
Northern	27.0	58.2	64.6	64.5	37.8	73.7	6,292
Southern	9.2	39.0	41.3	41.1	15.6	52.1	3,514
Western	10.7	39.0	42.9	42.1	16.6	54.9	3,238
District							
Kailahun	32.4	50.2	61.4	67.3	28.8	75.1	984
Kenema	14.1	43.7	54.4	53.1	21.0	59.5	1,651
Kono	13.2	41.9	41.7	42.0	20.5	50.2	979
Bombali	30.3	63.2	73.1	70.2	33.0	77.5	1,377
Kambia	23.0	52.4	59.4	59.2	37.4	68.5	738
Koinadugu	45.2	70.7	65.6	71.1	62.2	80.4	719
Port Loko	27.2	51.1	58.1	57.8	37.1	66.6	1,994
Tonkolili	16.6	60.0	67.7	67.8	31.6	79.3	1,464
Bo	3.3	31.7	42.0	33.4	11.0	49.8	1,398
Bonthe	13.2	49.0	46.9	64.9	21.2	69.1	678
Moyamba	14.0	48.7	49.4	45.9	22.0	54.7	843
Pujehun	11.4	31.0	21.7	24.9	11.1	34.4	595
Western Area Rural	7.2	37.6	42.3	38.5	9.9	45.5	528
Western Area Urban	11.4	39.2	43.0	42.8	17.8	56.8	2,710
Education							
No education	22.0	55.0	59.4	59.3	32.0	69.3	9,293
Primary	17.6	43.0	50.3	50.9	24.2	59.4	2,331
Secondary or higher	11.8	35.9	42.2	42.2	15.1	52.4	5,034
Wealth quintile							
Lowest	22.7	56.1	60.0	62.3	29.6	70.1	3,089
Second	22.4	51.8	56.2	56.0	30.6	65.6	3,046
Middle	22.4	52.4	57.7	56.5	32.2	66.4	3,140
Fourth	17.7	46.6	51.7	52.2	25.0	62.1	3,388
Highest	9.1	34.7	42.3	41.1	14.8	52.8	3,994
Total	18.3	47.6	52.9	52.9	25.8	62.8	16,658

Note: Total includes 98 women with information missing on employment in the past 12 months

Overall, 63 percent of women think that wife beating is justifiable for at least one of the specified reasons. Acceptance of wife beating ranges from 18 percent of women (if the wife burns the food) to 53 percent (if she goes out without telling him or if she neglects the children). Younger women age 15-19 are least likely to agree that wife beating is justified. Women who are employed but not earning cash, women who have five or more children, married women, and rural women are more likely to say wife beating is justifiable in one of the specified circumstances. The proportion of women who agree with at least one of the given reasons for beating a wife varies by district, from 34 percent in Pujehun to 80 percent in Koinadugu. Acceptance of wife beating decreases with increases in women's education and wealth.

Compared with women, men age 15-49 are less likely to state that wife beating is justifiable; only 34 percent of men report that wife beating is acceptable in one of the five specified circumstances. For example, only 5 percent of men agree that a husband is justified in beating his wife if she burns the food, compared with 18 percent of women. Similarly, only 24 percent of men compared with 48 percent of women say that a husband is justified in hitting or beating his wife if she argues with him.

The percentage of men who agree that wife beating is justified varies only slightly across age groups. Men in rural areas are more likely than those in urban areas to agree with at least one of the reasons given for wife beating (38 percent compared with 29 percent). As among women, men's acceptance of wife beating decreases with increases in education and wealth.

Table 16.7.2 Attitude towards 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, Sierra Leone 2013

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	5.2	23.0	17.9	19.5	8.4	31.7	1,475
20-24	5.8	26.3	21.5	24.0	10.8	38.3	1,007
25-29	5.6	25.3	19.7	23.0	10.1	35.4	1,017
30-34	5.4	27.9	23.2	24.9	10.2	36.5	804
35-39	4.7	22.6	19.2	22.3	9.8	33.4	961
40-44	3.9	24.2	18.4	22.1	9.6	34.6	690
45-49	1.7	20.6	19.6	21.6	8.3	29.3	629
Employment (last 12 months)							
Not employed	5.0	18.4	14.3	15.9	7.0	27.2	1,255
Employed for cash	5.6	24.6	21.3	25.3	10.3	34.7	3,122
Employed not for cash	3.6	27.3	20.7	21.8	10.1	37.5	2,188
Number of living children							
0	5.3	23.5	18.4	20.4	9.3	33.2	2,871
1-2	5.7	27.0	21.7	24.3	10.3	36.5	1,546
3-4	3.6	22.3	20.0	23.3	8.7	33.4	1,133
5+	3.7	24.5	20.7	23.3	10.3	34.3	1,032
Marital status							
Never married	5.5	23.7	18.5	20.4	9.2	33.4	2,849
Married or living together	4.5	24.6	20.6	23.6	10.0	34.6	3,514
Divorced/separated/widowed	2.3	28.2	23.4	26.2	7.9	38.0	219
Residence							
Urban	5.3	20.0	14.5	16.6	7.1	28.5	2,508
Rural	4.5	26.9	23.0	25.8	11.1	37.7	4,073
Region							
Eastern	4.7	29.4	26.6	32.3	10.4	40.2	1,442
Northern	4.8	25.8	20.7	24.4	12.8	36.2	2,300
Southern	3.9	23.4	21.2	17.6	8.5	32.0	1,414
Western	5.9	17.4	10.0	13.3	4.6	27.0	1,425
District							
Kailahun	3.1	32.5	23.6	34.2	4.0	40.7	371
Kenema	5.4	29.1	31.1	37.5	14.3	41.7	719
Kono	5.1	26.9	20.5	19.4	9.4	36.6	352
Bombali	0.3	24.5	10.5	13.2	6.6	29.4	499
Kambia	8.0	39.8	37.6	57.3	40.0	65.3	270
Koinadugu	1.2	14.3	15.5	19.3	5.0	29.7	268
Port Loko	6.2	28.7	20.4	21.9	16.0	35.4	679
Tonkolili	7.4	22.4	24.6	24.2	5.3	32.5	584
Bo	2.5	16.2	16.3	13.5	6.6	21.6	533
Bonthe	5.1	16.7	18.0	17.6	7.9	22.1	283
Moyamba	4.0	29.5	28.0	17.6	15.9	46.5	368
Pujehun	5.3	38.7	25.2	27.0	2.0	44.7	230
Western Area Rural	1.5	15.2	5.1	7.5	2.1	17.6	230
Western Area Urban	6.7	17.9	10.9	14.4	5.0	28.8	1,195
Education							
No education	5.0	27.9	23.7	26.9	11.8	39.0	2,651
Primary	5.2	24.8	20.8	20.2	10.0	34.1	825
Secondary or higher	4.6	21.1	16.1	18.9	7.5	30.0	3,106
Wealth quintile							
Lowest	5.5	28.7	27.0	27.3	11.8	40.1	1,218
Second	4.6	29.0	22.9	26.8	11.9	39.3	1,175
Middle	4.5	26.9	21.6	25.4	11.4	36.8	1,195
Fourth	4.2	21.6	17.5	19.8	8.8	30.4	1,183
Highest	5.1	18.3	13.2	15.6	5.8	27.6	1,811
Total 15-49	4.8	24.3	19.8	22.3	9.6	34.2	6,582
50-59	5.6	19.1	17.2	19.9	7.3	27.4	680
Total 15-59	4.9	23.8	19.5	22.0	9.4	33.5	7,262

Note: Total includes 17 men with information missing on employment in the past 12 months

16.7 WOMEN'S EMPOWERMENT INDICATORS

Table 16.8 presents two empowerment indicators: number of decisions in which women participate and number of reasons for which wife beating is justified. They are based on women's responses to the survey questions.

The first shows the number of decisions in which women participate alone or jointly with their husbands or partners. This indicator ranges in value from 0 to 3 and relates positively to women's empowerment. It reflects the degree of control that women are able to exercise in areas that affect their own lives and environments. The second indicator, which ranges in value from 0 to 5, is the total number of reasons for which the respondent stated that a husband is justified in beating his wife. A lower score on this indicator, that is, the fewer reasons for which women justify wife beating, reflects women's greater sense of entitlement and self-esteem.

Table 16.8 relates these two indicators to each other. It may be expected that women who justify wife beating have a lower sense of self-worth and, thereby, are less likely to participate in household decision-making. However, the data do not confirm this pattern and, in fact, show an inverse relationship between the two empowerment indicators. Women who justify wife beating in all five of the stated situations are, in fact, most likely to participate in all three household decisions (53 percent). Furthermore, the likelihood that women will participate in all three household decisions decreases as women disagree with wife beating. Similarly, women who participate in all three household decisions are least likely to disapprove of wife beating (30 percent).

Table 16.8 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, Sierra Leone 2013

Empowerment indicator	Percentage who participate in all decision-making	Percentage who disagree with all the reasons justifying wife beating	Number of women
Number of decisions in which women participate[1]			
0	na	32.5	3,397
1-2	na	35.9	2,555
3	na	29.9	4,951
Number of reasons for which wife beating is justified[2]			
0	42.3	na	3,500
1-2	42.9	na	2,280
3-4	46.2	na	3,337
5	53.4	na	1,786

na = Not applicable
[1] See Table 16.6.1 for the list of decisions.
[2] See Table 16.7.1 for the list of reasons.

16.8 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's status in the household and her own sense of empowerment affect her desire and ability to control her fertility and her choice of contraceptive methods. A woman who feels that she is unable to control her life may be less likely to feel that she can make and carry out decisions about her fertility. She may also feel the need to choose contraceptive methods that are less obvious or that do not depend on her husband's cooperation. Table 16.9 shows the distribution of currently married women by contraceptive method use according to the two empowerment indicators.

There is a positive association between women's status with respect to decision-making and contraceptive use. For example, the proportion of married women using any method of contraception rises steadily from 13 percent of women who do not participate in making any household decisions to 18 percent

of women who participate in all three decisions. The relationship between contraceptive use and the number of reasons a woman thinks wife beating is justified is not straightforward. However, it appears that contraceptive use is highest among women who report that wife beating is justified in two or fewer circumstances.

Table 16.9 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, Sierra Leone 2013

			Modern methods							
Empowerment indicator	Any method	Any modern method	Female sterili-sation	Male sterili-sation	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	13.4	12.9	0.4	0.1	12.3	0.2	0.5	86.6	100.0	3,397
1-2	17.4	16.1	0.3	0.0	15.5	0.3	1.3	82.6	100.0	2,555
3	18.4	17.2	0.6	0.0	16.4	0.2	1.2	81.6	100.0	4,951
Number of reasons for which wife beating is justified[3]										
0	19.0	17.8	0.7	0.0	16.7	0.4	1.2	81.0	100.0	3,500
1-2	20.4	19.5	0.3	0.0	19.0	0.2	0.9	79.6	100.0	2,280
3-4	15.0	14.0	0.4	0.1	13.4	0.2	1.0	85.0	100.0	3,337
5	10.2	9.3	0.3	0.0	8.8	0.2	0.9	89.8	100.0	1,786
Total	16.6	15.6	0.5	0.0	14.9	0.2	1.0	83.4	100.0	10,903

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 amenorrhoea method
[2] See Table 16.6.1 for the list of decisions.
[3] See Table 16.7.1 for the list of reasons.

16.9 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

With empowerment comes increased access to resources and opportunities and increased autonomy and self-worth. In this way, empowered women often have greater control over their reproductive health and greater control over planning whether and when to have children. Table 16.10 examines two measures related to women's fertility planning: ideal family size and unmet need for family planning, in relation to the two indicators of women's empowerment.

The data show there is not a substantial difference between the number of household decisions in which the woman participates and her mean ideal number of children. There is slight variation in the number of reasons for which women justify wife beating and the ideal number of children. The mean ideal number of children is highest, at 5.7, among women most accepting of wife beating. There are no clear patterns between unmet need for family planning and the two empowerment indicators. For example, 19 percent of women who do not participate in household decisions have an unmet need for spacing births, but only 7 percent of women have an unmet need for limiting.

Table 16.10 Ideal number of children and unmet need for family planning by women's empowerment

Mean ideal number of children for women 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, Sierra Leone 2013

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	5.3	3,123	19.0	6.9	25.9	3,397
1-2	5.3	2,400	17.4	9.6	27.0	2,555
3	5.6	4,734	14.7	8.6	23.3	4,951
Number of reasons for which wife beating is justified[4]						
0	4.5	5,917	15.4	9.4	24.8	3,500
1-2	4.7	3,299	18.1	8.7	26.8	2,280
3-4	5.1	4,428	17.7	6.8	24.5	3,337
5	5.7	2,191	15.3	8.5	23.8	1,786
Total	4.9	15,835	16.7	8.3	25.0	10,903

[1] Mean excludes respondents who gave non-numeric responses.
[2] See table 7.8 for the definition of unmet need for family planning
[3] Restricted to currently married women. See Table 16.6.1 for the list of decisions.
[4] See Table 16.7.1 for the list of reasons

16.10 WOMEN'S STATUS AND REPRODUCTIVE HEALTH CARE

Table 16.11 examines whether women's use of antenatal, delivery, and postnatal care services from health personnel varies by the two empowerment indicators. The data do not show any clear patterns between the two indicators of women's empowerment and women's receipt of antenatal care from a skilled provider or postnatal care from health personnel after delivery. Interestingly, the percentage of women receiving delivery care from a skilled provider is highest among women who do not participate in any household decisions. However, it is also highest among women who do not justify wife beating for any reason.

Table 16.11 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, Sierra Leone 2013

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	96.9	64.3	72.1	2,374
1-2	95.9	58.7	69.0	1,692
3	97.5	58.9	72.1	3,208
Number of reasons for which wife beating is justified[4]				
0	97.8	68.5	75.0	2,745
1-2	96.5	65.8	69.4	1,834
3-4	96.8	61.6	71.2	2,666
5	97.0	47.7	73.2	1,402
Total	97.1	62.4	72.3	8,647

[1] 'Skilled provider' includes doctor, nurse, midwife, or MCH Aide
[2] Includes women who received a postnatal check-up from a doctor, nurse, midwife, community health worker or traditional birth attendant (TBA) in the first two days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility.
[3] Restricted to currently married women. See Table 16.6.1 for the list of decisions.
[4] See Table 16.7.1 for the list of reasons.

DOMESTIC VIOLENCE 17

Key Findings

- More than half of women and men age 15-49 have experienced physical violence at some point since age 15. Twenty-seven percent of women and 23 percent of men experienced physical violence in the 12 months before the survey.
- Eleven percent of women age 15-49 have ever experienced sexual violence; 5 percent in the past 12 months. Nine percent of men age 15-49 have ever experienced sexual violence; 3 percent in the past 12 months.
- Eight percent of women experienced violence while pregnant.
- Half of ever-married women age 15-49 (51 percent) have experienced physical, sexual, or emotional violence committed by a husband or partner; 34 percent of women experienced spousal violence within the past 12 months.
- One-third of ever-married men age 15-49 (33 percent) have experienced physical, sexual, or emotional violence at the hands of a wife or partner; 26 percent of men experienced spousal violence in the past 12 months.
- Women are more likely than men to seek help for physical and sexual violence. Fifty-five percent of women age 15-49 who experienced such violence from any person sought help compared with 32 percent of men.
- Women and men who experienced physical or sexual violence and sought help most often sought help from their own families (76 percent and 70 percent respectively).

The World Health Organization defines violence as 'the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation.' Violence can be self-directed, such as suicidal behaviour; interpersonal, such as domestic violence; or collective, such as violence perpetrated by states or organised groups of people. Furthermore, the nature of violent acts may be physical, sexual, emotional, or may involve neglect or deprivation.

Gender-based violence is violence directed at an individual based on their gender or adherence to socially-defined norms of masculinity and femininity. It may include abuse from an intimate partner; sexual harassment; rape; and harmful customary practices such as female genital cutting or forced marriages. Women and girls are the most at risk and most affected by gender-based violence although men and boys can also experience gender-based violence. Gender-based violence has been shown to have a direct impact on women's reproductive health (Heise et al., 1995; Heise, 1993; Kishor and Johnson, 2004) and child health (Jejeebhoy, 1998). Furthermore, the United Nations has declared that gender-based violence is a public policy and human rights concern (United Nations, 1993; United Nations, 1995).

In this vein, Sierra Leone enacted the Domestic Violence Act in 2007 to address cases of domestic violence (also known as spousal or intimate partner violence) against women and also to establish protective orders to improve the rights of women. In addition, Sierra Leone enacted the Sexual Offences Act in 2012, which makes provision against various types of sexual assaults including spousal rape, and covers women, children, and the disabled. It also seeks to protect women and girls from abuse by authority figures such as teachers and religious or traditional leaders. Prior to the Domestic Violence Act's passage, spousal violence could be prosecuted under the Offenses Against the Person Act of 1861 as wounding or grievous bodily

harm but was not a criminal offense in itself. Under customary law, spousal violence was legal as long as it was "reasonable" and no wounding occurred.

The 2013 SLDHS included a module of questions that focus on specific aspects of violence. The module addresses women's and men's experience of interpersonal violence, including acts of physical, sexual, and emotional violence. Specifically, this chapter presents the prevalence of women and men who ever experienced interpersonal violence (physical violence since the age of 15 and lifetime experience of sexual violence) and the prevalence of women and men who experienced domestic violence ever and in the past 12 months. In addition, detailed information is presented on domestic violence including physical consequences of violence and when domestic violence started. This is the first DHS survey in Sierra Leone to collect such information.

17.1 Data Collection

Collecting valid, reliable, and ethical data on violence poses particular challenges because: a) what constitutes violence or abuse varies across cultures and individuals; b) a culture of silence surrounds violence and it may affect reporting; and c) the sensitivity of the topic, concerns for the safety of respondents and interviewers when asking about domestic violence in a familial setting, and the protection of women who disclose violence all raise specific ethical concerns. Given these concerns, organisers of the 2013 SLDHS took multiple steps to ensure quality data collection and the security of both respondents and interviewers; these steps are described here.

17.1.1 The Use of Valid Measures of Violence

The 2013 SLDHS measures violence by spouses and by other family members and unrelated individuals. Accordingly, information was obtained from ever-married women and men on violence by spouses and by others, and from never-married women and men on violence by anyone, including boyfriends/girlfriends. International research on violence shows that intimate partner violence is one of the most common forms of violence against women. Thus, spousal/partner violence was measured in more detail than violence by other perpetrators by using a greatly shortened and modified Conflict Tactics Scale (Straus, 1990). Specifically, spousal violence was measured using the following set of questions for women:

Does/Did your (last) husband/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 fist or with something that could hurt you?
(e) Kick you or 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 even when you did not want to?
(i) Physically 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?

In cases when the answer was 'yes', women were asked about the frequency of the act in the 12 months preceding the survey. A 'yes' answer to one or more of items (a) to (g) above constitutes evidence of physical violence, while a 'yes' answer to items (h) through (j) constitutes evidence of sexual violence.

Emotional violence among ever-married women was measured in a similar way, using the following set of questions:

Does/did your (last) husband 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?

In cases when the answer was 'yes', women were asked about the frequency of the act in the 12 months preceding the survey.

This same set of questions was asked to ever-married men to determine whether they experienced physical, sexual or emotional violence by their wives/partners.

This approach of asking separately about specific acts has the advantage of not being affected by different understandings of what constitutes a summary term such as violence. Also, by asking about a wide range of acts, this approach has the advantage of giving the respondent multiple opportunities to disclose any experience of violence.

In addition to these questions about spousal violence asked of ever-married respondents, all women and men were asked if they had experienced violence at the hands of anyone other than a current or former spouse/partner using the question: '*From the time you were 15 years old has anyone (other than your (current or last) spouse/partner) hit, slapped, kicked, or done anything else to hurt you physically?'* Women and men who responded 'yes' to this question were asked who committed the violence against them and how frequently it had occurred in the 12 months preceding the survey.

All women and men were also asked: *At any time in your life, as a child or as an adult, has any one ever forced you in any way to have sexual intercourse or perform any other sexual acts?* Respondents who said "yes" were then asked questions about the age at which this first happened and the person who committed the act. Finally, among women who had ever been pregnant, a similar question was used to ask about violence during pregnancy.

Although this approach to questioning is widely considered to be optimal, the possibility of some underreporting of violence cannot be entirely ruled out in any survey.

17.1.2 Ethical Considerations

Three specific protections were built into the questionnaire, in accordance with the World Health Organization's ethical and safety recommendations for research on domestic violence (WHO, 2001):

- The module was designed to allow the interview to continue only if privacy was maintained. If privacy could not be guaranteed, the interviewer was instructed to skip the module.

- Only one eligible individual per selected household, either a woman or a man, was administered the questions on violence. For households with more than one eligible individual, the respondent was randomly selected to receive the module using a specially designed simple selection procedure. Interviewing only one individual per household minimises possible security risks created from other household members knowing that information on violence was being discussed.

- Informed consent of the respondent was obtained for the survey at the start of the individual interview. In addition, at the start of the violence section, each respondent was read a statement informing them that they were now going to be asked questions that could be personal in nature. The statement assured respondents that their answers were completely confidential, would not

be shared with anyone else, and that no one else in the household would be asked these questions.

17.1.3 Characteristics of the Sub-sample of Respondents for the Violence Module

Given that only one person was administered the domestic violence module in each selected household, and that the violence module was not administered if privacy could not be obtained, 67 of the 5,334 women eligible for the violence module had to be excluded because of lack of privacy. An additional 82 women were not interviewed for other reasons. Among men, 4,874 were eligible, 51 were excluded because privacy could not be obtained, and 50 were not interviewed for other reasons. It is noteworthy that the age, marital status, residential, regional, educational, and wealth index distributions of the sub-sample of respondents selected for the violence module are virtually identical to the entire 2013 SLDHS sample of respondents (data not shown).

The data on violence for both women and men are weighted differently from the rest of the data collected in the Woman's and Man's Questionnaires. This was done to adjust for the fact that only one person per household was interviewed with the violence module.

17.2 Experience of Violence by Women and Men

This section discusses women's and men's experience of violence by any individual. It begins by examining experience of physical violence since age 15 and continues by presenting data on lifetime experience of sexual violence and physical violence during pregnancy. Background characteristics associated with increased risk of violence are also discussed.

17.3 Experience of Physical Violence and Perpetrators of Physical Violence

Table 17.1 shows the percentage of women and men who have ever experienced physical violence since age 15 and the percentage who have experienced violence during the 12 months preceding the survey, by background characteristics. More than half of women (56 percent) have experienced physical violence at some point since age 15. About one-fourth of women (27 percent) have experienced physical violence during the 12 months preceding the survey. Twenty-two percent of women experienced violence occasionally in the last 12 months, while 5 percent experienced violence often.

The proportion of women who have experienced physical violence since age 15 is lowest among young women age 15-19 (46 percent); 58 percent of women age 20-39 have ever experienced physical violence, and 57 percent of women age 40-49. Women age 25-29 are slightly more likely to have experienced violence in the last 12 months compared with women of other ages.

Divorced, separated, or widowed women are more likely to have experienced physical violence (63 percent) compared with married women (57 percent) and never-married women (47 percent); however, married women are more likely than other women to have experienced physical violence recently. Women with no children are substantially less likely to have ever experienced physical violence and to have experienced violence often within the last 12 months compared with women with children.

Employed women who earn cash are more likely than unemployed or unpaid women to report having experienced violence since age 15 (61 percent compared with 50 percent and 55 percent, respectively), although similar proportions of these women report having experienced violence in the past 12 months. Women with primary education are most at risk for physical violence since age 15, both ever and in the past 12 months. There is no clear pattern with experience of physical violence and wealth quintile.

Table 17.1 Experience of physical violence

Percentage of women and 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, Sierra Leone 2013

	Women					Men				
	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months				Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			
Background characteristic		Often	Sometimes	Often or sometimes[2]	Number of women		Often	Sometimes	Often or sometimes[2]	Number of men
Age										
15-19	45.5	3.9	22.2	26.1	873	51.2	9.1	25.7	34.9	1,157
20-24	57.6	4.0	22.8	26.8	748	57.9	2.9	16.7	19.7	742
25-29	58.3	6.8	26.1	33.1	869	57.3	4.2	17.1	21.3	701
30-39	57.8	6.5	22.3	28.8	1,637	53.8	4.3	17.3	21.8	1,056
40-49	56.7	3.3	16.5	20.0	1,058	52.8	2.5	13.9	16.5	739
Religion										
Christian	54.4	3.4	23.5	27.0	1,098	57.8	4.5	21.2	25.7	857
Islam	55.9	5.5	21.4	27.0	4,055	53.3	5.1	18.3	23.4	3,522
Other	*	*	*	*	16	*	*	*	*	8
None	*	*	*	*	5	*	*	*	*	2
Ethnic group										
Creole	(49.8)	(0.0)	(10.0)	(10.0)	60	(56.4)	(0.0)	(26.5)	(26.5)	49
Fullah	37.6	0.7	17.9	18.6	174	60.9	6.5	17.1	23.6	162
Kono	54.5	1.7	27.9	29.6	270	63.0	1.3	32.3	33.7	173
Limba	57.6	6.6	23.7	30.3	371	58.0	8.3	24.0	32.3	235
Loko	55.2	4.2	29.4	33.6	148	58.8	7.4	20.0	27.4	131
Mandingo	45.9	4.6	19.4	24.0	108	53.0	3.8	14.6	18.4	109
Mende	50.9	4.9	21.1	26.0	1,714	51.7	6.9	18.9	26.1	1,453
Sherbro	50.1	2.6	19.8	22.4	119	51.7	2.0	24.9	26.9	144
Temne	63.5	6.0	21.7	27.8	1,789	53.4	4.1	15.5	19.5	1,584
Koranko	46.2	4.4	23.2	27.5	154	67.3	0.3	25.2	25.5	115
Other Sierra Leone	56.4	8.3	22.2	30.6	245	51.2	2.7	15.2	17.9	207
Other Foreign	(50.8)	(10.9)	(9.3)	(20.2)	20	*	*	*	*	22
Residence										
Urban	56.5	5.4	22.9	28.4	1,838	57.4	6.2	17.7	23.9	1,630
Rural	55.0	4.9	21.2	26.2	3,347	52.3	4.3	19.5	23.9	2,764
Region										
Eastern	52.0	4.8	24.8	29.6	1,175	62.3	6.2	24.2	30.6	986
Northern	60.5	5.5	20.9	26.4	1,951	57.7	4.2	17.2	21.5	1,550
Southern	49.1	3.5	19.7	23.4	1,069	43.6	6.9	17.0	23.9	957
Western	56.9	6.4	22.3	28.9	990	50.6	3.1	17.6	20.7	902
District										
Kailahun	50.1	11.1	23.9	35.1	321	42.6	1.1	11.2	13.5	250
Kenema	48.2	2.4	20.4	22.8	511	69.2	10.7	28.1	38.8	492
Kono	59.3	2.4	32.3	34.7	342	68.5	2.3	29.4	31.7	244
Bombali	53.7	3.9	24.6	28.4	436	60.1	8.1	24.8	32.9	326
Kambia	54.0	9.2	17.5	26.8	227	31.1	3.3	10.1	13.4	188
Koinadugu	47.8	6.6	19.4	26.1	226	53.9	0.5	19.2	19.7	181
Port Loko	68.5	6.9	15.8	22.8	620	55.7	0.9	12.0	12.9	469
Tonkolili	65.7	2.6	26.7	29.3	442	72.7	7.3	19.8	27.2	386
Bo	53.9	2.1	21.1	23.7	429	42.8	14.4	8.8	23.2	359
Bonthe	39.5	0.6	17.8	18.4	209	12.9	2.0	3.2	5.2	191
Moyamba	49.6	3.5	25.0	28.5	255	47.4	1.2	25.1	26.3	248
Pujehun	48.1	10.5	10.6	21.1	177	76.5	4.5	39.6	44.3	158
Western Area Rural	51.8	3.9	22.1	26.2	155	38.0	0.0	18.8	18.8	158
Western Area Urban	57.9	6.8	22.4	29.4	835	53.3	3.8	17.3	21.1	744
Marital status										
Never married	46.7	3.3	16.4	19.7	1,047	54.3	5.8	20.3	26.1	2,167
Married or living together	57.3	5.3	23.9	29.3	3,775	54.7	4.2	17.4	21.8	2,099
Divorced/separated/ widowed	62.6	8.4	15.4	23.8	363	45.0	4.5	16.0	20.6	127
Number of living children										
0	43.7	3.8	18.9	22.8	1,007	52.8	6.1	21.1	27.1	2,140
1-2	59.0	5.7	24.4	30.1	1,616	58.5	4.2	18.1	22.5	1,018
3-4	58.5	5.6	23.6	29.4	1,484	54.0	4.1	16.4	20.6	671
5+	57.3	4.6	18.1	23.0	1,079	52.1	3.6	14.4	18.0	565
Employment										
Employed for cash	60.5	6.0	21.6	27.7	1,724	54.1	4.0	17.0	21.1	1,975
Employed not for cash	54.5	4.8	22.0	27.0	2,324	51.0	4.7	18.3	23.1	1,486
Not employed	50.1	4.3	21.4	25.9	1,115	60.0	7.8	23.8	31.6	921
Education										
No education	55.0	5.1	22.1	27.2	3,137	51.4	3.9	17.8	21.7	1,718
Primary	60.9	7.2	23.9	31.4	696	56.4	5.9	19.9	26.2	578
Secondary or higher	54.0	4.1	20.1	24.2	1,352	55.9	5.7	19.4	25.1	2,098

Continued...

Table 17.1—*Continued*

Background characteristic	Women: Percentage who have ever experienced physical violence since age 15[1]	Women: Percentage who have experienced physical violence in the past 12 months: Often	Women: Sometimes	Women: Often or sometimes[2]	Women: Number of women	Men: Percentage who have ever experienced physical violence since age 15[1]	Men: Percentage who have experienced physical violence in the past 12 months: Often	Men: Sometimes	Men: Often or sometimes[2]	Men: Number of men
Wealth quintile										
Lowest	48.0	5.4	19.1	24.5	981	52.0	4.2	21.6	25.8	827
Second	55.9	4.1	23.4	27.5	925	50.4	5.6	17.1	22.7	801
Middle	58.6	5.2	19.9	25.3	947	52.3	4.9	18.2	23.1	814
Fourth	56.7	4.8	23.1	27.9	1,087	58.8	5.5	21.4	27.3	805
Highest	57.9	5.8	23.1	29.0	1,244	56.6	4.9	16.6	21.5	1,146
Total 15-49	55.5	5.1	21.8	27.0	5,185	54.2	5.0	18.8	23.9	4,394
50-59	na	na	na	na	na	59.9	1.9	15.1	17.5	379
Total 15-59	na	na	na	na	na	54.7	4.8	18.5	23.4	4,773

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 11 women and 5 men with missing information on religion, 13 women and 9 men with missing information on ethnic group, and 21 women and 12 men with missing information on employment.
na = not applicable
[1] Includes violence in the past 12 months. For respondents who were married before age 15 and who reported physical violence, the violence could have occurred before age 15.
[2] Includes respondents who report physical violence in the past 12 months but for whom frequency is not known.

There is little variation among women in the level of physical violence by urban-rural residence. At the district level, however, substantial variation exists, ranging from 69 percent of women in Port Loko district to 40 percent in Bonthe reporting physical violence at some point since age 15. Experience of physical violence in the last 12 months is highest in Kailahun (35 percent).

The results presented in Table 17.1 indicate that men experience similar levels of physical violence since age 15 as among women (54 percent and 56 percent respectively). However, men are slightly less likely than women to report experience of violence in the past 12 months (24 percent and 27 percent respectively). In the 12 months preceding the survey, 19 percent of men experienced violence sometimes, while 5 percent of men experienced violence often.

The proportion of men who have ever experienced physical violence is highest among young men age 20-24 (58 percent) although younger men age 15-19 are most likely to have experienced recent violence (35 percent compared with 22 percent or less among older men). Unlike women, unemployed men (60 percent) are more likely than employed men (54 percent employed for cash and 51 percent employed not for cash) to have ever experienced violence since age 15. Men's experience of physical violence in the past 12 month is also higher among men who are unemployed (32 percent) than men who are employed (21 percent for cash and 23 percent not for cash).

Men with 1-2 children are more likely to have ever experienced physical violence, while men with no children are more likely to have experienced violence in the past 12 months. Urban men are slightly more likely to have ever experienced violence compared with men in rural areas, although this trend is not clear for violence in the past 12 months. Men in the Eastern region are more likely to report experiencing violence since age 15 and in the past 12 months compared with men in other regions. Men with no education are least likely to report experience of physical violence ever and in the last 12 months. Men's experience of physical violence ever is most common in the two highest wealth quintiles; however, for recent violence in the past 12 months the relationship between physical violence and wealth is less clear.

The 2013 SLDHS collected information on the perpetrators of physical violence for women and men who have ever experienced physical violence since age 15. Table 17.2 shows the percentage of women and men who have ever experienced physical violence since age 15, by marital status. Among ever-married women who have experienced physical violence since age 15, a large majority (70 percent) reported that their current husband/partner committed the violence, while 20 percent reported that a former husband/partner committed the violence. Parents and step-parents are also commonly reported to have

perpetrated violence against ever-married women (19-23 percent). Among never-married women, large percentages have experienced physical violence at the hands of parents and step-parents (44-45 percent), teachers (27 percent), other relatives (17 percent), and current and former boyfriends (10-11 percent).

Ever-married men who have experienced physical violence since age 15 are much less likely to report that the violence was perpetrated by a current or former wife/partner: 50 percent and 11 percent respectively. The majority of physical violence against men is committed by parents and step-parents (48-45 percent), other relatives (45 percent), teachers (28 percent), and siblings (19 percent). Similar but larger proportions are reported by never-married men. More than half of never-married men report experiencing physical violence since age 15 from their parents or step-parents (56-50 percent) or teachers (53 percent). Forty-six percent of never-married men have experienced violence committed against them by other relatives, and 24 percent by their siblings.

Table 17.2 Persons committing physical violence

Among women and 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, Sierra Leone 2013

	Marital status		
Person	Ever-married	Never married	Total
WOMEN			
Current husband/partner	69.5	na	57.7
Former husband/partner	19.7	na	16.3
Current boyfriend	0.6	9.5	2.1
Former boyfriend	4.2	10.8	5.3
Father/step-father	19.1	43.6	23.3
Mother/step-mother	23.1	44.9	26.8
Sister/brother	6.4	22.9	9.2
Daughter/son	0.1	0.8	0.2
Other relative	6.1	16.8	7.9
Mother-in-law	0.3	na	0.3
Father-in-law	0.2	na	0.2
Other in-law	0.6	na	0.5
Teacher	2.7	27.4	6.9
Employer/someone at work	0.1	0.0	0.0
Police/soldier	0.0	0.2	0.0
Other	3.1	2.4	3.0
Number of women who have experienced physical violence since age 15	2,390	489	2,879
MEN			
Current wife/partner	49.9	na	25.9
Former wife/partner	11.1	na	5.8
Current girlfriend	1.4	4.7	3.0
Former girlfriend	3.7	0.9	2.4
Father/step-father	48.4	56.3	52.3
Mother/step-mother	45.3	49.6	47.4
Sister/brother	18.6	23.5	21.1
Daughter/son	0.2	0.7	0.4
Other relative	45.3	46.1	45.7
Mother-in-law	1.7	na	0.9
Father-in-law	1.1	na	0.5
Other in-law	1.0	na	0.8
Teacher	27.7	53.2	40.3
Employer/someone at work	4.7	5.0	4.8
Police/soldier	5.9	2.1	4.0
Other	8.7	6.7	7.7
Number men who have experienced physical violence since age 15	1,205	1,177	2,381

na = Not applicable

17.4 EXPERIENCE OF SEXUAL VIOLENCE AND PERPETRATORS OF SEXUAL VIOLENCE

Table 17.3 shows the percentage of women and men who have ever experienced sexual violence and the percentage who experienced sexual violence in the 12 months preceding the survey, by background characteristics. Eleven percent of women age 15-49 have ever experienced sexual violence. Five percent of women experienced sexual violence in the 12 months preceding the survey.

Table 17.3 Experience of sexual violence

Percentage of women and 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, Sierra Leone 2013

	Women			Men		
	Percentage who have experienced sexual violence:			Percentage who have experienced sexual violence		
Background characteristic	Ever[1]	In the past 12 months	Number of women	Ever[1]	In the past 12 months	Number of men
Age						
15-19	8.4	2.7	873	5.4	2.2	1,157
20-24	10.3	5.5	748	7.2	2.7	742
25-29	10.5	5.4	869	10.5	3.4	701
30-39	12.1	6.3	1,637	10.8	4.4	1,056
40-49	9.8	3.5	1,058	8.5	3.5	739
Religion						
Christian	10.6	3.6	1,098	7.3	3.1	857
Islam	10.5	5.3	4,055	8.6	3.2	3,522
Other	*	*	16	*	*	8
None	*	*	5	*	*	2
Ethnic group						
Creole	(8.0)	(0.0)	60	(7.1)	(0.0)	49
Fullah	6.2	3.0	174	6.0	1.0	162
Kono	8.2	3.2	270	6.7	3.2	173
Limba	9.8	5.7	371	5.1	2.0	235
Loko	5.9	3.1	148	3.7	0.7	131
Mandingo	17.1	2.0	108	15.0	5.3	109
Mende	7.7	3.2	1,714	6.8	3.5	1,453
Sherbro	9.4	3.5	119	13.4	7.0	144
Temne	13.5	6.9	1,789	10.5	3.3	1,584
Koranko	13.6	6.1	154	7.4	2.9	115
Other Sierra Leone	13.4	7.6	245	8.0	2.4	207
Other Foreign	(11.8)	(7.7)	20	*	*	22
Residence						
Urban	10.6	4.8	1,838	9.6	3.5	1,630
Rural	10.4	4.9	3,347	7.6	3.0	2,764
Region						
Eastern	9.3	3.2	1,175	8.5	4.2	986
Northern	13.2	6.6	1,951	7.8	2.1	1,550
Southern	4.8	2.3	1,069	6.2	3.1	957
Western	12.7	6.2	990	11.5	4.2	902
District						
Kailahun	11.3	4.2	321	2.7	2.0	250
Kenema	7.7	2.7	511	9.8	5.7	492
Kono	9.7	3.0	342	11.6	3.5	244
Bombali	10.1	5.6	436	4.2	1.0	326
Kambia	16.5	7.9	227	7.8	4.3	188
Koinadugu	11.8	4.6	226	3.0	1.2	181
Port Loko	9.1	5.9	620	8.4	0.8	469
Tonkolili	21.0	9.1	442	12.5	3.8	386
Bo	7.4	3.5	429	6.6	3.8	359
Bonthe	2.0	0.8	209	2.4	0.2	191
Moyamba	3.8	1.9	255	9.5	5.8	248
Pujehun	3.0	1.7	177	4.5	1.0	158
Western Area Rural	5.2	3.2	155	3.4	1.3	158
Western Area Urban	14.1	6.8	835	13.3	4.8	744
Marital status						
Never married	6.6	1.6	1,047	6.8	2.5	2,167
Married or living together	11.2	5.8	3,775	9.6	3.9	2,099
Divorced/separated/widowed	13.8	4.9	363	14.1	3.1	127
Employment						
Employed for cash	11.6	6.1	1,724	9.3	3.8	1,975
Employed not for cash	10.7	4.9	2,324	8.5	2.9	1,486
Not employed	8.2	3.1	1,115	6.1	2.4	921

Continued…

Table 17.3—*Continued*

Background characteristic	Women: Percentage who have experienced sexual violence: Ever[1]	Women: In the past 12 months	Women: Number of women	Men: Percentage who have experienced sexual violence Ever[1]	Men: In the past 12 months	Men: Number of men
Number of living children						
0	7.5	3.3	1,007	7.1	2.6	2,140
1-2	11.1	4.9	1,616	9.5	3.7	1,018
3-4	12.4	6.5	1,484	9.6	3.8	671
5+	9.7	4.2	1,079	9.6	4.0	565
Education						
No education	11.0	5.2	3,137	8.0	3.4	1,718
Primary	12.2	6.1	696	7.8	3.5	578
Secondary or higher	8.4	3.5	1,352	8.8	2.9	2,098
Wealth quintile						
Lowest	9.4	4.3	981	8.4	4.5	827
Second	11.2	5.2	925	8.0	3.3	801
Middle	10.4	5.5	947	6.2	1.9	814
Fourth	10.3	3.8	1,087	7.6	2.3	805
Highest	11.0	5.6	1,244	10.7	3.8	1,146
Total 15-49	10.5	4.9	5,185	8.4	3.2	4,394
15-59	na	na	na	11.7	5.5	379
Total 15-59	na	na	na	8.6	3.4	4,773

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 11 women and 5 men with missing information on religion, 13 women and 9 men with missing information on ethnic group, and 21 women and 12 men with missing information on employment.
na = not applicable
[1] Includes violence in the past 12 months

Women age 30-39 are most likely to report experience of sexual violence ever and in the last 12 months compared with women in other age groups. Fourteen percent of women who are divorced, separated, or widowed have experienced sexual violence at some time in their life, compared with 11 percent of women who are currently married and 7 percent of never-married women. Employed women, both paid and unpaid, are more likely to have experienced sexual violence ever and in the past 12 months compared with unemployed women. Across regions, the proportion of women ever experiencing sexual violence is highest in the Northern and Western regions (13 percent) and lowest in the Southern region (5 percent). There is no clear relationship between women's experience of sexual violence and wealth.

Similar patterns in background characteristics are seen among men, although compared with women smaller proportions of men report experiencing sexual violence. Eight percent of men age 15-49 have ever experienced sexual violence; 3 percent experienced sexual violence in the 12 months before the survey. Men age 25-29 and men age 30-39 are more likely to have experienced sexual violence ever and in the past 12 months compared with other age groups. Fourteen percent of divorced, separated, or widowed men have ever experienced sexual violence compared with 10 percent of currently married men and 7 percent of never-married men. Higher proportions of sexual violence are reported among employed men, men in the Western region, and men in the highest wealth quintile.

Table 17.4 shows that the main perpetrators of sexual violence are current or former spouses or intimate partners. Among ever-married women who have experienced sexual violence, the majority (59 percent) report that the violence was committed by their current husband/partner; 30 percent report a former husband/partner as the perpetrator, and 7 percent report a current/former boyfriend. Among ever-married men who have experienced sexual violence, 41 percent report that the violence was committed by their current wife/partner, and 21 percent report that a former wife/partner was the perpetrator. Interestingly, 30 percent of ever-married men who have experienced sexual violence report that a current/former girlfriend committed the violence. Among never-married women and men who have experienced sexual violence, the violence was most frequently perpetrated by a current/former boy/girlfriend or a friend/acquaintance. Overall, sexual violence is mostly perpetrated by persons known to the victims; strangers or other unknown individuals account for less than 5 percent of sexual violence.

Table 17.4 Persons committing sexual violence

Among women and 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, Sierra Leone 2013

	Marital status		
Person	Ever-married	Never married	Total
WOMEN			
Current husband/partner	59.2	na	51.6
Former husband/partner	29.5	na	25.7
Current/former boyfriend	6.9	42.5	11.4
Father/step father	1.4	4.1	1.8
Brother/step brother	0.2	0.5	0.2
Other relative	5.5	10.9	6.2
Own friend/acquaintance	3.8	20.4	5.9
Family friend	1.4	8.4	2.2
Teacher	0.2	0.9	0.3
Police/soldier	2.1	1.0	2.0
Stranger	1.9	7.5	2.6
Other	0.9	4.0	1.3
Missing	0.2	0.0	0.2
Number of women who have experienced sexual violence	473	69	543
MEN			
Current wife/partner	41.1	na	24.6
Former wife/partner	21.3	na	12.8
Current/former girlfriend	29.9	53.1	39.2
Father/step-father	2.1	1.0	1.7
Brother/step-brother	0.8	0.0	0.5
Other relative	0.8	0.3	0.6
In-law	0.6	na	0.4
Own friend/acquaintance	6.0	15.0	9.6
Teacher	3.3	6.6	4.7
Employer/someone at work	2.9	1.9	2.5
Other	1.8	5.7	3.3
Missing	0.0	0.6	0.3
Number of men who have experienced sexual violence	220	147	367

Note: Respondents can report more than one person who committed the violence.
na = Not applicable

17.5 EXPERIENCE OF DIFFERENT TYPES OF VIOLENCE

Table 17.5 shows the percentage of women and men who have experienced different forms of violence. Overall, 57 percent of women age 15-49 have experienced either physical or sexual violence. Specifically, 46 percent of women have experienced physical violence only, 1 percent of women have experienced sexual violence only, and 9 percent have experienced both physical and sexual violence. Young women age 15-19 are the most likely to experience sexual violence alone, while women age 25-29 and women age 30-39 are most likely to experience a combination of physical and sexual violence. Among men age 15-49, 56 percent have experienced either physical or sexual violence. Specifically, 48 percent of men have experienced physical violence only, 2 percent have experienced sexual violence only, and 6 percent have experienced both physical and sexual violence. Men age 30-39 and men age 40-49 are most likely to experience a combination of physical and sexual violence.

Table 17.5 Experience of different forms of violence

Percentage of women and men age 15-49 who have ever experienced different forms of violence by current age, Sierra Leone 2013

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of women
			WOMEN		
15-19	39.2	2.1	6.3	47.6	873
15-17	34.9	2.1	3.1	40.2	472
18-19	44.3	2.1	9.9	56.3	401
20-24	48.8	1.5	8.8	59.1	748
25-29	48.8	1.0	9.5	59.2	869
30-39	46.9	1.2	10.8	59.0	1,637
40-49	47.8	1.0	8.9	57.6	1,058
Total 15-49	46.4	1.3	9.1	56.9	5,185
			MEN		
15-19	47.4	1.6	3.9	52.8	1,157
15-17	46.6	0.9	3.2	50.6	788
18-19	49.1	3.0	5.3	57.5	369
20-24	52.8	2.1	5.1	60.0	742
25-29	50.7	3.9	6.6	61.2	701
30-39	44.6	1.6	9.2	55.4	1,056
40-49	45.7	1.4	7.1	54.2	739
Total 15-49	47.9	2.0	6.3	56.2	4,394
50-59	50.2	2.0	9.7	61.9	379
Total 15-59	48.0	2.0	6.6	56.7	4,773

17.6 VIOLENCE DURING PREGNANCY

Women who have ever been pregnant were asked about the experience of physical violence during their pregnancy. Table 17.6 shows that, overall, 8 percent of women experienced violence while pregnant. Women age 15-19 were more likely to experience physical violence during pregnancy (12 percent) compared with older women. Women with primary education and women in the middle and fourth wealth quintiles were more likely to experience violence during pregnancy compared with their counterparts. There is no variation by urban-rural residence; at the regional level, violence during pregnancy ranges from 11 percent in the Northern region to 6 percent in the Eastern region.

17.7 MARITAL CONTROL

Gender-based violence is not restricted to physical or sexual violence. Verbal abuse, restrictions in freedom of movement, and threats or forceful conduct can also constitute abusive behaviour and can have injurious consequences in the form of psychological harm, mal-development, and deprivation. Accordingly, the 2013 SLDHS asked women and men about their experience of controlling behaviours within the context of their marriage. Tables 17.7.1 and 17.7.2 show the percentage of ever-married women and men, respectively, whose spouses or partners have ever demonstrated specific types of controlling behaviours, by background characteristics.

To determine the degree of marital control spouses may exercise over one another, ever-married women and men were asked whether their current or last spouse has ever exhibited each of the following controlling behaviours (note, questions here are phrased for a female respondent): (a) becomes jealous or gets angry if she talks to other men; (b) accuses her of being unfaithful; (c) does not permit meetings with female friends; (d) tries to limit contact with her family; and (e) insists on knowing where she is at all times.

Table 17.6 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, Sierra Leone 2013

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Age		
15-19	11.5	322
20-24	8.4	588
25-29	8.2	826
30-39	8.8	1,617
40-49	7.1	1,036
Religion		
Christian	7.5	904
Islam	8.7	3,462
Other	*	8
None	*	4
Ethnic group		
Creole	(2.6)	51
Fullah	2.4	135
Kono	12.1	222
Limba	7.0	300
Loko	6.0	120
Mandingo	1.5	85
Mende	6.7	1,499
Sherbro	3.6	106
Temne	12.0	1,510
Koranko	5.9	127
Other Sierra Leone	7.0	209
Other Foreign	*	14
Residence		
Urban	8.2	1,437
Rural	8.6	2,953
Region		
Eastern	6.0	1,009
Northern	10.6	1,654
Southern	8.7	935
Western	6.8	791
District		
Kailahun	6.2	280
Kenema	3.8	435
Kono	8.9	295
Bombali	8.0	344
Kambia	14.3	194
Koinadugu	7.7	196
Port Loko	9.3	542
Tonkolili	14.3	379
Bo	13.2	364
Bonthe	6.6	183
Moyamba	2.6	226
Pujehun	9.7	162
Western Area Rural	6.2	126
Western Area Urban	6.9	665
Marital status		
Never married	8.8	365
Married or living together	8.2	3,672
Divorced/separated/widowed	10.4	353
Number of living children		
0	8.6	212
1-2	8.3	1,616
3-4	7.7	1,484
5+	9.6	1,079
Education		
No education	8.1	2,985
Primary	11.1	559
Secondary or higher	7.8	846
Wealth quintile		
Lowest	7.2	881
Second	7.7	814
Middle	10.2	822
Fourth	10.8	910
Highest	6.4	964
Total 15-49	8.4	4,390

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 11 women with missing information on religion and 13 women with missing information on ethnic group.

The accumulation of such behaviours is of greater importance than the results for any single behaviour, and therefore the proportion of women and men whose spouses exhibited at least three of the specified behaviours is highlighted. More than one-third of ever-married women (39 percent) report that their husbands have exhibited three or more controlling behaviours (Table 17.7.1). The most commonly reported controlling behaviour is jealousy or anger when the wife talks to other men (75 percent). The other most common controlling behaviours women report are accusations of being unfaithful (48 percent) and insisting on knowing where they are at all times (45 percent). Twenty-one percent of women report that their husbands do not display any of the controlling behaviours.

The proportion of ever-married women who reported that their husbands have exhibited three or more of the specified controlling behaviours is lowest among women in their 40s compared with younger women. Women with five or more children were least likely to report experiencing marital control compared with women with fewer children. Divorced, separated, or widowed women were more likely to report controlling behaviours from their former husbands compared with married women reporting on their current husbands. Women with no education and women in the lowest wealth quintile experienced less marital control compared with their counterparts. There is only slight variation in women's report of marital control across regions and by urban-rural residence although among districts the proportion of husbands exhibiting at least three controlling behaviours ranges from 22 percent in Koinadugu to 55 percent in Bonthe. Finally, women who reported being afraid of their husbands/partners were most likely to report that they exhibited three or more controlling behaviours—at 51 percent compared with 23 percent of women who reported never being afraid of their husbands/partners.

To determine the degree of marital control that wives exercise over their husbands, ever-married men were asked the same questions about controlling behaviour exhibited by their current or last wife. Table 17.7.2 shows the percentage of ever-married men age 15-49 who reported that their wives or partners displayed each of the specified controlling behaviours, by background characteristics.

Thirty-three percent of men report three or more controlling behaviours from their wives/partners. Similar to women's report, the most common controlling behaviour reported by men is their wife's jealousy or anger when they talk to other women (74 percent). The other most common controlling behaviours men report from their wives are accusations of being unfaithful (59 percent) and insisting on knowing where they are at all times (35 percent). Twenty-two percent of men say their wives do not display any of the controlling behaviours.

Men in their 40s are least likely to report that their wives have exhibited any of the specified controlling behaviours. Forty-one percent of divorced, separated, and widowed men reported that their last wife engaged in three or more controlling behaviours compared with 32 percent of married men asked about their current wife. In contrast to women's report, men with no children were least likely to report that their wives exhibited three or more controlling behaviours. Men with no education experienced less marital control than men with more education, as did men in the middle wealth quintile compared with other quintiles. Thirty-seven percent of urban men reported experiencing marital control compared with 31 percent of rural men. Men in the Northern region were least likely to experience three or more of the specific controlling behaviours (27 percent) compared with men in the Southern (36 percent) and Eastern (38 percent) regions. Interestingly, men who reported being afraid of their wives/partners only 'sometimes' (as opposed to most of the time) were the most likely to report that their wives exhibited three or more controlling behaviours.

Table 17.7.1 Marital control exercised by husbands, according to wives

Percentage of ever-married women age 15-49 whose husbands/partners have ever demonstrated specific types of controlling behaviours, by background characteristics, Sierra Leone 2013

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 behaviours	Displays none of the specific behaviours	Number of ever-married women
Age								
15-19	74.4	45.9	25.7	7.7	47.9	39.3	22.3	235
20-24	79.8	55.9	32.0	14.9	49.6	44.1	16.4	480
25-29	77.2	48.5	29.5	14.1	48.3	41.2	18.9	784
30-39	75.8	49.0	26.6	11.5	45.7	38.5	20.0	1,593
40-49	69.7	44.3	23.4	11.3	40.2	34.8	24.9	1,047
Religion								
Christian	65.2	41.5	26.0	12.2	39.5	35.3	29.7	795
Islam	77.2	50.0	27.1	12.0	46.6	39.6	18.7	3,321
Other	*	*	*	*	*	*	*	11
None	*	*	*	*	*	*	*	5
Ethnic group								
Creole	*	*	*	*	*	*	*	40
Fullah	68.4	39.9	24.8	9.5	41.0	35.9	27.5	131
Kono	54.0	37.5	20.3	9.0	40.0	32.1	41.5	225
Limba	69.3	44.7	29.8	12.6	44.6	40.3	24.6	283
Loko	59.3	50.2	29.0	10.8	19.9	33.9	39.5	111
Mandingo	65.9	34.4	20.7	19.1	40.9	25.0	29.5	75
Mende	82.2	55.3	26.9	9.9	45.8	40.3	15.8	1,383
Sherbro	78.9	49.1	38.4	15.2	46.7	46.5	16.3	108
Temne	77.0	48.2	27.0	13.8	53.1	41.7	16.6	1,433
Koranko	59.5	31.5	18.2	7.9	20.2	20.1	32.3	125
Other Sierra Leone	67.7	41.6	31.9	17.8	34.3	32.4	29.6	198
Other Foreign	*	*	*	*	*	*	*	17
Residence								
Urban	70.6	47.4	27.6	16.9	48.1	40.7	22.7	1,269
Rural	76.8	48.8	26.7	10.0	44.1	37.9	19.9	2,869
Region								
Eastern	73.5	49.2	26.9	11.2	40.8	38.6	24.0	968
Northern	75.4	46.3	27.9	12.0	48.5	40.3	20.0	1,580
Southern	83.9	55.9	26.9	8.2	45.6	38.2	14.3	881
Western	64.6	42.4	24.8	18.4	44.3	36.4	25.9	710
District								
Kailahun	85.8	62.3	38.5	14.1	48.4	54.2	10.9	269
Kenema	79.7	46.9	23.3	10.0	40.5	34.9	19.4	413
Kono	52.9	40.2	21.1	10.2	34.2	29.2	43.1	286
Bombali	69.1	43.9	23.6	5.7	34.0	33.1	29.4	312
Kambia	76.8	43.8	28.4	20.4	44.0	36.1	20.3	196
Koinadugu	56.8	34.5	21.7	10.5	17.8	21.8	36.1	190
Port Loko	83.7	53.3	35.1	16.1	54.2	49.4	13.2	529
Tonkolili	77.7	45.7	24.2	7.7	71.7	45.2	13.1	352
Bo	86.4	70.4	24.6	8.0	40.6	44.8	13.3	335
Bonthe	91.4	62.0	46.0	12.0	69.8	55.0	6.8	175
Moyamba	75.1	43.9	23.4	6.3	30.0	24.6	21.7	219
Pujehun	82.2	34.0	15.0	7.3	51.4	24.2	14.7	152
Western Area Rural	72.2	35.5	15.6	6.9	34.0	24.4	26.7	114
Western Area Urban	63.2	43.7	26.5	20.6	46.3	38.7	25.8	595
Marital status								
Married or living together	74.6	47.9	26.8	12.1	45.3	38.4	21.0	3,775
Divorced/separated/widowed	77.8	53.3	28.6	12.4	46.2	42.5	17.7	363
Number of living children								
0	78.1	44.2	22.2	9.8	55.6	37.2	16.1	257
1-2	74.7	49.6	29.5	13.4	45.9	40.8	21.2	1,335
3-4	76.2	48.2	26.8	11.8	45.6	39.0	19.1	1,469
5+	72.5	48.0	25.1	11.6	41.9	36.4	23.5	1,077
Employment								
Employed for cash	75.3	49.1	25.1	11.4	47.0	39.6	20.8	1,508
Employed not for cash	76.7	48.6	27.1	11.6	45.0	38.0	19.1	1,994
Not employed	68.3	45.4	30.5	15.7	42.8	39.1	26.0	618
Education								
No education	74.3	47.9	26.7	11.0	43.4	37.6	21.8	2,981
Primary	81.1	54.1	28.5	13.8	49.9	43.2	15.1	533
Secondary or higher	72.3	45.5	26.7	16.1	51.0	40.7	20.5	624
Wealth quintile								
Lowest	75.0	50.3	27.6	8.5	39.2	36.9	22.0	866
Second	77.7	46.0	24.2	12.1	47.5	35.1	18.3	803
Middle	78.3	51.3	29.8	11.3	47.1	41.5	18.1	779
Fourth	76.7	48.8	26.5	10.4	46.5	41.2	19.9	830
Highest	67.4	45.4	26.6	18.3	47.0	39.3	25.1	861
Woman afraid of husband/partner								
Most of the time afraid	76.0	56.9	35.8	16.5	54.6	51.2	19.1	1,256
Sometimes afraid	78.9	48.4	26.1	11.0	46.2	37.9	16.8	2,017
Never afraid	64.2	35.6	15.7	8.4	29.8	22.5	32.3	849
Total	74.9	48.3	26.9	12.1	45.4	38.8	20.8	4,138

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 6 women with missing information on religion, 10 women with missing information on ethnic group, 19 women with missing information on employment, and 16 women with information missing on woman afraid of husband/partner. Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women

Table 17.7.2 Marital control exercised by wives, according to husbands

Percentage of ever-married men age 15-49 whose wives/partners have ever demonstrated specific types of controlling behaviours, by background characteristics, Sierra Leone 2013

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 behaviours	Displays none of the specific behaviours	Number of ever-married men
Age								
15-19	*	*	*	*	*	*	*	14
20-24	82.8	68.6	18.2	6.7	42.7	34.8	10.0	144
25-29	76.8	64.4	15.7	8.2	32.5	31.9	18.6	391
30-39	74.1	59.1	17.5	6.6	38.7	36.1	22.2	951
40-49	71.2	54.7	13.4	4.8	29.9	28.2	25.6	727
Religion								
Christian	67.8	54.4	18.7	7.1	38.7	33.9	27.4	400
Islam	75.4	60.3	15.2	6.1	34.1	32.4	20.9	1,817
Other	*	*	*	*	*	*	*	4
None	*	*	*	*	*	*	*	1
Ethnic group								
Creole	*	*	*	*	*	*	*	15
Fullah	55.5	38.2	7.2	2.3	18.4	15.3	42.2	86
Kono	75.4	54.3	16.2	7.2	41.6	37.5	22.4	82
Limba	69.7	40.9	17.8	6.9	39.8	33.2	28.0	114
Loko	82.6	41.7	23.1	1.3	36.6	32.7	13.0	46
Mandingo	77.9	58.9	8.6	3.7	47.4	41.5	21.6	45
Mende	74.9	60.9	20.5	8.1	39.3	37.7	21.8	770
Sherbro	82.6	66.3	26.0	8.8	32.2	34.8	16.3	71
Temne	76.4	66.4	12.0	5.1	31.4	29.4	18.0	794
Koranko	68.6	47.5	6.4	0.0	34.5	28.8	29.7	67
Other Sierra Leone	64.3	45.0	15.9	9.7	31.0	28.2	30.1	122
Other Foreign	*	*	*	*	*	*	*	7
Residence								
Urban	68.1	56.3	16.7	6.7	39.6	37.5	27.3	632
Rural	76.4	60.2	15.6	6.1	33.1	30.7	20.0	1,595
Region								
Eastern	72.1	58.3	19.8	8.3	40.4	37.5	23.7	547
Northern	78.6	61.7	12.2	3.4	30.5	27.2	17.5	828
Southern	76.0	59.6	20.5	9.0	36.7	36.0	21.6	516
Western	62.7	53.0	11.6	5.8	34.6	33.2	31.4	336
District								
Kailahun	59.8	56.0	15.3	4.6	49.8	43.5	33.9	157
Kenema	77.0	58.8	20.7	6.4	27.1	28.2	21.0	259
Kono	77.4	60.1	23.6	16.5	55.2	48.6	17.0	132
Bombali	75.8	46.2	13.8	2.0	37.6	23.4	20.0	168
Kambia	68.0	35.1	7.3	2.8	12.9	14.1	30.9	102
Koinadugu	63.5	44.4	3.7	0.2	26.4	23.6	34.7	101
Port Loko	78.2	66.5	18.1	5.9	29.5	32.0	16.8	237
Tonkolili	93.1	88.8	10.6	3.6	36.3	32.6	2.1	219
Bo	51.5	38.1	10.1	3.2	20.5	16.2	45.1	188
Bonthe	90.0	80.1	51.0	18.5	56.3	64.2	9.1	93
Moyamba	88.2	61.9	21.9	15.6	24.6	26.7	9.6	138
Pujehun	92.7	78.5	9.6	1.7	66.0	60.2	5.3	98
Western Rural	51.8	43.4	8.7	2.1	10.0	12.9	46.3	74
Western Urban	65.8	55.8	12.4	6.9	41.6	39.0	27.1	261
Marital status								
Married or living together	74.0	58.9	15.5	5.9	34.9	32.1	22.3	2,099
Divorced/separated/widowed	74.4	61.8	22.7	12.3	36.9	41.3	18.4	127
Number of living children								
0	74.8	60.9	11.4	3.2	34.3	29.1	18.7	153
1-2	76.4	63.3	15.6	7.0	34.9	33.4	19.5	847
3-4	71.1	54.1	16.3	6.5	33.4	31.6	25.9	664
5+	73.6	58.2	17.0	5.8	37.2	33.7	22.3	563
Employment								
Employed for cash	70.5	55.9	15.4	5.7	38.3	35.2	25.5	1,385
Employed not for cash	80.0	64.1	16.2	7.0	28.8	27.8	16.3	789
Not employed	75.8	68.2	22.2	9.8	38.3	34.5	17.7	51
Education								
No education	74.8	58.5	15.9	6.4	33.3	31.2	21.4	1,260
Primary	77.1	60.3	17.0	6.7	37.8	36.2	19.1	268
Secondary or higher	71.5	59.7	15.5	5.9	36.9	33.9	24.4	699
Wealth quintile								
Lowest	79.6	62.5	18.9	7.6	34.3	33.2	17.8	501
Second	74.9	55.6	15.3	4.9	35.4	32.4	22.5	454
Middle	73.7	58.7	14.7	5.6	29.2	27.4	22.4	480
Fourth	72.3	60.5	14.6	7.0	35.9	32.0	20.9	371
Highest	68.3	58.0	15.4	6.2	41.1	38.9	27.3	422
Man afraid of wife/partner								
Most of the time afraid	85.4	73.4	18.5	12.2	33.5	36.6	10.5	99
Sometimes afraid	80.5	67.9	22.4	6.3	43.2	41.9	16.0	856
Never afraid	68.6	51.4	11.3	5.5	28.6	25.1	27.3	1,244
Total 15-49	74.0	59.1	15.9	6.3	35.0	32.7	22.1	2,227
50-59	67.1	52.0	13.9	7.5	39.3	35.1	27.9	376
Total 15-59	73.0	58.1	15.6	6.4	35.6	33.0	22.9	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 4 men with missing information on religion, 6 men with missing information on ethnic group, 2 men with missing information on employment, and 28 men with information missing on woman afraid of wife/partner. Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated or widowed men

17.8 SPOUSAL/INTIMATE PARTNER VIOLENCE

This section is focused on violence perpetrated by intimate partner who is married to the respondent or lives with the respondent as if married. Since spousal or intimate partner violence is the most common form of violence for women and men age 15-49, the 2013 SLDHS collected detailed information on the different types of violence experienced—physical, sexual, and emotional. Currently married women and men were asked about violence perpetrated by their current spouse, and formerly married women and men were asked about violence perpetrated by their most recent spouse. Respondents were asked about seven specific acts of physical violence, three acts of sexual violence, and three acts of emotional abuse.

Tables 17.8.1 and 17.8.2, respectively, show the percentage of ever-married women and men age 15-49 that have experienced these various forms of spousal violence ever or in the 12 months preceding the survey. The different types of violence are not mutually exclusive; that is, respondents may report experiencing multiple forms of violence.

The data shows that half of ever-married women age 15-49 (51 percent) have experienced some kind of violence (physical, sexual, or emotional) by their husbands or live-in partners. Thirty-four percent of women experienced some form of spousal violence within the past 12 months. Forty-four percent of ever-married women have experienced physical violence at the hands of their husbands, 7 percent have experienced sexual violence, and 29 percent have experienced emotional violence. Much of the violence is recent; within the last 12 months, 27 percent of women experienced physical violence, 5 percent experienced sexual violence, and 21 percent experienced emotional violence.

Among the acts of physical violence, slapping was the most commonly reported act, experienced by 38 percent of ever-married women, followed by 22 percent of the women being pushed, and about the same proportion being kicked. Among the acts of sexual violence, being forced to have sex with their husbands when they did not want to was the most commonly reported act of sexual violence (6 percent of women). For emotional violence, more women reported their husbands humiliating them in front of others (22 percent) than reported the other specific acts.

Rates of spousal violence against men are lower than those reported for women. Among ever-married men age 15-49, one-third have experienced some kind of violence (physical, sexual, or emotional) by their wives or live-in partners. Twenty-six percent of men experienced some form of spousal violence within the past 12 months. Twenty-one percent of ever-married men have experienced physical violence at the hands of their wives, 4 percent have experienced sexual violence, and 27 percent have experienced emotional violence. Within the last 12 months, 15 percent of men experienced physical violence, 3 percent experienced sexual violence, and 22 percent experienced emotional violence.

The most common act of physical violence was being pushed, shaken, or having something thrown at them, reported by 15 percent of ever-married men. Twelve percent of men reported being slapped. Among the acts of sexual violence, men most commonly reported being forced to have sex (3 percent). For acts of emotional violence, a greater proportion of men (22 percent) reported their wives humiliating them in front of others compared with the other specific acts.

Table 17.8.1 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 husbands/partners, Sierra Leone 2013

		In the past 12 months		
Type of violence	Ever	Often	Sometimes	Often or sometimes
Physical violence				
Any physical violence	**44.2**	**5.3**	**21.9**	**27.2**
Pushed her, shook her, or threw something at her	22.3	2.8	11.5	14.3
Slapped her	38.4	3.4	19.4	22.8
Twisted her arm or pulled her hair	11.5	1.8	5.4	7.3
Punched her with his fist or with something that could hurt her	9.1	1.4	4.4	5.8
Kicked her, dragged her, or beat her up	22.2	2.2	8.8	11.0
Tried to choke her or burn her on purpose	3.1	0.4	1.5	1.9
Threatened her or attacked her with a knife, gun, or other weapon	1.4	0.2	0.5	0.8
Sexual violence				
Any sexual violence	**7.3**	**0.8**	**4.3**	**5.1**
Physically forced her to have sexual intercourse with him when she did not want to	6.2	0.7	3.7	4.4
Physically forced her to perform any other sexual acts she did not want to	3.0	0.5	1.9	2.3
Forced her with threats or in any other way to perform sexual acts she did not want to	2.6	0.3	1.5	1.9
Emotional violence				
Any emotional violence	**29.2**	**4.9**	**15.9**	**20.8**
Said or did something to humiliate her in front of others	22.8	3.5	11.7	15.2
Threatened to hurt or harm her or someone she cared about	11.8	1.6	6.1	7.8
Insulted her or made her feel bad about herself	20.8	3.0	11.9	14.8
Any form of physical and/or sexual violence	**45.3**	**5.5**	**23.0**	**28.6**
Any form of emotional and/or physical and/or sexual violence	**50.5**	**7.8**	**26.1**	**33.9**
Spousal violence committed by any husband/partner				
Physical violence	47.7	na	na	27.3
Sexual violence	9.1	na	na	5.2
Physical and/or sexual violence	48.8	na	na	28.7
Number of ever-married women	4,138	4,138	4,138	4,138

na = Not applicable

Table 17.8.2 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 wives/partners, Sierra Leone 2013

Type of violence	Ever	In the past 12 months		
		Often	Sometimes	Often or sometimes
Physical violence				
Any physical violence	**20.8**	**3.3**	**11.8**	**15.1**
Pushed him, shook him, or threw something at him	15.2	1.7	8.9	10.6
Slapped him	11.8	0.9	6.5	7.4
Twisted his arm or pulled his hair	2.2	0.3	1.4	1.8
Punched him with her fist or with something that could hurt him	4.5	0.3	3.0	3.3
Kicked him, dragged him, or beat him up	2.1	0.2	1.3	1.5
Tried to choke him or burn him on purpose	7.2	1.3	4.3	5.7
Threatened him or attacked him with a knife, gun, or other weapon	5.4	0.5	3.7	4.1
Sexual violence				
Any sexual violence	**3.6**	**0.6**	**2.4**	**3.0**
Physically forced him to have sexual intercourse with her when he did not want to	3.0	0.5	2.0	2.5
Physically forced him to perform any other sexual acts he did not want to	2.0	0.3	1.4	1.7
Forced him with threats or in any other way to perform sexual acts he did not want to	1.6	0.2	0.9	1.1
Emotional violence				
Any emotional violence	**27.2**	**4.3**	**17.8**	**22.1**
Said or did something to humiliate him in front of others	22.1	2.7	14.4	17.1
Threatened to hurt or harm him or someone he cared about	12.1	1.4	7.7	9.1
Insulted him or made her feel bad about himself	20.7	2.3	14.3	16.5
Any form of physical and/or sexual violence	**21.7**	**3.8**	**12.2**	**16.0**
Any form of emotional and/or physical and/or sexual violence	**33.3**	**6.7**	**19.2**	**26.0**
Spousal violence committed by any wife/partner				
Physical violence	22.6	na	na	15.3
Sexual violence	4.2	na	na	3.3
Physical and/or sexual violence	23.6	na	na	16.2
Number of ever-married men	2,227	2,227	2,227	2,227

na = Not applicable

Tables 17.9.1 and 17.9.2, respectively, show the percentage of ever-married women and men who have experienced emotional, physical, or sexual violence committed by their current or last spouses/partners, by background characteristics. Women age 15-19 are generally less likely to have experienced physical, sexual, or emotional violence than those in the older age groups. Women who are divorced, separated, or widowed are more likely to have experienced each type of violence than other women. Women with children are more likely to have experienced spousal violence compared with women with no children. The findings show that women who are employed and earning cash are most likely to experience spousal violence (48 percent), with the highest proportion experiencing physical violence (47 percent).

There are not strong urban-rural differences in women's experience of spousal violence except in regard to emotional violence; women in urban areas are more likely to experience emotional violence than rural women (35 percent and 27 percent respectively). The Northern region has the highest proportion of women reporting spousal violence. Women's experience of at least one form of spousal violence ranges from 33 percent in Bonthe to 66 percent in Tonkolili.

Table 17.9.1 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 husbands/partners, by background characteristics, Sierra Leone 2013

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	21.2	37.5	6.4	3.7	2.5	40.2	41.7	235
20-24	30.3	45.9	9.1	6.8	5.2	48.1	52.6	480
25-29	29.5	46.6	6.7	6.3	4.1	47.0	51.5	784
30-39	31.6	46.2	8.0	7.0	4.9	47.2	52.8	1,593
40-49	26.6	40.0	6.1	5.1	2.6	41.0	47.3	1,047
Religion								
Christian	25.5	41.5	7.1	5.8	4.4	42.8	46.8	795
Islam	30.2	44.8	7.4	6.3	4.0	45.9	51.4	3,321
Other	*	*	*	*	*	*	*	11
None	*	*	*	*	*	*	*	5
Ethnic group								
Creole	*	*	*	*	*	*	*	40
Fullah	17.4	35.4	3.7	3.7	2.4	35.4	38.6	131
Kono	15.1	35.4	3.4	2.2	2.2	36.5	41.2	225
Limba	28.7	49.9	7.4	4.6	2.7	52.8	53.8	283
Loko	35.7	50.8	5.3	5.3	4.1	50.8	52.4	111
Mandingo	39.9	45.9	12.7	12.7	12.7	45.9	52.1	75
Mende	28.6	39.0	4.2	3.3	2.5	39.9	46.3	1,383
Sherbro	33.6	36.7	8.1	4.1	3.3	40.7	49.2	108
Temne	33.9	51.4	10.4	9.5	5.5	52.3	58.2	1,433
Koranko	18.3	45.9	8.7	8.6	4.7	46.1	47.6	125
Other Sierra Leone	26.2	42.2	13.0	9.8	6.7	45.4	48.1	198
Other Foreign	*	*	*	*	*	*	*	17
Residence								
Urban	35.4	45.3	7.6	6.4	5.5	46.5	52.9	1,269
Rural	26.5	43.7	7.2	6.1	3.4	44.7	49.4	2,869
Region								
Eastern	25.5	38.9	4.1	3.3	2.7	39.8	44.7	968
Northern	28.0	50.9	10.7	9.5	4.9	52.1	55.8	1,580
Southern	28.2	39.0	3.1	2.1	1.4	40.0	46.3	881
Western	38.2	42.7	9.4	7.9	7.2	44.1	51.7	710
District								
Kailahun	26.6	43.4	6.0	5.1	3.9	44.4	47.8	269
Kenema	31.1	35.2	2.9	1.9	1.4	36.3	43.5	413
Kono	16.4	40.0	4.2	3.6	3.6	40.6	43.3	286
Bombali	24.5	46.0	8.4	7.3	3.5	47.1	48.2	312
Kambia	30.1	41.2	9.8	8.2	5.8	42.7	49.3	196
Koinadugu	17.2	39.6	7.2	7.0	4.1	39.9	42.5	190
Port Loko	32.4	55.0	7.7	6.7	3.7	56.0	61.1	529
Tonkolili	29.2	60.5	19.7	17.7	7.9	62.6	65.6	352
Bo	28.6	46.0	5.9	3.5	2.4	48.4	52.0	335
Bonthe	18.4	29.0	1.0	0.7	0.2	29.3	32.7	175
Moyamba	35.3	40.8	2.4	2.4	1.7	40.8	52.1	219
Pujehun	28.7	32.7	0.4	0.4	0.4	32.7	41.2	152
Western Area Rural	26.2	30.3	4.5	3.8	2.8	31.0	37.7	114
Western Area Urban	40.5	45.0	10.3	8.7	8.1	46.6	54.4	595
Marital status								
Married or living together	28.5	43.5	7.2	6.0	3.7	44.8	50.0	3,775
Divorced/separated/widowed	36.9	50.8	8.7	8.7	7.3	50.9	55.7	363
Number of living children								
0	18.4	32.8	6.2	3.3	2.4	35.7	37.4	257
1-2	31.4	46.0	7.4	6.7	4.9	46.7	51.6	1,335
3-4	29.0	44.4	8.5	7.1	4.8	45.8	51.6	1,469
5+	29.3	44.3	5.9	5.1	2.3	45.0	50.7	1,077
Employment								
Employed for cash	32.3	47.2	8.9	7.6	5.4	48.4	54.0	1,508
Employed not for cash	26.9	43.5	6.8	5.8	3.4	44.5	49.1	1,994
Not employed	28.7	38.8	5.4	4.3	3.1	40.0	46.5	618
Education								
No education	27.4	42.3	7.0	6.0	3.7	43.4	48.6	2,981
Primary	35.3	52.0	9.7	7.6	5.1	54.0	58.0	533
Secondary or higher	32.8	46.0	6.8	5.9	4.8	47.0	53.1	624
Wealth quintile								
Lowest	25.7	37.2	6.5	5.4	3.2	38.3	44.2	866
Second	26.3	45.3	6.6	5.7	3.3	46.2	50.8	803
Middle	28.6	46.7	7.6	6.8	4.5	47.6	50.7	779
Fourth	28.9	46.3	7.1	6.1	3.0	47.4	52.9	830
Highest	36.2	45.7	8.7	7.1	6.2	47.4	54.0	861
Total 15-49	29.2	44.2	7.3	6.2	4.1	45.3	50.5	4,138

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. 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 6 women with missing information on religion, 10 women with missing information on ethnic group, and 19 women with missing information on employment

Table 17.9.2 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 wives/partners, by background characteristics, Sierra Leone 2013

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	*	*	*	*	*	*	*	14
20-24	24.4	26.0	3.1	1.5	1.3	27.6	33.2	144
25-29	27.6	24.4	3.0	3.0	2.7	24.4	35.7	391
30-39	30.0	21.2	4.1	2.8	2.6	22.5	36.0	951
40-49	24.1	17.3	3.6	2.6	2.4	18.3	28.8	727
Religion								
Christian	24.4	18.8	4.1	1.8	1.6	21.1	31.7	400
Islam	27.8	21.2	3.5	2.9	2.6	21.9	33.6	1,817
Other	*	*	*	*	*	*	*	4
None	*	*	*	*	*	*	*	1
Ethnic group								
Creole	*	*	*	*	*	*	*	15
Fullah	15.3	5.9	2.5	2.5	2.2	5.9	17.2	86
Kono	13.4	13.3	3.2	3.2	2.4	13.3	18.4	82
Limba	26.6	21.4	3.2	2.6	2.6	22.0	30.8	114
Loko	16.4	11.7	1.9	0.0	0.0	13.5	20.6	46
Mandingo	17.7	20.3	3.2	3.2	3.2	20.3	28.9	45
Mende	32.3	17.5	2.7	1.1	1.1	19.1	34.7	770
Sherbro	39.0	27.2	9.7	8.5	6.9	28.4	42.9	71
Temne	26.7	27.1	4.5	3.9	3.8	27.7	37.5	794
Koranko	25.6	19.2	3.0	1.7	0.0	20.4	30.2	67
Other Sierra Leone	17.7	18.0	4.3	2.8	2.4	19.4	24.5	122
Other Foreign	*	*	*	*	*	*	*	7
Residence								
Urban	27.8	19.9	4.4	3.5	3.1	20.8	34.3	632
Rural	27.0	21.1	3.3	2.3	2.2	22.1	32.9	1,595
Region								
Eastern	24.8	13.5	3.1	2.3	1.9	14.4	28.5	547
Northern	24.2	25.8	2.9	2.4	2.3	26.4	33.8	828
Southern	33.2	21.1	3.5	1.9	1.8	22.7	36.5	516
Western	29.3	19.6	6.4	5.1	4.7	20.9	34.9	336
District								
Kailahun	34.6	15.5	0.7	0.7	0.7	15.5	36.9	157
Kenema	26.1	11.2	2.6	1.7	1.7	12.0	27.9	259
Kono	10.7	15.9	7.0	5.4	3.7	17.5	19.8	132
Bombali	17.3	23.9	1.7	0.7	0.7	25.0	31.9	168
Kambia	21.6	18.5	8.4	7.6	7.2	19.2	24.1	102
Koinadugu	20.9	11.4	1.3	0.7	0.4	12.0	23.1	101
Port Loko	14.5	12.2	1.1	0.6	0.6	12.7	19.4	237
Tonkolili	42.9	52.3	3.9	3.9	3.9	52.3	60.5	219
Bo	15.5	13.4	1.7	1.0	0.6	14.1	20.3	188
Bonthe	20.4	7.3	0.0	0.0	0.0	7.3	21.7	93
Moyamba	40.8	21.4	9.8	5.0	5.0	26.1	45.3	138
Pujehun	68.4	48.2	1.6	1.1	1.1	48.6	69.3	98
Western Rural	19.9	10.5	0.9	0.9	0.9	10.5	21.1	74
Western Urban	31.9	22.2	8.0	6.3	5.8	23.9	38.8	261
Marital status								
Married or living together	26.7	20.4	3.7	2.7	2.4	21.4	32.8	2,099
Divorced/separated/widowed	36.4	26.9	3.1	2.6	2.4	27.4	41.2	127
Number of living children								
0	32.8	22.6	5.9	5.5	5.1	23.1	37.0	153
1-2	26.8	21.1	3.3	2.5	2.2	21.9	33.4	847
3-4	26.3	19.9	3.5	2.3	2.1	21.1	32.5	664
5+	27.3	20.7	3.7	2.6	2.5	21.9	33.2	563
Employment								
Employed for cash	28.4	18.6	3.1	2.4	2.2	19.3	31.2	1,385
Employed not for cash	24.0	24.2	4.0	2.5	2.3	25.6	35.9	789
Not employed	44.0	26.5	12.7	11.4	11.4	27.8	49.2	51
Education								
No education	26.4	20.9	4.0	2.8	2.4	22.1	32.8	1,260
Primary	28.8	18.3	1.4	1.4	1.3	18.3	33.5	268
Secondary or higher	28.1	21.5	3.8	3.0	2.9	22.3	34.2	699
Wealth quintile								
Lowest	27.4	19.0	4.2	2.4	2.2	20.7	32.4	501
Second	26.8	20.8	3.5	2.9	2.9	21.3	31.3	454
Middle	26.0	24.2	2.9	2.1	1.9	25.0	34.6	480
Fourth	29.1	20.0	2.1	1.6	1.2	20.4	36.1	371
Highest	27.2	19.6	5.5	4.3	4.0	20.8	32.6	422
Total 15-49	27.2	20.8	3.6	2.7	2.4	21.7	33.3	2,227
50-59	20.6	14.0	3.1	2.0	1.0	15.0	25.5	376
Total 15-59	26.3	19.8	3.6	2.6	2.2	20.8	32.2	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. 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 4 men with missing information on religion, 6 men with missing information on ethnic group, and 2 men with missing information on employment.

Among ever-married men age 15-49 there is no clear pattern between spousal violence and age. Similar to women, men who are divorced, separated, or widowed are more likely to have experienced each type of violence than other men (41 percent compared with 33 percent). However, in contrast to women, men with children are less likely to have experienced spousal violence compared with men with no children. Unemployed men are most likely to have experienced spousal violence (49 percent), with the highest proportion experiencing emotional violence (44 percent).

There are no strong urban-rural differences in men's experience of spousal violence. Also, men's experience of the three types of spousal violence is not consistently higher in one region compared with the others. Among the districts, the percentage of men who have experienced at least one form of spousal violence ranges from 19 percent in Port Loko to 70 percent in Pujehun.

17.9 VIOLENCE BY SPOUSAL CHARACTERISTICS AND EMPOWERMENT INDICATORS

Because so much interpersonal violence is committed by spouses and intimate partners, it is important to understand the characteristics of these individuals. It is also useful to examine whether spousal violence varies with empowerment indicators. Tables 17.10.1 and 17.10.2, respectively, show the percentage of ever-married women and men who have ever experienced emotional, physical, or sexual violence committed by their current or most recent spouse/partner, by spouse's characteristics and empowerment indicators. Table 17.10.2 shows fewer background characteristics for men than Table 17.10.1 shows for women, as data on some of these characteristics were not collected in the Man's Questionnaire.

There are small differences in women's experience of spousal violence by their husbands' level of education. Women whose husbands have no education are slightly more likely to report physical violence and sexual violence compared with women with educated husbands, while women are more likely to experience emotional violence when their husbands have secondary or higher education. Notably, women who have as much education their husbands, or more, are substantially more likely to experience violence (58 percent and 60 percent respectively) compared with women who have less education than their husbands (47 percent). There is no clear relationship between spousal age difference and women's experience of spousal violence. There is a strong positive relationship, however, between alcohol consumption and husband's tendency to be violent. Women whose husbands are often drunk are more likely to experience emotional, physical, or sexual violence compared with women whose husbands do not drink alcohol (67 percent compared with 48 percent).

Marital control behaviours exhibited by the husband are associated with spousal violence against the wife; the greater the number of controlling behaviours displayed by the husband, the greater the likelihood that the wife will experience spousal violence. Results show an unexpected relationship between empowerment indicators and women's experience of spousal violence. For example, women who participate in 1-2 common household decisions are most likely to experience violence, while women who do not participate in any decisions or who participate in all three decisions are less likely to report spousal violence (see table 16.6.1 for a list of the household decisions). Also, women who justify wife beating in 1-2 specified circumstances are more likely to experience all three forms of spousal violence compared with women who disagree with wife beating and with women who justify wife beating under more circumstances (see table 16.17.1 for a list of the specified circumstances). Finally, 62 percent of women whose mothers were beaten by their fathers experienced sexual, emotional, or physical violence from their husbands/partners.

Table 17.10.1 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age15-49 who have ever experienced emotional, physical, or sexual violence committed by their husband/partner, by husband's characteristics and empowerment indicators, Sierra Leone 2013

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	28.5	44.8	7.5	6.4	4.0	45.9	50.5	2,599
Primary	25.1	42.2	6.5	4.7	2.7	44.1	50.3	320
Secondary or higher	30.7	42.5	6.7	5.7	4.4	43.5	49.3	1,142
Husband's/partner's alcohol consumption								
Does not drink	26.8	41.3	6.8	5.6	3.6	42.5	48.0	3,441
Drinks/never gets drunk	(21.4)	(35.5)	(3.6)	(3.6)	(3.6)	(35.5)	(45.3)	28
Gets drunk sometimes	40.5	58.2	8.8	8.4	5.0	58.7	62.6	407
Gets drunk very often	45.7	63.0	12.3	11.0	9.3	64.3	67.4	249
Spousal education difference								
Husband better educated	27.9	40.9	6.7	5.7	4.1	41.9	47.2	1,195
Wife better educated	38.4	54.8	9.0	7.6	6.7	56.1	59.6	464
Both equally educated	37.7	50.1	5.1	3.7	2.3	51.5	58.3	116
Neither educated	26.5	43.1	7.2	6.0	3.5	44.3	49.1	2,253
Spousal age difference[1]								
Wife older	33.9	44.3	6.1	4.4	2.3	46.0	57.3	143
Wife is same age	33.0	46.6	2.8	2.8	2.8	46.6	50.1	83
Wife's 1-4 years younger	29.3	45.6	5.8	5.6	3.9	45.8	50.8	768
Wife's 5-9 years younger	31.0	46.6	7.2	5.7	4.0	48.2	53.0	1,173
Wife's 10+ years younger	25.6	40.1	8.1	6.6	3.7	41.7	46.8	1,578
Number of marital control behaviours displayed by husband/partner[2]								
0	10.0	18.7	3.1	2.6	1.5	19.2	23.1	859
1-2	26.6	44.3	5.2	4.5	2.0	45.0	50.1	1,675
3-4	40.6	57.8	11.9	9.8	7.1	59.9	65.7	1,269
5-6	48.4	56.9	11.5	10.4	9.3	58.0	64.8	336
Number of decisions in which respondent participates[3]								
0	29.4	39.5	6.6	5.1	3.4	41.0	46.5	1,082
1-2	27.0	48.7	10.6	8.3	5.1	51.1	54.6	907
3	28.7	43.3	5.8	5.3	3.3	43.8	49.7	1,787
Number of reasons for which wife beating is justified[4]								
0	27.2	39.2	6.1	4.5	3.1	40.8	47.2	1,441
1-2	34.0	51.8	10.9	9.8	6.8	52.8	57.2	833
3-4	30.7	47.6	7.4	6.2	3.6	48.8	53.7	1,230
5	24.5	38.8	5.4	5.2	3.3	38.9	43.0	635
Woman's father beat her mother								
Yes	34.9	54.1	13.2	11.4	7.2	55.9	61.6	1,226
No	25.6	37.2	4.5	3.7	2.9	37.9	42.7	2,173
DK/missing	30.5	48.2	6.1	4.9	2.3	49.4	55.1	739
Woman afraid of husband/partner								
Most of the time afraid	36.7	48.9	10.6	9.4	7.5	50.1	57.0	1,256
Sometimes afraid	30.0	48.9	7.2	6.3	3.2	49.8	54.2	2,017
Never afraid	15.9	26.0	2.5	1.2	0.8	27.3	32.0	849
Total 15-49	29.2	44.2	7.3	6.2	4.1	45.3	50.5	4,138

Note: Figures in parentheses are based on 25 to 49 unweighted cases. 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 77 women with missing information on husband's/partner's education, 13 women with information missing on husband's/partner's alcohol consumption, 111 women with information missing on spousal education difference, 30 women with information missing on spousal age difference, and 16 women with information missing on woman afraid of husband/partner.

[1] Includes only women who have been married only once.

[2] According to the wife's report. See Table 17.7.1 for list of behaviours.

[3] According to the wife's report. Includes only currently married women. See Table 16.6.1 for list of decisions.

[4] According to the wife's report. See Table 16.7.1 for list of reasons.

Among ever-married men age 15-49, the data indicate a positive relationship between wife's alcohol consumption and spousal violence against the husband. Men with wives who displayed 3-4 controlling behaviours are more likely to have experienced physical violence and emotional violence compared with other men. Sexual violence is most common among men whose wives exhibited five controlling behaviours. Men who participate in 1-2 household decisions are more likely to experience physical violence compared with men who do not participate in any household decisions; this pattern does not hold, however, for sexual or emotional violence. Similar to women, men whose fathers beat their mothers are more likely to experience spousal violence committed by their wives.

Table 17.10.2 Spousal violence by wife's characteristics and empowerment indicators

Percentage of ever-married men age15-49 who have ever experienced emotional, physical, or sexual violence committed by their wife/partner, by wife's characteristics and empowerment indicators, Sierra Leone 2013

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[1]								
Does not drink	26.3	19.8	3.0	2.2	2.0	20.6	32.2	2,126
Drinks/never gets drunk	*	*	*	*	*	*	*	7
Gets drunk sometimes	45.5	36.8	7.6	0.9	0.0	43.5	59.2	35
Gets drunk very often	(48.2)	(45.2)	(10.9)	(8.6)	(7.6)	(47.4)	(57.0)	32
Number of marital control behaviours displayed by partner[2]								
0	5.2	3.4	1.4	1.2	1.0	3.6	6.5	491
1-2	25.7	22.2	3.2	2.0	1.8	23.3	34.5	1,009
3-4	45.7	31.1	4.8	3.6	3.4	32.4	51.3	637
5-6	34.2	26.8	12.2	11.7	11.3	27.3	39.2	90
Number of decisions in which respondent participates[3]								
0	28.8	13.1	3.2	3.0	2.9	13.2	30.9	244
1-2	26.4	21.4	3.7	2.6	2.4	22.5	33.1	1,855
Number of reasons for which wife beating is justified[4]								
0	24.2	19.2	2.4	1.8	1.7	19.9	31.0	1,404
1-2	30.2	21.2	5.6	3.8	3.4	22.9	34.8	438
3-4	35.3	25.5	4.8	3.7	3.3	26.7	40.8	338
5	30.6	28.1	12.9	9.8	9.8	31.2	33.9	46
Man's father beat his mother								
Yes	37.0	33.2	4.4	3.7	3.3	34.0	46.9	625
No	22.2	15.7	2.2	1.6	1.4	16.3	26.8	1,249
DK/missing	27.6	16.7	7.2	4.8	4.7	19.1	32.4	353
Man afraid of partner								
Most of the time afraid	42.2	26.9	7.5	4.0	2.8	30.5	49.2	99
Sometimes afraid	37.1	25.1	4.4	3.3	3.3	26.3	41.1	856
Never afraid	18.8	16.7	2.1	1.4	1.2	17.3	26.2	1,244
Total 15-49	27.2	20.8	3.6	2.7	2.4	21.7	33.3	2,227
50-59	20.6	14.0	3.1	2.0	1.0	15.0	25.5	376
Total 15-59	26.3	19.8	3.6	2.6	2.2	20.8	32.2	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. 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 26 men with missing information on wife's/partner's alcohol consumption, and 28 men with information missing on man afraid of husband/partner

[1] Includes only men who have been married only once.

[2] According to the husband's report. See Table 17.7.2 for list of behaviours.

[3] According to the husband's report. Includes only currently married men. See Table 16.6.1 for list of decisions.

[4] According to the husband's report. See Table 16.7.1 for list of reasons.

17.10 FREQUENCY OF SPOUSAL VIOLENCE

Frequency of spousal violence is an indication of the extent to which domestic violence is a current or recurring problem in Sierra Leone. Table 17.11 shows the percentage of ever-married women and men who have experienced physical or sexual violence by their current or last spouse/partner in the past 12 months, by background characteristics.

Patterns seen in Table 17.11 are similar to those for women reporting ever experience of spousal violence. This table shows that 29 percent of women age 15-49 have experienced physical or sexual violence by their husbands in the 12 months preceding the survey. In general, women's risk for recent violence decreases with age. Currently married women are more likely to have experienced recent violence from husbands/partners compared with divorced/separated/widowed women. There are no strong differences in recent experience of violence by urban-rural residence. Women in Southern region (22 percent) are least likely to have experienced violence in the past 12 months compared with women in the Western and Eastern regions (32 percent).

Among ever-married men age 15-49, 16 percent have experienced physical or sexual spousal violence in the past 12 months. Men's risk for recent spousal violence decreases with age. Nineteen percent of unemployed men experienced spousal violence in the past year compared with 16 percent of employed

men. Men in the Northern region (18 percent) are more likely to report recent spousal violence compared with other regions.

Table 17.11 Physical or sexual violence in the past 12 months by any spouse/partner

Percentage of ever-married women and men who have experienced physical or sexual violence from any spouse/partner in the past 12 months, by background characteristics, Sierra Leone, 2013

Background characteristic	Women: Percentage of women who have experienced physical or sexual violence in the past 12 months from any husband/partner	Women: Number of ever-married women	Men: Percentage of men who have experienced physical or sexual violence in the past 12 months from any wife/partner	Men: Number of ever-married men
Age				
15-19	30.5	235	*	14
20-24	37.4	480	22.0	144
25-29	34.3	784	19.9	391
30-39	29.2	1,593	16.5	951
40-49	19.5	1,047	12.7	727
Religion				
Christian	28.9	795	18.4	400
Islam	28.7	3,321	15.8	1,817
Other	*	11	*	4
None	*	5	*	1
Ethnic group				
Creole	*	40	*	15
Fullah	19.4	131	4.4	86
Kono	28.3	225	12.4	82
Limba	35.5	283	18.0	114
Loko	35.7	111	12.8	46
Mandingo	28.6	75	9.5	45
Mende	26.2	1,383	15.3	770
Sherbro	21.6	108	26.8	71
Temne	31.1	1,433	18.2	794
Koranko	29.9	125	18.2	67
Other Sierra Leone	30.6	198	15.8	122
Other Foreign	*	17	*	7
Residence				
Urban	32.4	1,269	15.1	632
Rural	27.1	2,869	16.7	1,595
Region				
Eastern	31.6	968	12.7	547
Northern	28.9	1,580	18.2	828
Southern	22.4	881	17.8	516
Western	32.2	710	14.8	336
District				
Kailahun	38.0	269	16.5	157
Kenema	25.1	413	8.7	259
Kono	34.8	286	15.9	132
Bombali	34.2	312	12.6	168
Kambia	25.4	196	17.8	102
Koinadugu	25.5	190	10.1	101
Port Loko	23.3	529	7.0	237
Tonkolili	36.4	352	38.5	219
Bo	24.3	335	9.2	188
Bonthe	17.0	175	5.3	93
Moyamba	27.4	219	23.7	138
Pujehun	17.0	152	37.4	98
Western Area Rural	19.7	114	7.3	74
Western Area Urban	34.7	595	16.9	261
Marital status				
Married or living together	29.2	3,775	16.1	2,099
Divorced/separated/widowed	23.3	363	18.1	127
Number of living children				
0	27.0	257	22.4	153
1-2	33.0	1,335	17.1	847
3-4	29.8	1,469	14.9	664
5+	22.3	1,077	14.8	563
Employment				
Employed for cash	29.7	1,508	16.0	1,385
Employed not for cash	27.8	1,994	16.4	789
Not employed	29.2	618	19.7	51

Continued…

Table 17.11—*Continued*

Background characteristic	Women: Percentage of women who have experienced physical or sexual violence in the past 12 months from any husband/partner	Women: Number of ever-married women	Men: Percentage of men who have experienced physical or sexual violence in the past 12 months from any wife/partner	Men: Number of ever-married men
Education				
No education	27.1	2,981	15.5	1,260
Primary	35.9	533	15.4	268
Secondary or higher	30.1	624	17.8	699
Wealth quintile				
Lowest	25.5	866	16.9	501
Second	27.6	803	15.5	454
Middle	27.6	779	16.2	480
Fourth	29.4	830	17.8	371
Highest	33.3	861	14.9	422
Woman/men afraid of spouse/partner				
Most of the time afraid	35.6	1,256	25.0	99
Sometimes afraid	30.3	2,017	21.3	856
Never afraid	14.7	849	11.5	1,244
Total 15-49	28.7	4,138	16.2	2,227
50-59	na	na	9.2	376
Total 15-59	na	na	15.2	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Any husband/partner includes all current, most recent and former husbands/partners. Any wife/partner includes all current, most recent, and former wives/partners. Total for women includes 6 women with missing information on religion, 10 women with missing information on ethnic group, 19 women with missing information on employment, and 16 women with information missing on woman afraid of husband/partner. Total for men includes 4 men with missing information on religion, 6 men with missing information on ethnic group, 2 men with missing information on employment, and 28 men with information missing on man afraid of wife/partner.
na = not applicable

To examine the timing of the onset of marital violence, the 2013 SLDHS asked ever-married women and men who had been married only once when the first episode of physical or sexual violence took place (if ever). Table 17.12 shows that for 35 percent of such women, violence first occurred when they had been married for five years; 19 percent experienced spousal violence by their second year of marriage. Nine percent of women who had been married only once first experienced physical or sexual violence committed by their spouses/partners even before they were married. Among men, 18 percent reported the first episode of violence occurred at five years of marriage; 12 percent report spousal violence first occurred in their second year.

Table 17.12 Experience of spousal violence by duration of marriage

Among currently married women and men age 15-49 who have been married only once, the percentage who first experienced physical or sexual violence committed by their current spouse/partner by specific exact years since marriage according to marital duration, Sierra Leone 2013

Years since marriage	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/men who have been married only once
	Before marriage	2 years	5 years	10 years		
			WOMEN			
<2	12.8	na	na	na	67.4	185
2-4	9.5	29.1	na	na	58.7	363
5-9	9.0	23.2	45.2	na	47.2	569
10+	8.3	14.8	30.7	40.1	54.0	1,856
Total 15-49	8.9	18.9	34.6	41.9	54.1	2,973
			MEN			
<2	5.5	na	na	na	82.0	139
2-4	6.0	22.1	na	na	69.4	281
5-9	1.6	11.5	18.0	na	80.0	380
10+	2.3	6.9	12.1	14.9	83.2	559
Total 15-49	3.2	12.0	17.8	19.7	79.3	1,359
50-59	0.2	5.2	7.5	10.5	85.1	116
Total 15-59	2.9	11.4	17.0	19.0	79.8	1,474

na = not applicable

17.11 Physical Consequences of Spousal Violence

In the 2013 SLDHS, women and men who had ever experienced spousal physical or sexual violence were asked about the physical consequences of the violence. Specifically, they were asked if, as a consequence of what their spouses did to them, they ever had any of three different sets of physical injuries: a) cuts, bruises, or aches; b) eye injuries, sprains, dislocations, or burns; and c) deep wounds, broken bones, broken teeth, or any other serious injury. Table 17.13 shows the percentage of ever-married women and men who reported any spousal physical or sexual violence, by types of injuries sustained, according to the type of violence and whether they experienced the violence in the 12 months preceding the survey.

Well over one-third of women who reported experiencing spousal violence also reported sustaining injuries as a result, ever (40 percent) and in the past 12 months (39 percent). Women were most likely to report receiving injuries in the form of cuts, bruises, or aches. Between 11 percent and 15 percent of women who experienced spousal violence said that they suffered eye injuries, sprains, dislocations, or burns as a result. Women were least likely to report having suffered the most severe type of injuries; nevertheless, 8 percent of women who experienced physical or sexual violence from their husbands in the past 12 months reported deep wounds, broken bones, broken teeth, or other serious injuries as a consequence.

Similar patterns for injuries exist among men who reported experiencing spousal violence, although men are less likely to suffer physical consequences from the violence. Twenty-eight percent of men who have ever experienced spousal physical or sexual violence suffered one of the aforementioned injuries; 33 percent suffered one of these injuries in the past 12 months. Cuts, bruises, and aches are the most common injuries sustained by men. Similar percentages of men who experienced sexual violence reported two other sets of injuries—eye injuries, sprains, dislocations, or burns; and deep wounds, broken bones, broken teeth, or any other serious injury (10 percent ever and 12-13 percent in the past 12 months).

Table 17.13 Injuries to women due to spousal violence

Percentage of ever-married women and 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, Sierra Leone 2013

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
		WOMEN			
Experienced physical violence[1]					
Ever[2]	35.2	11.1	8.0	40.1	1,827
In the past 12 months	33.0	12.5	8.1	39.3	1,124
Experienced sexual violence					
Ever[2]	33.1	14.6	9.3	36.8	303
In the past 12 months	32.4	14.8	7.6	36.6	211
Experienced physical or sexual violence[1]					
Ever[2]	34.4	10.9	7.8	39.1	1,874
In the past 12 months	32.6	12.4	7.8	38.7	1,182
		MEN			
Experienced physical violence[1]					
Ever[2]	26.3	5.8	9.5	29.0	462
In the past 12 months	31.4	6.8	12.5	34.7	336
Experienced sexual violence					
Ever[2]	29.5	10.2	10.3	31.9	81
In the past 12 months	33.6	12.3	12.5	36.4	67
Experienced physical or sexual violence[1]					
Ever[2]	25.2	5.5	9.1	27.8	484
In the past 12 months	29.8	6.5	11.8	32.9	357

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. Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated or widowed men.
[1] Excludes women who reported violence only in response to a direct question on violence during pregnancy
[2] Includes in the past 12 months

17.12 Physical Violence by Women and Men Against Their Spouses

Violence by husbands against wives is not the only form of spousal violence; women may also perpetrate violence. In most cultures, however, the level of spousal violence initiated by wives is only a fraction of the level of spousal violence initiated by husbands. To measure spousal violence by women in the 2013 SLDHS, ever-married women and men were asked, 'Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) spouse/partner at times when they were not already beating or physically hurting you?' This line of questioning may result in some underreporting if respondents find it difficult to admit that they themselves initiated violence. Table 17.14 shows the percentage of ever-married women and men who have initiated physical violence against their current or most recent spouse or partner ever and in the 12 months before the survey, by background characteristics.

Overall, 8 percent of ever-married women age 15-49 reported that they have initiated physical violence against their current or most recent husband at some point, and 4 percent say they have initiated such violence in the 12 months preceding the survey. Notably, the proportion of women who reported that they have ever committed physical violence against their husbands is lower than the proportion of men who reported that they have ever experienced physical violence at the hands of their current or most recent wives/partners (21 percent, see Table 17.8.2).

However, in comparing these two statistics it is important to keep several things in mind. First, because of the survey's protections for respondents, interviewers did not collect violence data from couples; rather, only one person per household was administered the violence module. Therefore, it is not possible to compare a wife with her husband with respect to initiation of violence. Second, the question to female respondents on the violence they perpetrated specifically asked about physical violence that a woman

initiated when her husband was not already hurting her; however, physical violence reported by men includes any violence wives may have committed in self-defence or retaliation while experiencing violence at the hands of their husbands. Third, the less thorough manner in which respondents are asked about spousal physical violence they initiate compared with violence they receive (one question versus seven) is expected to result in a lower figure for initiation than receipt of violence. Finally, underreporting by respondents of violence they initiate could also be an issue.

Variations in women's initiating physical violence against their current or most recent husbands are generally small. Women's initiation of violence against their husbands is more common among women who themselves experienced spousal violence in the past 12 months (17 percent) or have ever experienced it (14 percent) than among women who have never experienced spousal violence (2 percent). Higher proportions of urban women, women in the Western region, and women in the highest wealth quintile have initiated physical violence against their husbands/partners, both ever and in the past 12 months.

Substantially larger proportions of men have initiated violence against their wives, both ever and in the past 12 months. Twenty-nine percent of ever-married men age 15-49 have initiated physical violence against their current or most recent wives, and 14 percent have initiated such violence in the 12 months preceding the survey. Similar to women, men who have themselves experienced spousal violence ever (71 percent) or recently (70 percent) are more likely than other men (18 percent) to have initiated violence against their wives. Higher proportions of rural men and men in the Northern region have initiated physical violence against their wife/partner, both ever and in the past 12 months.

Table 17.14 Respondent's violence against their spouse by background characteristics

Percentage of ever-married women and men age 15-49 who have committed physical violence against their current or most recent spouse/partner when he/she was not already beating or physically hurting her/him, ever and in the past 12 months, according to respondent's own experience of spousal violence and background characteristics, Sierra Leone 2013

	Women			Men		
	Percentage who have committed physical violence against their husband/partner		Number of ever-married women	Percentage who have committed physical violence against their wife/partner		Number of ever-married men
Background characteristic	Ever[1]	In the past 12 months		Ever[1]	In the past 12 months	
Woman's/men's experience of spousal physical violence						
Ever[1]	14.1	7.6	1,827	70.8	40.0	462
In the past 12 months	17.2	10.7	1,124	70.0	52.1	336
Never	2.3	0.8	2,311	18.4	7.2	1,764
Age						
15-19	8.5	7.4	235	*	*	14
20-24	8.2	4.8	480	33.2	20.0	144
25-29	6.7	5.1	784	29.3	14.6	391
30-39	8.5	3.5	1,593	29.9	15.1	951
40-49	6.0	2.1	1,047	27.7	11.3	727
Religion						
Christian	11.2	4.7	795	23.6	12.9	400
Islam	6.5	3.6	3,321	30.6	14.4	1,817
Other	*	*	11	*	*	4
None	*	*	5	*	*	1
Ethnic group						
Creole	*	*	40	*	*	15
Fullah	1.8	1.6	131	13.7	3.7	86
Kono	11.7	3.6	225	14.7	5.1	82
Limba	10.7	4.4	283	21.0	14.2	114
Loko	4.7	3.0	111	12.0	10.7	46
Mandingo	2.1	1.7	75	13.2	8.3	45
Mende	7.0	4.2	1,383	26.9	15.6	770
Sherbro	2.3	0.5	108	38.2	17.2	71
Temne	7.7	4.2	1,433	39.2	15.3	794
Koranko	3.6	0.4	125	29.9	17.3	67
Other Sierra Leone	7.4	5.6	198	18.0	8.6	122
Other Foreign	*	*	17	*	*	7
Residence						
Urban	10.2	4.6	1,269	25.1	11.7	632
Rural	6.3	3.5	2,869	30.9	15.0	1,595

Continued…

Table 17.14—*Continued*

Background characteristic	Women: Percentage who have committed physical violence against their husband/partner: Ever[1]	Women: Percentage who have committed physical violence against their husband/partner: In the past 12 months	Women: Number of ever-married women	Men: Percentage who have committed physical violence against their wife/partner: Ever[1]	Men: Percentage who have committed physical violence against their wife/partner: In the past 12 months	Men: Number of ever-married men
Region						
Eastern	9.3	4.2	968	20.6	11.5	547
Northern	5.1	3.4	1,580	39.8	17.2	828
Southern	5.0	3.4	881	30.2	15.8	516
Western	13.4	4.9	710	16.2	7.7	336
District						
Kailahun	13.2	7.2	269	5.4	3.8	157
Kenema	5.1	2.6	413	32.2	18.2	259
Kono	11.5	3.6	286	15.6	7.4	132
Bombali	4.3	3.6	312	26.5	12.8	168
Kambia	9.1	8.2	196	10.2	8.4	102
Koinadugu	2.8	1.7	190	25.5	11.7	101
Port Loko	4.6	2.2	529	39.4	14.5	237
Tonkolili	5.6	3.1	352	70.8	30.2	219
Bo	6.3	5.1	335	18.0	7.3	188
Bonthe	6.3	2.9	175	12.6	7.9	93
Moyamba	2.1	1.0	219	43.0	17.4	138
Pujehun	4.8	3.7	152	52.2	37.0	98
Western Area Rural	5.8	3.9	114	22.3	9.1	74
Western Area Urban	14.9	5.0	595	14.5	7.3	261
Marital status						
Married or living together	7.2	3.9	3,775	29.6	14.3	2,099
Divorced/separated/widowed	10.8	2.8	363	23.5	10.1	127
Employment						
Employed for cash	9.1	4.5	1,508	28.3	16.0	1,385
Employed not for cash	6.5	3.5	1,994	31.2	10.6	789
Not employed	7.0	3.5	618	27.1	13.7	51
Number of living children						
0	6.6	4.5	257	22.1	16.7	153
1-2	9.1	5.1	1,335	28.6	13.8	847
3-4	8.0	3.9	1,469	28.7	13.6	664
5+	5.1	2.0	1,077	33.0	14.2	563
Wealth quintile						
Lowest	6.4	4.0	866	30.0	14.6	501
Second	6.8	3.4	803	29.4	16.0	454
Middle	6.5	3.2	779	31.4	14.6	480
Fourth	5.3	3.3	830	32.0	15.6	371
Highest	12.3	5.1	861	23.5	9.2	422
Total 15-49	7.5	3.8	4,138	29.3	14.0	2,227
50-59	na	na	na	21.8	7.9	376
Total 15-59	na	na	na	28.2	13.1	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. 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 for women includes 6 women with missing information on religion, 10 women with missing information on ethnic group, and 19 women with missing information on employment. Total for men includes 4 men with missing information on religion, 6 men with missing information on ethnic group, and 2 men with missing information on employment.
na = not applicable
[1] Includes in the past 12 months

Table 17.15 shows the percentage of ever-married women and men age 15-49 who have initiated physical violence against their current or most recent spouse or partner ever and in the 12 months before the survey, according to their spouse's characteristics. Women age 15-49 are more likely to have initiated violence against husbands who have secondary or higher education, who get drunk very often, who are less educated than their wives, and who display 5-6 controlling behaviours. Additionally, women are more likely to have initiated violence against husbands if they, themselves, participate in fewer household decisions, justify wife beating in 1-2 of the five specified circumstances, have a family history of violence, and are afraid of their husbands sometimes or most of the time. Men are more likely to have initiated violence against wives who get drunk on occasion or often and wives who exhibit at least one controlling behaviour. Men

with attitudes accepting of wife beating and men who are afraid of their wife sometimes or most of the time are also more likely to have initiated violence against their wives.

Table 17.15 Respondent's violence against their spouse by relationship characteristics

Percentage of ever-married women and men age 15-49 who have committed physical violence against their current or most recent spouse/partner when he/she was not already beating or physically hurting her/him, ever and in the past 12 months, according their spouse's characteristics, Sierra Leone 2013

	Women			Men		
	Percentage who have committed physical violence against their husband/partner		Number of ever-married women	Percentage who have committed physical violence against their wife/partner		Number of ever-married women
Background characteristic	Ever[1]	In the past 12 months		Ever[1]	In the past 12 months	
Husband's/partner's education						
No education	6.5	3.5	2,599	na	na	na
Primary	4.7	3.7	320	na	na	na
Secondary or higher	10.0	4.8	1,142	na	na	na
DK/missing	13.1	2.0	77	na	na	na
Spouse's/partner's alcohol consumption						
Does not drink	5.8	3.2	3,441	29.4	13.9	2,126
Drinks/never gets drunk	(18.5)	(13.8)	28	*	*	7
Gets drunk sometimes	10.2	4.4	407	40.5	17.1	35
Gets drunk very often	24.7	11.2	249	(35.2)	(29.0)	32
DK/missing	*	*	13	*	*	26
Spousal education difference						
Husband better educated	8.8	4.5	1,195	na	na	na
Wife better educated	10.4	5.6	464	na	na	na
Both equally educated	7.1	3.2	116	na	na	na
Neither educated	6.1	3.2	2,253	na	na	na
DK/missing	10.3	2.7	111			
Spousal age difference[2]						
Wife older	8.6	4.6	143	na	na	na
Wife is same age	8.4	3.9	83	na	na	na
Wife's 1-4 years younger	8.4	5.5	768	na	na	na
Wife's 5-9 years younger	7.7	4.3	1,173	na	na	na
Wife's 10+ years younger	5.6	2.8	1,578	na	na	na
Missing	(27.4)	(5.9)	30			
Number of marital control behaviours displayed by spouse/partner[3]						
0	1.8	0.9	859	10.3	3.6	491
1-2	8.8	3.7	1,675	32.6	12.4	1,009
3-4	8.4	4.6	1,269	36.7	23.6	637
5-6	12.1	8.9	336	43.2	21.8	90
Number of decisions in which respondent participate[4]						
0	8.5	5.6	1,082	21.2	11.0	244
1-2	8.3	4.3	907	30.8	14.7	1,855
3	5.8	2.7	1,787	na	na	na
Number of reasons for which wife beating is justified[5]						
0	5.7	2.8	1,441	27.0	10.1	1,404
1-2	11.8	5.5	833	29.2	18.6	438
3-4	8.0	4.4	1,230	37.3	23.1	338
5	4.9	2.9	635	42.3	24.3	46
Respondent's father beat her/his mother						
Yes	8.7	3.6	1,226	43.1	22.8	625
No	6.7	3.4	2,173	24.7	9.3	1,249
DK/missing	7.8	5.3	739	21.2	15.2	353
Respondent afraid of spouse/partner						
Most of the time afraid	10.0	4.8	1,256	38.1	18.6	99
Sometimes afraid	7.0	3.7	2,017	34.2	19.1	856
Never afraid	5.1	2.8	849	25.8	10.5	1,244
Missing	*	*	16	*	*	28
Total 15-49	7.5	3.8	4,138	29.3	14.0	2,227
50-59	na	na	na	21.8	7.9	376
Total 15-59	na	na	na	28.2	13.1	2,603

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women. Wife/partner refers to the current wife/partner for currently married men and the most recent wife/partner for divorced, separated or widowed men.
na = not applicable
[1] Includes in the past 12 months
[2] Includes only respondents who have been married only once.
[3] According to the respondent's report. See Table 17.7.1 and 17.7.2 for list of behaviours.
[4] According to the respondent's report. Includes only currently married respondents. See Table 16.6.1 for list of decisions.
[5] According to the respondent's report. See Table 16.7.1 for list of reasons.

17.13 RESPONSE TO VIOLENCE

All respondents who have experienced physical or sexual violence by any person were asked a series of questions about whether and from whom they sought help to try to end the violence. Tables 17.16.1 and 17.16.2, respectively, show the percentage of women and men who have ever experienced physical or sexual violence by their help-seeking behaviour.

Table 17.16.1 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 behaviour by type of violence and background characteristics, Sierra Leone 2013

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	54.4	16.8	24.5	4.3	100.0	2,405
Sexual only	25.1	27.7	37.8	9.4	100.0	68
Physical and sexual	59.5	10.7	27.6	2.2	100.0	474
Age						
15-19	35.8	24.2	33.1	6.9	100.0	416
20-24	51.1	19.0	25.2	4.6	100.0	442
25-29	53.9	16.9	25.9	3.3	100.0	515
30-39	60.0	13.6	23.1	3.3	100.0	966
40-49	61.6	11.6	23.3	3.5	100.0	609
Religion						
Christian	54.6	14.8	25.7	4.9	100.0	619
Islam	54.6	16.5	25.1	3.8	100.0	2,314
Other	*	*	*	*	100.0	8
None	*	*	*	*	100.0	3
Ethnic group						
Creole	*	*	*	*	100.0	30
Fullah	52.5	16.1	27.4	4.0	100.0	70
Kono	47.8	12.6	39.5	0.1	100.0	149
Limba	50.9	24.7	23.6	0.8	100.0	223
Loko	61.7	21.4	12.1	4.8	100.0	82
Mandingo	45.9	11.4	37.0	5.8	100.0	50
Mende	55.2	18.7	20.9	5.2	100.0	898
Sherbro	58.5	4.6	25.5	11.4	100.0	64
Temne	57.9	13.0	26.0	3.1	100.0	1,146
Koranko	56.9	11.0	29.5	2.6	100.0	76
Other Sierra Leone	31.3	22.9	36.7	9.1	100.0	146
Other Foreign	*	*	*	*	100.0	10
Residence						
Urban	47.7	18.3	28.8	5.3	100.0	1,062
Rural	58.3	14.9	23.4	3.4	100.0	1,886
Region						
Eastern	49.1	15.8	32.6	2.5	100.0	628
Northern	59.7	11.3	27.0	1.9	100.0	1,212
Southern	61.1	19.6	13.6	5.8	100.0	536
Western	43.2	23.2	24.9	8.8	100.0	571
District						
Kailahun	67.0	8.9	23.0	1.0	100.0	167
Kenema	43.7	24.1	26.9	5.3	100.0	258
Kono	41.4	10.9	47.6	0.1	100.0	203
Bombali	59.2	13.2	25.5	2.1	100.0	241
Kambia	54.2	7.4	35.4	3.0	100.0	127
Koinadugu	54.7	5.4	35.0	4.9	100.0	111
Port Loko	70.6	11.0	18.3	0.1	100.0	434
Tonkolili	48.5	14.2	34.3	2.9	100.0	298
Bo	60.8	23.3	12.6	3.3	100.0	238
Bonthe	56.5	17.5	13.9	12.0	100.0	84
Moyamba	66.0	8.4	18.0	7.6	100.0	128
Pujehun	59.0	28.0	9.3	3.7	100.0	85
Western Area Rural	42.2	17.5	29.1	11.2	100.0	81
Western Area Urban	43.3	24.2	24.2	8.4	100.0	490
Marital status						
Never married	33.8	28.6	28.8	8.7	100.0	507
Married or living together	58.1	13.3	25.2	3.3	100.0	2,214
Divorced/separated/widowed	65.4	14.7	18.9	1.0	100.0	227

Continued…

Table 17.16.1—*Continued*

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
Number of living children						
0	33.8	28.0	30.6	7.6	100.0	462
1-2	54.9	14.5	26.4	4.1	100.0	969
3-4	58.5	13.4	25.4	2.7	100.0	893
5+	63.5	13.5	19.8	3.2	100.0	624
Employment						
Employed for cash	56.3	15.1	25.1	3.5	100.0	1,067
Employed not for cash	58.7	14.8	23.5	2.9	100.0	1,295
Not employed	42.4	21.0	29.7	6.9	100.0	575
Education						
No education	59.4	13.1	23.9	3.5	100.0	1,764
Primary	57.0	17.5	20.9	4.6	100.0	435
Secondary or higher	41.4	22.2	31.3	5.1	100.0	748
Wealth quintile						
Lowest	61.2	12.7	20.8	5.2	100.0	486
Second	54.4	13.7	29.0	2.8	100.0	528
Middle	60.4	14.6	22.8	2.2	100.0	567
Fourth	56.2	15.3	25.6	2.9	100.0	633
Highest	44.1	21.8	27.5	6.7	100.0	735
Total	54.5	16.1	25.3	4.1	100.0	2,948

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Women can report more than one source from which they sought help. Total includes 4 women with missing information on religion, 4 women with missing information on ethnic group, and 12 women with missing information on employment.

Table 17.16.1 shows that 55 percent of women age 15-49 sought help to stop the violence; 16 percent never sought help but told someone about the violence; and 25 percent neither sought help nor told anyone about the violence. Women who experienced both physical and sexual violence or physical violence only were most likely to seek help compared with women who experienced sexual violence only. Older women age 40-49 (62 percent) were more likely than younger women to seek help. Women who are divorced, separated, or widowed (65 percent) were more likely to seek help than currently married women (58 percent) or never-married women (34 percent). Employed women were more likely to seek help, as were women with no education or primary only education. More than half of rural women reported seeking help (58 percent) compared with 48 percent of urban women. Help seeking is also more common in the Southern region compared with other regions.

Smaller proportions of men than women sought help to end the violence. Overall, as Table 17.16.2 shows, 32 percent of men age 15-49 sought help while 21 percent never sought help but told someone about the violence; and 42 percent neither sought help nor told anyone about the violence. Similar to women, men who experienced both physical and sexual violence or physical violence only were more likely to seek help compared with men who experienced sexual violence only. Older men, currently married men, employed men, men in rural areas, and men in the Southern region were more likely to seek help compared with their counterparts.

Table 17.16.2 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 behaviour by type of violence and background characteristics, Sierra Leone 2013

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	32.7	21.6	41.8	3.9	100.0	2,103
Sexual only	13.6	17.6	50.0	18.8	100.0	89
Physical and sexual	33.2	20.9	39.0	6.9	100.0	279
Age						
15-19	28.1	19.8	47.5	4.6	100.0	611
20-24	29.7	26.6	39.1	4.6	100.0	445
25-29	35.3	18.8	41.8	4.2	100.0	429
30-39	32.7	21.6	39.7	6.0	100.0	584
40-49	36.4	20.4	39.3	4.0	100.0	400
Religion						
Christian	30.1	22.4	44.9	2.5	100.0	507
Islam	32.5	21.0	41.1	5.3	100.0	1,954
Other	*	*	*	*	100.0	3
None	*	*	*	*	100.0	1
Ethnic group						
Creole	(24.8)	(9.9)	(65.3)	(0.0)	100.0	28
Fullah	35.9	9.2	46.9	8.1	100.0	100
Kono	26.3	21.6	49.4	2.7	100.0	113
Limba	24.4	32.5	38.1	4.9	100.0	139
Loko	20.6	35.4	39.3	4.8	100.0	78
Mandingo	29.3	13.2	43.7	13.7	100.0	64
Mende	39.5	20.2	35.7	4.7	100.0	769
Sherbro	32.6	12.4	52.5	2.4	100.0	75
Temne	29.5	22.1	43.7	4.6	100.0	896
Koranko	32.0	38.4	29.6	0.0	100.0	78
Other Sierra Leone	27.9	15.6	49.9	6.6	100.0	110
Other Foreign	*	*	*	*	100.0	15
Residence						
Urban	30.2	24.4	39.8	5.7	100.0	979
Rural	33.3	19.4	43.2	4.1	100.0	1,491
Region						
Eastern	32.1	24.1	39.8	4.0	100.0	632
Northern	27.6	25.5	43.5	3.3	100.0	926
Southern	47.1	10.0	39.1	3.8	100.0	427
Western	27.3	19.9	43.5	9.2	100.0	486
District						
Kailahun	38.4	10.8	49.5	1.3	100.0	107
Kenema	35.4	32.3	26.4	5.8	100.0	351
Kono	21.4	15.7	60.9	1.9	100.0	174
Bombali	18.2	28.0	51.6	2.2	100.0	199
Kambia	40.9	19.0	31.1	9.0	100.0	59
Koinadugu	42.8	26.2	26.5	4.5	100.0	99
Port Loko	20.6	28.5	47.3	3.6	100.0	269
Tonkolili	32.5	22.2	42.8	2.4	100.0	299
Bo	67.3	18.6	12.2	2.0	100.0	155
Bonthe	51.3	4.6	22.0	22.1	100.0	28
Moyamba	39.7	1.5	55.8	3.1	100.0	121
Pujehun	27.9	8.9	60.7	2.5	100.0	122
Western Rural	54.1	9.1	31.9	4.9	100.0	63
Western Urban	23.4	21.5	45.3	9.8	100.0	423
Marital status						
Never married	29.4	22.2	43.5	4.9	100.0	1,230
Married or living together	34.9	20.5	40.1	4.5	100.0	1,181
Divorced/separated/widowed	30.7	22.7	40.3	6.3	100.0	59
Number of living children						
0	29.8	20.6	44.2	5.4	100.0	1,184
1-2	30.5	22.7	41.7	5.1	100.0	610
3-4	39.0	21.3	36.4	3.3	100.0	371
5+	35.7	21.9	39.2	3.2	100.0	306
Employment						
Employed for cash	32.8	24.7	37.0	5.5	100.0	1,113
Employed not for cash	33.3	18.4	43.2	5.1	100.0	789
Not employed	29.0	18.7	49.5	2.8	100.0	566

Continued…

Table 17.16.2—*Continued*

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
Education						
No education	31.4	22.4	40.4	5.8	100.0	908
Primary	36.5	22.2	38.0	3.3	100.0	336
Secondary or higher	31.4	20.4	43.9	4.4	100.0	1,226
Wealth quintile						
Lowest	35.6	20.1	40.7	3.6	100.0	444
Second	30.1	20.1	44.2	5.5	100.0	415
Middle	33.0	24.2	38.3	4.5	100.0	431
Fourth	33.0	18.3	45.8	2.9	100.0	500
Highest	29.7	23.4	40.4	6.5	100.0	680
Total 15-49	32.1	21.4	41.8	4.7	100.0	2,470
50-59	35.1	16.8	39.7	8.4	100.0	235
Total 15-59	32.3	21.0	41.6	5.1	100.0	2,705

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Men can report more than one source from which they sought help. Total includes 4 men with missing information on religion, 4 men with missing information on ethnic group, and 3 men with missing information on employment.

Table 17.17 shows the sources of help among women and men who ever experienced physical or sexual violence and sought help. Women and men both are most likely to seek help from their own families (76 percent and 70 percent respectively). Women are also likely to seek help from their in-laws (39 percent) although this is not a common source of help for men (12 percent). Neighbours are a source of help for men and women alike (14 percent) while men are more likely than women to seek help from friends (24 percent versus 14 percent). Women are less likely than men to seek assistance from the police (4 percent versus 7 percent).

Table 17.17 Sources for help to stop the violence

Percentage of women and 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 women and men reported, Sierra Leone 2013

	Type of violence experienced			
Person	Physical only	Sexual only	Physical and sexual	Total
	WOMEN			
Own family	75.7	*	78.7	75.9
Husband/partner's family	39.8	*	37.6	39.2
Husband/partner	2.0	*	0.9	1.7
Boyfriend	0.4	*	1.4	0.6
Friend	14.3	*	8.0	13.5
Neighbour	13.8	*	14.1	13.7
Religious leader	1.3	*	3.9	1.7
Doctor/medical personnel	0.1	*	1.0	0.3
Police	2.3	*	11.6	3.9
Lawyer	0.1	*	0.0	0.1
Social work organisation	0.4	*	1.6	0.7
Other	4.5	*	11.6	5.7
Number of women who have experienced violence and sought help	1,307	17	282	1,607
	MEN			
Own family	69.7	*	77.2	70.4
Wife/partner's family	12.7	*	10.1	12.2
Wife/partner	1.2	*	1.8	1.8
Girlfriend	0.9	*	0.0	0.8
Friend	23.7	*	21.7	23.8
Neighbour	14.6	*	11.5	14.0
Religious leader	3.7	*	5.4	4.5
Doctor/medical personnel	0.2	*	2.0	0.4
Police	7.4	*	4.4	6.9
Lawyer	0.1	*	0.0	0.1
Social work organisation	0.2	*	0.0	0.1
Other	3.6	*	4.8	3.7
Number of men who have experienced violence and sought help	688	12	92	792

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

FEMALE GENITAL CUTTING 18

Key Findings

- Female circumcision is more prevalent in rural areas (94 percent) than in urban areas (81 percent).
- Among circumcised women, 40 percent reported that they were circumcised between ages 10-14. Seventeen percent of circumcised women reported undergoing circumcision between ages 1-4, and an additional 13 percent between ages 5-9.
- Across all age categories, a greater percentage of women than men express the belief that their religion requires circumcision.
- The proportion of women and men who believe that female circumcision should be discontinued increases as the level of education increases.

Female genital cutting (FGC), also known as female circumcision or female genital mutilation (FGM), is practiced by many ethnic groups throughout Sierra Leone as well as in other West African countries. In Sierra Leone, many people regard FGC as an accepted practice and one that is important to curb sexual appetite and prepare women for marriage. Acceptability of FGC continues despite its violation of women's rights and potential for causing serious medical complications and harm to women's reproductive health.

The 2013 SLDHS collected information on FGC in Sierra Leone from all women age 15-49. The topics include knowledge of FGC, prevalence, age at circumcision, and attitudes towards FGC. Men age 15-59 were also asked about their own knowledge of FGC and attitudes towards the practice.

18.1 Knowledge and Prevalence of Female Genital Cutting

Table 18.1 presents the findings on knowledge of female circumcision among women and men age 15-49: 100 percent of women and 99 percent of men have heard of this practice. There are no marked variations in knowledge by age, religion, residence, region, district, education, and wealth quintile.

As to the prevalence of this practice, Table 18.2 shows that 90 percent of women have undergone some form of circumcision: 75 percent had some flesh cut and removed, 9 percent were sewn closed, and 1 percent were cut without any skin removal. In 15 percent of the cases, women were not able to provide details as to what type of circumcision they had.

Female circumcision is more prevalent in rural areas (94 percent) than in urban areas (81 percent). FGC is highest in the Northern region (96 percent) and lowest in the Western region (76 percent). By age, female circumcision is more prevalent among the older generations than the younger ones. For example, Table 18.2 indicates that among women age 15-19, 74 percent have been circumcised, whereas among women age 30 or older more than 95 percent of women have been circumcised.

Table 18.1 Knowledge of female circumcision

Percentage of women age 15-49 and men age 15-59 who have heard of female circumcision, according to background characteristics, Sierra Leone 2013

Background characteristic	Women		Men	
	Have heard of female circumcision	Number of respondents	Have heard of female circumcision	Number of respondents
Age				
15-19	99.7	3,878	96.5	1,475
20-24	99.7	2,683	99.2	1,007
25-29	99.9	2,843	99.1	1,017
30-34	99.8	2,287	99.5	804
35-39	99.9	2,260	99.5	961
40-44	99.9	1,362	99.0	690
45-49	99.8	1,344	99.0	629
Residence				
Urban	99.8	5,933	98.2	2,508
Rural	99.8	10,725	98.9	4,073
Region				
Eastern	99.9	3,614	99.0	1,442
Northern	99.9	6,292	98.4	2,300
Southern	99.7	3,514	99.3	1,414
Western	99.7	3,238	97.9	1,425
Education				
No education	99.8	9,293	98.8	2,651
Primary	99.8	2,331	97.9	825
Secondary or higher	99.8	5,034	98.7	3,106
Wealth quintile				
Lowest	99.9	3,089	98.8	1,218
Second	99.9	3,046	99.1	1,175
Middle	99.8	3,140	98.6	1,195
Fourth	99.6	3,388	98.6	1,183
Highest	99.8	3,994	98.2	1,811
Total 15-49	99.8	16,658	98.6	6,582
50-59	na	na	99.4	680
Total 15-59	na	na	98.7	7,262

Analysis by religion shows that Muslim women are more likely to be circumcised (93 percent) relative to women of other religions. There is a negative association between female circumcision and education and wealth quintiles. As education or wealth increases, the percentage of women circumcised decreases.

Table 18.2 Prevalence of female circumcision

Percentage of women age 15-49 circumcised, and percent distribution of circumcised women by type of circumcision according to background characteristics, Sierra Leone 2013

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision				Total	Number of circumcised women
			Cut, no flesh removed	Cut, flesh removed	Sewn closed	Don't know/ missing		
Age								
15-19	74.3	3,878	0.5	74.8	10.1	14.6	100.0	2,881
20-24	87.5	2,683	0.6	76.5	8.9	13.9	100.0	2,349
25-29	93.2	2,843	0.4	77.4	8.8	13.5	100.0	2,651
30-34	95.8	2,287	0.4	74.8	8.3	16.5	100.0	2,191
35-39	97.5	2,260	0.7	74.3	9.3	15.8	100.0	2,204
40-44	97.4	1,362	0.4	71.8	9.6	18.2	100.0	1,327
45-49	97.8	1,344	0.5	75.0	7.2	17.4	100.0	1,315
Religion								
Christian	77.9	3,527	0.5	72.0	11.6	15.9	100.0	2,747
Islam	92.7	13,032	0.5	75.9	8.4	15.2	100.0	12,077
Other	(95.8)	41	(3.0)	(73.0)	(10.0)	(14.0)	100.0	39
None	*	12	*	*	*	*	100.0	12
Residence								
Urban	80.9	5,933	0.4	74.9	9.4	15.2	100.0	4,798
Rural	94.3	10,725	0.5	75.3	8.8	15.4	100.0	10,119
Region								
Eastern	91.3	3,614	0.5	71.2	6.7	21.6	100.0	3,299
Northern	96.3	6,292	0.4	76.8	6.9	15.8	100.0	6,056
Southern	88.6	3,514	0.6	78.3	12.3	8.8	100.0	3,114
Western	75.6	3,238	0.6	72.5	12.9	14.0	100.0	2,448
District								
Kailahun	92.6	984	0.4	85.4	13.4	0.8	100.0	912
Kenema	92.0	1,651	0.1	58.3	0.9	40.7	100.0	1,518
Kono	88.8	979	1.3	78.9	9.8	10.0	100.0	869
Bombali	96.1	1,377	0.1	52.3	0.7	46.9	100.0	1,324
Kambia	97.1	738	1.0	83.2	8.8	7.0	100.0	717
Koinadugu	95.8	719	0.6	74.8	5.5	19.1	100.0	689
Port Loko	96.0	1,994	0.6	83.7	11.9	3.8	100.0	1,915
Tonkolili	96.5	1,464	0.1	88.3	5.7	5.9	100.0	1,412
Bo	89.3	1,398	0.0	80.5	2.2	17.4	100.0	1,248
Bonthe	84.5	678	0.2	72.1	25.3	2.4	100.0	573
Moyamba	90.1	843	2.2	66.8	26.2	4.9	100.0	759
Pujehun	89.6	595	0.1	96.5	2.3	1.0	100.0	534
Western Area Rural	83.4	528	0.6	77.4	5.4	16.6	100.0	441
Western Area Urban	74.1	2,710	0.6	71.5	14.6	13.4	100.0	2,007
Education								
No education	96.9	9,293	0.5	74.3	8.8	16.4	100.0	9,002
Primary	87.3	2,331	0.5	78.8	8.8	11.9	100.0	2,035
Secondary or higher	77.1	5,034	0.4	75.4	9.5	14.7	100.0	3,880
Wealth quintile								
Lowest	94.8	3,089	0.4	72.2	9.5	17.9	100.0	2,928
Second	94.5	3,046	0.5	74.4	9.2	15.9	100.0	2,879
Middle	94.9	3,140	0.5	75.9	8.9	14.8	100.0	2,979
Fourth	90.3	3,388	0.6	79.0	7.5	12.8	100.0	3,058
Highest	76.9	3,994	0.5	74.3	9.9	15.3	100.0	3,074
Total	89.6	16,658	0.5	75.2	9.0	15.3	100.0	14,917

Note: Total includes 46 women with information missing on religion. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

18.2 AGE AT CIRCUMCISION

Table 18.3 shows the age at which women were circumcised, by background characteristics. It is important to realise that many women were circumcised at a very young age and, therefore, cannot recall how old they were at the time of circumcision. Thus, the data should be viewed as providing an estimate of the age at circumcision.

Among circumcised women, 40 percent reported that they were circumcised between ages 10-14. Seventeen percent of circumcised women reported undergoing the procedure during childhood, between ages 1-4, and an additional 13 percent were circumcised between ages 5-9. The results also show variations in age at circumcision by region, religion, educational attainment, and wealth quintiles.

By residence, the majority of rural and urban women who were circumcised reported being circumcised between ages 10-14 (41 percent and 38 percent respectively). Across all four regions, the majority of women were circumcised between ages 10-14. However, it is important to note that in the Northern region more than one in five women (21 percent) were circumcised before age 5, and in the Southern region 33 percent of women were circumcised at age 15 older. With regard to education, regardless of educational attainment the majority of circumcised women were circumcised at age 10 or older.

Table 18.3 Age at circumcision

Percent distribution of circumcised women age 15-49 by age at circumcision according to background characteristics, Sierra Leone 2013

Background characteristic	Age at circumcision					Total	Number of circumcised women
	<5[1]	5-9	10-14	15+	Don't know/ missing		
Age							
15-19	15.3	16.8	44.3	19.2	4.4	100.0	2,881
20-24	16.4	12.8	39.6	25.6	5.6	100.0	2,349
25-29	16.5	11.5	40.9	24.0	7.1	100.0	2,651
30-34	18.1	13.1	40.0	20.8	7.9	100.0	2,191
35-39	16.1	11.8	39.8	23.2	9.2	100.0	2,204
40-44	17.6	10.8	36.2	26.9	8.4	100.0	1,327
45-49	16.8	10.9	35.7	27.5	9.2	100.0	1,315
Religion							
Christian	14.4	10.8	41.5	26.6	6.7	100.0	2,747
Islam	17.1	13.4	39.9	22.5	7.2	100.0	12,077
Other	6.4	16.3	40.1	35.5	1.8	100.0	39
None	55.5	0.0	31.9	12.6	0.0	100.0	12
Missing	8.4	15.4	41.2	28.4	6.5	100.0	42
Residence							
Urban	15.3	14.8	38.2	25.8	6.0	100.0	4,798
Rural	17.2	12.0	41.2	22.1	7.6	100.0	10,119
Region							
Eastern	14.9	11.7	38.7	28.8	5.8	100.0	3,299
Northern	21.3	15.3	40.8	14.4	8.2	100.0	6,056
Southern	11.9	6.3	41.4	33.1	7.4	100.0	3,114
Western	12.8	16.9	39.1	25.5	5.6	100.0	2,448
District							
Kailahun	9.6	11.3	45.4	29.7	4.0	100.0	912
Kenema	17.5	12.2	34.3	31.2	4.9	100.0	1,518
Kono	16.2	11.3	39.4	23.8	9.3	100.0	869
Bombali	33.8	8.4	32.3	17.4	8.2	100.0	1,324
Kambia	17.9	17.2	42.4	16.5	6.0	100.0	717
Koinadugu	8.5	17.5	42.7	18.5	12.9	100.0	689
Port Loko	25.9	14.2	42.3	12.3	5.2	100.0	1,915
Tonkolili	11.4	21.3	45.1	11.2	11.0	100.0	1,412
Bo	9.7	4.5	43.2	29.3	13.3	100.0	1,248
Bonthe	21.3	1.0	45.8	30.1	1.7	100.0	573
Moyamba	6.6	13.9	45.2	29.2	5.1	100.0	759
Pujehun	14.3	5.2	27.1	50.7	2.6	100.0	534
Western Area Rural	7.2	12.5	53.1	23.6	3.7	100.0	441
Western Area Urban	14.0	17.9	36.0	26.0	6.1	100.0	2,007
Education							
No education	18.4	12.6	39.5	20.7	8.8	100.0	9,002
Primary	13.4	12.2	42.7	25.1	6.5	100.0	2,035
Secondary or higher	13.8	14.0	40.5	28.5	3.3	100.0	3,880
Wealth quintile							
Lowest	15.0	11.2	41.8	25.4	6.5	100.0	2,928
Second	16.6	13.1	40.6	21.1	8.6	100.0	2,879
Middle	18.6	11.6	40.5	20.8	8.5	100.0	2,979
Fourth	18.5	12.0	39.8	22.0	7.6	100.0	3,058
Highest	14.1	16.3	38.4	27.2	4.1	100.0	3,074
Total	16.5	12.9	40.2	23.3	7.1	100.0	14,917

[1] Includes women who reported they were circumcised during infancy but did not provide a specific age.

18.3 RELIGIOUS ATTITUDES TOWARDS PRACTICE OF FGC

The 2013 SLDHS included questions for both female and male respondents on the perceived religious requirement of female circumcision. This information helps explain the context in which FGC occurs, with roots in the religious beliefs of respondents. Table 18.4 shows the percentage of women and men age 15-49 who have heard about female circumcision by their opinion on whether their religion requires female circumcision, by background characteristics. The data show that more than half (56 percent) of women and 47 percent of men believe that their religion requires female circumcision.

Table 18.4 Opinions of women and men about whether circumcision is required by religion

Percentage of women age 15-49 and men age 15-59 who have heard of female circumcision, by opinion on whether their religion requires female circumcision, according to background characteristics, Sierra Leone 2013

	Women					Men				
Background characteristic	Required	Not required	Don't know/ missing	Total	Number of respondents	Required	Not required	Don't know/ missing	Total	Number of respondents
Female circumcision status										
Circumcised	58.8	30.6	10.6	100.0	14,917	na	na	na	na	na
Not circumcised	27.6	55.0	17.4	100.0	1,703	na	na	na	na	na
Age										
15-19	50.4	34.7	15.0	100.0	3,868	39.7	39.4	20.9	100.0	1,423
20-24	52.9	35.0	12.1	100.0	2,676	46.3	43.1	10.6	100.0	999
25-29	54.8	34.4	10.8	100.0	2,840	47.9	41.4	10.7	100.0	1,008
30-34	59.1	31.2	9.7	100.0	2,282	48.1	40.4	11.5	100.0	800
35-39	59.2	31.0	9.8	100.0	2,257	50.9	39.8	9.4	100.0	956
40-44	59.5	30.9	9.5	100.0	1,361	50.7	40.7	8.7	100.0	683
45-49	61.6	30.6	7.8	100.0	1,342	52.1	37.6	10.3	100.0	623
Religion										
Christian	34.9	54.0	11.1	100.0	3,517	33.3	54.8	11.9	100.0	1,293
Islam	61.1	27.5	11.4	100.0	13,010	50.3	36.9	12.7	100.0	5,172
Other	(63.6)	(16.5)	(19.9)	100.0	41	*	*	*	100.0	16
None	*	*	*	100.0	12	*	*	*	100.0	4
Residence										
Urban	44.9	42.6	12.5	100.0	5,918	41.0	45.9	13.1	100.0	2,464
Rural	61.5	27.8	10.7	100.0	10,708	50.7	37.1	12.3	100.0	4,028
Region										
Eastern	67.6	22.5	10.0	100.0	3,609	45.5	35.7	18.7	100.0	1,428
Northern	62.4	28.4	9.2	100.0	6,286	54.1	32.8	13.2	100.0	2,263
Southern	49.1	35.7	15.2	100.0	3,502	44.3	46.9	8.8	100.0	1,404
Western	35.9	51.2	12.9	100.0	3,229	39.8	51.2	9.0	100.0	1,396
District										
Kailahun	53.1	37.7	9.2	100.0	984	56.8	34.9	8.3	100.0	367
Kenema	80.8	9.5	9.8	100.0	1,649	45.5	28.2	26.3	100.0	715
Kono	59.8	29.0	11.1	100.0	976	33.7	52.2	14.1	100.0	347
Bombali	58.9	25.2	15.9	100.0	1,377	60.8	20.7	18.5	100.0	491
Kambia	60.4	33.0	6.6	100.0	735	38.3	48.4	13.3	100.0	270
Koinadugu	86.3	7.2	6.5	100.0	718	30.3	60.7	9.0	100.0	249
Port Loko	61.3	30.5	8.2	100.0	1,994	59.0	28.4	12.6	100.0	676
Tonkolili	56.5	36.6	6.9	100.0	1,462	60.2	28.8	11.1	100.0	577
Bo	41.4	31.9	26.7	100.0	1,395	61.5	27.8	10.7	100.0	533
Bonthe	47.2	38.4	14.4	100.0	676	13.7	77.1	9.2	100.0	283
Moyamba	43.2	52.4	4.5	100.0	840	56.2	36.3	7.5	100.0	360
Pujehun	78.1	17.7	4.2	100.0	591	23.1	70.5	6.4	100.0	228
Western Area Rural	59.9	26.2	13.8	100.0	527	41.4	52.1	6.4	100.0	230
Western Area Urban	31.2	56.1	12.7	100.0	2,702	39.5	51.0	9.5	100.0	1,166
Education										
No education	61.4	27.4	11.2	100.0	9,277	50.9	37.3	11.9	100.0	2,619
Primary	58.1	30.6	11.3	100.0	2,327	46.5	38.0	15.4	100.0	808
Secondary or higher	43.8	44.6	11.6	100.0	5,022	43.8	43.8	12.4	100.0	3,065
Wealth quintile										
Lowest	62.6	27.1	10.3	100.0	3,087	46.6	40.2	13.2	100.0	1,203
Second	63.2	25.6	11.2	100.0	3,042	53.7	34.5	11.8	100.0	1,165
Middle	61.9	27.3	10.8	100.0	3,135	52.5	34.5	13.0	100.0	1,178
Fourth	55.1	33.6	11.3	100.0	3,375	44.3	41.9	13.8	100.0	1,166
Highest	39.7	47.5	12.8	100.0	3,988	41.0	47.4	11.6	100.0	1,780
Total 15-49	55.6	33.1	11.4	100.0	16,626	47.0	40.4	12.6	100.0	6,491
50-59	na	na	na	na	na	53.1	35.4	11.5	100.0	676
Total 15-59	na	na	na	na	na	47.6	40.0	12.5	100.0	7,167

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 6 women with information missing on female circumcision status and 46 women and 6 men with information missing on religion.
na = not applicable

By age group, the percentage of men and women who believe that their religion requires female circumcision increases from the youngest age group to the oldest, both for women and men (Table. 18.4). Across all age groups, a greater percentage of women than men express the belief that circumcision is required by their religion.

By circumcision status, results indicate that 59 percent of circumcised women believe that their religion requires FGC compared with 28 percent of uncircumcised women. By residence, rural women and men are more likely to believe that female circumcision is a religious requirement compared with urban women and men.

Also, as the level of education increases, a lower percentage of women and men regard female circumcision as a religious requirement. Likewise, as wealth status increases, a lower percentage of women and men consider female circumcision to be a religious requirement.

18.4 Attitudes towards Continued Practice of FGC

Women and men who had heard of female circumcision were asked whether they thought that female circumcision should be continued. As Table 18.5 shows, 69 percent of women age 15-49 and 46 percent of men age 15-49 who had heard of female circumcision believe that the practice should be continued, while 23 percent of women and 40 percent men think the practice should be discontinued. This pattern, in which a greater percentage of men than women oppose FGC, is also seen in many other parts of West Africa (Yoder et al., 2004).

There is little variation in attitudes towards circumcision by men's age. The only exception is among older men (age 30 or older), who are more likely to believe that circumcision should be continued. The majority of women, regardless of age, believe that female circumcision should be continued. The proportion of women who believe that circumcision should be continued increases with women's age. For example, 59 percent of women age 15-19 believe that female circumcision should be continued, whereas 81 percent of women age 45-49 believe that the practice should be continued.

As education level increases, the proportion of women and men who believe that female circumcision should be discontinued also increases. For instance, only 13 percent of women with no education believe that female circumcision should be discontinued, whereas 41 percent of women with secondary or higher education believe that it should be discontinued. By wealth quintile, there is little variation in the proportion of men who think the practice should be continued. In contrast, results for women show that as wealth quintile increases the proportion of women who believe that the practice should be continued decreases.

Table 18.5 Opinions of women and men about whether the practice of circumcision should continue

Percent distribution of women age 15-49 and men age 15-59 who have heard of female circumcision by their opinion on whether the practice of circumcision should be continued, by background characteristics, Sierra Leone 2013

	Women					Men				
Background characteristic	Continued	Not continued	Don't know/ missing/depends	Total	Number of respondents	Continued	Not continued	Don't know/ missing/depends	Total	Number of respondents
Female circumcision status										
Circumcised	73.4	19.1	7.4	100.0	14,917	na	na	na	na	na
Not circumcised	32.1	54.3	13.6	100.0	1,703	na	na	na	na	na
Age										
15-19	58.6	30.0	11.4	100.0	3,868	42.6	40.3	17.1	100.0	1,423
20-24	62.6	29.4	8.0	100.0	2,676	46.0	44.0	10.0	100.0	999
25-29	68.9	23.2	7.8	100.0	2,840	43.8	42.2	14.0	100.0	1,008
30-34	74.6	18.8	6.6	100.0	2,282	46.1	41.1	12.7	100.0	800
35-39	76.5	16.6	6.9	100.0	2,257	48.5	37.9	13.6	100.0	956
40-44	79.7	14.3	6.0	100.0	1,361	50.2	38.9	10.9	100.0	683
45-49	80.8	13.1	6.1	100.0	1,342	52.0	35.7	12.3	100.0	623
Religion										
Christian	49.2	41.3	9.5	100.0	3,517	36.1	50.4	13.6	100.0	1,293
Islam	74.5	17.8	7.7	100.0	13,010	48.8	38.0	13.2	100.0	5,172
Other	(79.5)	(11.6)	(8.9)	100.0	41	*	*	*	100.0	16
None	*	*	*	100.0	12	*	*	*	100.0	4
Residence										
Urban	56.4	35.0	8.6	100.0	5,918	43.9	43.2	12.9	100.0	2,464
Rural	76.2	15.9	7.8	100.0	10,708	47.8	38.6	13.6	100.0	4,028
Region										
Eastern	76.3	17.7	5.9	100.0	3,609	49.8	40.0	10.2	100.0	1,428
Northern	73.7	18.2	8.1	100.0	6,286	57.8	32.7	9.5	100.0	2,263
Southern	74.1	16.0	9.9	100.0	3,502	32.9	45.8	21.4	100.0	1,404
Western	46.9	44.7	8.5	100.0	3,229	37.5	47.6	14.8	100.0	1,396
District										
Kailahun	75.1	19.5	5.4	100.0	984	49.8	46.8	3.3	100.0	367
Kenema	85.4	9.2	5.3	100.0	1,649	55.5	32.7	11.9	100.0	715
Kono	62.1	30.3	7.6	100.0	976	38.1	47.8	14.1	100.0	347
Bombali	72.1	16.5	11.3	100.0	1,377	58.1	24.7	17.3	100.0	491
Kambia	73.5	22.1	4.4	100.0	735	47.5	48.9	3.6	100.0	270
Koinadugu	82.8	11.1	6.1	100.0	718	53.7	37.2	9.1	100.0	249
Port Loko	70.1	24.5	5.4	100.0	1,994	56.9	35.0	8.1	100.0	676
Tonkolili	75.9	12.5	11.6	100.0	1,462	65.3	27.4	7.3	100.0	577
Bo	67.9	13.9	18.2	100.0	1,395	35.6	26.2	38.2	100.0	533
Bonthe	77.1	18.7	4.2	100.0	676	15.9	73.0	11.0	100.0	283
Moyamba	72.0	24.2	3.7	100.0	840	37.1	51.5	11.4	100.0	360
Pujehun	88.3	5.8	5.9	100.0	591	40.9	48.5	10.6	100.0	228
Western Area Rural	55.5	34.8	9.7	100.0	527	36.5	47.2	16.3	100.0	230
Western Area Urban	45.2	46.6	8.3	100.0	2,702	37.8	47.7	14.5	100.0	1,166
Education										
No education	79.6	13.4	7.0	100.0	9,277	52.0	34.5	13.5	100.0	2,619
Primary	70.6	20.5	8.9	100.0	2,327	42.7	42.3	15.0	100.0	808
Secondary or higher	49.2	41.0	9.8	100.0	5,022	42.3	44.8	12.8	100.0	3,065
Wealth quintile										
Lowest	80.6	12.7	6.7	100.0	3,087	49.8	38.5	11.7	100.0	1,203
Second	75.6	15.6	8.8	100.0	3,042	51.4	35.4	13.3	100.0	1,165
Middle	76.6	16.2	7.2	100.0	3,135	47.9	36.3	15.8	100.0	1,178
Fourth	68.0	23.1	9.0	100.0	3,375	42.6	44.5	12.9	100.0	1,166
Highest	50.6	40.8	8.6	100.0	3,988	41.9	44.8	13.2	100.0	1,780
Total 15-49	69.2	22.7	8.1	100.0	16,626	46.3	40.3	13.4	100.0	6,491
50-59	na	na	na	na	na	51.9	32.1	16.0	100.0	676
Total 15-59	na	na	na	na	na	46.8	39.6	13.6	100.0	7,167

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. Total includes 6 women with information missing on female circumcision status and 46 women and 6 men with information missing on religion.
na = not applicable

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SAMPLE DESIGN

Appendix A

A.1 OBJECTIVES OF THE SURVEY

The 2013 Sierra Leone Demographic and Health Survey (SLDHS) is the second population and health survey that Sierra Leone has conducted. Based on a nationally representative sample of 13,006 households and 16,500 completed interviews of women, the main objectives of the 2013 SLDHS were 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 towards HIV/AIDS and other sexually transmitted infections (STI); and prevalence of HIV/AIDS. All women age 15-49 who slept in the selected households the night before the survey were eligible for the survey. The survey results are representative for the country as a whole, for the urban and rural areas separately, for each of the four geographical regions, and for each of the 14 administrative districts.

Apart from the women's survey, a survey among men was conducted in one of every two households selected for the women's survey. All men age 15-59 who slept in the households selected for the men's survey were interviewed with the Man's Questionnaire. All eligible men age 15-59 and all eligible women age 15-49 in the households selected for men's survey were eligible for HIV testing.

A.2 SAMPLING FRAME

Administratively, Sierra Leone is divided into four geographical regions. Each region is subdivided into districts, each district into chiefdoms, and each chiefdom into sections. In total, there are 14 districts, 149 chiefdoms, and 1320 sections. In addition to these administrative units, during the 2004 Sierra Leone Population and Housing Census (SLPHC 2004), each section was subdivided into convenient area units called Enumeration Areas (EAs). An electronic file of a complete list of all EAs is available. The list contains census information on household, population, urban-rural specification, and administrative belongings for every EA. The census EA was used as the primary sampling unit (PSU), also called cluster, for the 2013 SLDHS. The samples of the 2013 SLDHS were selected from the frame of PSUs provided by Statistics Sierra Leone (SSL). The frame excluded the population living in collective housing units, such as hotels, hospitals, work camps, prisons, and the like. Table A.1 below gives the distribution of residential households, by districts and by urban-rural residence. In Sierra Leone, 36 percent of the households are in urban areas, according to the sampling frame.

Table A.1 Distribution of residential households by district and type of residence

	Residential households			Percentage distribution	
District	Urban	Rural	Total	Urban	District
Kailahun	9,353	55,573	64,926	14.4	7.9
Kenema	30,783	57,773	88,556	34.8	10.8
Kono	19,642	39,184	58,826	33.4	7.2
Bombali	15,503	46,408	61,911	25.0	7.6
Kambia	6,793	30,346	37,139	18.3	4.5
Koinadugu	3,714	39,986	43,700	8.5	5.3
Port Loko	10,552	55,038	65,590	16.1	8.0
Tonkolili	9,058	43,803	52,861	17.1	6.4
Bo	28,932	46,868	75,800	38.2	9.2
Bonthe	3,701	21,784	25,485	14.5	3.1
Moyamba	3,857	41,366	45,223	8.5	5.5
Pujehun	3,712	31,927	35,639	10.4	4.3
Western Area Rural	17,617	12,443	30,060	58.6	3.7
Western Area Urban	134,138		134,138	100.0	16.4
Sierra Leone	297,355	522,499	819,854	36.3	100.0

*Sampling frame from the 2004 Population and housing census.

In total, there are 9,671 EAs in Sierra Leone. Table A.2 gives the distribution of EAs and their average size in number of households by district and by urban-rural residence. There are 2,903 EAs located in urban areas and 6,768 EAs located in rural areas. On average, a census EA has 102 households in the urban areas and 77 households in the rural areas, with an overall average of 85 households per EA.

Table A.2 Population EAs and their average size in number of households by district and by type of residence

	Residential households			Average EA size		
District	Urban	Rural	Total	Urban	Rural	Total
Kailahun	86	618	704	109	90	92
Kenema	312	691	1003	99	84	88
Kono	109	496	605	180	79	97
Bombali	166	644	810	93	72	76
Kambia	84	422	506	81	72	73
Koinadugu	41	468	509	91	85	86
Port Loko	124	767	891	85	72	74
Tonkolili	122	703	825	74	62	64
Bo	251	586	837	115	80	91
Bonthe	53	310	363	70	70	70
Moyamba	67	549	616	58	75	73
Pujehun	49	428	477	76	75	75
Western Area Rural	90	86	176	196	145	171
Western Area Urban	1,349		1,349	99		99
Sierra Leone	2,903	6,768	9,671	102	77	85

*Sampling frame from the 2004 Population and housing census.

A.3 SAMPLE ALLOCATION AND SAMPLE SELECTION

The sample for the 2013 SLDHS was a stratified sample selected in two stages from the 2004 census frame. Stratification was achieved by separating each district into urban and rural areas. The West Urban Area has only urban areas. In total, 27 sampling strata had been constructed. Samples had been selected independently in each stratum, by a two-stage selection process. By sorting the sampling frame according to administrative orders and by using a probability proportional to size selection at the first stage's sampling, an implicit stratification and proportional allocation would have been achieved at each of the administrative levels.

The sample allocation took the precision consideration at domain level into account. The DHS surveys in the other countries show that in order to get a reasonable precision for most of the DHS indicators at domain level, at least 800 completed interviews of women age 15-49 are needed for each study domain. This would require at least about 800 households selected for each of the 14 districts. With a decision to interview 30 households per each cluster, Table A.3 below shows the detailed sample allocation clusters and households by district and by residence type.

Table A.3 Sample allocation of EAs and households by district and by type of residence

	Number of clusters allocated			Number of households allocated		
District	Urban	Rural	Total	Urban	Rural	Total
Kailahun	7	25	32	210	750	960
Kenema	15	18	33	450	540	990
Kono	13	18	31	390	540	930
Bombali	11	22	33	330	660	990
Kambia	7	22	29	210	660	870
Koinadugu	4	26	30	120	780	900
Port Loko	8	25	33	240	750	990
Tonkolili	7	24	31	210	720	930
Bo	16	17	33	480	510	990
Bonthe	6	21	27	180	630	810
Moyamba	4	25	29	120	750	870
Pujehun	5	24	29	150	720	870
Western Area Rural	18	10	28	540	300	840
Western Area Urban	37		37	1,110		1,110
Sierra Leon	158	277	435	4,740	8,310	13,050

In the first stage of selection, 435 EAs were selected with probability proportional to size (PPS) with the size of the EA being the number of residential households residing in the EA according to the 2004 population census. Before the main survey, a household listing operation was carried out in all of the selected EAs, and the resulting lists of households served as the sampling frame for the selection of households in the second stage. Some of the selected EAs were large in size. To minimise the task of household listing, the selected EAs with more than 200 households were segmented, and only one segment was selected for the survey with probability proportional to the segment size. Household listing was conducted only in the selected segment. Therefore, a 2013 SLDHS cluster is either an EA or a segment of an EA.

A.4 SELECTION PROBABILITY AND SAMPLING WEIGHT

Due to the non-proportional allocation of the sample to the different districts and to their urban-rural areas, sampling weights are required for any analysis using 2013 SLDHS data to ensure the actual representativeness of the survey results at the national as well as district level. Because the 2013 SLDHS sample was 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 cluster in stratum h
P_{2hi}: second-stage sampling probability within the ith cluster (household selection)

Let a_h be the number of clusters selected in stratum h, M_{hi} the number of households according to the sampling frame in the ith cluster, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the ith cluster in the 2013 SLDHS 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 with the total number of households in the EA and i in stratum h if the EA is segmented; otherwise $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in 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 two stages of selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The design weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1/P_{hi}$$

Next, the design weight is adjusted for household non-response and individual non-response to get the sampling weights for households and for women and men respectively. Non-response is adjusted at the

sampling stratum level. For the household sampling weight, the household design weight is multiplied by the inverse of the household response rate, by stratum. For the women's individual sampling weight, the household sampling weight is multiplied by the inverse of the women's individual response rate, by stratum. For the men's individual sampling weight, the household sampling weight for the male sub-sample is multiplied by the inverse of the men's individual response rate, by stratum. After adjusting for non-response, the sampling weights are normalised to get the final standard weights that appear in the data files. The normalisation process is done to obtain a total number of unweighted cases equal to the total number of weighted cases at the national level, for the total number of households, women, and men separately. Normalisation is done by multiplying the sampling weight by the estimated sampling fraction obtained from the survey for the household weight, the individual woman's weight, and the individual man's weight. The normalised weights are relative weights that are valid for estimating means, proportions, ratios, and rates, but they are not valid for estimating population totals or pooled data. The sampling weights for HIV testing are calculated in a similar way, but the normalisation of the HIV weights is different. The individual HIV testing weights are normalised at the national level for women and men together so that HIV prevalence estimates calculated for women and men together are valid.

A.5 SURVEY RESULTS

Tables A.4 and A.5 present the results of the sample implementation for women and men, respectively. Tables A.6 to A8 show HIV testing coverage among men and women, respectively, according to social, demographic, and sexual behaviour characteristics.

Table A.4 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), Sierra Leone 2013

	Residence		Region				District														
Result	Urban	Rural	Eastern	Northern	Southern	Western	Kailahun	Kenema	Kono	Bombali	Kambia	Koina-dugu	Port Loko	Tonkolili	Bo	Bonthe	Mo-yamba	Pujehun	Western Area Rural	Western Area Urban	Total
Selected households																					
Completed (C)	96.4	97.5	97.1	97.2	97.4	96.3	96.2	98.2	96.9	95.4	98.5	98.0	97.5	96.9	98.6	94.9	97.4	98.4	97.4	95.5	97.1
Household present but no competent respondent at home (HP)	0.6	0.3	0.2	0.4	0.2	0.7	0.4	0.0	0.2	0.9	0.3	0.1	0.7	0.1	0.0	0.6	0.2	0.0	0.6	0.8	0.4
Postponed (P)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.2	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.4	0.1
Dwelling not found (DNF)	0.4	0.2	0.2	0.1	0.4	0.5	0.2	0.2	0.1	0.0	0.1	0.2	0.0	0.3	0.0	0.7	0.5	0.3	0.1	0.8	0.3
Household absent (HA)	1.1	1.3	1.3	1.6	1.0	0.6	1.9	1.0	0.9	3.6	0.5	1.1	0.3	2.3	0.8	1.9	0.5	0.9	0.4	0.8	1.2
Dwelling vacant/address not a dwelling (DV)	0.8	0.2	0.3	0.4	0.4	0.9	0.0	0.5	0.4	0.0	0.5	0.4	1.0	0.2	0.2	0.5	0.8	0.0	0.6	1.1	0.5
Dwelling destroyed (DD)	0.3	0.4	0.6	0.1	0.5	0.2	0.7	0.1	1.1	0.0	0.0	0.1	0.2	0.2	0.1	1.2	0.6	0.2	0.5	0.0	0.3
Other (O)	0.2	0.1	0.2	0.1	0.1	0.5	0.4	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	4,739	8,267	2,853	4,668	3,534	1,951	950	982	921	989	870	900	987	922	990	804	870	870	840	1,111	13,006
Household response rate (HRR)[1]	98.8	99.5	99.5	99.4	99.3	98.4	99.2	99.8	99.6	99.1	99.5	99.7	99.2	99.6	99.7	98.5	99.3	99.7	99.0	98.0	99.3
Eligible women																					
Completed (EWC)	96.8	97.5	97.3	98.5	96.9	95.0	97.5	97.5	97.0	98.7	99.4	98.3	98.9	96.8	98.6	95.2	95.5	97.4	97.3	93.2	97.2
Not at home (EWNH)	1.8	1.3	1.3	0.9	1.4	3.2	1.4	1.6	0.9	1.0	0.3	0.7	0.8	1.8	0.5	0.8	3.0	1.7	1.8	4.2	1.5
Postponed (EWP)	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Refused (EWR)	0.7	0.5	0.5	0.2	0.9	0.9	0.1	0.3	1.0	0.1	0.0	0.9	0.0	0.1	0.0	3.4	0.5	0.1	0.2	1.5	0.6
Partly completed (EWPC)	0.2	0.1	0.2	0.0	0.1	0.3	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.4	0.1
Incapacitated (EWI)	0.3	0.4	0.4	0.3	0.5	0.4	0.6	0.3	0.2	0.1	0.2	0.1	0.2	1.0	0.6	0.4	0.5	0.5	0.6	0.2	0.4
Other (EWO)	0.2	0.2	0.3	0.0	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.5	0.2	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,996	10,136	3,462	6,329	4,494	2,847	976	1,183	1,303	1,305	1,272	1,119	1,440	1,193	1,539	1,030	1,004	921	1,243	1,604	17,132
Eligible women response rate (EWRR)[2]	96.8	97.5	97.3	98.5	96.9	95.0	97.5	97.5	97.0	98.7	99.4	98.3	98.9	96.8	98.6	95.2	95.5	97.4	97.3	93.2	97.2
Overall women response rate (ORR)[3]	95.7	97.0	96.9	97.8	96.2	93.5	96.8	97.3	96.6	97.8	98.9	98.0	98.1	96.4	98.3	93.8	94.8	97.1	96.3	91.3	96.5

[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.5 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), Sierra Leone 2013

	Residence		Region				District														
Result	Urban	Rural	Eastern	Northern	Southern	Western	Kailahun	Kenema	Kono	Bombali	Kambia	Koina-dugu	Port Loko	Tonkolili	Bo	Bonthe	Mo-yamba	Pujehun	Western Area Rural	Western Area Urban	Total
Selected households																					
Completed (C)	96.2	97.8	97.2	97.3	97.5	96.3	96.4	98.2	97.0	96.6	98.4	98.2	96.6	97.2	99.0	94.5	97.7	98.4	96.9	95.9	97.2
Household present but no competent respondent at home (HP)	0.6	0.2	0.1	0.3	0.2	1.0	0.2	0.0	0.2	0.4	0.5	0.0	0.6	0.2	0.0	0.5	0.2	0.0	1.2	0.9	0.4
Postponed (P)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.3	0.0	0.1	0.0	0.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.5	0.4	0.1
Dwelling not found (DNF)	0.2	0.2	0.0	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.7	0.5	0.5	0.2	0.4	0.2
Household absent (HA)	1.3	1.1	1.2	1.5	0.9	0.8	2.1	1.0	0.4	3.0	0.2	1.6	0.4	2.2	0.4	2.2	0.2	0.9	0.2	1.3	1.2
Dwelling vacant/address not a dwelling (DV)	0.8	0.3	0.3	0.6	0.4	0.6	0.0	0.6	0.2	0.0	0.5	0.2	1.8	0.2	0.2	0.5	0.9	0.0	0.2	0.9	0.5
Dwelling destroyed (DD)	0.4	0.3	0.9	0.0	0.5	0.1	0.8	0.2	1.7	0.0	0.0	0.0	0.2	0.0	0.0	1.2	0.5	0.2	0.2	0.0	0.4
Other (O)	0.3	0.1	0.2	0.1	0.0	0.4	0.2	0.0	0.4	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,369	4,132	1,426	2,333	1,767	975	475	491	460	494	435	450	493	461	495	402	435	435	420	555	6,501
Household response rate (HRR)[1]	98.9	99.5	99.8	99.5	99.3	98.2	99.6	100.0	99.8	99.6	99.3	100.0	99.2	99.6	99.6	98.4	99.3	99.5	98.1	98.3	99.3
Eligible men																					
Completed (EMC)	95.0	97.3	97.0	97.1	97.4	92.5	97.3	96.9	96.9	95.4	98.3	97.6	97.1	97.2	98.1	95.5	98.0	97.8	93.6	91.6	96.4
Not at home (EMNH)	3.2	1.7	1.3	2.2	1.3	5.1	1.0	1.7	1.1	4.1	1.1	1.2	2.1	2.6	0.9	1.1	1.6	1.8	5.5	4.8	2.3
Postponed (EMP)	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.1
Refused (EMR)	0.7	0.5	0.6	0.2	0.8	0.7	0.2	0.7	0.8	0.4	0.0	0.4	0.4	0.0	0.5	2.7	0.0	0.3	0.3	1.0	0.5
Partly completed (EMPC)	0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.1
Incapacitated (EMI)	0.2	0.2	0.5	0.1	0.2	0.1	0.7	0.2	0.8	0.0	0.0	0.4	0.0	0.2	0.3	0.2	0.2	0.0	0.2	0.1	0.2
Other (EMO)	0.7	0.2	0.4	0.2	0.2	1.3	0.7	0.5	0.0	0.0	0.6	0.4	0.2	0.0	0.2	0.4	0.0	0.0	0.3	1.9	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	3,137	4,400	1,513	2,685	1,982	1,357	408	583	522	540	540	499	561	545	645	445	492	400	579	778	7,537
Eligible men response rate (EMRR)[2]	95.0	97.3	97.0	97.1	97.4	92.5	97.3	96.9	96.9	95.4	98.3	97.6	97.1	97.2	98.1	95.5	98.0	97.8	93.6	91.6	96.4
Overall men response rate (ORR)[3]	94.0	96.9	96.8	96.7	96.7	90.8	96.9	96.9	96.7	95.0	97.6	97.6	96.3	96.8	97.7	94.0	97.3	97.3	91.8	90.1	95.7

[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.6 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), Sierra Leone 2013

	Testing status					
Characteristic	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/missing[2]	Total	Number
Marital status						
Never married	94.9	3.8	0.4	0.9	100.0	2,323
Ever had sexual intercourse	94.7	4.0	0.3	1.0	100.0	1,611
Never had sexual intercourse	95.4	3.5	0.6	0.6	100.0	712
Married/living together	96.0	2.9	0.3	0.9	100.0	5,393
Divorced or separated	94.2	4.7	0.0	1.0	100.0	295
Widowed	95.4	3.7	0.5	0.5	100.0	217
Type of union						
In polygynous union	96.4	2.4	0.2	1.0	100.0	1,915
In non-polygynous union	95.8	3.1	0.3	0.8	100.0	3,387
Not currently in union	94.9	3.9	0.4	0.8	100.0	2,835
DK/missing	93.4	4.4	0.0	2.2	100.0	91
Ever had sexual intercourse						
Yes	95.6	3.2	0.3	0.9	100.0	7,505
No	95.4	3.5	0.6	0.6	100.0	713
Missing	70.0	20.0	10.0	0.0	100.0	10
Currently pregnant						
Pregnant	98.1	1.7	0.0	0.1	100.0	688
Not pregnant or not sure	95.4	3.4	0.3	0.9	100.0	7,540
Times slept away from home in past 12 months						
None	95.5	3.4	0.3	0.8	100.0	5,033
1-2	95.7	3.0	0.4	0.9	100.0	1,592
3-4	96.1	2.6	0.5	0.8	100.0	871
5+	95.2	3.4	0.0	1.4	100.0	727
Missing	80.0	20.0	0.0	0.0	100.0	5
Time away in past 12 months						
Away for more than 1 month	95.1	3.6	0.2	1.1	100.0	1,321
Away for less than 1 month	96.2	2.5	0.4	0.8	100.0	1,853
No away	95.5	3.4	0.3	0.8	100.0	5,033
Missing	85.7	9.5	0.0	4.8	100.0	21
Ethnic group						
Creole	91.4	7.1	1.4	0.0	100.0	70
Fullah	91.8	7.9	0.0	0.4	100.0	280
Kono	94.4	4.3	0.8	0.5	100.0	391
Limba	93.8	3.1	0.2	2.9	100.0	550
Loko	95.1	1.9	0.0	2.9	100.0	206
Mandingo	96.4	3.2	0.4	0.0	100.0	251
Mende	95.5	3.4	0.3	0.7	100.0	2,755
Sherbro	93.1	6.0	0.5	0.5	100.0	217
Temne	96.9	2.3	0.3	0.5	100.0	2,735
Koranho	97.7	1.3	0.3	0.7	100.0	304
Other Sierra Leone	94.3	3.3	0.5	1.9	100.0	423
Other Foreign	90.9	9.1	0.0	0.0	100.0	33
Missing	92.3	7.7	0.0	0.0	100.0	13
Religion						
Christian	94.8	3.3	0.4	1.5	100.0	1,829
Islam	95.8	3.2	0.3	0.7	100.0	6,352
Other	95.7	4.3	0.0	0.0	100.0	23
None	100.0	0.0	0.0	0.0	100.0	3
Missing	90.5	9.5	0.0	0.0	100.0	21
Total	95.6	3.2	0.3	0.9	100.0	8,228

[1] Includes all Dried Blood 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.7 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), Sierra Leone 2013

Characteristic	Testing status				Total	Number
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/missing[2]		
Marital status						
Never married	92.5	5.9	0.6	1.1	100.0	2,869
Ever had sexual intercourse	93.1	5.6	0.5	0.8	100.0	1,916
Never had sexual intercourse	91.2	6.3	0.7	1.8	100.0	953
Married/living together	93.1	5.6	0.4	0.8	100.0	4,127
Divorced or separated	88.6	7.7	0.9	2.7	100.0	220
Widowed	93.5	4.3	0.0	2.2	100.0	46
Type of union						
In polygynous union	93.8	5.0	0.4	0.8	100.0	923
In non-polygynous union	92.9	5.8	0.4	0.9	100.0	3,204
Not currently in union	92.2	6.0	0.6	1.2	100.0	3,135
Ever had sexual intercourse						
Yes	93.0	5.7	0.4	0.9	100.0	6,300
No	91.2	6.3	0.7	1.8	100.0	950
Missing	91.7	0.0	0.0	8.3	100.0	12
Male circumcision						
Circumcised	92.8	5.7	0.5	1.0	100.0	7,213
Not circumcised	83.9	9.7	0.0	6.5	100.0	31
DK/missing	83.3	11.1	0.0	5.6	100.0	18
Times slept away from home in past 12 months						
None	92.3	6.0	0.4	1.3	100.0	3,497
1-2	93.1	5.7	0.5	0.6	100.0	1,137
3-4	94.3	4.9	0.3	0.5	100.0	1,058
5+	92.4	5.9	0.6	1.0	100.0	1,564
Missing	83.3	0.0	0.0	16.7	100.0	6
Time away in past 12 months						
Away for more than 1 month	94.4	4.7	0.4	0.5	100.0	1,830
Away for less than 1 month	92.1	6.4	0.6	0.9	100.0	1,923
No away	92.3	6.0	0.4	1.3	100.0	3,497
Missing	75.0	8.3	0.0	16.7	100.0	12
Ethnic group						
Creole	88.5	7.7	1.3	2.6	100.0	78
Fullah	87.1	12.2	0.0	0.7	100.0	303
Kono	93.2	5.9	0.3	0.6	100.0	323
Limba	91.2	5.5	0.4	2.9	100.0	452
Loko	94.1	5.3	0.0	0.6	100.0	169
Mandingo	94.1	5.0	0.0	0.9	100.0	222
Mende	93.1	5.4	0.5	0.9	100.0	2,384
Sherbro	88.8	9.5	0.0	1.7	100.0	232
Temne	93.8	4.9	0.6	0.6	100.0	2,449
Koranho	97.6	2.4	0.0	0.0	100.0	246
Other Sierra Leone	89.1	7.8	0.6	2.5	100.0	357
Other Foreign	87.5	12.5	0.0	0.0	100.0	32
Missing	73.3	13.3	0.0	13.3	100.0	15
Religion						
Christian	91.0	7.2	0.3	1.5	100.0	1,494
Islam	93.3	5.4	0.5	0.9	100.0	5,742
Other	85.7	14.3	0.0	0.0	100.0	14
None	75.0	0.0	0.0	25.0	100.0	4
Missing	75.0	12.5	0.0	12.5	100.0	8
Total	92.7	5.8	0.5	1.0	100.0	7,262

[1] Includes all Dried Blood 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.8 Coverage of HIV testing by sexual behaviour characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Sierra Leone 2013

Sexual behaviour characteristic	Testing status				Total	Number
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/missing[2]		
Age at first sexual intercourse						
<16	95.8	3.0	0.2	1.0	100.0	3,368
16-17	96.0	3.0	0.3	0.7	100.0	2,055
18-19	95.1	3.6	0.4	0.9	100.0	950
20+	94.7	4.1	0.0	1.3	100.0	393
Missing	95.4	3.7	0.4	0.5	100.0	739
Multiple sexual partners and partner concurrency in past 12 months						
0	96.5	2.4	0.2	1.0	100.0	1,137
1	95.4	3.3	0.3	0.9	100.0	5,889
2+	96.5	3.3	0.0	0.2	100.0	457
Had concurrent partners[3]	95.2	4.4	0.0	0.3	100.0	294
None of the partners were concurrent	98.8	1.2	0.0	0.0	100.0	163
Missing	90.9	4.5	0.0	4.5	100.0	22
Condom use at last sexual intercourse in past 12 months						
Used condom	90.8	6.1	0.0	3.1	100.0	196
Did not use condom	95.6	3.3	0.3	0.8	100.0	6,137
No sexual intercourse in last 12 months	96.4	2.4	0.2	1.0	100.0	1,159
DK/missing	100.0	0.0	0.0	0.0	100.0	13
Number of lifetime partners						
1	93.9	4.3	0.3	1.4	100.0	2,394
2	95.8	2.8	0.3	1.1	100.0	2,213
3-4	97.0	2.5	0.2	0.3	100.0	2,031
5-9	97.1	2.5	0.5	0.0	100.0	647
10+	96.7	1.6	0.0	1.6	100.0	61
Missing	95.6	3.8	0.0	0.6	100.0	159
Prior HIV testing						
Ever tested	95.8	3.0	0.4	0.8	100.0	4,101
Received results	95.7	3.1	0.4	0.8	100.0	3,165
Did not received results	96.0	2.9	0.3	0.7	100.0	936
Never tested	95.5	3.4	0.1	1.0	100.0	3,342
Missing	91.9	4.8	0.0	3.2	100.0	62
Total	95.6	3.2	0.3	0.9	100.0	7,505

[1] Includes all Dried Blood 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.9 Coverage of HIV testing by sexual behaviour characteristics: Men

Percent distribution of interviewed men age 15-59 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Sierra Leone 2013

Sexual behaviour characteristic	Testing status				Total	Number
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/missing[2]		
Age at first sexual intercourse						
<16	93.1	5.2	0.6	1.1	100.0	1,567
16-17	93.6	5.4	0.3	0.6	100.0	1,731
18-19	93.3	5.4	0.4	0.8	100.0	1,572
20+	92.2	6.4	0.4	1.1	100.0	1,327
Missing	85.4	13.6	0.0	1.0	100.0	103
Multiple sexual partners and partner concurrency in past 12 months						
0	93.7	5.1	0.2	1.0	100.0	414
1	92.4	6.3	0.4	0.9	100.0	4,017
2+	94.1	4.6	0.6	0.8	100.0	1,866
Had concurrent partners[3]	94.0	4.8	0.5	0.7	100.0	1,221
None of the partners were concurrent	94.3	4.2	0.8	0.8	100.0	645
Missing	66.7	33.3	0.0	0.0	100.0	3
Condom use at last sexual intercourse in past 12 months						
Used condom	90.2	8.5	0.6	0.8	100.0	532
Did not use condom	93.3	5.4	0.4	0.9	100.0	5,333
No sexual intercourse in last 12 months	93.5	5.3	0.2	1.0	100.0	417
DK/missing	72.2	16.7	5.6	5.6	100.0	18
Paid for sexual intercourse in past 12 months						
Yes	90.3	8.9	0.4	0.4	100.0	257
Used condom	91.9	7.3	0.0	0.8	100.0	123
Did not use condom	88.8	10.4	0.7	0.0	100.0	134
No (No paid sexual intercourse/no sexual intercourse in last 12 months)	93.1	5.6	0.4	0.9	100.0	6,043
Number of lifetime partners						
1	90.3	8.0	0.3	1.4	100.0	691
2	94.7	4.6	0.4	0.4	100.0	856
3-4	92.5	5.9	0.6	1.0	100.0	1,449
5-9	94.3	4.8	0.2	0.7	100.0	1,326
10+	94.2	4.6	0.4	0.9	100.0	1,009
Missing	90.9	7.2	0.7	1.1	100.0	969
Prior HIV testing						
Ever tested	92.1	6.6	0.3	1.0	100.0	1,208
Received results	92.3	6.4	0.3	1.0	100.0	994
Did not received results	91.1	7.5	0.5	0.9	100.0	214
Never tested	93.2	5.5	0.5	0.9	100.0	5,091
Missing	100.0	0.0	0.0	0.0	100.0	1
Total	93.0	5.7	0.4	0.9	100.0	6,300

[1] Includes all Dried Blood 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: nonsampling errors and sampling errors. Nonsampling errors are the result 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 2013 Sierra Leone Demographic and Health Survey (SLDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, in contrast, can be evaluated statistically. The sample of respondents selected in the 2013 SLDHS is only one of many samples that could have been selected from the same population, using the same design and expected 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 formulae for calculating sampling errors. However, the 2013 SLDHS 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 2013 SLDHS is a SAS procedure. This procedure used the Taylor linearization method of 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:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

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 is the overall sampling fraction, which is so small that it is ignored.

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* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2013 SLDHS, there were 435 non-empty clusters. Hence, 435 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 435 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 434 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is calculated, 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. The relative standard error and confidence limits for the estimates are also calculated.

Sampling errors for the 2013 SLDHS are calculated for selected variables considered to be of primary interest for the women's survey and for the men's survey, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, for each of the four geographical regions, and for each of the 14 administrative districts. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.23 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) 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 and total abortion rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women age 40-49*) can be interpreted as follows: the overall average from the national sample is 5.946 and its standard error is 0.081. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 5.946±2×0.081. There is a high probability (95 percent) that the *true* average number of children ever born to all women age 40-49 is between 5.785 and 6.107.

For the total sample, the value of the DEFT, averaged over all variables, is 1.868. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.868 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Sierra Leone 2013

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women 15-49
No education	Proportion	All women 15-49
With secondary education or higher	Proportion	All women 15-49
Never married (in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Had first sex before age 18	Proportion	All women 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born to women 15-49	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 40-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
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 periodic abstinence	Proportion	Currently married women 15-49
Using public sector source	Proportion	Current users of modern methods
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49 with numeric response
Mother protected against tetanus	Proportion	Last births in last 5 years
Mother received medical assistance at delivery	Proportion	Births in last 5 years
Child had diarrhoea in the last 2 weeks	Proportion	Children under 5
Child treated with ORS packets	Proportion	Children under 5 with diarrhoea in last 2 weeks
Child consulted with medical personnel	Proportion	Children under 5 with diarrhoea in last 2 weeks
Child having health card, seen	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully immunized	Proportion	Children 12-23 months
Height-for-age (-2SD)	Proportion	Children under 5 who are measured
Weight-for-height (-2SD)	Proportion	Children under 5 who are measured
Weight-for-age (-2SD)	Proportion	Children under 5 who are measured
BMI <18.5	Proportion	Women 15-49 who were measured
Anaemia children	Proportion	Children 6-59 months who were tested
Anaemia women	Proportion	Women 15-49 who were tested
Has comprehensive knowledge of HIV/AIDS	Proportion	All women 15-49
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
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
Total fertility rate (last 3 years)	Rate	All women
Neonatal mortality rate (last 0-4 years)*	Rate	Number of births in last 5 years
Postneonatal mortality rate (last 0-4years)*	Rate	Number of births in last 5 years
Infant mortality rate (last 0-4years)*	Rate	Number of births in last 5 years
Child mortality rate (last 0-4years)*	Rate	Number of births in last 5 years
Under-five mortality rate (last 0-4years)*	Rate	Number of births in last 5 years
HIV prevalence	Proportion	All women 15-49 who were tested
	MEN	
Urban residence	Proportion	All men 15-49
No education	Proportion	All men 15-49
With secondary education or higher	Proportion	All men 15-49
Never married (in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Had first sex before age 18	Proportion	All men 20-49
Knowing any contraceptive method	Proportion	Currently married men 15-49
Knowing any modern contraceptive method	Proportion	Currently married men 15-49
Want no more children	Proportion	Currently married men 15-49
Want to delay at least 2 years	Proportion	Currently married men 15-49
Ideal number of children	Mean	All men 15-49 with numeric response
Has comprehensive knowledge of HIV	Proportion	All men 15-49
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
Accepting attitudes towards people with HIV	Proportion	All men who have heard of HIV/AIDS
HIV prevalence	Proportion	All men 15-59 who were tested
	MEN AND WOMEN	
HIV prevalence	Proportion	All women and men 15-49 who were tested

* Childhood mortality rates calculated for 0-4 years at the national level and 0-9 years for sub-national data.

Table B.2 Sampling errors: Total sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.356	0.016	16,658	16,658	4.354	0.045	0.324	0.388
No education	0.558	0.010	16,658	16,658	2.723	0.019	0.537	0.579
With secondary education or higher	0.302	0.011	16,658	16,658	2.956	0.035	0.281	0.323
Never married/in union	0.284	0.009	16,658	16,658	2.535	0.031	0.266	0.302
Currently married/in union	0.655	0.009	16,658	16,658	2.531	0.014	0.636	0.673
Had sex before age of 18	0.684	0.008	12,607	12,780	1.982	0.012	0.668	0.700
Currently pregnant	0.086	0.003	16,658	16,658	1.503	0.038	0.079	0.092
Children ever born	2.902	0.043	16,658	16,658	2.042	0.015	2.817	2.987
Children ever born to women over 40	5.946	0.081	2,686	2,707	1.559	0.014	5.785	6.107
Children surviving	2.297	0.028	16,658	16,658	1.711	0.012	2.241	2.352
Knowing any contraceptive method	0.948	0.005	10,754	10,903	2.331	0.005	0.938	0.958
Knowing any modern contraceptive method	0.937	0.006	10,754	10,903	2.602	0.006	0.925	0.950
Currently using any method	0.166	0.007	10,754	10,903	1.820	0.039	0.153	0.179
Currently using a modern method	0.156	0.006	10,754	10,903	1.779	0.040	0.144	0.168
Currently using pill	0.039	0.003	10,754	10,903	1.553	0.074	0.033	0.045
Currently using condoms	0.002	0.001	10,754	10,903	1.362	0.267	0.001	0.004
Currently using injectables	0.075	0.004	10,754	10,903	1.405	0.048	0.068	0.082
Currently using periodic abstinence	0.001	0.000	10,754	10,903	2.152	0.880	0.000	0.002
Using public sector source	0.684	0.014	3,446	3,339	1.767	0.020	0.656	0.712
Want no more children	0.263	0.006	10,754	10,903	1.464	0.024	0.251	0.275
Want to delay at least 2 years	0.345	0.008	10,754	10,903	1.749	0.023	0.329	0.361
Ideal number of children	4.900	0.046	15,886	15,835	2.679	0.009	4.807	4.992
Mothers protected against tetanus for last birth	0.900	0.006	8,524	8,647	1.782	0.006	0.889	0.912
Mothers received medical assistance at delivery	0.597	0.015	11,938	12,198	2.774	0.025	0.567	0.627
Had diarrhoea in the last 2 weeks	0.111	0.005	10,618	10,814	1.620	0.047	0.101	0.122
Treated with oral rehydration salts (ORS)	0.851	0.012	1,214	1,201	1.029	0.014	0.828	0.874
Taken to health provider	0.653	0.020	1,214	1,201	1.336	0.030	0.614	0.693
Having health card, seen	0.733	0.015	2,090	2,169	1.528	0.020	0.704	0.763
Received BCG vaccination	0.956	0.007	2,090	2,169	1.548	0.007	0.942	0.970
Received DPT vaccination (3 doses)	0.779	0.014	2,090	2,169	1.548	0.018	0.751	0.806
Received polio vaccination (3 doses)	0.778	0.014	2,090	2,169	1.591	0.018	0.750	0.807
Received measles vaccination	0.786	0.014	2,090	2,169	1.518	0.017	0.759	0.813
Fully immunised	0.680	0.016	2,090	2,169	1.616	0.024	0.647	0.713
Height-for-age (below -2SD)	0.379	0.010	5,048	5,094	1.392	0.026	0.359	0.398
Weight-for-height (below -2SD)	0.093	0.006	5,048	5,094	1.483	0.067	0.080	0.105
Weight-for-age (below -2SD)	0.164	0.007	5,048	5,094	1.261	0.042	0.151	0.178
Anaemia children	0.799	0.008	5,271	5,238	1.362	0.010	0.784	0.815
Anaemia women	0.448	0.012	7,849	7,870	2.191	0.027	0.423	0.472
BMI <18.5	0.091	0.005	7,162	7,137	1.493	0.056	0.081	0.101
Has comprehensive knowledge of HIV/AIDS	0.251	0.014	16,658	16,658	4.167	0.056	0.223	0.279
Had 2+ sexual partners in past 12 months	0.060	0.003	16,658	16,658	1.784	0.055	0.053	0.066
Condom use at last sex	0.047	0.009	997	992	1.422	0.204	0.028	0.066
Accepting attitudes towards people with HIV	0.066	0.006	15,666	15,643	2.949	0.088	0.055	0.078
Total fertility rate (3 years)	4.911	0.120	45,643	45,850	2.033	0.025	4.670	5.152
Neonatal mortality rate (last 0-4 years)	38.554	2.256	12,047	12,288	1.192	0.059	34.042	43.065
Postneonatal mortality rate (last 0-4 years)	53.822	2.718	12,130	12,391	1.213	0.051	48.385	59.258
Infant mortality rate (last 0-4 years)	92.375	3.615	12,113	12,365	1.249	0.039	85.146	99.605
Child mortality rate (last 0-4 years)	70.006	3.279	12,094	12,281	1.269	0.047	63.447	76.565
Under-five mortality rate (last 0-4 years)	155.915	4.806	12,451	12,726	1.293	0.031	146.303	165.527
HIV prevalence (women 15-49)	0.017	0.002	7,865	7,695	1.204	0.105	0.013	0.020
MEN								
Urban residence	0.381	0.019	6,577	6,582	3.131	0.049	0.344	0.419
No education	0.403	0.015	6,577	6,582	2.445	0.037	0.373	0.432
With secondary education or higher	0.472	0.015	6,577	6,582	2.449	0.032	0.442	0.502
Never married/in union	0.433	0.012	6,577	6,582	1.962	0.028	0.409	0.457
Currently married/in union	0.534	0.011	6,577	6,582	1.858	0.021	0.511	0.557
Had sex before age of 18	0.503	0.012	5,051	5,107	1.644	0.023	0.479	0.526
Knowing any contraceptive method	0.976	0.004	3,490	3,514	1.483	0.004	0.969	0.984
Knowing any modern contraceptive method	0.970	0.004	3,490	3,514	1.518	0.005	0.961	0.978
Want no more children	0.160	0.010	3,490	3,514	1.581	0.061	0.141	0.180
Want to delay at least 2 years	0.340	0.013	3,490	3,514	1.582	0.037	0.315	0.365
Ideal number of children	5.413	0.100	6,318	6,350	2.334	0.018	5.214	5.613
Has comprehensive knowledge of HIV/AIDS	0.313	0.014	6,577	6,582	2.410	0.044	0.285	0.340
Had 2+ sexual partners in past 12 months	0.253	0.011	6,577	6,582	1.962	0.042	0.232	0.274
Condom use at last sex	0.126	0.014	1,641	1,667	1.672	0.109	0.098	0.153
Accepting attitudes towards people with HIV	0.062	0.015	6,331	6,340	5.003	0.245	0.032	0.092
HIV prevalence (men 15-49)	0.013	0.002	6,103	6,261	1.558	0.176	0.008	0.017
HIV prevalence (men 15-59)	0.012	0.002	6,735	6,905	1.512	0.164	0.008	0.017
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.015	0.001	13,968	13,956	1.407	0.097	0.012	0.018

Table B.3 Sampling errors: Urban sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	6,773	5,933	na	0.000	1.000	1.000
No education	0.333	0.015	6,773	5,933	2.652	0.046	0.303	0.364
With secondary education or higher	0.542	0.017	6,773	5,933	2.869	0.032	0.508	0.577
Never married/in union	0.436	0.015	6,773	5,933	2.569	0.036	0.405	0.467
Currently married/in union	0.493	0.015	6,773	5,933	2.530	0.031	0.462	0.523
Had sex before age of 18	0.611	0.014	4,853	4,338	2.046	0.023	0.583	0.640
Currently pregnant	0.058	0.004	6,773	5,933	1.580	0.077	0.049	0.067
Children ever born	2.105	0.062	6,773	5,933	2.173	0.029	1.982	2.228
Children ever born to women over 40	5.067	0.152	923	803	1.774	0.030	4.762	5.372
Children surviving	1.727	0.043	6,773	5,933	1.864	0.025	1.641	1.812
Knowing any contraceptive method	0.981	0.004	3,460	2,923	1.713	0.004	0.973	0.989
Knowing any modern contraceptive method	0.973	0.008	3,460	2,923	2.853	0.008	0.958	0.989
Currently using any method	0.266	0.014	3,460	2,923	1.876	0.053	0.238	0.294
Currently using a modern method	0.247	0.013	3,460	2,923	1.779	0.053	0.221	0.273
Currently using pill	0.067	0.007	3,460	2,923	1.668	0.106	0.053	0.082
Currently using condoms	0.005	0.002	3,460	2,923	1.457	0.334	0.002	0.009
Currently using injectables	0.116	0.007	3,460	2,923	1.359	0.064	0.101	0.130
Currently using periodic abstinence	0.002	0.002	3,460	2,923	2.407	0.937	0.000	0.005
Using public sector source	0.562	0.019	2,025	1,803	1.713	0.034	0.524	0.600
Want no more children	0.294	0.012	3,460	2,923	1.484	0.039	0.271	0.317
Want to delay at least 2 years	0.341	0.012	3,460	2,923	1.471	0.035	0.318	0.365
Ideal number of children	4.047	0.059	6,541	5,730	2.855	0.015	3.928	4.166
Mothers protected against tetanus for last birth	0.905	0.010	2,818	2,387	1.843	0.011	0.885	0.926
Mothers received medical assistance at delivery	0.789	0.024	3,656	3,112	3.019	0.031	0.740	0.838
Had diarrhoea in the last 2 weeks	0.117	0.011	3,243	2,749	1.812	0.094	0.095	0.139
Treated with oral rehydration salts (ORS)	0.862	0.023	349	322	1.174	0.027	0.816	0.907
Taken to health provider	0.644	0.034	349	322	1.297	0.053	0.577	0.712
Having health card, seen	0.650	0.034	635	561	1.768	0.052	0.582	0.718
Received BCG vaccination	0.947	0.017	635	561	1.961	0.018	0.912	0.981
Received DPT vaccination (3 doses)	0.776	0.028	635	561	1.669	0.036	0.720	0.831
Received polio vaccination (3 doses)	0.772	0.029	635	561	1.756	0.038	0.714	0.831
Received measles vaccination	0.785	0.024	635	561	1.492	0.031	0.736	0.834
Fully immunised	0.656	0.034	635	561	1.801	0.052	0.588	0.725
Height-for-age (below -2SD)	0.296	0.017	1,493	1,170	1.313	0.057	0.263	0.330
Weight-for-height (below -2SD)	0.092	0.012	1,493	1,170	1.461	0.128	0.068	0.116
Weight-for-age (below -2SD)	0.121	0.013	1,493	1,170	1.410	0.104	0.096	0.146
Anaemia children	0.724	0.017	1,613	1,274	1.415	0.024	0.690	0.759
Anaemia women	0.368	0.024	3,205	2,823	2.787	0.064	0.320	0.415
BMI <18.5	0.072	0.008	2,991	2,642	1.763	0.115	0.055	0.089
Has comprehensive knowledge of HIV/AIDS	0.380	0.028	6,773	5,933	4.676	0.073	0.325	0.435
Had 2+ sexual partners in past 12 months	0.074	0.006	6,773	5,933	2.028	0.087	0.061	0.087
Condom use at last sex	0.055	0.015	503	440	1.485	0.275	0.025	0.085
Accepting attitudes towards people with HIV	0.057	0.006	6,653	5,841	2.256	0.113	0.044	0.069
Total fertility rate (3 years)	3.454	0.172	18,315	16,192	2.257	0.050	3.110	3.799
Neonatal mortality rate (last 0-9 years)	47.646	3.684	7,379	6,251	1.367	0.077	40.278	55.014
Postneonatal mortality rate (last 0-9 years)	57.000	5.070	7,413	6,276	1.728	0.089	46.860	67.140
Infant mortality rate (last 0-9 years)	104.646	6.609	7,402	6,272	1.683	0.063	91.427	117.864
Child mortality rate (last 0-9 years)	59.566	4.796	7,322	6,182	1.500	0.081	49.974	69.158
Under-five mortality rate (last 0-9 years)	157.978	7.825	7,473	6,318	1.627	0.050	142.328	173.629
HIV prevalence (women 15-49)	0.025	0.004	3,208	2,742	1.379	0.153	0.017	0.032
MEN								
Urban residence	1.000	0.000	2,755	2,508	na	0.000	1.000	1.000
No education	0.181	0.019	2,755	2,508	2.644	0.107	0.142	0.219
With secondary education or higher	0.728	0.020	2,755	2,508	2.400	0.028	0.687	0.769
Never married/in union	0.570	0.020	2,755	2,508	2.130	0.035	0.530	0.610
Currently married/in union	0.392	0.019	2,755	2,508	2.040	0.048	0.354	0.430
Had sex before age of 18	0.476	0.018	2,014	1,845	1.654	0.039	0.440	0.513
Knowing any contraceptive method	0.994	0.003	1,149	983	1.169	0.003	0.989	0.999
Knowing any modern contraceptive method	0.994	0.003	1,149	983	1.169	0.003	0.989	0.999
Want no more children	0.203	0.022	1,149	983	1.836	0.107	0.160	0.247
Want to delay at least 2 years	0.295	0.021	1,149	983	1.570	0.072	0.253	0.337
Ideal number of children	4.056	0.117	2,669	2,441	2.909	0.029	3.821	4.291
Has comprehensive knowledge of HIV/AIDS	0.365	0.022	2,755	2,508	2.360	0.059	0.321	0.408
Had 2+ sexual partners in past 12 months	0.290	0.020	2,755	2,508	2.258	0.067	0.251	0.329
Condom use at last sex	0.199	0.021	754	728	1.420	0.104	0.158	0.240
Accepting attitudes towards people with HIV	0.112	0.036	2,710	2,460	5.928	0.324	0.039	0.184
HIV prevalence (men 15-49)	0.020	0.005	2,538	2,379	1.887	0.260	0.010	0.031
HIV prevalence (men 15-59)	0.021	0.005	2,748	2,572	1.830	0.240	0.011	0.031
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.023	0.003	5,746	5,122	1.695	0.147	0.016	0.029

Table B.4 Sampling errors: Rural sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.000	0.000	9,885	10,725	na	na	0.000	0.000
No education	0.682	0.010	9,885	10,725	2.184	0.015	0.662	0.703
With secondary education or higher	0.169	0.008	9,885	10,725	2.157	0.048	0.153	0.186
Never married/in union	0.200	0.007	9,885	10,725	1.753	0.035	0.186	0.214
Currently married/in union	0.744	0.008	9,885	10,725	1.796	0.011	0.728	0.760
Had sex before age of 18	0.721	0.009	7,754	8,442	1.685	0.012	0.704	0.739
Currently pregnant	0.101	0.004	9,885	10,725	1.311	0.039	0.093	0.109
Children ever born	3.343	0.047	9,885	10,725	1.682	0.014	3.249	3.437
Children ever born to women over 40	6.317	0.082	1,763	1,904	1.322	0.013	6.152	6.482
Children surviving	2.612	0.030	9,885	10,725	1.411	0.012	2.551	2.673
Knowing any contraceptive method	0.936	0.007	7,294	7,980	2.316	0.007	0.923	0.949
Knowing any modern contraceptive method	0.924	0.008	7,294	7,980	2.513	0.008	0.909	0.940
Currently using any method	0.130	0.007	7,294	7,980	1.703	0.052	0.116	0.143
Currently using a modern method	0.123	0.007	7,294	7,980	1.739	0.054	0.109	0.136
Currently using pill	0.028	0.003	7,294	7,980	1.554	0.106	0.022	0.034
Currently using condoms	0.001	0.001	7,294	7,980	1.377	0.451	0.000	0.002
Currently using injectables	0.060	0.004	7,294	7,980	1.445	0.067	0.052	0.068
Currently using periodic abstinence	0.000	0.000	7,294	7,980	0.672	1.001	0.000	0.000
Using public sector source	0.828	0.015	1,421	1,536	1.534	0.019	0.798	0.859
Want no more children	0.252	0.007	7,294	7,980	1.423	0.029	0.237	0.266
Want to delay at least 2 years	0.346	0.010	7,294	7,980	1.804	0.029	0.326	0.366
Ideal number of children	5.383	0.050	9,345	10,106	2.120	0.009	5.283	5.483
Mothers protected against tetanus for last birth	0.898	0.007	5,706	6,260	1.744	0.008	0.884	0.912
Mothers received medical assistance at delivery	0.532	0.018	8,282	9,087	2.755	0.034	0.495	0.568
Had diarrhoea in the last 2 weeks	0.109	0.006	7,375	8,065	1.538	0.055	0.097	0.121
Treated with oral rehydration salts (ORS)	0.846	0.013	865	879	0.971	0.016	0.820	0.873
Taken to health provider	0.657	0.024	865	879	1.326	0.037	0.608	0.705
Having health card, seen	0.762	0.016	1,455	1,608	1.413	0.021	0.731	0.794
Received BCG vaccination	0.959	0.007	1,455	1,608	1.360	0.007	0.945	0.973
Received DPT vaccination (3 doses)	0.779	0.016	1,455	1,608	1.489	0.021	0.747	0.812
Received polio vaccination (3 doses)	0.781	0.016	1,455	1,608	1.516	0.021	0.748	0.813
Received measles vaccination	0.786	0.016	1,455	1,608	1.505	0.021	0.754	0.819
Fully immunised	0.689	0.019	1,455	1,608	1.529	0.027	0.651	0.726
Height-for-age (below -2SD)	0.403	0.012	3,555	3,924	1.391	0.029	0.379	0.427
Weight-for-height (below -2SD)	0.093	0.007	3,555	3,924	1.464	0.078	0.079	0.108
Weight-for-age (below -2SD)	0.177	0.008	3,555	3,924	1.204	0.045	0.161	0.193
Anaemia children	0.823	0.008	3,658	3,963	1.280	0.010	0.807	0.840
Anaemia women	0.492	0.012	4,644	5,047	1.595	0.024	0.469	0.516
BMI <18.5	0.102	0.006	4,171	4,495	1.351	0.062	0.089	0.114
Has comprehensive knowledge of HIV/AIDS	0.179	0.013	9,885	10,725	3.329	0.072	0.154	0.205
Had 2+ sexual partners in past 12 months	0.051	0.004	9,885	10,725	1.627	0.070	0.044	0.059
Condom use at last sex	0.040	0.012	494	552	1.378	0.304	0.016	0.064
Accepting attitudes towards people with HIV	0.072	0.008	9,013	9,801	3.102	0.117	0.055	0.089
Total fertility rate (3 years)	5.697	0.105	27,328	29,658	1.568	0.018	5.487	5.907
Neonatal mortality rate (last 0-9 years)	40.600	2.043	16,972	18,723	1.182	0.050	36.515	44.686
Postneonatal mortality rate (last 0-9 years)	71.151	3.066	17,076	18,853	1.364	0.043	65.019	77.282
Infant mortality rate (last 0-9 years)	111.751	3.808	17,049	18,816	1.355	0.034	104.134	119.368
Child mortality rate (last 0-9 years)	77.757	3.484	17,023	18,817	1.363	0.045	70.790	84.725
Under-five mortality rate (last 0-9 years)	180.819	5.299	17,231	19,016	1.504	0.029	170.220	191.418
HIV prevalence (women 15-49)	0.012	0.002	4,657	4,952	1.113	0.148	0.008	0.015
MEN								
Urban residence	0.000	0.000	3,822	4,073	na	na	0.000	0.000
No education	0.540	0.014	3,822	4,073	1.707	0.026	0.512	0.567
With secondary education or higher	0.314	0.013	3,822	4,073	1.733	0.041	0.288	0.340
Never married/in union	0.348	0.010	3,822	4,073	1.361	0.030	0.327	0.369
Currently married/in union	0.621	0.010	3,822	4,073	1.279	0.016	0.601	0.641
Had sex before age of 18	0.517	0.015	3,037	3,262	1.646	0.029	0.487	0.547
Knowing any contraceptive method	0.969	0.005	2,341	2,530	1.463	0.005	0.959	0.980
Knowing any modern contraceptive method	0.960	0.006	2,341	2,530	1.488	0.006	0.948	0.972
Want no more children	0.144	0.011	2,341	2,530	1.475	0.074	0.122	0.165
Want to delay at least 2 years	0.358	0.015	2,341	2,530	1.543	0.043	0.327	0.388
Ideal number of children	6.261	0.110	3,649	3,909	1.764	0.018	6.042	6.480
Has comprehensive knowledge of HIV/AIDS	0.281	0.018	3,822	4,073	2.447	0.063	0.245	0.316
Had 2+ sexual partners in past 12 months	0.231	0.011	3,822	4,073	1.600	0.047	0.209	0.252
Condom use at last sex	0.069	0.013	887	939	1.512	0.187	0.043	0.094
Accepting attitudes towards people with HIV	0.030	0.004	3,621	3,880	1.395	0.131	0.023	0.038
HIV prevalence (men 15-49)	0.008	0.002	3,565	3,881	1.070	0.201	0.005	0.011
HIV prevalence (men 15-59)	0.008	0.001	3,987	4,333	1.061	0.192	0.005	0.010
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.010	0.001	8,222	8,834	1.160	0.126	0.008	0.013

Table B.5 Sampling errors: Eastern sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.321	0.029	3,369	3,614	3.573	0.090	0.263	0.379
No education	0.607	0.018	3,369	3,614	2.164	0.030	0.571	0.643
With secondary education or higher	0.246	0.017	3,369	3,614	2.293	0.069	0.212	0.280
Never married/in union	0.232	0.015	3,369	3,614	2.040	0.064	0.202	0.261
Currently married/in union	0.708	0.015	3,369	3,614	1.902	0.021	0.678	0.738
Had sex before age of 18	0.692	0.017	2,596	2,860	1.837	0.024	0.658	0.725
Currently pregnant	0.090	0.006	3,369	3,614	1.293	0.071	0.077	0.103
Children ever born	3.314	0.086	3,369	3,614	1.786	0.026	3.142	3.487
Children ever born to women over 40	6.412	0.156	572	647	1.368	0.024	6.100	6.725
Children surviving	2.496	0.057	3,369	3,614	1.568	0.023	2.383	2.610
Knowing any contraceptive method	0.947	0.012	2,279	2,558	2.516	0.012	0.923	0.971
Knowing any modern contraceptive method	0.939	0.013	2,279	2,558	2.685	0.014	0.912	0.966
Currently using any method	0.173	0.012	2,279	2,558	1.469	0.067	0.150	0.197
Currently using a modern method	0.166	0.012	2,279	2,558	1.502	0.071	0.142	0.189
Currently using pill	0.067	0.008	2,279	2,558	1.487	0.117	0.051	0.082
Currently using condoms	0.003	0.002	2,279	2,558	1.450	0.522	0.000	0.007
Currently using injectables	0.067	0.006	2,279	2,558	1.202	0.094	0.055	0.080
Currently using periodic abstinence	0.000	0.000	2,279	2,558	na	na	0.000	0.000
Using public sector source	0.660	0.033	686	697	1.801	0.049	0.595	0.725
Want no more children	0.282	0.011	2,279	2,558	1.195	0.040	0.260	0.305
Want to delay at least 2 years	0.395	0.022	2,279	2,558	2.165	0.056	0.350	0.439
Ideal number of children	4.973	0.091	3,162	3,376	2.607	0.018	4.790	5.156
Mothers protected against tetanus for last birth	0.934	0.012	1,843	2,054	2.018	0.012	0.911	0.957
Mothers received medical assistance at delivery	0.770	0.026	2,606	2,958	2.548	0.034	0.718	0.821
Had diarrhoea in the last 2 weeks	0.093	0.009	2,270	2,566	1.375	0.100	0.075	0.112
Treated with oral rehydration salts (ORS)	0.847	0.027	250	240	0.997	0.032	0.792	0.901
Taken to health provider	0.760	0.038	250	240	1.162	0.050	0.684	0.836
Having health card, seen	0.820	0.024	485	566	1.422	0.030	0.771	0.868
Received BCG vaccination	0.981	0.009	485	566	1.437	0.009	0.964	0.998
Received DPT vaccination (3 doses)	0.842	0.022	485	566	1.358	0.026	0.798	0.886
Received polio vaccination (3 doses)	0.848	0.023	485	566	1.411	0.027	0.803	0.893
Received measles vaccination	0.844	0.025	485	566	1.546	0.030	0.794	0.894
Fully immunised	0.778	0.028	485	566	1.529	0.036	0.721	0.834
Height-for-age (below -2SD)	0.422	0.023	1,002	1,183	1.402	0.054	0.377	0.467
Weight-for-height (below -2SD)	0.067	0.011	1,002	1,183	1.416	0.163	0.045	0.089
Weight-for-age (below -2SD)	0.168	0.011	1,002	1,183	0.911	0.065	0.146	0.190
Anaemia children	0.807	0.014	1,077	1,243	1.169	0.018	0.778	0.836
Anaemia women	0.442	0.017	1,513	1,667	1.375	0.039	0.407	0.477
BMI <18.5	0.097	0.012	1,366	1,503	1.582	0.129	0.072	0.122
Has comprehensive knowledge of HIV/AIDS	0.203	0.023	3,369	3,614	3.349	0.115	0.156	0.249
Had 2+ sexual partners in past 12 months	0.059	0.006	3,369	3,614	1.479	0.101	0.047	0.071
Condom use at last sex	0.059	0.022	190	215	1.271	0.368	0.016	0.103
Accepting attitudes towards people with HIV	0.072	0.011	3,168	3,379	2.451	0.157	0.049	0.094
Total fertility rate (3 years)	5.453	0.206	9,170	9,933	1.418	0.038	5.041	5.866
Neonatal mortality rate (last 0-9 years)	43.562	3.116	5,348	6,109	1.115	0.072	37.330	49.794
Postneonatal mortality rate (last 0-9 years)	83.461	7.054	5,371	6,149	1.791	0.085	69.353	97.569
Infant mortality rate (last 0-9 years)	127.024	7.240	5,366	6,135	1.522	0.057	112.544	141.503
Child mortality rate (last 0-9 years)	83.340	5.668	5,415	6,194	1.242	0.068	72.005	94.676
Under-five mortality rate (last 0-9 years)	199.778	9.279	5,414	6,178	1.583	0.046	181.219	218.337
HIV prevalence (women 15-49)	0.017	0.004	1,533	1,613	1.304	0.255	0.008	0.025
MEN								
Urban residence	0.338	0.029	1,337	1,442	2.270	0.087	0.279	0.397
No education	0.437	0.024	1,337	1,442	1.784	0.055	0.388	0.485
With secondary education or higher	0.427	0.026	1,337	1,442	1.907	0.061	0.375	0.478
Never married/in union	0.383	0.017	1,337	1,442	1.313	0.046	0.348	0.418
Currently married/in union	0.587	0.016	1,337	1,442	1.194	0.027	0.555	0.620
Had sex before age of 18	0.527	0.022	1,065	1,163	1.458	0.042	0.482	0.572
Knowing any contraceptive method	0.967	0.010	764	847	1.605	0.011	0.946	0.988
Knowing any modern contraceptive method	0.958	0.011	764	847	1.504	0.011	0.937	0.980
Want no more children	0.185	0.022	764	847	1.553	0.118	0.141	0.229
Want to delay at least 2 years	0.370	0.022	764	847	1.273	0.060	0.326	0.415
Ideal number of children	5.191	0.111	1,304	1,401	1.583	0.021	4.969	5.414
Has comprehensive knowledge of HIV/AIDS	0.204	0.017	1,337	1,442	1.554	0.084	0.170	0.238
Had 2+ sexual partners in past 12 months	0.266	0.017	1,337	1,442	1.413	0.064	0.232	0.300
Condom use at last sex	0.086	0.020	329	384	1.294	0.233	0.046	0.127
Accepting attitudes towards people with HIV	0.066	0.009	1,292	1,381	1.375	0.144	0.047	0.085
HIV prevalence (men 15-49)	0.010	0.003	1,256	1,371	1.049	0.300	0.004	0.015
HIV prevalence (men 15-59)	0.009	0.003	1,379	1,509	1.031	0.285	0.004	0.015
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.014	0.003	2,789	2,984	1.284	0.208	0.008	0.019

Table B.6 Sampling errors: Northern sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.162	0.019	6,231	6,292	4.023	0.116	0.125	0.200
No education	0.630	0.017	6,231	6,292	2.732	0.027	0.596	0.663
With secondary education or higher	0.234	0.015	6,231	6,292	2.802	0.064	0.203	0.264
Never married/in union	0.245	0.011	6,231	6,292	2.025	0.045	0.223	0.267
Currently married/in union	0.699	0.012	6,231	6,292	2.114	0.018	0.675	0.724
Had sex before age of 18	0.737	0.011	4,714	4,789	1.689	0.015	0.715	0.758
Currently pregnant	0.095	0.005	6,231	6,292	1.285	0.050	0.086	0.105
Children ever born	3.048	0.061	6,231	6,292	1.755	0.020	2.927	3.169
Children ever born to women over 40	6.184	0.104	1,070	1,072	1.383	0.017	5.976	6.391
Children surviving	2.460	0.042	6,231	6,292	1.508	0.017	2.377	2.544
Knowing any contraceptive method	0.925	0.009	4,304	4,399	2.319	0.010	0.906	0.944
Knowing any modern contraceptive method	0.913	0.011	4,304	4,399	2.570	0.012	0.891	0.936
Currently using any method	0.123	0.010	4,304	4,399	1.958	0.080	0.103	0.142
Currently using a modern method	0.114	0.009	4,304	4,399	1.944	0.083	0.095	0.133
Currently using pill	0.011	0.002	4,304	4,399	1.191	0.170	0.007	0.015
Currently using condoms	0.001	0.001	4,304	4,399	1.216	0.568	0.000	0.002
Currently using injectables	0.061	0.006	4,304	4,399	1.602	0.096	0.049	0.073
Currently using periodic abstinence	0.000	0.000	4,304	4,399	0.475	1.002	0.000	0.000
Using public sector source	0.806	0.023	950	953	1.755	0.028	0.761	0.851
Want no more children	0.245	0.010	4,304	4,399	1.556	0.042	0.224	0.265
Want to delay at least 2 years	0.331	0.012	4,304	4,399	1.616	0.035	0.308	0.354
Ideal number of children	5.361	0.065	5,978	6,016	2.181	0.012	5.230	5.492
Mothers protected against tetanus for last birth	0.859	0.010	3,332	3,385	1.635	0.011	0.839	0.879
Mothers received medical assistance at delivery	0.415	0.025	4,677	4,749	2.916	0.060	0.365	0.465
Had diarrhoea in the last 2 weeks	0.135	0.009	4,231	4,286	1.575	0.066	0.117	0.152
Treated with oral rehydration salts (ORS)	0.822	0.019	623	577	1.051	0.023	0.785	0.859
Taken to health provider	0.628	0.031	623	577	1.405	0.050	0.565	0.690
Having health card, seen	0.728	0.023	849	858	1.494	0.032	0.682	0.774
Received BCG vaccination	0.944	0.010	849	858	1.317	0.011	0.924	0.965
Received DPT vaccination (3 doses)	0.723	0.024	849	858	1.544	0.033	0.676	0.771
Received polio vaccination (3 doses)	0.723	0.024	849	858	1.546	0.033	0.675	0.771
Received measles vaccination	0.734	0.022	849	858	1.448	0.030	0.690	0.779
Fully immunised	0.620	0.025	849	858	1.459	0.040	0.571	0.669
Height-for-age (below -2SD)	0.354	0.014	2,144	2,227	1.367	0.041	0.325	0.383
Weight-for-height (below -2SD)	0.108	0.010	2,144	2,227	1.506	0.096	0.088	0.129
Weight-for-age (below -2SD)	0.179	0.011	2,144	2,227	1.359	0.064	0.156	0.201
Anaemia children	0.834	0.011	2,204	2,214	1.355	0.013	0.813	0.856
Anaemia women	0.500	0.014	2,988	3,006	1.517	0.028	0.472	0.527
BMI <18.5	0.100	0.008	2,715	2,695	1.341	0.078	0.084	0.116
Has comprehensive knowledge of HIV/AIDS	0.221	0.019	6,231	6,292	3.551	0.085	0.184	0.258
Had 2+ sexual partners in past 12 months	0.039	0.004	6,231	6,292	1.761	0.111	0.030	0.048
Condom use at last sex	0.048	0.020	230	246	1.430	0.420	0.008	0.089
Accepting attitudes towards people with HIV	0.092	0.013	5,652	5,720	3.362	0.141	0.066	0.118
Total fertility rate (3 years)	5.191	0.153	17,104	17,270	1.827	0.029	4.886	5.497
Neonatal mortality rate (last 0-9 years)	35.676	2.715	9,622	9,870	1.265	0.076	30.247	41.106
Postneonatal mortality rate (last 0-9 years)	59.863	3.463	9,667	9,920	1.265	0.058	52.937	66.789
Infant mortality rate (last 0-9 years)	95.540	4.841	9,664	9,918	1.426	0.051	85.858	105.221
Child mortality rate (last 0-9 years)	77.249	4.943	9,598	9,875	1.486	0.064	67.364	87.134
Under-five mortality rate (last 0-9 years)	165.408	7.385	9,780	10,045	1.636	0.045	150.638	180.179
HIV prevalence (women 15-49)	0.014	0.002	2,990	2,914	1.030	0.160	0.009	0.018
MEN								
Urban residence	0.182	0.020	2,327	2,300	2.472	0.109	0.142	0.222
No education	0.481	0.022	2,327	2,300	2.077	0.045	0.438	0.525
With secondary education or higher	0.411	0.020	2,327	2,300	1.977	0.049	0.371	0.451
Never married/in union	0.408	0.016	2,327	2,300	1.569	0.039	0.376	0.440
Currently married/in union	0.565	0.016	2,327	2,300	1.515	0.028	0.534	0.596
Had sex before age of 18	0.473	0.020	1,778	1,784	1.718	0.043	0.433	0.514
Knowing any contraceptive method	0.970	0.007	1,270	1,300	1.370	0.007	0.957	0.983
Knowing any modern contraceptive method	0.964	0.007	1,270	1,300	1.338	0.007	0.951	0.978
Want no more children	0.115	0.013	1,270	1,300	1.424	0.111	0.090	0.141
Want to delay at least 2 years	0.379	0.024	1,270	1,300	1.741	0.063	0.331	0.426
Ideal number of children	6.610	0.168	2,233	2,214	1.935	0.025	6.274	6.946
Has comprehensive knowledge of HIV/AIDS	0.277	0.027	2,327	2,300	2.919	0.098	0.223	0.331
Had 2+ sexual partners in past 12 months	0.218	0.013	2,327	2,300	1.489	0.058	0.193	0.244
Condom use at last sex	0.081	0.019	503	502	1.586	0.238	0.043	0.120
Accepting attitudes towards people with HIV	0.028	0.006	2,209	2,198	1.627	0.206	0.016	0.039
HIV prevalence (men 15-49)	0.007	0.002	2,191	2,187	1.080	0.269	0.003	0.011
HIV prevalence (men 15-59)	0.008	0.002	2,457	2,446	1.063	0.246	0.004	0.011
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.011	0.002	5,181	5,101	1.120	0.148	0.008	0.014

Table B.7 Sampling errors: Southern sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.211	0.017	4,354	3,514	2.778	0.081	0.177	0.245
No education	0.621	0.015	4,354	3,514	2.086	0.025	0.591	0.652
With secondary education or higher	0.228	0.013	4,354	3,514	2.000	0.056	0.203	0.254
Never married/in union	0.250	0.012	4,354	3,514	1.804	0.047	0.226	0.274
Currently married/in union	0.693	0.013	4,354	3,514	1.914	0.019	0.666	0.720
Had sex before age of 18	0.693	0.014	3,287	2,710	1.705	0.020	0.666	0.721
Currently pregnant	0.094	0.008	4,354	3,514	1.704	0.080	0.079	0.109
Children ever born	3.162	0.083	4,354	3,514	1.970	0.026	2.996	3.329
Children ever born to women over 40	6.042	0.133	680	571	1.223	0.022	5.777	6.307
Children surviving	2.473	0.054	4,354	3,514	1.687	0.022	2.366	2.580
Knowing any contraceptive method	0.971	0.007	2,842	2,434	2.209	0.007	0.957	0.985
Knowing any modern contraceptive method	0.961	0.008	2,842	2,434	2.287	0.009	0.945	0.978
Currently using any method	0.172	0.011	2,842	2,434	1.605	0.066	0.150	0.195
Currently using a modern method	0.163	0.011	2,842	2,434	1.636	0.069	0.141	0.186
Currently using pill	0.043	0.006	2,842	2,434	1.625	0.144	0.031	0.055
Currently using condoms	0.001	0.001	2,842	2,434	1.136	0.560	0.000	0.003
Currently using injectables	0.081	0.007	2,842	2,434	1.403	0.089	0.066	0.095
Currently using periodic abstinence	0.000	0.000	2,842	2,434	0.761	1.003	0.000	0.001
Using public sector source	0.739	0.029	978	710	2.048	0.039	0.682	0.797
Want no more children	0.255	0.012	2,842	2,434	1.483	0.048	0.231	0.279
Want to delay at least 2 years	0.313	0.012	2,842	2,434	1.377	0.038	0.289	0.337
Ideal number of children	5.075	0.078	4,101	3,288	2.236	0.015	4.919	5.231
Mothers protected against tetanus for last birth	0.957	0.006	2,296	1,982	1.401	0.006	0.945	0.968
Mothers received medical assistance at delivery	0.640	0.026	3,313	2,892	2.627	0.040	0.588	0.691
Had diarrhoea in the last 2 weeks	0.082	0.008	2,945	2,574	1.622	0.102	0.065	0.099
Treated with oral rehydration salts (ORS)	0.899	0.019	229	212	0.985	0.021	0.861	0.936
Taken to health provider	0.653	0.034	229	212	1.068	0.051	0.586	0.720
Having health card, seen	0.777	0.024	512	444	1.297	0.031	0.730	0.825
Received BCG vaccination	0.967	0.012	512	444	1.597	0.013	0.942	0.992
Received DPT vaccination (3 doses)	0.864	0.020	512	444	1.330	0.023	0.823	0.904
Received polio vaccination (3 doses)	0.862	0.021	512	444	1.398	0.025	0.819	0.904
Received measles vaccination	0.828	0.024	512	444	1.463	0.029	0.779	0.876
Fully immunised	0.753	0.028	512	444	1.483	0.037	0.697	0.809
Height-for-age (below -2SD)	0.422	0.020	1,391	1,164	1.474	0.048	0.381	0.462
Weight-for-height (below -2SD)	0.092	0.011	1,391	1,164	1.333	0.116	0.070	0.113
Weight-for-age (below -2SD)	0.161	0.014	1,391	1,164	1.316	0.086	0.133	0.188
Anaemia children	0.768	0.017	1,437	1,197	1.468	0.022	0.734	0.802
Anaemia women	0.491	0.020	2,055	1,648	1.814	0.041	0.451	0.531
BMI <18.5	0.092	0.008	1,870	1,484	1.202	0.088	0.076	0.108
Has comprehensive knowledge of HIV/AIDS	0.199	0.015	4,354	3,514	2.539	0.077	0.168	0.230
Had 2+ sexual partners in past 12 months	0.088	0.007	4,354	3,514	1.738	0.085	0.073	0.103
Condom use at last sex	0.021	0.007	408	310	0.970	0.331	0.007	0.034
Accepting attitudes towards people with HIV	0.048	0.007	4,166	3,337	2.015	0.139	0.035	0.061
Total fertility rate (3 years)	5.367	0.182	11,922	9,686	1.583	0.034	5.002	5.732
Neonatal mortality rate (last 0-9 years)	44.928	3.610	6,770	5,903	1.247	0.080	37.709	52.147
Postneonatal mortality rate (last 0-9 years)	73.033	4.325	6,827	5,956	1.216	0.059	64.382	81.684
Infant mortality rate (last 0-9 years)	117.961	5.803	6,801	5,933	1.281	0.049	106.355	129.567
Child mortality rate (last 0-9 years)	64.535	5.052	6,773	5,905	1.446	0.078	54.432	74.639
Under-five mortality rate (last 0-9 years)	174.884	7.821	6,873	5,991	1.397	0.045	159.241	190.526
HIV prevalence (women 15-49)	0.015	0.003	2,050	1,649	1.088	0.193	0.009	0.021
MEN								
Urban residence	0.200	0.018	1,742	1,414	1.908	0.091	0.164	0.237
No education	0.513	0.020	1,742	1,414	1.670	0.039	0.473	0.553
With secondary education or higher	0.325	0.020	1,742	1,414	1.794	0.062	0.285	0.366
Never married/in union	0.368	0.017	1,742	1,414	1.455	0.046	0.335	0.402
Currently married/in union	0.593	0.016	1,742	1,414	1.348	0.027	0.562	0.625
Had sex before age of 18	0.504	0.024	1,345	1,100	1.793	0.049	0.455	0.553
Knowing any contraceptive method	0.985	0.006	1,003	839	1.517	0.006	0.973	0.997
Knowing any modern contraceptive method	0.974	0.010	1,003	839	1.941	0.010	0.954	0.993
Want no more children	0.181	0.020	1,003	839	1.607	0.108	0.142	0.221
Want to delay at least 2 years	0.305	0.021	1,003	839	1.414	0.068	0.264	0.346
Ideal number of children	5.533	0.135	1,649	1,343	1.737	0.024	5.263	5.804
Has comprehensive knowledge of HIV/AIDS	0.351	0.027	1,742	1,414	2.361	0.077	0.297	0.405
Had 2+ sexual partners in past 12 months	0.236	0.020	1,742	1,414	1.984	0.086	0.196	0.276
Condom use at last sex	0.116	0.024	439	334	1.545	0.205	0.068	0.163
Accepting attitudes towards people with HIV	0.023	0.004	1,670	1,353	1.196	0.192	0.014	0.031
HIV prevalence (men 15-49)	0.006	0.002	1,603	1,352	0.814	0.257	0.003	0.009
HIV prevalence (men 15-59)	0.006	0.002	1,770	1,503	0.857	0.256	0.003	0.010
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.011	0.002	3,653	3,001	1.047	0.163	0.008	0.015

Table B.8 Sampling errors: Western sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.929	0.014	2,704	3,238	2.832	0.015	0.901	0.957
No education	0.295	0.020	2,704	3,238	2.311	0.069	0.254	0.335
With secondary education or higher	0.578	0.025	2,704	3,238	2.605	0.043	0.529	0.628
Never married/in union	0.455	0.024	2,704	3,238	2.473	0.052	0.408	0.503
Currently married/in union	0.467	0.023	2,704	3,238	2.375	0.049	0.421	0.513
Had sex before age of 18	0.561	0.019	2,010	2,420	1.723	0.034	0.523	0.599
Currently pregnant	0.054	0.007	2,704	3,238	1.569	0.126	0.041	0.068
Children ever born	1.874	0.079	2,704	3,238	1.949	0.042	1.717	2.032
Children ever born to women over 40	4.478	0.208	364	416	1.613	0.047	4.061	4.894
Children surviving	1.565	0.055	2,704	3,238	1.659	0.035	1.455	1.674
Knowing any contraceptive method	0.980	0.007	1,329	1,512	1.693	0.007	0.966	0.993
Knowing any modern contraceptive method	0.966	0.014	1,329	1,512	2.880	0.015	0.937	0.995
Currently using any method	0.271	0.023	1,329	1,512	1.907	0.086	0.225	0.318
Currently using a modern method	0.250	0.022	1,329	1,512	1.833	0.087	0.207	0.294
Currently using pill	0.065	0.011	1,329	1,512	1.663	0.173	0.043	0.088
Currently using condoms	0.006	0.003	1,329	1,512	1.325	0.461	0.000	0.012
Currently using injectables	0.121	0.012	1,329	1,512	1.317	0.097	0.098	0.145
Currently using periodic abstinence	0.004	0.003	1,329	1,512	2.071	0.956	0.000	0.010
Using public sector source	0.543	0.025	832	979	1.473	0.047	0.492	0.594
Want no more children	0.298	0.018	1,329	1,512	1.442	0.061	0.261	0.334
Want to delay at least 2 years	0.352	0.018	1,329	1,512	1.397	0.052	0.315	0.388
Ideal number of children	3.760	0.085	2,645	3,156	2.781	0.023	3.589	3.930
Mothers protected against tetanus for last birth	0.866	0.017	1,053	1,226	1.638	0.020	0.832	0.901
Mothers received medical assistance at delivery	0.742	0.040	1,342	1,600	2.857	0.054	0.661	0.823
Had diarrhoea in the last 2 weeks	0.125	0.019	1,172	1,389	1.873	0.149	0.087	0.162
Treated with oral rehydration salts (ORS)	0.891	0.026	112	173	0.992	0.029	0.839	0.942
Taken to health provider	0.593	0.049	112	173	1.182	0.083	0.494	0.691
Having health card, seen	0.521	0.051	244	301	1.581	0.098	0.419	0.623
Received BCG vaccination	0.924	0.031	244	301	1.856	0.033	0.862	0.986
Received DPT vaccination (3 doses)	0.691	0.046	244	301	1.566	0.067	0.599	0.783
Received polio vaccination (3 doses)	0.683	0.048	244	301	1.634	0.071	0.586	0.780
Received measles vaccination	0.763	0.040	244	301	1.498	0.053	0.682	0.843
Fully immunised	0.562	0.056	244	301	1.755	0.099	0.450	0.673
Height-for-age (below -2SD)	0.289	0.028	511	520	1.281	0.098	0.233	0.346
Weight-for-height (below -2SD)	0.088	0.021	511	520	1.588	0.239	0.046	0.130
Weight-for-age (below -2SD)	0.104	0.021	511	520	1.500	0.204	0.061	0.146
Anaemia children	0.713	0.026	553	583	1.275	0.036	0.662	0.764
Anaemia women	0.307	0.038	1,293	1,550	2.971	0.124	0.230	0.383
BMI <18.5	0.066	0.013	1,211	1,455	1.772	0.192	0.040	0.091
Has comprehensive knowledge of HIV/AIDS	0.418	0.045	2,704	3,238	4.734	0.108	0.328	0.508
Had 2+ sexual partners in past 12 months	0.068	0.010	2,704	3,238	2.060	0.146	0.048	0.088
Condom use at last sex	0.068	0.027	169	221	1.386	0.396	0.014	0.122
Accepting attitudes towards people with HIV	0.034	0.007	2,680	3,207	1.906	0.195	0.021	0.048
Total fertility rate (3 years)	3.241	0.265	7,447	8,961	2.246	0.082	2.711	3.772
Neonatal mortality rate (last 0-9 years)	56.434	6.370	2,611	3,091	1.277	0.113	43.695	69.174
Postneonatal mortality rate (last 0-9 years)	50.363	5.931	2,624	3,104	1.277	0.118	38.501	62.225
Infant mortality rate (last 0-9 years)	106.798	9.951	2,620	3,103	1.507	0.093	86.895	126.700
Child mortality rate (last 0-9 years)	55.936	7.987	2,559	3,027	1.459	0.143	39.962	71.910
Under-five mortality rate (last 0-9 years)	156.760	11.605	2,637	3,120	1.444	0.074	133.549	179.970
HIV prevalence (women 15-49)	0.023	0.006	1,292	1,518	1.356	0.246	0.012	0.034
MEN								
Urban residence	0.926	0.015	1,171	1,425	1.914	0.016	0.896	0.955
No education	0.132	0.024	1,171	1,425	2.440	0.184	0.083	0.180
With secondary education or higher	0.761	0.028	1,171	1,425	2.263	0.037	0.705	0.818
Never married/in union	0.586	0.030	1,171	1,425	2.082	0.051	0.526	0.646
Currently married/in union	0.370	0.029	1,171	1,425	2.020	0.077	0.313	0.427
Had sex before age of 18	0.524	0.025	863	1,060	1.489	0.048	0.473	0.574
Knowing any contraceptive method	0.993	0.005	453	528	1.221	0.005	0.984	1.003
Knowing any modern contraceptive method	0.993	0.005	453	528	1.221	0.005	0.984	1.003
Want no more children	0.198	0.033	453	528	1.779	0.169	0.131	0.264
Want to delay at least 2 years	0.252	0.030	453	528	1.487	0.121	0.191	0.313
Ideal number of children	3.616	0.169	1,132	1,391	2.813	0.047	3.278	3.954
Has comprehensive knowledge of HIV/AIDS	0.442	0.031	1,171	1,425	2.144	0.071	0.379	0.504
Had 2+ sexual partners in past 12 months	0.314	0.030	1,171	1,425	2.225	0.096	0.253	0.374
Condom use at last sex	0.216	0.027	370	447	1.238	0.123	0.163	0.270
Accepting attitudes towards people with HIV	0.149	0.059	1,160	1,408	5.568	0.395	0.031	0.267
HIV prevalence (men 15-49)	0.031	0.009	1,053	1,351	1.772	0.307	0.012	0.050
HIV prevalence (men 15-59)	0.030	0.009	1,129	1,447	1.751	0.294	0.013	0.048
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.027	0.006	2,345	2,870	1.734	0.216	0.015	0.038

Table B.9 Sampling errors: Kailahun sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.158	0.049	952	984	4.132	0.312	0.059	0.257
No education	0.613	0.021	952	984	1.344	0.035	0.571	0.656
With secondary education or higher	0.200	0.018	952	984	1.386	0.090	0.164	0.236
Never married/in union	0.180	0.020	952	984	1.573	0.109	0.141	0.219
Currently married/in union	0.772	0.021	952	984	1.520	0.027	0.731	0.814
Had sex before age of 18	0.752	0.031	793	830	2.015	0.041	0.690	0.814
Currently pregnant	0.097	0.010	952	984	1.090	0.108	0.076	0.117
Children ever born	3.591	0.134	952	984	1.528	0.037	3.322	3.859
Children ever born to women over 40	6.363	0.283	183	195	1.378	0.045	5.796	6.930
Children surviving	2.714	0.098	952	984	1.495	0.036	2.518	2.909
Knowing any contraceptive method	0.963	0.012	717	760	1.738	0.013	0.938	0.987
Knowing any modern contraceptive method	0.959	0.012	717	760	1.672	0.013	0.935	0.984
Currently using any method	0.213	0.017	717	760	1.092	0.078	0.180	0.246
Currently using a modern method	0.211	0.017	717	760	1.103	0.080	0.177	0.244
Currently using pill	0.110	0.015	717	760	1.246	0.133	0.081	0.139
Currently using condoms	0.004	0.004	717	760	1.650	0.992	0.000	0.012
Currently using injectables	0.065	0.011	717	760	1.145	0.163	0.044	0.086
Currently using periodic abstinence	0.000	0.000	717	760	na	na	0.000	0.000
Using public sector source	0.791	0.043	206	217	1.513	0.054	0.705	0.877
Want no more children	0.296	0.027	717	760	1.589	0.092	0.242	0.350
Want to delay at least 2 years	0.417	0.038	717	760	2.051	0.091	0.342	0.493
Ideal number of children	5.085	0.107	913	951	1.679	0.021	4.871	5.299
Mothers protected against tetanus for last birth	0.980	0.007	563	602	1.118	0.007	0.967	0.993
Mothers received medical assistance at delivery	0.863	0.027	797	869	1.850	0.031	0.809	0.916
Had diarrhoea in the last 2 weeks	0.077	0.018	715	776	1.546	0.227	0.042	0.112
Treated with oral rehydration salts (ORS)	0.764	0.062	69	60	0.925	0.081	0.640	0.887
Taken to health provider	0.777	0.087	69	60	1.360	0.112	0.603	0.952
Having health card, seen	0.926	0.024	155	166	1.165	0.026	0.878	0.975
Received BCG vaccination	0.983	0.014	155	166	1.349	0.014	0.955	1.011
Received DPT vaccination (3 doses)	0.890	0.021	155	166	0.855	0.024	0.847	0.932
Received polio vaccination (3 doses)	0.912	0.024	155	166	1.068	0.026	0.864	0.960
Received measles vaccination	0.913	0.030	155	166	1.346	0.033	0.852	0.973
Fully immunised	0.847	0.027	155	166	0.952	0.032	0.793	0.902
Height-for-age (below -2SD)	0.407	0.037	358	381	1.370	0.092	0.332	0.482
Weight-for-height (below -2SD)	0.062	0.018	358	381	1.477	0.294	0.025	0.098
Weight-for-age (below -2SD)	0.197	0.019	358	381	0.930	0.096	0.159	0.234
Anaemia children	0.725	0.023	339	357	0.909	0.032	0.678	0.772
Anaemia women	0.412	0.033	430	454	1.388	0.079	0.347	0.478
BMI <18.5	0.111	0.021	382	404	1.317	0.189	0.069	0.153
Has comprehensive knowledge of HIV/AIDS	0.048	0.011	952	984	1.630	0.235	0.026	0.071
Had 2+ sexual partners in past 12 months	0.071	0.015	952	984	1.805	0.212	0.041	0.101
Condom use at last sex	0.000	0.000	61	70	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.157	0.026	873	912	2.121	0.167	0.104	0.209
Total fertility rate (3 years)	6.005	0.383	2,700	2,794	1.474	0.064	5.238	6.771
Neonatal mortality rate (last 0-9 years)	34.273	4.755	1,698	1,806	1.042	0.139	24.763	43.783
Postneonatal mortality rate (last 0-9 years)	75.834	14.151	1,708	1,820	1.978	0.187	47.532	104.136
Infant mortality rate (last 0-9 years)	110.107	13.197	1,700	1,809	1.622	0.120	83.713	136.501
Child mortality rate (last 0-9 years)	84.724	11.127	1,733	1,838	1.263	0.131	62.470	106.978
Under-five mortality rate (last 0-9 years)	185.503	18.117	1,714	1,823	1.735	0.098	149.269	221.736
HIV prevalence (women 15-49)	0.009	0.005	431	438	1.171	0.584	0.000	0.020
MEN								
Urban residence	0.129	0.058	351	371	3.175	0.447	0.014	0.244
No education	0.419	0.029	351	371	1.116	0.070	0.360	0.478
With secondary education or higher	0.401	0.031	351	371	1.164	0.076	0.340	0.462
Never married/in union	0.322	0.030	351	371	1.181	0.092	0.263	0.381
Currently married/in union	0.650	0.028	351	371	1.086	0.043	0.595	0.705
Had sex before age of 18	0.496	0.049	287	313	1.655	0.099	0.398	0.594
Knowing any contraceptive method	0.994	0.006	223	241	1.129	0.006	0.982	1.006
Knowing any modern contraceptive method	0.994	0.006	223	241	1.129	0.006	0.982	1.006
Want no more children	0.219	0.042	223	241	1.517	0.193	0.134	0.303
Want to delay at least 2 years	0.398	0.050	223	241	1.524	0.126	0.297	0.498
Ideal number of children	5.008	0.141	350	370	1.401	0.028	4.727	5.289
Has comprehensive knowledge of HIV/AIDS	0.294	0.035	351	371	1.419	0.118	0.225	0.363
Had 2+ sexual partners in past 12 months	0.202	0.021	351	371	0.965	0.102	0.161	0.244
Condom use at last sex	0.049	0.025	68	75	0.955	0.515	0.000	0.099
Accepting attitudes towards people with HIV	0.032	0.011	347	368	1.115	0.331	0.011	0.053
HIV prevalence (men 15-49)	0.010	0.005	320	352	0.932	0.527	0.000	0.020
HIV prevalence (men 15-59)	0.008	0.004	361	404	0.931	0.530	0.000	0.017
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.009	0.004	751	790	1.136	0.424	0.001	0.018

Table B.10 Sampling errors: Kenema sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.431	0.042	1,153	1,651	2.879	0.098	0.347	0.516
No education	0.591	0.031	1,153	1,651	2.168	0.053	0.528	0.654
With secondary education or higher	0.273	0.030	1,153	1,651	2.268	0.109	0.214	0.333
Never married/in union	0.223	0.025	1,153	1,651	1.996	0.110	0.174	0.272
Currently married/in union	0.703	0.025	1,153	1,651	1.857	0.036	0.653	0.753
Had sex before age of 18	0.648	0.025	933	1,352	1.622	0.039	0.597	0.699
Currently pregnant	0.092	0.011	1,153	1,651	1.323	0.123	0.069	0.114
Children ever born	3.309	0.133	1,153	1,651	1.619	0.040	3.042	3.575
Children ever born to women over 40	6.371	0.268	209	301	1.369	0.042	5.836	6.906
Children surviving	2.448	0.085	1,153	1,651	1.378	0.035	2.278	2.617
Knowing any contraceptive method	0.947	0.017	785	1,161	2.181	0.018	0.913	0.982
Knowing any modern contraceptive method	0.936	0.022	785	1,161	2.453	0.023	0.893	0.979
Currently using any method	0.172	0.018	785	1,161	1.350	0.106	0.136	0.208
Currently using a modern method	0.160	0.019	785	1,161	1.466	0.120	0.122	0.199
Currently using pill	0.062	0.012	785	1,161	1.414	0.197	0.037	0.086
Currently using condoms	0.005	0.003	785	1,161	1.184	0.601	0.000	0.011
Currently using injectables	0.065	0.011	785	1,161	1.241	0.168	0.043	0.087
Currently using periodic abstinence	0.000	0.000	785	1,161	na	na	0.000	0.000
Using public sector source	0.635	0.055	241	327	1.767	0.087	0.524	0.745
Want no more children	0.274	0.013	785	1,161	0.844	0.049	0.247	0.301
Want to delay at least 2 years	0.356	0.038	785	1,161	2.203	0.106	0.280	0.431
Ideal number of children	5.048	0.180	1,049	1,496	2.681	0.036	4.688	5.408
Mothers protected against tetanus for last birth	0.921	0.025	619	908	2.273	0.027	0.872	0.970
Mothers received medical assistance at delivery	0.825	0.037	867	1,302	2.317	0.044	0.751	0.898
Had diarrhoea in the last 2 weeks	0.073	0.012	726	1,100	1.212	0.167	0.048	0.097
Treated with oral rehydration salts (ORS)	0.829	0.050	57	80	0.924	0.061	0.729	0.930
Taken to health provider	0.817	0.065	57	80	1.225	0.080	0.686	0.947
Having health card, seen	0.755	0.045	173	269	1.417	0.059	0.666	0.845
Received BCG vaccination	0.973	0.016	173	269	1.346	0.016	0.941	1.005
Received DPT vaccination (3 doses)	0.833	0.040	173	269	1.451	0.048	0.753	0.913
Received polio vaccination (3 doses)	0.832	0.040	173	269	1.449	0.048	0.752	0.912
Received measles vaccination	0.815	0.037	173	269	1.292	0.045	0.741	0.889
Fully immunised	0.754	0.047	173	269	1.488	0.063	0.660	0.849
Height-for-age (below -2SD)	0.394	0.033	363	573	1.262	0.083	0.329	0.459
Weight-for-height (below -2SD)	0.081	0.018	363	573	1.297	0.226	0.044	0.117
Weight-for-age (below -2SD)	0.176	0.015	363	573	0.735	0.087	0.146	0.207
Anaemia children	0.776	0.021	355	558	0.980	0.028	0.733	0.818
Anaemia women	0.464	0.028	561	804	1.311	0.060	0.408	0.519
BMI <18.5	0.069	0.019	508	724	1.659	0.272	0.031	0.106
Has comprehensive knowledge of HIV/AIDS	0.178	0.026	1,153	1,651	2.330	0.148	0.125	0.231
Had 2+ sexual partners in past 12 months	0.066	0.008	1,153	1,651	1.078	0.119	0.050	0.082
Condom use at last sex	0.079	0.038	77	109	1.212	0.476	0.004	0.154
Accepting attitudes towards people with HIV	0.027	0.005	1,094	1,556	0.937	0.171	0.018	0.036
Total fertility rate (3 years)	4.949	0.344	3,215	4,620	1.360	0.070	4.261	5.638
Neonatal mortality rate (last 0-9 years)	48.451	5.609	1,853	2,789	1.142	0.116	37.233	59.669
Postneonatal mortality rate (last 0-9 years)	98.521	11.199	1,865	2,810	1.567	0.114	76.123	120.918
Infant mortality rate (last 0-9 years)	146.972	11.550	1,861	2,803	1.404	0.079	123.873	170.071
Child mortality rate (last 0-9 years)	90.734	8.995	1,880	2,838	1.138	0.099	72.745	108.724
Under-five mortality rate (last 0-9 years)	224.371	13.668	1,875	2,821	1.364	0.061	197.035	251.706
HIV prevalence (women 15-49)	0.011	0.005	561	767	1.039	0.419	0.002	0.020
MEN								
Urban residence	0.451	0.043	517	719	1.941	0.095	0.365	0.536
No education	0.446	0.040	517	719	1.818	0.089	0.367	0.526
With secondary education or higher	0.445	0.043	517	719	1.947	0.096	0.360	0.531
Never married/in union	0.431	0.028	517	719	1.299	0.066	0.375	0.488
Currently married/in union	0.544	0.026	517	719	1.177	0.047	0.493	0.596
Had sex before age of 18	0.569	0.030	410	574	1.235	0.053	0.508	0.629
Knowing any contraceptive method	0.969	0.016	264	391	1.497	0.017	0.936	1.001
Knowing any modern contraceptive method	0.969	0.016	264	391	1.497	0.017	0.936	1.001
Want no more children	0.129	0.030	264	391	1.431	0.229	0.070	0.189
Want to delay at least 2 years	0.383	0.030	264	391	1.005	0.079	0.322	0.443
Ideal number of children	5.065	0.173	496	689	1.390	0.034	4.720	5.411
Has comprehensive knowledge of HIV/AIDS	0.107	0.020	517	719	1.463	0.186	0.067	0.147
Had 2+ sexual partners in past 12 months	0.366	0.031	517	719	1.463	0.085	0.304	0.428
Condom use at last sex	0.097	0.028	201	263	1.319	0.286	0.041	0.152
Accepting attitudes towards people with HIV	0.066	0.016	481	668	1.425	0.244	0.034	0.099
HIV prevalence (men 15-49)	0.009	0.004	502	684	1.036	0.498	0.000	0.017
HIV prevalence (men 15-59)	0.008	0.004	549	740	1.013	0.469	0.001	0.016
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.010	0.003	1,063	1,450	0.962	0.297	0.004	0.016

Table B.11 Sampling errors: Kono sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.299	0.067	1,264	979	5.160	0.225	0.165	0.434
No education	0.628	0.035	1,264	979	2.579	0.056	0.557	0.698
With secondary education or higher	0.248	0.033	1,264	979	2.698	0.133	0.182	0.313
Never married/in union	0.298	0.024	1,264	979	1.845	0.080	0.251	0.346
Currently married/in union	0.651	0.024	1,264	979	1.784	0.037	0.603	0.699
Had sex before age of 18	0.705	0.032	870	678	2.064	0.045	0.641	0.769
Currently pregnant	0.081	0.009	1,264	979	1.143	0.108	0.064	0.099
Children ever born	3.047	0.160	1,264	979	1.973	0.053	2.726	3.368
Children ever born to women over 40	6.558	0.181	180	152	0.974	0.028	6.196	6.919
Children surviving	2.360	0.106	1,264	979	1.730	0.045	2.149	2.571
Knowing any contraceptive method	0.927	0.031	777	637	3.328	0.034	0.865	0.990
Knowing any modern contraceptive method	0.920	0.033	777	637	3.369	0.036	0.854	0.986
Currently using any method	0.129	0.023	777	637	1.934	0.181	0.082	0.175
Currently using a modern method	0.122	0.020	777	637	1.670	0.161	0.082	0.161
Currently using pill	0.024	0.007	777	637	1.206	0.275	0.011	0.038
Currently using condoms	0.000	0.000	777	637	na	na	0.000	0.000
Currently using injectables	0.074	0.009	777	637	1.003	0.128	0.055	0.092
Currently using periodic abstinence	0.000	0.000	777	637	na	na	0.000	0.000
Using public sector source	0.528	0.046	239	152	1.406	0.086	0.437	0.619
Want no more children	0.281	0.021	777	637	1.281	0.074	0.239	0.322
Want to delay at least 2 years	0.438	0.028	777	637	1.544	0.063	0.383	0.493
Ideal number of children	4.737	0.089	1,200	928	1.898	0.019	4.559	4.915
Mothers protected against tetanus for last birth	0.906	0.012	661	544	1.101	0.014	0.881	0.930
Mothers received medical assistance at delivery	0.576	0.046	942	787	2.368	0.081	0.483	0.669
Had diarrhoea in the last 2 weeks	0.144	0.019	829	690	1.369	0.129	0.107	0.182
Treated with oral rehydration salts (ORS)	0.910	0.027	124	100	1.011	0.029	0.857	0.964
Taken to health provider	0.704	0.051	124	100	1.070	0.073	0.602	0.807
Having health card, seen	0.817	0.032	157	131	1.062	0.040	0.752	0.881
Received BCG vaccination	0.994	0.006	157	131	0.973	0.006	0.983	1.006
Received DPT vaccination (3 doses)	0.800	0.041	157	131	1.283	0.051	0.719	0.881
Received polio vaccination (3 doses)	0.800	0.041	157	131	1.283	0.051	0.719	0.881
Received measles vaccination	0.815	0.067	157	131	2.175	0.082	0.681	0.949
Fully immunised	0.738	0.068	157	131	1.947	0.092	0.602	0.873
Height-for-age (below -2SD)	0.516	0.053	281	228	1.613	0.103	0.410	0.622
Weight-for-height (below -2SD)	0.043	0.018	281	228	1.394	0.415	0.007	0.079
Weight-for-age (below -2SD)	0.101	0.022	281	228	1.247	0.221	0.056	0.145
Anaemia children	0.949	0.016	383	328	1.409	0.016	0.918	0.980
Anaemia women	0.432	0.023	522	409	1.049	0.052	0.387	0.478
BMI <18.5	0.136	0.021	476	375	1.339	0.154	0.094	0.178
Has comprehensive knowledge of HIV/AIDS	0.401	0.052	1,264	979	3.732	0.129	0.297	0.504
Had 2+ sexual partners in past 12 months	0.036	0.006	1,264	979	1.223	0.178	0.023	0.049
Condom use at last sex	0.118	0.061	52	35	1.335	0.516	0.000	0.239
Accepting attitudes towards people with HIV	0.063	0.024	1,201	910	3.454	0.385	0.015	0.112
Total fertility rate (3 years)	5.793	0.235	3,255	2,519	1.163	0.041	5.323	6.263
Neonatal mortality rate (last 0-9 years)	45.657	3.683	1,797	1,514	0.738	0.081	38.290	53.024
Postneonatal mortality rate (last 0-9 years)	64.617	8.048	1,798	1,520	1.461	0.125	48.521	80.714
Infant mortality rate (last 0-9 years)	110.275	9.527	1,805	1,523	1.237	0.086	91.220	129.330
Child mortality rate (last 0-9 years)	68.548	7.836	1,802	1,518	1.094	0.114	52.877	84.219
Under-five mortality rate (last 0-9 years)	171.264	12.405	1,825	1,534	1.304	0.072	146.454	196.074
HIV prevalence (women 15-49)	0.036	0.011	541	408	1.419	0.315	0.013	0.059
MEN								
Urban residence	0.327	0.066	469	352	3.037	0.203	0.194	0.460
No education	0.437	0.047	469	352	2.063	0.109	0.342	0.532
With secondary education or higher	0.415	0.050	469	352	2.188	0.120	0.315	0.515
Never married/in union	0.349	0.030	469	352	1.372	0.087	0.289	0.410
Currently married/in union	0.610	0.028	469	352	1.244	0.046	0.554	0.666
Had sex before age of 18	0.475	0.047	368	277	1.801	0.099	0.380	0.569
Knowing any contraceptive method	0.933	0.027	277	215	1.766	0.029	0.880	0.987
Knowing any modern contraceptive method	0.899	0.027	277	215	1.495	0.030	0.845	0.954
Want no more children	0.249	0.039	277	215	1.512	0.158	0.170	0.328
Want to delay at least 2 years	0.317	0.040	277	215	1.425	0.126	0.237	0.397
Ideal number of children	5.644	0.223	458	342	1.827	0.040	5.197	6.091
Has comprehensive knowledge of HIV/AIDS	0.308	0.035	469	352	1.639	0.114	0.238	0.378
Had 2+ sexual partners in past 12 months	0.130	0.025	469	352	1.632	0.196	0.079	0.181
Condom use at last sex	0.088	0.038	60	46	1.039	0.435	0.012	0.165
Accepting attitudes towards people with HIV	0.101	0.017	464	345	1.198	0.166	0.068	0.135
HIV prevalence (men 15-49)	0.012	0.006	434	335	1.129	0.499	0.000	0.023
HIV prevalence (men 15-59)	0.012	0.006	469	366	1.111	0.459	0.001	0.024
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.025	0.008	975	743	1.528	0.305	0.010	0.040

Table B.12 Sampling errors: Bombali sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.287	0.056	1,288	1,377	4.440	0.196	0.174	0.400
No education	0.546	0.036	1,288	1,377	2.573	0.066	0.475	0.618
With secondary education or higher	0.345	0.036	1,288	1,377	2.735	0.105	0.272	0.417
Never married/in union	0.359	0.030	1,288	1,377	2.206	0.082	0.300	0.418
Currently married/in union	0.585	0.032	1,288	1,377	2.337	0.055	0.520	0.649
Had sex before age of 18	0.663	0.026	912	979	1.673	0.040	0.611	0.716
Currently pregnant	0.073	0.010	1,288	1,377	1.436	0.143	0.052	0.094
Children ever born	2.735	0.149	1,288	1,377	1.933	0.055	2.437	3.034
Children ever born to women over 40	6.144	0.208	222	238	1.240	0.034	5.729	6.559
Children surviving	2.363	0.116	1,288	1,377	1.760	0.049	2.132	2.594
Knowing any contraceptive method	0.900	0.028	751	805	2.531	0.031	0.845	0.956
Knowing any modern contraceptive method	0.887	0.032	751	805	2.740	0.036	0.823	0.950
Currently using any method	0.143	0.024	751	805	1.897	0.170	0.094	0.191
Currently using a modern method	0.136	0.024	751	805	1.925	0.177	0.088	0.185
Currently using pill	0.009	0.003	751	805	0.906	0.347	0.003	0.015
Currently using condoms	0.000	0.000	751	805	na	na	0.000	0.000
Currently using injectables	0.084	0.014	751	805	1.368	0.165	0.056	0.112
Currently using periodic abstinence	0.000	0.000	751	805	na	na	0.000	0.000
Using public sector source	0.778	0.049	307	330	2.067	0.063	0.679	0.877
Want no more children	0.300	0.026	751	805	1.569	0.088	0.247	0.353
Want to delay at least 2 years	0.304	0.024	751	805	1.414	0.078	0.256	0.352
Ideal number of children	5.298	0.138	1,256	1,341	2.124	0.026	5.022	5.573
Mothers protected against tetanus for last birth	0.917	0.018	560	585	1.526	0.020	0.881	0.953
Mothers received medical assistance at delivery	0.454	0.052	750	788	2.487	0.116	0.349	0.559
Had diarrhoea in the last 2 weeks	0.114	0.017	690	727	1.417	0.153	0.079	0.148
Treated with oral rehydration salts (ORS)	0.930	0.030	82	83	1.028	0.032	0.870	0.989
Taken to health provider	0.756	0.072	82	83	1.469	0.095	0.612	0.900
Having health card, seen	0.803	0.034	129	136	0.966	0.042	0.735	0.871
Received BCG vaccination	0.959	0.023	129	136	1.315	0.024	0.913	1.005
Received DPT vaccination (3 doses)	0.842	0.034	129	136	1.059	0.040	0.774	0.910
Received polio vaccination (3 doses)	0.834	0.033	129	136	0.992	0.039	0.769	0.899
Received measles vaccination	0.765	0.047	129	136	1.224	0.061	0.672	0.859
Fully immunised	0.689	0.044	129	136	1.061	0.064	0.601	0.777
Height-for-age (below -2SD)	0.282	0.027	355	382	1.116	0.097	0.228	0.337
Weight-for-height (below -2SD)	0.255	0.041	355	382	1.662	0.163	0.172	0.337
Weight-for-age (below -2SD)	0.244	0.042	355	382	1.827	0.172	0.160	0.329
Anaemia children	0.708	0.026	370	408	1.165	0.037	0.655	0.760
Anaemia women	0.513	0.036	617	657	1.769	0.070	0.441	0.584
BMI <18.5	0.097	0.019	570	601	1.539	0.198	0.058	0.135
Has comprehensive knowledge of HIV/AIDS	0.224	0.031	1,288	1,377	2.648	0.138	0.162	0.286
Had 2+ sexual partners in past 12 months	0.033	0.006	1,288	1,377	1.190	0.180	0.021	0.045
Condom use at last sex	0.000	0.000	40	45	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.164	0.041	1,181	1,247	3.798	0.251	0.081	0.246
Total fertility rate (3 years)	4.367	0.373	3,481	3,700	1.988	0.085	3.622	5.113
Neonatal mortality rate (last 0-9 years)	35.024	6.885	1,653	1,756	1.241	0.197	21.254	48.793
Postneonatal mortality rate (last 0-9 years)	36.089	6.784	1,665	1,768	1.340	0.188	22.520	49.657
Infant mortality rate (last 0-9 years)	71.112	11.109	1,657	1,759	1.509	0.156	48.894	93.331
Child mortality rate (last 0-9 years)	44.668	8.135	1,680	1,808	1.400	0.182	28.398	60.938
Under-five mortality rate (last 0-9 years)	112.604	14.019	1,677	1,783	1.508	0.125	84.565	140.643
HIV prevalence (women 15-49)	0.016	0.006	619	629	1.182	0.371	0.004	0.028
MEN								
Urban residence	0.329	0.056	462	499	2.563	0.171	0.217	0.442
No education	0.416	0.042	462	499	1.812	0.100	0.333	0.500
With secondary education or higher	0.476	0.045	462	499	1.925	0.094	0.386	0.566
Never married/in union	0.468	0.040	462	499	1.698	0.085	0.389	0.547
Currently married/in union	0.521	0.039	462	499	1.655	0.074	0.444	0.598
Had sex before age of 18	0.351	0.028	341	371	1.088	0.080	0.295	0.408
Knowing any contraceptive method	0.985	0.008	238	260	1.060	0.008	0.969	1.002
Knowing any modern contraceptive method	0.976	0.010	238	260	0.991	0.010	0.957	0.996
Want no more children	0.166	0.034	238	260	1.418	0.207	0.098	0.235
Want to delay at least 2 years	0.353	0.052	238	260	1.681	0.148	0.248	0.458
Ideal number of children	5.622	0.243	451	487	1.753	0.043	5.135	6.108
Has comprehensive knowledge of HIV/AIDS	0.255	0.059	462	499	2.871	0.230	0.138	0.373
Had 2+ sexual partners in past 12 months	0.212	0.028	462	499	1.477	0.133	0.155	0.268
Condom use at last sex	0.058	0.033	96	106	1.356	0.562	0.000	0.124
Accepting attitudes towards people with HIV	0.017	0.007	439	469	1.118	0.408	0.003	0.031
HIV prevalence (men 15-49)	0.006	0.004	446	473	1.001	0.632	0.000	0.013
HIV prevalence (men 15-59)	0.007	0.004	499	536	0.973	0.538	0.000	0.014
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.012	0.004	1,065	1,102	1.254	0.354	0.003	0.020

Table B.13 Sampling errors: Kambia sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.122	0.020	1,264	738	2.139	0.161	0.083	0.162
No education	0.702	0.033	1,264	738	2.542	0.047	0.636	0.767
With secondary education or higher	0.133	0.024	1,264	738	2.500	0.180	0.085	0.180
Never married/in union	0.210	0.023	1,264	738	1.998	0.109	0.164	0.256
Currently married/in union	0.763	0.024	1,264	738	2.006	0.031	0.715	0.811
Had sex before age of 18	0.719	0.021	991	585	1.458	0.029	0.678	0.761
Currently pregnant	0.085	0.015	1,264	738	1.860	0.171	0.056	0.115
Children ever born	3.054	0.063	1,264	738	0.838	0.021	2.928	3.180
Children ever born to women over 40	5.823	0.151	273	162	1.030	0.026	5.521	6.125
Children surviving	2.586	0.040	1,264	738	0.629	0.016	2.506	2.666
Knowing any contraceptive method	0.918	0.024	955	563	2.720	0.026	0.869	0.966
Knowing any modern contraceptive method	0.907	0.026	955	563	2.710	0.028	0.856	0.958
Currently using any method	0.054	0.015	955	563	2.029	0.277	0.024	0.083
Currently using a modern method	0.054	0.015	955	563	2.029	0.277	0.024	0.083
Currently using pill	0.004	0.002	955	563	0.973	0.472	0.000	0.009
Currently using condoms	0.005	0.003	955	563	1.511	0.725	0.000	0.011
Currently using injectables	0.023	0.006	955	563	1.326	0.283	0.010	0.035
Currently using periodic abstinence	0.000	0.000	955	563	na	na	0.000	0.000
Using public sector source	0.794	0.042	103	49	1.045	0.053	0.710	0.878
Want no more children	0.273	0.024	955	563	1.684	0.089	0.225	0.322
Want to delay at least 2 years	0.264	0.044	955	563	3.089	0.168	0.175	0.352
Ideal number of children	5.256	0.137	1,219	711	2.041	0.026	4.981	5.530
Mothers protected against tetanus for last birth	0.794	0.020	697	417	1.334	0.026	0.753	0.835
Mothers received medical assistance at delivery	0.406	0.046	999	596	2.507	0.113	0.314	0.498
Had diarrhoea in the last 2 weeks	0.173	0.027	919	549	2.120	0.159	0.118	0.228
Treated with oral rehydration salts (ORS)	0.828	0.036	165	95	1.137	0.044	0.756	0.901
Taken to health provider	0.670	0.061	165	95	1.541	0.091	0.548	0.791
Having health card, seen	0.560	0.075	164	106	1.977	0.134	0.410	0.711
Received BCG vaccination	0.894	0.033	164	106	1.406	0.036	0.828	0.959
Received DPT vaccination (3 doses)	0.611	0.053	164	106	1.421	0.086	0.506	0.717
Received polio vaccination (3 doses)	0.592	0.049	164	106	1.312	0.083	0.494	0.690
Received measles vaccination	0.746	0.051	164	106	1.542	0.068	0.645	0.848
Fully immunised	0.517	0.053	164	106	1.380	0.102	0.411	0.623
Height-for-age (below -2SD)	0.368	0.035	476	288	1.612	0.096	0.298	0.439
Weight-for-height (below -2SD)	0.065	0.013	476	288	1.077	0.201	0.039	0.091
Weight-for-age (below -2SD)	0.169	0.017	476	288	1.004	0.103	0.134	0.203
Anaemia children	0.867	0.035	477	286	2.173	0.040	0.798	0.937
Anaemia women	0.451	0.036	594	344	1.759	0.080	0.378	0.523
BMI <18.5	0.115	0.017	543	312	1.229	0.148	0.081	0.148
Has comprehensive knowledge of HIV/AIDS	0.235	0.076	1,264	738	6.306	0.325	0.082	0.388
Had 2+ sexual partners in past 12 months	0.015	0.004	1,264	738	1.309	0.298	0.006	0.024
Condom use at last sex	0.159	0.110	20	11	1.283	0.688	0.000	0.379
Accepting attitudes towards people with HIV	0.006	0.002	1,193	700	1.036	0.380	0.001	0.011
Total fertility rate (3 years)	5.844	0.258	3,473	2,025	1.531	0.044	5.329	6.359
Neonatal mortality rate (last 0-9 years)	24.022	6.395	1,950	1,171	1.501	0.266	11.233	36.811
Postneonatal mortality rate (last 0-9 years)	50.827	7.142	1,955	1,174	1.165	0.141	36.543	65.111
Infant mortality rate (last 0-9 years)	74.849	8.942	1,958	1,178	1.208	0.119	56.966	92.732
Child mortality rate (last 0-9 years)	60.811	12.371	1,907	1,144	1.621	0.203	36.070	85.552
Under-five mortality rate (last 0-9 years)	131.109	17.612	1,969	1,183	1.609	0.134	95.885	166.332
HIV prevalence (women 15-49)	0.009	0.004	582	345	0.932	0.401	0.002	0.017
MEN								
Urban residence	0.126	0.021	473	270	1.387	0.168	0.083	0.168
No education	0.518	0.043	473	270	1.880	0.084	0.432	0.605
With secondary education or higher	0.349	0.037	473	270	1.701	0.107	0.274	0.424
Never married/in union	0.395	0.039	473	270	1.711	0.098	0.318	0.472
Currently married/in union	0.577	0.035	473	270	1.525	0.060	0.508	0.646
Had sex before age of 18	0.329	0.050	359	206	2.012	0.152	0.229	0.430
Knowing any contraceptive method	0.973	0.015	263	156	1.533	0.016	0.942	1.004
Knowing any modern contraceptive method	0.961	0.019	263	156	1.585	0.020	0.924	0.999
Want no more children	0.074	0.027	263	156	1.648	0.362	0.020	0.127
Want to delay at least 2 years	0.378	0.061	263	156	2.009	0.160	0.257	0.499
Ideal number of children	7.518	0.398	462	265	1.918	0.053	6.723	8.313
Has comprehensive knowledge of HIV/AIDS	0.099	0.038	473	270	2.770	0.388	0.022	0.176
Had 2+ sexual partners in past 12 months	0.143	0.022	473	270	1.351	0.153	0.099	0.186
Condom use at last sex	0.086	0.051	57	39	1.361	0.597	0.000	0.189
Accepting attitudes towards people with HIV	0.023	0.014	456	261	1.972	0.610	0.000	0.050
HIV prevalence (men 15-49)	0.009	0.006	406	255	1.207	0.636	0.000	0.020
HIV prevalence (men 15-59)	0.009	0.005	459	285	1.159	0.573	0.000	0.019
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.009	0.003	988	601	1.056	0.352	0.003	0.015

Table B.14 Sampling errors: Koinadugu sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.089	0.021	1,100	719	2.400	0.233	0.047	0.130
No education	0.754	0.027	1,100	719	2.077	0.036	0.700	0.808
With secondary education or higher	0.138	0.019	1,100	719	1.811	0.137	0.100	0.176
Never married/in union	0.202	0.016	1,100	719	1.307	0.078	0.171	0.234
Currently married/in union	0.761	0.017	1,100	719	1.350	0.023	0.726	0.795
Had sex before age of 18	0.644	0.031	821	538	1.874	0.049	0.581	0.707
Currently pregnant	0.096	0.015	1,100	719	1.645	0.152	0.067	0.125
Children ever born	3.245	0.070	1,100	719	0.828	0.021	3.106	3.384
Children ever born to women over 40	6.760	0.207	155	94	1.072	0.031	6.346	7.174
Children surviving	2.489	0.061	1,100	719	0.946	0.024	2.368	2.611
Knowing any contraceptive method	0.719	0.045	809	547	2.852	0.063	0.629	0.810
Knowing any modern contraceptive method	0.696	0.049	809	547	2.994	0.070	0.599	0.793
Currently using any method	0.065	0.015	809	547	1.728	0.230	0.035	0.096
Currently using a modern method	0.063	0.015	809	547	1.764	0.239	0.033	0.093
Currently using pill	0.007	0.002	809	547	0.846	0.356	0.002	0.012
Currently using condoms	0.000	0.000	809	547	na	na	0.000	0.000
Currently using injectables	0.024	0.010	809	547	1.870	0.425	0.004	0.043
Currently using periodic abstinence	0.000	0.000	809	547	0.592	1.016	0.000	0.001
Using public sector source	0.901	0.033	104	51	1.130	0.037	0.834	0.968
Want no more children	0.256	0.024	809	547	1.573	0.094	0.207	0.304
Want to delay at least 2 years	0.320	0.027	809	547	1.641	0.084	0.266	0.374
Ideal number of children	5.113	0.149	1,043	677	2.052	0.029	4.815	5.411
Mothers protected against tetanus for last birth	0.831	0.028	670	453	1.947	0.034	0.775	0.887
Mothers received medical assistance at delivery	0.330	0.057	965	653	3.123	0.172	0.216	0.443
Had diarrhoea in the last 2 weeks	0.231	0.022	864	573	1.405	0.094	0.187	0.275
Treated with oral rehydration salts (ORS)	0.796	0.025	187	132	0.777	0.031	0.747	0.846
Taken to health provider	0.525	0.077	187	132	1.955	0.147	0.371	0.680
Having health card, seen	0.761	0.061	206	134	2.024	0.080	0.639	0.883
Received BCG vaccination	0.949	0.017	206	134	1.087	0.018	0.915	0.983
Received DPT vaccination (3 doses)	0.699	0.072	206	134	2.208	0.103	0.555	0.842
Received polio vaccination (3 doses)	0.699	0.072	206	134	2.208	0.103	0.555	0.842
Received measles vaccination	0.743	0.055	206	134	1.790	0.075	0.632	0.853
Fully immunised	0.636	0.069	206	134	2.029	0.109	0.498	0.774
Height-for-age (below -2SD)	0.401	0.032	339	231	1.178	0.079	0.337	0.465
Weight-for-height (below -2SD)	0.105	0.028	339	231	1.639	0.269	0.048	0.161
Weight-for-age (below -2SD)	0.243	0.035	339	231	1.442	0.142	0.174	0.312
Anaemia children	0.914	0.018	445	288	1.390	0.020	0.878	0.950
Anaemia women	0.484	0.028	512	331	1.251	0.057	0.428	0.539
BMI <18.5	0.102	0.015	469	300	1.096	0.152	0.071	0.133
Has comprehensive knowledge of HIV/AIDS	0.098	0.013	1,100	719	1.489	0.136	0.071	0.125
Had 2+ sexual partners in past 12 months	0.033	0.007	1,100	719	1.385	0.226	0.018	0.048
Condom use at last sex	0.060	0.037	40	24	0.985	0.625	0.000	0.135
Accepting attitudes towards people with HIV	0.058	0.025	826	526	3.095	0.435	0.008	0.109
Total fertility rate (3 years)	5.540	0.193	3,023	1,974	1.120	0.035	5.155	5.925
Neonatal mortality rate (last 0-9 years)	39.610	6.010	1,926	1,292	1.230	0.152	27.591	51.630
Postneonatal mortality rate (last 0-9 years)	73.697	11.287	1,926	1,291	1.700	0.153	51.123	96.271
Infant mortality rate (last 0-9 years)	113.307	11.907	1,933	1,299	1.491	0.105	89.493	137.122
Child mortality rate (last 0-9 years)	100.007	9.703	1,916	1,286	1.075	0.097	80.601	119.414
Under-five mortality rate (last 0-9 years)	201.983	16.894	1,962	1,320	1.589	0.084	168.196	235.770
HIV prevalence (women 15-49)	0.012	0.006	519	329	1.310	0.525	0.000	0.024
MEN								
Urban residence	0.124	0.036	432	268	2.276	0.293	0.051	0.196
No education	0.588	0.052	432	268	2.165	0.088	0.485	0.692
With secondary education or higher	0.326	0.043	432	268	1.897	0.132	0.240	0.412
Never married/in union	0.351	0.039	432	268	1.672	0.110	0.274	0.428
Currently married/in union	0.584	0.034	432	268	1.438	0.059	0.515	0.652
Had sex before age of 18	0.408	0.067	335	217	2.483	0.165	0.274	0.543
Knowing any contraceptive method	0.866	0.037	233	156	1.662	0.043	0.791	0.940
Knowing any modern contraceptive method	0.862	0.038	233	156	1.678	0.044	0.786	0.938
Want no more children	0.113	0.025	233	156	1.188	0.218	0.064	0.163
Want to delay at least 2 years	0.323	0.040	233	156	1.285	0.122	0.244	0.402
Ideal number of children	6.452	0.212	391	244	1.140	0.033	6.028	6.875
Has comprehensive knowledge of HIV/AIDS	0.072	0.019	432	268	1.540	0.267	0.033	0.110
Had 2+ sexual partners in past 12 months	0.260	0.044	432	268	2.083	0.170	0.172	0.348
Condom use at last sex	0.155	0.049	123	70	1.474	0.313	0.058	0.252
Accepting attitudes towards people with HIV	0.045	0.015	369	226	1.351	0.327	0.015	0.074
HIV prevalence (men 15-49)	0.007	0.004	414	255	1.021	0.613	0.000	0.015
HIV prevalence (men 15-59)	0.006	0.004	465	288	1.017	0.611	0.000	0.013
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.010	0.004	933	585	1.161	0.386	0.002	0.017

Table B.15 Sampling errors: Port Loko sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.158	0.033	1,424	1,994	3.442	0.212	0.091	0.225
No education	0.618	0.031	1,424	1,994	2.422	0.051	0.556	0.681
With secondary education or higher	0.226	0.025	1,424	1,994	2.293	0.113	0.175	0.277
Never married/in union	0.220	0.017	1,424	1,994	1.506	0.075	0.187	0.253
Currently married/in union	0.730	0.018	1,424	1,994	1.513	0.024	0.695	0.766
Had sex before age of 18	0.811	0.020	1,089	1,533	1.646	0.024	0.771	0.850
Currently pregnant	0.106	0.008	1,424	1,994	0.979	0.075	0.090	0.123
Children ever born	3.080	0.114	1,424	1,994	1.616	0.037	2.853	3.307
Children ever born to women over 40	5.930	0.228	240	341	1.448	0.038	5.474	6.387
Children surviving	2.466	0.070	1,424	1,994	1.264	0.028	2.327	2.606
Knowing any contraceptive method	0.968	0.011	1,004	1,456	2.058	0.012	0.945	0.991
Knowing any modern contraceptive method	0.955	0.018	1,004	1,456	2.790	0.019	0.919	0.992
Currently using any method	0.137	0.019	1,004	1,456	1.767	0.140	0.099	0.176
Currently using a modern method	0.125	0.018	1,004	1,456	1.714	0.144	0.089	0.160
Currently using pill	0.013	0.003	1,004	1,456	0.927	0.259	0.006	0.019
Currently using condoms	0.000	0.000	1,004	1,456	na	na	0.000	0.000
Currently using injectables	0.067	0.011	1,004	1,456	1.363	0.160	0.046	0.089
Currently using periodic abstinence	0.000	0.000	1,004	1,456	na	na	0.000	0.000
Using public sector source	0.834	0.036	217	262	1.410	0.043	0.762	0.906
Want no more children	0.227	0.020	1,004	1,456	1.501	0.087	0.188	0.267
Want to delay at least 2 years	0.376	0.021	1,004	1,456	1.364	0.055	0.335	0.418
Ideal number of children	5.397	0.135	1,344	1,867	2.123	0.025	5.127	5.667
Mothers protected against tetanus for last birth	0.874	0.016	784	1,122	1.343	0.018	0.843	0.906
Mothers received medical assistance at delivery	0.460	0.042	1,100	1,590	2.397	0.092	0.376	0.545
Had diarrhoea in the last 2 weeks	0.125	0.016	981	1,423	1.371	0.126	0.093	0.156
Treated with oral rehydration salts (ORS)	0.764	0.045	114	177	1.040	0.059	0.674	0.854
Taken to health provider	0.586	0.054	114	177	1.080	0.092	0.478	0.694
Having health card, seen	0.723	0.041	192	277	1.280	0.057	0.640	0.805
Received BCG vaccination	0.941	0.022	192	277	1.325	0.024	0.896	0.986
Received DPT vaccination (3 doses)	0.740	0.042	192	277	1.342	0.057	0.656	0.825
Received polio vaccination (3 doses)	0.745	0.041	192	277	1.324	0.056	0.662	0.828
Received measles vaccination	0.725	0.041	192	277	1.274	0.056	0.644	0.807
Fully immunised	0.651	0.043	192	277	1.259	0.066	0.565	0.738
Height-for-age (below -2SD)	0.366	0.029	513	744	1.363	0.080	0.307	0.425
Weight-for-height (below -2SD)	0.093	0.018	513	744	1.408	0.193	0.057	0.129
Weight-for-age (below -2SD)	0.153	0.016	513	744	0.991	0.107	0.120	0.185
Anaemia children	0.839	0.019	477	688	1.159	0.023	0.800	0.878
Anaemia women	0.461	0.023	691	964	1.231	0.051	0.414	0.508
BMI <18.5	0.092	0.016	622	853	1.370	0.175	0.060	0.124
Has comprehensive knowledge of HIV/AIDS	0.240	0.043	1,424	1,994	3.739	0.177	0.155	0.325
Had 2+ sexual partners in past 12 months	0.042	0.009	1,424	1,994	1.638	0.208	0.024	0.059
Condom use at last sex	0.000	0.000	66	83	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.065	0.017	1,334	1,834	2.512	0.261	0.031	0.099
Total fertility rate (3 years)	5.335	0.261	3,912	5,482	1.313	0.049	4.813	5.857
Neonatal mortality rate (last 0-9 years)	37.661	5.935	2,241	3,241	1.299	0.158	25.792	49.530
Postneonatal mortality rate (last 0-9 years)	63.752	6.985	2,254	3,257	1.253	0.110	49.782	77.721
Infant mortality rate (last 0-9 years)	101.413	10.659	2,253	3,258	1.548	0.105	80.094	122.732
Child mortality rate (last 0-9 years)	82.032	9.645	2,250	3,238	1.423	0.118	62.742	101.323
Under-five mortality rate (last 0-9 years)	175.126	15.469	2,281	3,298	1.769	0.088	144.188	206.064
HIV prevalence (women 15-49)	0.017	0.004	693	923	0.822	0.237	0.009	0.025
MEN								
Urban residence	0.179	0.035	491	679	1.989	0.193	0.110	0.248
No education	0.436	0.036	491	679	1.597	0.082	0.364	0.507
With secondary education or higher	0.422	0.037	491	679	1.639	0.087	0.349	0.496
Never married/in union	0.391	0.024	491	679	1.103	0.062	0.343	0.440
Currently married/in union	0.583	0.025	491	679	1.134	0.043	0.533	0.634
Had sex before age of 18	0.624	0.040	373	518	1.584	0.064	0.544	0.703
Knowing any contraceptive method	0.991	0.005	280	396	0.958	0.006	0.980	1.002
Knowing any modern contraceptive method	0.986	0.007	280	396	1.001	0.007	0.972	1.000
Want no more children	0.097	0.022	280	396	1.251	0.229	0.053	0.141
Want to delay at least 2 years	0.343	0.047	280	396	1.661	0.138	0.248	0.438
Ideal number of children	6.821	0.333	467	643	1.693	0.049	6.155	7.487
Has comprehensive knowledge of HIV/AIDS	0.257	0.041	491	679	2.058	0.159	0.176	0.339
Had 2+ sexual partners in past 12 months	0.192	0.022	491	679	1.226	0.114	0.148	0.236
Condom use at last sex	0.057	0.028	101	130	1.206	0.492	0.001	0.113
Accepting attitudes towards people with HIV	0.045	0.016	481	664	1.699	0.358	0.013	0.077
HIV prevalence (men 15-49)	0.012	0.005	478	649	1.019	0.426	0.002	0.022
HIV prevalence (men 15-59)	0.013	0.005	528	718	1.010	0.387	0.003	0.023
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.015	0.003	1,171	1,573	0.969	0.230	0.008	0.022

Table B.16 Sampling errors: Tonkolili sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.108	0.024	1,155	1,464	2.653	0.226	0.059	0.156
No education	0.627	0.037	1,155	1,464	2.590	0.059	0.553	0.701
With secondary education or higher	0.238	0.031	1,155	1,464	2.472	0.131	0.176	0.300
Never married/in union	0.210	0.020	1,155	1,464	1.664	0.095	0.170	0.250
Currently married/in union	0.702	0.024	1,155	1,464	1.785	0.034	0.654	0.750
Had sex before age of 18	0.753	0.025	901	1,154	1.729	0.033	0.703	0.802
Currently pregnant	0.105	0.010	1,155	1,464	1.057	0.091	0.086	0.124
Children ever born	3.200	0.142	1,155	1,464	1.742	0.044	2.916	3.483
Children ever born to women over 40	6.605	0.195	180	238	1.096	0.029	6.216	6.994
Children surviving	2.466	0.094	1,155	1,464	1.512	0.038	2.277	2.655
Knowing any contraceptive method	0.997	0.002	785	1,027	1.013	0.002	0.993	1.001
Knowing any modern contraceptive method	0.994	0.003	785	1,027	1.214	0.003	0.988	1.001
Currently using any method	0.155	0.022	785	1,027	1.665	0.139	0.112	0.198
Currently using a modern method	0.142	0.021	785	1,027	1.668	0.147	0.100	0.183
Currently using pill	0.017	0.006	785	1,027	1.285	0.349	0.005	0.029
Currently using condoms	0.002	0.002	785	1,027	1.036	0.812	0.000	0.005
Currently using injectables	0.075	0.014	785	1,027	1.468	0.185	0.047	0.102
Currently using periodic abstinence	0.000	0.000	785	1,027	na	na	0.000	0.000
Using public sector source	0.798	0.032	219	261	1.187	0.041	0.733	0.862
Want no more children	0.204	0.017	785	1,027	1.173	0.083	0.171	0.238
Want to delay at least 2 years	0.330	0.021	785	1,027	1.275	0.065	0.287	0.373
Ideal number of children	5.544	0.143	1,116	1,421	2.098	0.026	5.259	5.829
Mothers protected against tetanus for last birth	0.845	0.025	621	810	1.702	0.029	0.796	0.894
Mothers received medical assistance at delivery	0.378	0.064	863	1,122	3.261	0.169	0.251	0.506
Had diarrhoea in the last 2 weeks	0.088	0.016	777	1,014	1.550	0.185	0.055	0.121
Treated with oral rehydration salts (ORS)	0.872	0.045	75	89	1.117	0.052	0.782	0.962
Taken to health provider	0.698	0.064	75	89	1.147	0.092	0.570	0.826
Having health card, seen	0.750	0.042	158	205	1.241	0.057	0.665	0.835
Received BCG vaccination	0.963	0.015	158	205	1.006	0.016	0.933	0.993
Received DPT vaccination (3 doses)	0.695	0.052	158	205	1.431	0.075	0.591	0.800
Received polio vaccination (3 doses)	0.702	0.054	158	205	1.505	0.078	0.593	0.811
Received measles vaccination	0.715	0.051	158	205	1.415	0.071	0.614	0.816
Fully immunised	0.573	0.055	158	205	1.396	0.095	0.464	0.682
Height-for-age (below -2SD)	0.360	0.027	461	583	1.142	0.076	0.305	0.415
Weight-for-height (below -2SD)	0.055	0.011	461	583	1.056	0.206	0.032	0.078
Weight-for-age (below -2SD)	0.148	0.021	461	583	1.203	0.140	0.107	0.190
Anaemia children	0.864	0.015	435	546	0.936	0.017	0.834	0.894
Anaemia women	0.570	0.024	574	710	1.129	0.041	0.523	0.618
BMI <18.5	0.106	0.014	511	628	1.009	0.132	0.078	0.134
Has comprehensive knowledge of HIV/AIDS	0.245	0.024	1,155	1,464	1.915	0.099	0.197	0.294
Had 2+ sexual partners in past 12 months	0.056	0.011	1,155	1,464	1.652	0.199	0.034	0.079
Condom use at last sex	0.106	0.049	64	82	1.252	0.461	0.008	0.203
Accepting attitudes towards people with HIV	0.118	0.023	1,118	1,412	2.421	0.198	0.071	0.165
Total fertility rate (3 years)	5.172	0.359	3,215	4,090	1.970	0.069	4.453	5.890
Neonatal mortality rate (last 0-9 years)	37.032	3.762	1,852	2,411	0.773	0.102	29.508	44.557
Postneonatal mortality rate (last 0-9 years)	69.418	5.615	1,867	2,431	0.874	0.081	58.188	80.649
Infant mortality rate (last 0-9 years)	106.451	6.922	1,863	2,425	0.877	0.065	92.607	120.295
Child mortality rate (last 0-9 years)	92.982	10.723	1,845	2,398	1.467	0.115	71.536	114.428
Under-five mortality rate (last 0-9 years)	189.535	11.671	1,891	2,462	1.209	0.062	166.192	212.877
HIV prevalence (women 15-49)	0.010	0.004	577	687	0.886	0.366	0.003	0.017
MEN								
Urban residence	0.112	0.025	469	584	1.721	0.224	0.062	0.163
No education	0.524	0.054	469	584	2.318	0.103	0.417	0.632
With secondary education or higher	0.410	0.046	469	584	2.025	0.113	0.318	0.502
Never married/in union	0.410	0.034	469	584	1.474	0.082	0.343	0.477
Currently married/in union	0.567	0.034	469	584	1.480	0.060	0.500	0.635
Had sex before age of 18	0.497	0.035	370	473	1.331	0.070	0.427	0.566
Knowing any contraceptive method	0.980	0.017	256	331	1.861	0.017	0.947	1.013
Knowing any modern contraceptive method	0.980	0.017	256	331	1.861	0.017	0.947	1.013
Want no more children	0.118	0.028	256	331	1.394	0.239	0.061	0.174
Want to delay at least 2 years	0.469	0.049	256	331	1.550	0.104	0.371	0.566
Ideal number of children	6.860	0.403	462	576	1.874	0.059	6.054	7.666
Has comprehensive knowledge of HIV/AIDS	0.495	0.056	469	584	2.410	0.113	0.383	0.607
Had 2+ sexual partners in past 12 months	0.271	0.031	469	584	1.491	0.113	0.210	0.332
Condom use at last sex	0.084	0.046	126	158	1.853	0.554	0.000	0.176
Accepting attitudes towards people with HIV	0.012	0.005	464	577	0.956	0.404	0.002	0.022
HIV prevalence (men 15-49)	0.003	0.003	447	553	1.054	0.917	0.000	0.008
HIV prevalence (men 15-59)	0.003	0.002	506	619	1.065	0.921	0.000	0.008
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.007	0.003	1,024	1,241	1.067	0.400	0.001	0.012

Table B.17 Sampling errors: Bo sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.357	0.037	1,517	1,398	3.028	0.105	0.282	0.431
No education	0.542	0.027	1,517	1,398	2.112	0.050	0.488	0.596
With secondary education or higher	0.311	0.022	1,517	1,398	1.859	0.071	0.267	0.355
Never married/in union	0.290	0.022	1,517	1,398	1.929	0.078	0.245	0.335
Currently married/in union	0.667	0.025	1,517	1,398	2.051	0.037	0.618	0.717
Had sex before age of 18	0.683	0.023	1,087	1,058	1.628	0.034	0.637	0.729
Currently pregnant	0.099	0.016	1,517	1,398	2.091	0.162	0.067	0.131
Children ever born	3.043	0.157	1,517	1,398	2.195	0.052	2.729	3.356
Children ever born to women over 40	6.144	0.221	200	209	1.247	0.036	5.702	6.585
Children surviving	2.405	0.102	1,517	1,398	1.884	0.043	2.200	2.610
Knowing any contraceptive method	0.981	0.008	881	933	1.706	0.008	0.965	0.997
Knowing any modern contraceptive method	0.973	0.008	881	933	1.545	0.009	0.957	0.990
Currently using any method	0.193	0.023	881	933	1.723	0.119	0.147	0.239
Currently using a modern method	0.191	0.023	881	933	1.700	0.118	0.146	0.236
Currently using pill	0.066	0.015	881	933	1.757	0.223	0.037	0.095
Currently using condoms	0.002	0.002	881	933	1.200	1.000	0.000	0.005
Currently using injectables	0.087	0.013	881	933	1.383	0.151	0.061	0.114
Currently using periodic abstinence	0.000	0.000	881	933	na	na	0.000	0.000
Using public sector source	0.661	0.048	411	336	2.043	0.072	0.565	0.757
Want no more children	0.227	0.021	881	933	1.484	0.092	0.185	0.269
Want to delay at least 2 years	0.291	0.024	881	933	1.563	0.082	0.243	0.339
Ideal number of children	4.787	0.128	1,408	1,273	2.497	0.027	4.531	5.043
Mothers protected against tetanus for last birth	0.981	0.006	744	792	1.225	0.006	0.969	0.993
Mothers received medical assistance at delivery	0.760	0.039	1,003	1,107	2.799	0.051	0.682	0.839
Had diarrhoea in the last 2 weeks	0.068	0.017	908	996	1.924	0.245	0.035	0.101
Treated with oral rehydration salts (ORS)	0.949	0.025	59	67	0.939	0.027	0.898	1.000
Taken to health provider	0.818	0.038	59	67	0.783	0.046	0.742	0.893
Having health card, seen	0.867	0.031	158	167	1.172	0.036	0.805	0.929
Received BCG vaccination	0.985	0.014	158	167	1.488	0.015	0.956	1.013
Received DPT vaccination (3 doses)	0.934	0.026	158	167	1.355	0.028	0.882	0.986
Received polio vaccination (3 doses)	0.932	0.026	158	167	1.337	0.028	0.880	0.984
Received measles vaccination	0.844	0.037	158	167	1.292	0.043	0.770	0.917
Fully immunised	0.823	0.040	158	167	1.343	0.049	0.743	0.903
Height-for-age (below -2SD)	0.450	0.042	414	434	1.556	0.094	0.366	0.534
Weight-for-height (below -2SD)	0.119	0.022	414	434	1.317	0.185	0.075	0.163
Weight-for-age (below -2SD)	0.212	0.029	414	434	1.314	0.136	0.154	0.270
Anaemia children	0.672	0.037	415	439	1.489	0.055	0.598	0.746
Anaemia women	0.379	0.033	748	666	1.852	0.088	0.312	0.446
BMI <18.5	0.098	0.012	678	596	1.003	0.120	0.074	0.121
Has comprehensive knowledge of HIV/AIDS	0.210	0.028	1,517	1,398	2.661	0.133	0.154	0.266
Had 2+ sexual partners in past 12 months	0.138	0.016	1,517	1,398	1.770	0.114	0.106	0.169
Condom use at last sex	0.016	0.008	220	192	0.957	0.499	0.000	0.033
Accepting attitudes towards people with HIV	0.062	0.014	1,479	1,337	2.164	0.219	0.035	0.089
Total fertility rate (3 years)	5.069	0.364	4,042	3,801	1.947	0.072	4.341	5.798
Neonatal mortality rate (last 0-9 years)	54.853	6.518	2,030	2,287	1.245	0.119	41.818	67.889
Postneonatal mortality rate (last 0-9 years)	63.911	7.115	2,047	2,311	1.294	0.111	49.681	78.140
Infant mortality rate (last 0-9 years)	118.764	10.485	2,036	2,295	1.365	0.088	97.794	139.734
Child mortality rate (last 0-9 years)	61.968	9.024	2,045	2,318	1.776	0.146	43.921	80.016
Under-five mortality rate (last 0-9 years)	173.373	13.140	2,060	2,318	1.443	0.076	147.092	199.653
HIV prevalence (women 15-49)	0.018	0.005	756	648	1.064	0.288	0.007	0.028
MEN								
Urban residence	0.344	0.038	583	533	1.924	0.110	0.268	0.420
No education	0.386	0.033	583	533	1.628	0.085	0.320	0.451
With secondary education or higher	0.443	0.035	583	533	1.688	0.079	0.373	0.512
Never married/in union	0.389	0.031	583	533	1.511	0.079	0.328	0.450
Currently married/in union	0.588	0.028	583	533	1.358	0.047	0.533	0.644
Had sex before age of 18	0.473	0.042	432	416	1.763	0.090	0.388	0.558
Knowing any contraceptive method	1.000	0.000	298	313	na	0.000	1.000	1.000
Knowing any modern contraceptive method	0.974	0.021	298	313	2.248	0.021	0.932	1.016
Want no more children	0.147	0.031	298	313	1.503	0.211	0.085	0.209
Want to delay at least 2 years	0.246	0.033	298	313	1.331	0.135	0.180	0.313
Ideal number of children	4.912	0.196	560	514	1.756	0.040	4.520	5.303
Has comprehensive knowledge of HIV/AIDS	0.447	0.048	583	533	2.328	0.108	0.351	0.544
Had 2+ sexual partners in past 12 months	0.218	0.031	583	533	1.810	0.142	0.156	0.280
Condom use at last sex	0.120	0.045	141	116	1.633	0.376	0.030	0.211
Accepting attitudes towards people with HIV	0.036	0.009	573	519	1.187	0.258	0.017	0.054
HIV prevalence (men 15-49)	0.010	0.003	571	508	0.664	0.278	0.004	0.015
HIV prevalence (men 15-59)	0.010	0.003	619	559	0.753	0.296	0.004	0.016
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.014	0.003	1,327	1,156	1.035	0.236	0.008	0.021

Table B.18 Sampling errors: Bonthe sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.170	0.029	981	678	2.383	0.169	0.112	0.227
No education	0.679	0.034	981	678	2.272	0.050	0.611	0.747
With secondary education or higher	0.202	0.024	981	678	1.847	0.118	0.154	0.249
Never married/in union	0.294	0.018	981	678	1.215	0.060	0.259	0.329
Currently married/in union	0.616	0.022	981	678	1.447	0.037	0.571	0.661
Had sex before age of 18	0.729	0.033	716	488	1.972	0.045	0.663	0.795
Currently pregnant	0.073	0.013	981	678	1.506	0.171	0.048	0.098
Children ever born	2.231	0.136	981	678	2.055	0.061	1.958	2.503
Children ever born to women over 40	4.316	0.301	145	99	1.682	0.070	3.714	4.917
Children surviving	2.047	0.103	981	678	1.695	0.050	1.840	2.253
Knowing any contraceptive method	0.989	0.004	603	418	1.023	0.004	0.981	0.998
Knowing any modern contraceptive method	0.985	0.006	603	418	1.124	0.006	0.974	0.996
Currently using any method	0.205	0.028	603	418	1.706	0.137	0.149	0.261
Currently using a modern method	0.180	0.027	603	418	1.735	0.151	0.126	0.235
Currently using pill	0.014	0.006	603	418	1.147	0.391	0.003	0.025
Currently using condoms	0.004	0.003	603	418	1.118	0.724	0.000	0.010
Currently using injectables	0.098	0.021	603	418	1.739	0.215	0.056	0.140
Currently using periodic abstinence	0.000	0.000	603	418	na	na	0.000	0.000
Using public sector source	0.851	0.055	258	166	2.446	0.065	0.741	0.961
Want no more children	0.221	0.026	603	418	1.527	0.117	0.169	0.273
Want to delay at least 2 years	0.324	0.020	603	418	1.064	0.063	0.284	0.365
Ideal number of children	4.478	0.149	914	639	2.942	0.033	4.180	4.776
Mothers protected against tetanus for last birth	0.969	0.012	454	324	1.446	0.012	0.945	0.992
Mothers received medical assistance at delivery	0.772	0.050	651	463	2.582	0.065	0.671	0.872
Had diarrhoea in the last 2 weeks	0.039	0.010	623	442	1.243	0.254	0.019	0.058
Treated with oral rehydration salts (ORS)	0.964	0.037	21	17	0.991	0.039	0.890	1.039
Taken to health provider	0.710	0.114	21	17	1.228	0.161	0.481	0.939
Having health card, seen	0.699	0.071	86	62	1.419	0.102	0.557	0.842
Received BCG vaccination	0.966	0.021	86	62	1.094	0.022	0.924	1.008
Received DPT vaccination (3 doses)	0.809	0.068	86	62	1.530	0.084	0.674	0.944
Received polio vaccination (3 doses)	0.809	0.068	86	62	1.530	0.084	0.674	0.944
Received measles vaccination	0.925	0.031	86	62	1.094	0.033	0.864	0.986
Fully immunised	0.772	0.073	86	62	1.562	0.094	0.626	0.918
Height-for-age (below -2SD)	0.414	0.050	279	190	1.665	0.121	0.313	0.514
Weight-for-height (below -2SD)	0.030	0.011	279	190	1.049	0.351	0.009	0.051
Weight-for-age (below -2SD)	0.092	0.031	279	190	1.651	0.343	0.029	0.154
Anaemia children	0.794	0.035	342	238	1.488	0.044	0.724	0.863
Anaemia women	0.655	0.035	440	301	1.541	0.054	0.584	0.725
BMI <18.5	0.093	0.020	419	284	1.391	0.214	0.053	0.133
Has comprehensive knowledge of HIV/AIDS	0.281	0.043	981	678	2.976	0.153	0.195	0.366
Had 2+ sexual partners in past 12 months	0.047	0.010	981	678	1.458	0.209	0.027	0.067
Condom use at last sex	0.020	0.022	54	32	1.117	1.071	0.000	0.063
Accepting attitudes towards people with HIV	0.055	0.014	956	660	1.936	0.259	0.027	0.084
Total fertility rate (3 years)	4.200	0.298	2,710	1,872	1.159	0.071	3.604	4.797
Neonatal mortality rate (last 0-9 years)	24.998	5.789	1,268	876	1.249	0.232	13.420	36.577
Postneonatal mortality rate (last 0-9 years)	30.146	8.650	1,269	876	1.790	0.287	12.847	47.446
Infant mortality rate (last 0-9 years)	55.145	12.491	1,268	876	1.817	0.227	30.163	80.127
Child mortality rate (last 0-9 years)	23.107	4.880	1,265	864	1.053	0.211	13.347	32.868
Under-five mortality rate (last 0-9 years)	76.978	15.527	1,276	880	1.867	0.202	45.924	108.031
HIV prevalence (women 15-49)	0.013	0.006	434	312	1.031	0.430	0.002	0.024
MEN								
Urban residence	0.156	0.033	389	283	1.800	0.213	0.089	0.222
No education	0.598	0.047	389	283	1.873	0.078	0.504	0.691
With secondary education or higher	0.242	0.046	389	283	2.094	0.189	0.151	0.334
Never married/in union	0.400	0.038	389	283	1.531	0.095	0.324	0.476
Currently married/in union	0.533	0.033	389	283	1.309	0.062	0.467	0.599
Had sex before age of 18	0.257	0.048	291	206	1.849	0.185	0.162	0.353
Knowing any contraceptive method	0.972	0.019	221	151	1.654	0.019	0.934	1.009
Knowing any modern contraceptive method	0.972	0.019	221	151	1.654	0.019	0.934	1.009
Want no more children	0.207	0.040	221	151	1.470	0.194	0.127	0.288
Want to delay at least 2 years	0.317	0.053	221	151	1.684	0.168	0.211	0.423
Ideal number of children	4.425	0.333	334	240	2.152	0.075	3.758	5.091
Has comprehensive knowledge of HIV/AIDS	0.275	0.068	389	283	2.968	0.247	0.139	0.411
Had 2+ sexual partners in past 12 months	0.057	0.027	389	283	2.316	0.482	0.002	0.111
Condom use at last sex	0.040	0.043	26	16	1.088	1.076	0.000	0.125
Accepting attitudes towards people with HIV	0.009	0.005	371	269	1.064	0.573	0.000	0.020
HIV prevalence (men 15-49)	0.005	0.003	353	270	0.930	0.737	0.000	0.011
HIV prevalence (men 15-59)	0.004	0.003	384	294	0.934	0.741	0.000	0.010
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.009	0.004	787	583	1.081	0.402	0.002	0.016

Table B.19 Sampling errors: Moyamba sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.060	0.006	959	843	0.832	0.106	0.047	0.073
No education	0.679	0.027	959	843	1.765	0.039	0.626	0.733
With secondary education or higher	0.159	0.021	959	843	1.802	0.134	0.116	0.201
Never married/in union	0.210	0.021	959	843	1.559	0.098	0.169	0.251
Currently married/in union	0.750	0.024	959	843	1.684	0.031	0.702	0.797
Had sex before age of 18	0.653	0.028	758	670	1.629	0.043	0.597	0.710
Currently pregnant	0.094	0.009	959	843	0.952	0.096	0.076	0.112
Children ever born	3.456	0.097	959	843	1.080	0.028	3.262	3.651
Children ever born to women over 40	6.036	0.175	161	145	0.808	0.029	5.685	6.387
Children surviving	2.622	0.066	959	843	0.953	0.025	2.491	2.753
Knowing any contraceptive method	0.940	0.023	699	632	2.508	0.024	0.894	0.985
Knowing any modern contraceptive method	0.919	0.028	699	632	2.691	0.030	0.863	0.975
Currently using any method	0.099	0.012	699	632	1.080	0.123	0.075	0.124
Currently using a modern method	0.093	0.013	699	632	1.193	0.141	0.067	0.119
Currently using pill	0.014	0.004	699	632	1.025	0.331	0.005	0.023
Currently using condoms	0.001	0.001	699	632	0.644	1.030	0.000	0.002
Currently using injectables	0.062	0.009	699	632	0.955	0.141	0.044	0.079
Currently using periodic abstinence	0.000	0.000	699	632	na	na	0.000	0.000
Using public sector source	0.890	0.039	122	84	1.364	0.044	0.812	0.968
Want no more children	0.270	0.028	699	632	1.655	0.103	0.214	0.326
Want to delay at least 2 years	0.299	0.019	699	632	1.109	0.064	0.261	0.337
Ideal number of children	5.556	0.148	926	811	1.703	0.027	5.261	5.851
Mothers protected against tetanus for last birth	0.923	0.015	537	481	1.311	0.016	0.893	0.953
Mothers received medical assistance at delivery	0.364	0.054	804	727	2.570	0.147	0.257	0.471
Had diarrhoea in the last 2 weeks	0.148	0.015	695	627	1.097	0.101	0.118	0.178
Treated with oral rehydration salts (ORS)	0.868	0.031	99	93	0.937	0.036	0.805	0.930
Taken to health provider	0.535	0.058	99	93	1.136	0.109	0.419	0.652
Having health card, seen	0.635	0.052	133	118	1.235	0.082	0.531	0.738
Received BCG vaccination	0.945	0.036	133	118	1.828	0.038	0.873	1.018
Received DPT vaccination (3 doses)	0.787	0.050	133	118	1.411	0.064	0.687	0.888
Received polio vaccination (3 doses)	0.800	0.049	133	118	1.419	0.062	0.702	0.899
Received measles vaccination	0.784	0.046	133	118	1.297	0.059	0.691	0.877
Fully immunised	0.664	0.037	133	118	0.889	0.055	0.591	0.737
Height-for-age (below -2SD)	0.336	0.026	287	260	1.015	0.078	0.284	0.388
Weight-for-height (below -2SD)	0.098	0.018	287	260	1.058	0.185	0.062	0.135
Weight-for-age (below -2SD)	0.117	0.020	287	260	1.025	0.172	0.077	0.157
Anaemia children	0.854	0.021	282	254	1.031	0.025	0.812	0.895
Anaemia women	0.399	0.031	425	385	1.319	0.077	0.338	0.461
BMI <18.5	0.104	0.020	389	348	1.300	0.192	0.064	0.144
Has comprehensive knowledge of HIV/AIDS	0.155	0.027	959	843	2.326	0.176	0.100	0.209
Had 2+ sexual partners in past 12 months	0.023	0.004	959	843	0.936	0.199	0.014	0.031
Condom use at last sex	0.034	0.034	24	19	0.903	1.000	0.000	0.102
Accepting attitudes towards people with HIV	0.033	0.011	863	762	1.742	0.321	0.012	0.054
Total fertility rate (3 years)	6.209	0.247	2,648	2,325	1.013	0.040	5.714	6.704
Neonatal mortality rate (last 0-9 years)	46.110	5.094	1,633	1,476	0.828	0.110	35.922	56.299
Postneonatal mortality rate (last 0-9 years)	98.043	7.392	1,651	1,493	0.961	0.075	83.258	112.828
Infant mortality rate (last 0-9 years)	144.154	7.877	1,647	1,490	0.833	0.055	128.400	159.907
Child mortality rate (last 0-9 years)	63.855	6.898	1,612	1,460	0.920	0.108	50.060	77.650
Under-five mortality rate (last 0-9 years)	198.804	10.700	1,659	1,500	0.975	0.054	177.405	220.203
HIV prevalence (women 15-49)	0.013	0.006	413	400	0.979	0.413	0.002	0.025
MEN								
Urban residence	0.061	0.012	427	368	1.072	0.204	0.036	0.086
No education	0.553	0.039	427	368	1.604	0.070	0.475	0.630
With secondary education or higher	0.284	0.037	427	368	1.677	0.129	0.210	0.357
Never married/in union	0.354	0.031	427	368	1.337	0.088	0.292	0.416
Currently married/in union	0.614	0.031	427	368	1.325	0.051	0.551	0.677
Had sex before age of 18	0.656	0.045	334	285	1.711	0.068	0.566	0.745
Knowing any contraceptive method	0.974	0.016	259	226	1.648	0.017	0.941	1.007
Knowing any modern contraceptive method	0.967	0.017	259	226	1.561	0.018	0.932	1.002
Want no more children	0.210	0.047	259	226	1.848	0.224	0.116	0.304
Want to delay at least 2 years	0.346	0.036	259	226	1.210	0.104	0.274	0.418
Ideal number of children	6.744	0.256	425	367	1.422	0.038	6.233	7.256
Has comprehensive knowledge of HIV/AIDS	0.382	0.054	427	368	2.267	0.140	0.275	0.489
Had 2+ sexual partners in past 12 months	0.218	0.034	427	368	1.679	0.154	0.151	0.285
Condom use at last sex	0.132	0.042	88	80	1.147	0.316	0.049	0.215
Accepting attitudes towards people with HIV	0.015	0.007	403	348	1.159	0.466	0.001	0.029
HIV prevalence (men 15-49)	0.006	0.004	355	354	0.940	0.637	0.000	0.014
HIV prevalence (men 15-59)	0.005	0.003	397	398	0.937	0.637	0.000	0.012
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.010	0.003	768	753	0.907	0.326	0.003	0.017

Table B.20 Sampling errors: Pujehun sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.130	0.021	897	595	1.910	0.165	0.087	0.173
No education	0.659	0.032	897	595	2.010	0.048	0.595	0.723
With secondary education or higher	0.162	0.027	897	595	2.217	0.169	0.108	0.217
Never married/in union	0.162	0.019	897	595	1.575	0.120	0.123	0.200
Currently married/in union	0.760	0.022	897	595	1.528	0.029	0.716	0.803
Had sex before age of 18	0.734	0.021	726	495	1.251	0.028	0.693	0.775
Currently pregnant	0.103	0.015	897	595	1.444	0.143	0.073	0.132
Children ever born	4.089	0.145	897	595	1.393	0.036	3.799	4.380
Children ever born to women over 40	7.318	0.306	174	118	1.255	0.042	6.705	7.931
Children surviving	2.906	0.089	897	595	1.248	0.030	2.729	3.084
Knowing any contraceptive method	0.975	0.010	659	452	1.675	0.010	0.955	0.996
Knowing any modern contraceptive method	0.974	0.010	659	452	1.634	0.010	0.953	0.994
Currently using any method	0.201	0.020	659	452	1.249	0.097	0.162	0.241
Currently using a modern method	0.190	0.021	659	452	1.341	0.108	0.149	0.231
Currently using pill	0.064	0.009	659	452	0.980	0.146	0.045	0.083
Currently using condoms	0.000	0.000	659	452	na	na	0.000	0.000
Currently using injectables	0.077	0.016	659	452	1.503	0.203	0.046	0.108
Currently using periodic abstinence	0.001	0.001	659	452	0.861	1.017	0.000	0.003
Using public sector source	0.700	0.050	187	123	1.496	0.072	0.599	0.801
Want no more children	0.323	0.019	659	452	1.058	0.060	0.284	0.361
Want to delay at least 2 years	0.368	0.024	659	452	1.251	0.064	0.321	0.415
Ideal number of children	5.708	0.173	853	565	1.939	0.030	5.362	6.053
Mothers protected against tetanus for last birth	0.939	0.016	561	385	1.570	0.017	0.908	0.971
Mothers received medical assistance at delivery	0.648	0.041	855	595	2.087	0.063	0.567	0.730
Had diarrhoea in the last 2 weeks	0.067	0.012	719	509	1.319	0.180	0.043	0.092
Treated with oral rehydration salts (ORS)	0.853	0.055	50	34	1.094	0.064	0.743	0.962
Taken to health provider	0.621	0.076	50	34	1.104	0.122	0.470	0.772
Having health card, seen	0.846	0.041	135	96	1.350	0.049	0.763	0.928
Received BCG vaccination	0.965	0.019	135	96	1.239	0.020	0.926	1.003
Received DPT vaccination (3 doses)	0.871	0.026	135	96	0.923	0.030	0.819	0.923
Received polio vaccination (3 doses)	0.850	0.041	135	96	1.348	0.048	0.769	0.931
Received measles vaccination	0.791	0.061	135	96	1.763	0.077	0.669	0.912
Fully immunised	0.728	0.080	135	96	2.111	0.109	0.569	0.887
Height-for-age (below -2SD)	0.464	0.033	411	280	1.308	0.071	0.398	0.530
Weight-for-height (below -2SD)	0.085	0.019	411	280	1.318	0.219	0.048	0.122
Weight-for-age (below -2SD)	0.168	0.019	411	280	1.014	0.115	0.129	0.207
Anaemia children	0.821	0.023	398	266	1.246	0.028	0.774	0.868
Anaemia women	0.695	0.029	442	296	1.313	0.041	0.637	0.752
BMI <18.5	0.062	0.013	384	256	1.086	0.215	0.035	0.089
Has comprehensive knowledge of HIV/AIDS	0.143	0.013	897	595	1.146	0.094	0.116	0.170
Had 2+ sexual partners in past 12 months	0.112	0.014	897	595	1.358	0.128	0.083	0.141
Condom use at last sex	0.029	0.015	110	67	0.955	0.526	0.000	0.060
Accepting attitudes towards people with HIV	0.026	0.007	868	577	1.254	0.261	0.012	0.039
Total fertility rate (3 years)	6.274	0.350	2,522	1,688	1.448	0.056	5.573	6.974
Neonatal mortality rate (last 0-9 years)	39.329	6.468	1,839	1,264	1.282	0.164	26.393	52.265
Postneonatal mortality rate (last 0-9 years)	90.178	7.322	1,860	1,276	1.181	0.081	75.534	104.822
Infant mortality rate (last 0-9 years)	129.507	11.056	1,850	1,272	1.442	0.085	107.395	151.619
Child mortality rate (last 0-9 years)	100.884	11.683	1,851	1,262	1.305	0.116	77.517	124.251
Under-five mortality rate (last 0-9 years)	217.326	16.565	1,878	1,293	1.644	0.076	184.196	250.455
HIV prevalence (women 15-49)	0.015	0.008	447	290	1.349	0.519	0.000	0.030
MEN								
Urban residence	0.145	0.041	343	230	2.136	0.282	0.063	0.227
No education	0.642	0.041	343	230	1.560	0.063	0.561	0.723
With secondary education or higher	0.221	0.031	343	230	1.373	0.140	0.159	0.283
Never married/in union	0.304	0.027	343	230	1.097	0.090	0.250	0.359
Currently married/in union	0.647	0.027	343	230	1.042	0.042	0.594	0.701
Had sex before age of 18	0.609	0.038	288	193	1.323	0.063	0.532	0.685
Knowing any contraceptive method	0.984	0.010	225	149	1.206	0.010	0.964	1.004
Knowing any modern contraceptive method	0.984	0.010	225	149	1.206	0.010	0.964	1.004
Want no more children	0.184	0.033	225	149	1.264	0.178	0.119	0.250
Want to delay at least 2 years	0.353	0.040	225	149	1.253	0.113	0.273	0.433
Ideal number of children	6.172	0.244	330	222	1.547	0.039	5.684	6.659
Has comprehensive knowledge of HIV/AIDS	0.174	0.021	343	230	1.015	0.120	0.132	0.215
Had 2+ sexual partners in past 12 months	0.527	0.060	343	230	2.199	0.113	0.408	0.646
Condom use at last sex	0.110	0.040	184	121	1.722	0.364	0.030	0.190
Accepting attitudes towards people with HIV	0.021	0.008	323	217	0.961	0.369	0.005	0.036
HIV prevalence (men 15-49)	0.000	0.000	324	220	na	na	0.000	0.000
HIV prevalence (men 15-59)	0.001	0.001	370	251	0.705	1.021	0.000	0.004
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.008	0.004	771	509	1.342	0.523	0.000	0.017

Table B.21 Sampling errors: Western Rural sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.567	0.049	1,209	528	3.441	0.087	0.468	0.665
No education	0.400	0.024	1,209	528	1.693	0.060	0.352	0.448
With secondary education or higher	0.439	0.027	1,209	528	1.916	0.062	0.384	0.494
Never married/in union	0.352	0.022	1,209	528	1.569	0.061	0.309	0.395
Currently married/in union	0.577	0.021	1,209	528	1.463	0.036	0.536	0.619
Had sex before age of 18	0.631	0.033	889	390	2.061	0.053	0.564	0.698
Currently pregnant	0.098	0.014	1,209	528	1.683	0.147	0.069	0.127
Children ever born	2.173	0.091	1,209	528	1.418	0.042	1.991	2.355
Children ever born to women over 40	5.053	0.285	177	77	1.485	0.056	4.483	5.622
Children surviving	1.743	0.059	1,209	528	1.169	0.034	1.625	1.861
Knowing any contraceptive method	0.961	0.015	664	305	1.962	0.015	0.931	0.991
Knowing any modern contraceptive method	0.955	0.016	664	305	2.034	0.017	0.922	0.988
Currently using any method	0.241	0.029	664	305	1.718	0.119	0.183	0.298
Currently using a modern method	0.230	0.027	664	305	1.664	0.118	0.176	0.285
Currently using pill	0.034	0.007	664	305	1.005	0.209	0.020	0.048
Currently using condoms	0.002	0.002	664	305	0.899	0.708	0.000	0.006
Currently using injectables	0.136	0.018	664	305	1.388	0.136	0.099	0.173
Currently using periodic abstinence	0.000	0.000	664	305	na	na	0.000	0.000
Using public sector source	0.729	0.047	363	147	2.023	0.065	0.634	0.824
Want no more children	0.214	0.011	664	305	0.717	0.053	0.191	0.236
Want to delay at least 2 years	0.465	0.031	664	305	1.584	0.066	0.404	0.527
Ideal number of children	4.300	0.100	1,193	520	2.135	0.023	4.099	4.501
Mothers protected against tetanus for last birth	0.931	0.020	503	226	1.800	0.022	0.891	0.972
Mothers received medical assistance at delivery	0.637	0.054	643	295	2.513	0.084	0.529	0.744
Had diarrhoea in the last 2 weeks	0.053	0.014	563	259	1.529	0.267	0.025	0.082
Treated with oral rehydration salts (ORS)	0.920	0.063	30	14	1.288	0.069	0.794	1.046
Taken to health provider	0.569	0.121	30	14	1.352	0.212	0.328	0.810
Having health card, seen	0.584	0.051	117	55	1.141	0.088	0.481	0.687
Received BCG vaccination	0.967	0.016	117	55	1.016	0.017	0.934	1.000
Received DPT vaccination (3 doses)	0.716	0.056	117	55	1.378	0.079	0.603	0.829
Received polio vaccination (3 doses)	0.710	0.056	117	55	1.367	0.079	0.597	0.823
Received measles vaccination	0.767	0.034	117	55	0.873	0.044	0.700	0.834
Fully immunised	0.604	0.057	117	55	1.276	0.094	0.490	0.718
Height-for-age (below -2SD)	0.276	0.030	282	129	1.077	0.110	0.215	0.336
Weight-for-height (below -2SD)	0.082	0.012	282	129	0.786	0.151	0.057	0.107
Weight-for-age (below -2SD)	0.104	0.015	282	129	0.841	0.143	0.074	0.134
Anaemia children	0.800	0.027	285	129	1.182	0.034	0.745	0.854
Anaemia women	0.370	0.034	590	264	1.752	0.093	0.301	0.439
BMI <18.5	0.079	0.009	547	244	0.830	0.120	0.060	0.098
Has comprehensive knowledge of HIV/AIDS	0.304	0.054	1,209	528	4.045	0.177	0.196	0.412
Had 2+ sexual partners in past 12 months	0.052	0.011	1,209	528	1.694	0.208	0.030	0.074
Condom use at last sex	0.049	0.024	67	27	0.897	0.483	0.002	0.097
Accepting attitudes towards people with HIV	0.036	0.012	1,202	525	2.287	0.343	0.011	0.060
Total fertility rate (3 years)	3.847	0.259	3,305	1,439	1.273	0.067	3.328	4.366
Neonatal mortality rate (last 0-9 years)	65.682	12.757	1,261	572	1.593	0.194	40.167	91.196
Postneonatal mortality rate (last 0-9 years)	58.503	7.374	1,272	579	0.911	0.126	43.754	73.252
Infant mortality rate (last 0-9 years)	124.185	15.245	1,266	575	1.432	0.123	93.695	154.675
Child mortality rate (last 0-9 years)	59.495	10.128	1,255	573	1.170	0.170	39.239	79.751
Under-five mortality rate (last 0-9 years)	176.292	18.490	1,274	578	1.501	0.105	139.311	213.272
HIV prevalence (women 15-49)	0.033	0.007	592	266	1.007	0.226	0.018	0.047
MEN								
Urban residence	0.540	0.048	503	230	2.164	0.089	0.443	0.637
No education	0.231	0.033	503	230	1.743	0.142	0.165	0.296
With secondary education or higher	0.590	0.044	503	230	2.014	0.075	0.501	0.678
Never married/in union	0.505	0.036	503	230	1.629	0.072	0.432	0.578
Currently married/in union	0.462	0.037	503	230	1.671	0.081	0.387	0.536
Had sex before age of 18	0.532	0.047	356	168	1.768	0.088	0.438	0.625
Knowing any contraceptive method	1.000	0.000	216	106	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	216	106	na	0.000	1.000	1.000
Want no more children	0.221	0.038	216	106	1.345	0.173	0.145	0.297
Want to delay at least 2 years	0.245	0.039	216	106	1.315	0.158	0.168	0.322
Ideal number of children	4.367	0.133	476	216	1.381	0.031	4.100	4.634
Has comprehensive knowledge of HIV/AIDS	0.395	0.050	503	230	2.280	0.127	0.295	0.494
Had 2+ sexual partners in past 12 months	0.353	0.035	503	230	1.637	0.099	0.283	0.423
Condom use at last sex	0.055	0.025	168	81	1.420	0.456	0.005	0.105
Accepting attitudes towards people with HIV	0.143	0.034	501	229	2.178	0.239	0.075	0.212
HIV prevalence (men 15-49)	0.036	0.012	463	219	1.381	0.335	0.012	0.059
HIV prevalence (men 15-59)	0.033	0.011	498	237	1.370	0.334	0.011	0.055
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.034	0.007	1,055	485	1.336	0.220	0.019	0.049

Table B.22 Sampling errors: Western Urban sample, Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	1.000	0.000	1,495	2,710	na	0.000	1.000	1.000
No education	0.274	0.023	1,495	2,710	2.017	0.085	0.228	0.321
With secondary education or higher	0.605	0.028	1,495	2,710	2.244	0.047	0.549	0.662
Never married/in union	0.475	0.027	1,495	2,710	2.077	0.057	0.422	0.529
Currently married/in union	0.445	0.026	1,495	2,710	1.985	0.057	0.394	0.497
Had sex before age of 18	0.547	0.021	1,121	2,031	1.412	0.038	0.505	0.589
Currently pregnant	0.046	0.007	1,495	2,710	1.307	0.154	0.032	0.060
Children ever born	1.816	0.091	1,495	2,710	1.711	0.050	1.633	1.999
Children ever born to women over 40	4.347	0.241	187	339	1.355	0.055	3.865	4.829
Children surviving	1.530	0.065	1,495	2,710	1.469	0.043	1.400	1.660
Knowing any contraceptive method	0.984	0.007	665	1,207	1.508	0.007	0.970	0.999
Knowing any modern contraceptive method	0.969	0.018	665	1,207	2.584	0.018	0.933	1.004
Currently using any method	0.279	0.028	665	1,207	1.618	0.101	0.223	0.335
Currently using a modern method	0.255	0.026	665	1,207	1.563	0.104	0.202	0.308
Currently using pill	0.073	0.014	665	1,207	1.420	0.196	0.045	0.102
Currently using condoms	0.007	0.004	665	1,207	1.090	0.499	0.000	0.014
Currently using injectables	0.118	0.014	665	1,207	1.118	0.119	0.090	0.146
Currently using periodic abstinence	0.004	0.004	665	1,207	1.622	0.945	0.000	0.013
Using public sector source	0.510	0.031	469	832	1.352	0.061	0.448	0.573
Want no more children	0.319	0.021	665	1,207	1.187	0.067	0.276	0.362
Want to delay at least 2 years	0.323	0.021	665	1,207	1.150	0.065	0.281	0.365
Ideal number of children	3.653	0.097	1,452	2,636	2.393	0.027	3.459	3.847
Mothers protected against tetanus for last birth	0.851	0.020	550	1,000	1.323	0.024	0.811	0.892
Mothers received medical assistance at delivery	0.766	0.048	699	1,304	2.525	0.063	0.669	0.862
Had diarrhoea in the last 2 weeks	0.141	0.022	609	1,130	1.547	0.159	0.096	0.186
Treated with oral rehydration salts (ORS)	0.888	0.027	82	159	0.804	0.031	0.833	0.943
Taken to health provider	0.595	0.052	82	159	0.968	0.088	0.490	0.699
Having health card, seen	0.507	0.061	127	246	1.368	0.120	0.385	0.628
Received BCG vaccination	0.914	0.038	127	246	1.558	0.041	0.839	0.990
Received DPT vaccination (3 doses)	0.685	0.055	127	246	1.342	0.080	0.575	0.795
Received polio vaccination (3 doses)	0.677	0.058	127	246	1.402	0.085	0.561	0.792
Received measles vaccination	0.762	0.049	127	246	1.310	0.064	0.664	0.859
Fully immunised	0.552	0.067	127	246	1.516	0.121	0.419	0.686
Height-for-age (below -2SD)	0.294	0.036	229	392	1.171	0.122	0.222	0.365
Weight-for-height (below -2SD)	0.090	0.028	229	392	1.474	0.308	0.034	0.145
Weight-for-age (below -2SD)	0.104	0.028	229	392	1.405	0.267	0.048	0.159
Anaemia children	0.689	0.030	268	454	1.079	0.044	0.628	0.750
Anaemia women	0.294	0.044	703	1,285	2.592	0.151	0.205	0.383
BMI <18.5	0.063	0.015	664	1,211	1.595	0.238	0.033	0.093
Has comprehensive knowledge of HIV/AIDS	0.440	0.052	1,495	2,710	3.995	0.117	0.337	0.544
Had 2+ sexual partners in past 12 months	0.072	0.012	1,495	2,710	1.761	0.164	0.048	0.095
Condom use at last sex	0.071	0.031	102	194	1.199	0.432	0.010	0.132
Accepting attitudes towards people with HIV	0.034	0.008	1,478	2,682	1.620	0.225	0.019	0.049
Total fertility rate (3 years)	3.123	0.308	4,142	7,522	1.937	0.099	2.508	3.739
Neonatal mortality rate (last 0-9 years)	54.326	7.308	1,350	2,519	1.110	0.135	39.709	68.943
Postneonatal mortality rate (last 0-9 years)	48.477	7.159	1,352	2,525	1.185	0.148	34.160	62.795
Infant mortality rate (last 0-9 years)	102.803	11.811	1,354	2,528	1.363	0.115	79.181	126.425
Child mortality rate (last 0-9 years)	55.129	9.562	1,304	2,454	1.294	0.173	36.004	74.254
Under-five mortality rate (last 0-9 years)	152.265	13.659	1,363	2,542	1.288	0.090	124.946	179.583
HIV prevalence (women 15-49)	0.021	0.007	700	1,252	1.207	0.312	0.008	0.034
MEN								
Urban residence	1.000	0.000	668	1,195	na	0.000	1.000	1.000
No education	0.113	0.027	668	1,195	2.166	0.236	0.059	0.166
With secondary education or higher	0.794	0.030	668	1,195	1.941	0.038	0.733	0.855
Never married/in union	0.602	0.034	668	1,195	1.774	0.056	0.534	0.669
Currently married/in union	0.353	0.032	668	1,195	1.724	0.091	0.289	0.417
Had sex before age of 18	0.522	0.029	507	892	1.297	0.055	0.465	0.580
Knowing any contraceptive method	0.992	0.006	237	422	0.993	0.006	0.980	1.003
Knowing any modern contraceptive method	0.992	0.006	237	422	0.993	0.006	0.980	1.003
Want no more children	0.192	0.041	237	422	1.575	0.211	0.111	0.273
Want to delay at least 2 years	0.254	0.037	237	422	1.299	0.145	0.180	0.328
Ideal number of children	3.478	0.192	656	1,175	2.492	0.055	3.093	3.862
Has comprehensive knowledge of HIV/AIDS	0.451	0.036	668	1,195	1.865	0.080	0.379	0.523
Had 2+ sexual partners in past 12 months	0.306	0.036	668	1,195	2.014	0.118	0.234	0.378
Condom use at last sex	0.252	0.027	202	366	0.882	0.107	0.198	0.306
Accepting attitudes towards people with HIV	0.151	0.070	659	1,179	4.940	0.466	0.010	0.291
HIV prevalence (men 15-49)	0.030	0.011	590	1,133	1.566	0.368	0.008	0.052
HIV prevalence (men 15-59)	0.030	0.010	631	1,210	1.541	0.350	0.009	0.051
MEN AND WOMEN								
HIV prevalence (men and women 15-49)	0.025	0.007	1,290	2,384	1.529	0.265	0.012	0.039

Table B.23 Sampling errors for adult and maternal mortality rates (last 0-6 years), Sierra Leone 2013

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (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	5.600	0.573	30,164	29,604	1.288	0.102	4.453	6.746
20-24	6.210	0.530	32,424	32,670	1.209	0.085	5.149	7.270
25-29	4.537	0.589	29,283	29,797	1.503	0.130	3.360	5.715
30-34	6.401	0.650	23,621	24,056	1.234	0.102	5.101	7.701
35-39	4.819	0.670	17,601	18,051	1.302	0.139	3.480	6.159
40-44	6.126	0.858	11,027	11,064	1.155	0.140	4.410	7.841
45-49	6.334	1.202	6,527	6,452	1.175	0.190	3.930	8.738
15-49 (age-adjusted)	5.623	0.308	150,647	151,694	1.269	0.055	5.007	6.239
Adult mortality probabilities								
${}_{35}q_{15}$ [2013]	181	10	150,647	151,694	1.593	0.053	162	201
${}_{35}q_{15}$ [2008]	186	14	61,307	62,082	1.482	0.076	158	214
Maternal mortality rates								
15-19	2.622	0.456	30,164	29,604	1.462	0.174	1.711	3.534
20-24	2.135	0.315	32,424	32,670	1.233	0.147	1.505	2.765
25-29	1.709	0.318	29,283	29,797	1.313	0.186	1.072	2.346
30-34	2.408	0.386	23,621	24,056	1.220	0.160	1.636	3.180
35-39	1.784	0.437	17,601	18,051	1.393	0.245	0.911	2.658
40-44	1.134	0.323	11,027	11,064	1.012	0.285	0.488	1.781
45-49	0.716	0.367	6,527	6,452	1.102	0.513	0.000	1.450
15-49 (age-adjusted)	1.969	0.181	150,647	151,694	1.339	0.092	1.608	2.331
Maternal mortality ratio (MMR) [2013]	1,165	107	150,647	151,694	1.339	0.092	951	1,379
Maternal mortality ratio (MMR) [2008]	857	121	61,307	62,082	1.194	0.141	615	1,099
			MEN					
Adult mortality rates								
15-19	4.009	0.449	29,940	30,321	1.196	0.112	3.110	4.907
20-24	4.584	0.488	32,419	33,084	1.223	0.106	3.609	5.560
25-29	3.738	0.420	29,692	30,752	1.201	0.112	2.898	4.578
30-34	5.496	0.574	23,338	24,068	1.187	0.104	4.349	6.643
35-39	3.895	0.537	17,494	17,655	1.135	0.138	2.821	4.969
40-44	8.867	1.102	10,858	11,065	1.200	0.124	6.663	11.070
45-49	8.052	1.416	6,615	6,698	1.273	0.176	5.220	10.884
15-49 (age-adjusted)	4.967	0.251	150,357	153,643	1.209	0.050	4.466	5.469
Adult mortality probabilities								
${}_{35}q_{15}$ [2013]	176	9.257	150,357	153,643	1.444	0.053	157	194
${}_{35}q_{15}$ [2008]	218	15.213	60,429	60,328	1.362	0.070	187	248

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Sierra Leone 2013

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	1,202	3.1	1,264	3.6	37	267	0.7	285	0.8
1	1,116	2.9	1,039	2.9	38	539	1.4	399	1.1
2	1,178	3.1	1,104	3.1	39	286	0.7	195	0.5
3	1,351	3.5	1,374	3.9	40	659	1.7	698	2.0
4	1,364	3.6	1,253	3.5	41	140	0.4	155	0.4
5	1,245	3.2	1,312	3.7	42	228	0.6	284	0.8
6	1,204	3.1	1,278	3.6	43	207	0.5	217	0.6
7	1,246	3.3	1,408	4.0	44	113	0.3	110	0.3
8	1,315	3.4	1,244	3.5	45	482	1.3	702	2.0
9	941	2.5	1,045	2.9	46	165	0.4	146	0.4
10	1,290	3.4	1,341	3.8	47	171	0.4	155	0.4
11	599	1.6	719	2.0	48	297	0.8	227	0.6
12	1,042	2.7	1,147	3.2	49	219	0.6	188	0.5
13	891	2.3	978	2.8	50	402	1.0	386	1.1
14	620	1.6	690	1.9	51	172	0.4	87	0.2
15	1,013	2.6	909	2.6	52	392	1.0	195	0.5
16	695	1.8	557	1.6	53	190	0.5	93	0.3
17	651	1.7	600	1.7	54	201	0.5	112	0.3
18	912	2.4	702	2.0	55	354	0.9	274	0.8
19	661	1.7	514	1.5	56	181	0.5	147	0.4
20	917	2.4	754	2.1	57	92	0.2	89	0.3
21	402	1.0	373	1.1	58	188	0.5	135	0.4
22	590	1.5	474	1.3	59	80	0.2	92	0.3
23	480	1.3	363	1.0	60	410	1.1	338	1.0
24	390	1.0	281	0.8	61	67	0.2	98	0.3
25	938	2.4	704	2.0	62	185	0.5	205	0.6
26	429	1.1	336	0.9	63	99	0.3	139	0.4
27	522	1.4	338	1.0	64	69	0.2	103	0.3
28	723	1.9	431	1.2	65	289	0.8	301	0.9
29	349	0.9	296	0.8	66	37	0.1	42	0.1
30	1,030	2.7	696	2.0	67	85	0.2	86	0.2
31	223	0.6	200	0.6	68	148	0.4	84	0.2
32	485	1.3	368	1.0	69	68	0.2	55	0.2
33	298	0.8	246	0.7	70+	985	2.6	978	2.8
34	272	0.7	215	0.6	Don't know/				
35	915	2.4	827	2.3	missing	14	0.0	7	0.0
36	349	0.9	274	0.8	Total	38,332	100.0	35,460	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

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, Sierra Leone 2013

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	4,442	na	na	na
15-19	3,933	3,825	23.2	97.2
20-24	2,779	2,714	16.4	97.6
25-29	2,961	2,841	17.2	96.0
30-34	2,309	2,244	13.6	97.2
35-39	2,356	2,291	13.9	97.2
40-44	1,347	1,286	7.8	95.5
45-49	1,333	1,304	7.9	97.8
50-54	1,357	na	na	na
15-49	17,019	16,504	100.0	97.0

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, Sierra Leone 2013

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percentage	
10-14	2,533	na	na	na
15-19	1,507	1,462	20.2	97.0
20-24	1,038	991	13.7	95.5
25-29	1,026	992	13.7	96.7
30-34	826	790	10.9	95.7
35-39	1,004	971	13.4	96.7
40-44	709	677	9.4	95.4
45-49	686	650	9.0	94.7
50-54	392	379	5.2	96.6
55-59	321	310	4.3	96.5
60-64	476	na	na	na
15-59	7,511	7,223	100.0	96.2

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), Sierra Leone 2013

Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		1.13	34,767
Month and year		0.22	34,767
Age at Death	Deceased children born in the 15 years preceding the survey	0.23	6,315
Age/date at first union[1]	Ever married women age 15-49	1.97	11,928
	Ever married men age 15-59	1.32	4,406
Respondent's education	All women age 15-59	0.13	16,658
	All men age 15-59	0.20	7,262
Diarrhoea in last 2 weeks	Living children (0-59 months)	3.59	10,814
Anthropometry			
Children	Living children age 0-59 months (from the Household Questionnaire)		
Height		5.54	6,237
Weight		4.93	6,237
Height or weight		5.66	6,237
Women	Women age 15-49 (from the Household Questionnaire)		
Height		4.02	8,372
Weight		3.90	8,372
Height or weight		4.25	8,372
Men	Men age 15-59 (from the Household Questionnaire)		
Height		7.21	6,799
Weight		7.13	6,799
Height or weight		7.45	6,799
Anaemia			
Children	Living children age 6-59 months (from the Household Questionnaire)	6.85	5,622
Women	All women (from the Household Questionnaire)	5.58	8,372
Men	All men (from the Household Questionnaire)	9.20	7,513

[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), Sierra Leone 2013

	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
2013	1,585	108	1,693	100.0	100.0	100.0	101.6	87.3	100.6	na	na	na
2012	2,378	240	2,618	99.9	99.8	99.9	97.9	130.8	100.5	na	na	na
2011	2,028	239	2,266	99.9	100.0	99.9	94.1	103.9	95.1	87.2	83.3	86.8
2010	2,272	333	2,605	100.0	99.9	100.0	100.5	115.3	102.2	111.7	112.6	111.8
2009	2,039	353	2,393	100.0	100.0	100.0	96.2	110.3	98.1	93.5	102.7	94.7
2008	2,092	355	2,446	99.8	99.3	99.7	104.9	131.2	108.3	96.8	71.5	92.0
2007	2,284	639	2,923	98.6	96.7	98.2	101.7	136.1	108.4	110.8	143.4	116.6
2006	2,030	536	2,566	97.5	97.2	97.4	109.1	121.4	111.6	91.4	91.5	91.5
2005	2,155	533	2,688	98.6	95.1	97.9	100.3	104.4	101.1	115.7	102.5	112.8
2004	1,698	504	2,201	98.6	95.0	97.8	103.2	116.2	106.0	78.7	94.5	81.9
2009-2013	10,302	1,273	11,574	99.9	99.9	99.9	97.9	111.7	99.3	na	na	na
2004-2008	10,258	2,567	12,825	98.6	96.5	98.2	103.7	121.3	107.0	na	na	na
1999-2003	7,659	2,352	10,011	98.1	96.7	97.8	103.6	115.9	106.4	na	na	na
1994-1998	5,296	1,768	7,063	97.7	95.5	97.2	99.5	115.6	103.3	na	na	na
≤1993	4,745	2,122	6,866	97.5	95.0	96.7	110.2	127.0	115.1	na	na	na
All	38,259	10,080	48,339	98.6	96.5	98.2	102.3	118.9	105.5	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] $[2B_x/(B_{x-1}+B_{x+1})]$x100, where B_x is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 1 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), Sierra Leone 2013

	Number of years preceding the survey				Total
Age at death (days)	0-4	5-9	10-14	15-19	0-19
<1	88	115	75	40	317
1	131	142	119	65	457
2	49	79	69	39	237
3	46	49	37	46	179
4	30	32	15	19	95
5	25	21	28	22	95
6	9	25	24	17	75
7	29	46	40	31	147
8	1	3	12	13	30
9	7	7	1	10	25
10	12	6	2	3	23
11	2	0	0	5	7
12	0	7	2	2	11
13	4	0	2	0	6
14	13	24	25	18	80
15	2	7	1	0	11
16	0	0	3	2	5
17	3	0	0	2	4
18	3	2	1	0	6
19	0	0	1	0	1
20	3	2	0	2	7
21	7	7	5	4	23
24	0	0	7	1	9
25	1	1	1	0	3
26	0	0	1	0	1
29	1	0	0	0	2
30	2	5	1	4	11
Missing	0	0	0	2	2
Total 0-30	469	579	473	347	1,868
Percentage early neonatal[1]	80.5	79.8	77.5	71.6	77.9

[1] 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under age 2 at death in months and percentage of infant deaths reported to occur at age under 1 month, for five-year periods of birth preceding the survey, Sierra Leone 2013

	Number of years preceding the survey				Total
Age at death (months)	0-4	5-9	10-14	15-19	0-19
<1[a]	469	579	473	350	1,871
1	58	99	97	67	322
2	73	117	118	80	387
3	65	126	127	84	403
4	57	75	93	66	292
5	41	82	66	40	230
6	70	110	130	82	393
7	44	71	87	61	263
8	50	101	79	69	298
9	61	117	94	58	330
10	16	38	47	21	121
11	24	40	35	30	129
12	41	85	89	55	270
13	12	35	26	14	88
14	16	25	28	8	76
15	7	22	17	8	54
16	9	11	11	8	38
17	4	7	7	3	21
18	19	50	21	31	121
19	7	11	5	12	35
20	3	12	6	5	26
21	0	4	1	2	7
22	1	3	2	1	8
23	1	1	1	0	3
24+	0	4	2	3	9
Missing	1	1	10	2	15
1 Year	85	168	127	93	474
Total 0-11	1,029	1,554	1,448	1,007	5,038
Percentage neonatal[1]	45.5	37.3	32.7	34.7	37.1

[a] Includes deaths under one month reported in days
[1] Under 1 month/under 1 year

Table C.7 Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

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, based on the NCHS/CDC/WHO International Reference Population, Sierra Leone 2013

	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	2.8	12.6	-0.4	3.5	5.7	13.9	0.5	4.7	8.1	12.0	0.2	394
6-8	6.0	16.6	-0.7	3.3	8.2	8.2	-0.2	2.6	15.3	5.8	-0.6	270
9-11	9.1	26.3	-1.1	4.7	12.2	6.0	-0.7	8.8	30.4	3.4	-1.4	233
12-17	16.4	32.2	-1.2	1.9	13.5	6.0	-0.6	9.7	28.8	3.2	-1.3	558
18-23	17.5	45.4	-1.5	2.6	12.0	6.9	-0.5	6.4	24.1	4.1	-1.2	379
24-35	18.6	37.2	-1.4	2.3	6.9	3.3	-0.3	6.5	23.6	3.5	-1.1	1,003
36-47	15.6	36.9	-1.5	2.6	6.8	2.7	-0.3	5.2	21.7	1.6	-1.1	1,202
48-59	15.3	30.3	-1.4	1.9	6.2	4.7	-0.2	4.2	17.3	2.6	-1.0	1,139
Sex												
Male	15.0	32.9	-1.3	2.7	8.4	4.6	-0.4	6.3	22.0	3.6	-1.1	2,529
Female	14.1	31.6	-1.2	2.3	7.6	5.7	-0.2	5.3	20.2	3.6	-0.9	2,649
Birth interval in months[3]												
First birth[4]	12.2	29.7	-1.1	1.2	7.3	6.3	-0.1	4.3	20.2	5.7	-0.8	804
<24	20.5	42.3	-1.5	2.4	9.8	6.0	-0.2	6.0	26.0	2.7	-1.1	472
24-47	15.6	34.5	-1.3	2.8	7.8	5.4	-0.1	6.5	22.0	3.5	-0.9	1,830
48+	11.3	27.8	-0.9	2.7	8.8	4.8	-0.3	5.8	19.3	4.1	-0.8	1,031
Size at birth[3]												
Very small	22.9	44.8	-1.6	2.2	10.8	6.4	-0.3	12.7	29.1	3.7	-1.3	179
Small	18.1	36.8	-1.4	2.1	7.9	5.7	-0.4	8.7	26.5	2.6	-1.1	438
Average or larger	13.5	31.6	-1.1	2.4	8.1	5.4	-0.1	5.2	20.4	4.0	-0.8	3,430
Missing	15.9	32.0	-0.8	4.3	7.4	8.5	0.0	4.5	20.3	12.3	-0.4	89
Mother's interview status												
Interviewed	14.4	32.8	-1.2	2.4	8.2	5.5	-0.2	5.9	21.4	4.0	-0.9	4,136
Not interviewed but in household	10.5	22.3	-2.9	0.9	6.9	6.4	-2.0	1.8	17.3	1.5	-2.6	140
Not interviewed and not in the household[5]	16.0	31.4	-1.5	3.2	7.5	3.5	-0.5	6.0	20.0	2.2	-1.2	902
Mother's nutritional status[6]												
Thin (BMI<18.5)	17.5	37.1	-1.5	2.4	9.9	3.9	-0.5	9.1	30.6	1.7	-1.3	289
Normal (BMI 18.5-24.9)	14.5	33.3	-1.2	2.1	7.8	5.4	-0.2	5.5	21.3	4.2	-0.9	2,807
Overweight/obese (BMI >= 25)	12.8	30.2	-1.1	2.9	7.2	7.8	-0.0	4.2	16.3	3.6	-0.8	533
Residence												
Urban	8.7	24.1	-0.9	2.5	8.4	5.6	-0.4	4.2	14.4	5.7	-0.8	1,218
Rural	16.4	34.7	-1.4	2.5	7.9	5.0	-0.3	6.3	23.1	3.0	-1.0	3,960
Region												
Eastern	18.2	37.0	-1.6	1.3	6.1	4.5	-0.3	5.0	22.5	1.0	-1.2	1,196
Northern	13.0	30.5	-1.1	3.3	9.2	4.0	-0.3	6.6	22.3	3.9	-1.0	2,249
Southern	16.8	35.4	-1.4	2.3	8.0	7.6	-0.1	6.1	21.3	3.4	-0.9	1,175
Western	8.5	22.3	-0.9	2.3	7.4	6.4	-0.4	3.4	12.5	8.5	-0.7	558

Continued…

Table C.7—*Continued*

Background characteristic	Height-for-age[1]			Weight-for-height				Weight-for-age				Number of children
	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)	
District												
Kailahun	12.8	33.8	-1.3	1.0	5.9	2.3	-0.4	5.8	24.5	0.3	-1.2	377
Kenema	15.9	34.9	-1.4	1.7	7.7	3.2	-0.3	6.1	23.6	0.4	-1.1	570
Kono	31.7	46.7	-2.6	0.7	2.9	10.6	-0.2	1.4	16.8	3.2	-1.5	249
Bombali	10.9	25.5	-0.9	11.3	22.6	1.6	-0.9	13.1	30.9	1.9	-1.4	381
Kambia	11.9	30.9	-1.1	2.0	5.9	5.6	-0.3	4.7	20.4	4.3	-0.9	289
Koinadugu	16.4	33.8	-1.0	3.0	8.8	8.0	-0.3	9.0	25.3	13.4	-0.8	249
Port Loko	11.8	30.7	-1.1	1.9	7.3	4.8	-0.2	5.2	19.3	3.4	-0.9	746
Tonkolili	14.9	32.0	-1.3	0.8	4.6	2.0	-0.2	4.1	20.2	1.8	-1.0	584
Bo	15.8	37.6	-1.5	4.0	10.7	5.4	-0.3	8.7	27.0	1.8	-1.2	435
Bonthe	17.1	33.9	-1.2	0.1	2.9	17.7	0.5	2.5	11.3	7.4	-0.3	197
Moyamba	13.3	26.8	-1.1	2.4	9.1	8.6	-0.1	6.3	18.3	4.5	-0.8	261
Pujehun	21.3	41.1	-1.6	1.2	6.5	3.2	-0.2	4.5	22.4	2.2	-1.1	282
Western Area Rural	10.1	26.1	-0.8	1.1	6.5	9.9	0.1	1.4	10.8	6.6	-0.4	129
Western Area Urban	8.0	21.2	-0.9	2.6	7.7	5.4	-0.5	4.0	12.9	9.1	-0.8	430
Mother's education												
No education	15.9	33.5	-1.3	2.3	8.1	5.6	-0.2	6.3	22.1	4.0	-1.0	3,009
Primary	11.8	32.8	-1.3	2.6	8.8	3.8	-0.3	4.8	21.6	1.9	-1.1	587
Secondary or higher	9.4	27.3	-1.0	2.5	7.9	6.8	-0.1	4.1	17.4	5.4	-0.7	681
Wealth quintile												
Lowest	18.5	36.8	-1.3	2.2	6.4	6.8	-0.1	6.1	23.3	4.7	-0.9	1,194
Second	15.9	34.8	-1.5	3.6	8.9	3.5	-0.4	7.4	23.6	1.6	-1.2	1,210
Middle	14.9	33.0	-1.4	2.3	7.9	5.4	-0.2	5.8	22.0	4.0	-1.0	1,142
Fourth	12.2	29.3	-1.2	1.5	9.1	5.0	-0.4	5.2	19.1	3.6	-1.0	961
Highest	8.0	22.5	-0.9	3.0	8.0	5.1	-0.3	3.2	13.6	4.9	-0.8	671
Total	14.6	32.2	-1.3	2.5	8.0	5.2	-0.3	5.8	21.1	3.6	-1.0	5,178

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 Completeness of information for dead sisters

Percentage of sisters who died at age 15-49 with information missing on whether or not the death was maternal (unweighted), Sierra Leone 2013

	Percent
Deaths that could not be classified as maternal or nonmaternal	8.7
Total number of dead sisters who died at age 15-49	839

Note: Restricted to sisters who died during the seven years preceding the survey

Table C.9 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings at birth, Sierra Leone 2013

Age of respondents	Mean sibship size[1]	Sex ratio of siblings at birth[2]
15-19	5.1	105.0
20-24	5.1	104.2
25-29	5.2	101.9
30-34	5.4	102.2
35-39	5.2	95.4
40-44	5.1	94.2
45-49	5.1	95.6
Total	5.2	101.0

[1] Includes the respondent
[2] Excludes the respondent

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QUESTIONNAIRES

Appendix E

2013 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY

HOUSEHOLD QUESTIONNAIRE

STATISTICS SIERRA LEONE

IDENTIFICATION

LOCALITY NAME _____

LOCAL COUNCIL _____

DISTRICT CODE . . . . . .

PROVINCE NAME AND CODE _____

CHIEFDOM CODE . . . . . .

SECTION CODE . . . . . .

DHS CLUSTER NUMBER . . . . . .

ENUMERATION AREA CODE . . . . . .

RURAL (1) / URBAN (2) . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME OF HOUSEHOLD HEAD _____

HOUSEHOLD SELECTED FOR MALE INTERVIEW AND FOR COLLECTION OF BLOOD SAMPLES — YES . . . 1 / NO . . . 0

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 1 3
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 _____		

TABLE FOR SELECTION OF MEN AND WOMEN FOR DOMESTIC VIOLENCE INTERVIEW

CHECK THE NUMBER OF THE QUESTIONNAIRE. THE LAST DIGIT OF THE QUESTIONNAIRE NUMBER INDICATES THE NUMBER OF THE ROW YOU SHOULD GO TO.

CHECK THE TOTAL NUMBER OF ELIGIBLE MEN OR WOMEN ON THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. THIS IS THE NUMBER OF THE COLUMN YOU SHOULD GO TO.

FIND THE BOX WHERE THE ROW AND THE COLUMN MEET AND CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS NUMBER IS USED TO IDENTIFY WHETHER THE FIRST ('1'), SECOND ('2'), THIRD ('3'), ETC.ELIGIBLE MAN OR WOMAN LISTED IN THE HOUSEHOLD SCHEDULE WILL BE INTERVIEWED FOR THE DOMESTIC VIOLENCE MODULE

FOR EXAMPLE, IF THE HOUSEHOLD NUMBER IS '**16**', GO TO ROW '**6**'. IF THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO COLUMN '3'.FIND THE BOX WHERE ROW '6' AND COLUMN '3' MEET. THE NUMBER IN THAT BOX ('**2**') INDICATES THAT THE SECOND ELIGIBLE WOMAN IN THE HOUSEHOLD LISTING SHOULD BE INTERVIEWED USING THE DOMESTIC VIOLENCE QUESTIONS.

SUPPOSE THE LINE NUMBERS OF THE THREE ELIGIBLE WOMEN ARE '02', '04', AND '07'.THE WOMAN TO BE INTERVIEWED IS THE SECOND ONE, I.E., THE ONE ON LINE 04'.

LAST DIGIT OF THE HOUSEHOLD NUMBER (ROW) ↓	NUMBER OF ELIGIBLE MEN OR WOMEN IN THE HOUSEHOLD						
	2	**3**	**4**	**5**	**6**	**7**	**8**
0	2	2	4	3	6	5	4
1	1	3	1	4	1	6	5
2	2	1	2	5	2	7	6
3	1	2	3	1	3	1	7
4	2	3	4	2	4	2	8
5	1	1	1	3	5	3	1
6	2	2	2	4	6	4	2
7	1	3	3	5	1	5	3
8	2	1	4	1	2	6	4
9	1	2	1	2	3	7	5

ENTER THE LINE NUMBER OF SELECTED MAN OR WOMAN [ ][ ]

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with Statistics Sierra Leone. We are conducting a survey about health all over Sierra Leone. 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	12
	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 5-20 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 OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = 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 NUM-BER OF MAN OR WOMAN SELEC-TED FOR DV IN-TERVIEW** **DO NOT KEY-IN THIS COLUMN**
			M F	Y N	Y N	IN YEARS					
01			1 2	1 2	1 2			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**
11			1 2	1 2	1 2			11	11	11	**11**
12			1 2	1 2	1 2			12	12	12	**12**

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

98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT / RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	13	14	15	16	17	18	19	20	21
	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 2012-2013 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
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE	
01	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
02	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
03	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
04	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
05	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
06	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
07	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
08	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
09	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
10	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
11	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		
12	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → NEXT LINE		1 2 → NEXT LINE		

CODES FOR Qs. 18 AND 20: EDUCATION

LEVEL	GRADE
1 = PRIMARY	1 - 6
2 = JSS (MIDDLE SCHOOL)	1 - 3
3 = SSS (HIGH SCHOOL)	1 - 3
4=VOCATIONAL/TECH./NURSING/TEACHER	1 - 3
5=HIGHER	1 - 7
8 = DON'T KNOW	

00 = LESS THAN 1 YEAR COMPLETED

(USE '00' FOR Q. 18 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 20)

98 = DON'T KNOW

							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	12
	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 5-20 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 OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = 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 NUM-BER OF MAN OR WOMAN SELEC-TED FOR DV IN-TERVIEW** **DO NOT KEY-IN THIS COLUMN**
			M F	Y N	Y N	IN YEARS					
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**
21			1 2	1 2	1 2			21	21	21	**21**
22			1 2	1 2	1 2			22	22	22	**22**
23			1 2	1 2	1 2			23	23	23	**23**
24			1 2	1 2	1 2			24	24	24	**24**

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
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04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
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98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT / RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	13	14	15	16	17	18	19	20	21
	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 2012-2013 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
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE	
13	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
14	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
15	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
16	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
17	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
18	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
19	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
20	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
21	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
22	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
23	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		
24	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 NEXT LINE		1 2 NEXT LINE		

CODES FOR Qs. 18 AND 20: EDUCATION

LEVEL	GRADE	
1 = PRIMARY	1 - 6	00 = LESS THAN 1 YEAR COMPLETED
2 = JSS (MIDDLE SCHOOL)	1 - 3	
3 = SSS (HIGH SCHOOL)	1 - 3	(USE '00' FOR Q. 18 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 20)
4=VOCATIONAL/TECH./NURSING/TEACHER	1 - 3	
5=HIGHER	1 - 7	
8 = DON'T KNOW		98 = 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 WATER IN SACHETS . . . . . 92 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	
105	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	107
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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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	→ 110
109	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
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	
	An electric iron?	ELECTIC IRON 1 2	
	A computer?	COMPUTER 1 2	
	A power generator?	POWER GENERATOR 1 2	
	A wardrobe?	WARDROBE 1 2	
111	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG / NATURAL GAS / BIOGAS . . . . . 02 KEROSENE . . . . . 03 COAL / LIGNITE . . . . . 04 CHARCOAL . . . . . 05 WOOD . . . . . 06 STRAW/SHRUBS/GRASS . . . . . 07 AGRICULTURAL CROP . . . . . 08 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 114

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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	
113A	Is the cooking usually done on an open fire, an open stove or a closed stove?	OPEN FIRE . . . . . 1 OPEN STOVE . . . . . 2 CLOSED STOVE . . . . . 3 OTHER _____ 4 (SPECIFY)	→ 114
113B	Does this (fire/stove) have a chimney, a hood, or neither of these?	CHIMNEY . . . . . 1 HOOD . . . . . 2 NEITHER 3	
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 . . . . . 12 SOD . . . . . 13 RUDIMENTARY ROOFING RUSTIC MAT . . . . . 21 PALM / BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 TARPAULIN . . . . . 25 FINISHED ROOFING METALIC SHEETS . . . . . 31 WOOD . . . . . 32 CALAMINE / CEMENT FIBER . . . . . 33 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 ASBESTOS . . . . . 37 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 METALIC SHEETS . . . . . 24 PLYWOOD . . . . . 25 CARDBOARD . . . . . 26 REUSED WOOD . . . . . 27 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 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 WITH MOTOR 1 2	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many acres of agricultural land do members of this household own? IF 995 OR MORE ACRES, CIRCLE '950'.	ACRES . . . . . [ ][ ][ ] . [ ] 995 OR MORE ACRES . . . . . 9950 DON'T KNOW 9998	
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, calfs or bulls?	COWS / CALFS / BULLS . . . . . [ ][ ]	
	Horses, donkeys, or mules?	HORSES / DONKEYS / MULES . . . [ ][ ]	
	Pigs?	PIGS . . . . . [ ][ ]	
	Goats?	GOATS . . . . . [ ][ ]	
	Sheep?	SHEEP . . . . . [ ][ ]	
	Rabbits?	RABBITS . . . . . [ ][ ]	
	Rodents for breading?	RODENTS . . . . . [ ][ ]	
	Chickens, geese ducks or turkeys?	CHICKENS / GEESE / DUCKS . . . . . [ ][ ]	
	Birds for sale?	BIRDS FOR SALE . . . . . [ ][ ]	
123	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
123A	During the last 3 months did you or any member of your household receive assistance from organizations or govermnent agencies? We only want to know about assistance received from people that are not members of your family, friends or neighbours. Did you receive any of the following:	YES NO DK	
	Assistance in the form of money or cash?	MONEY OR CASH 1 2 8	
	Some money or materials to be used to start or to continue a businees that makes money for the family?	MONEY OR MATERIALS FOR BUSINESS 1 2 8	
	Assistance providing food?	FOOD 1 2 8	
	Assistance to pay for school fees?	SCHOOL FEES 1 2 8	
	School supplies such textbooks, notebooks, uniforms?	SCHOOL SUPPLIES 1 2 8	
	Assistance to pay for other school expenses?	OTHER SCHOOL EXPENSES . 1 2 8	
	Shelter or a place to stay when needed?	SHELTER 1 2 8	
124	At any time in the past 12 months, has anyone come into your dwelling to spray the interior walls against mosquitoes?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 126
125	Who sprayed the dwelling?	GOVERNMENT WORKER/PROGRAM . . . . . A PRIVATE COMPANY . . . . . B NONGOVERNMENTAL ORGANIZATION (NGO) . . . . . C OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
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 IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . . . 1 NOT OBSERVED . . . 2 SKIP TO 129 ←	OBSERVED . . . . . 1 NOT OBSERVED . . . 2 SKIP TO 129 ←	OBSERVED . . . . . 1 NOT OBSERVED . . . 2 SKIP TO 129 ←
128A	RECORD IF THE NET IS HANGING OR NOT HANGING	NET HANGING . . . . . 1 NET NOT HANGING . 2	NET HANGING . . . . . 1 NET NOT HANGING . 2	NET HANGING . . . . . 1 NET NOT HANGING . 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.	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 DURANET . . . . . 13 OTHER/ DK BRAND . . . 16 (SKIP TO 134) ← **PRETREATED NET** ANY BRAND . . . . . 21 DK BRAND . . . . . 22 (SKIP TO 132) ← OTHER BRAND . . . 96 DK BRAND 98	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 DURANET . . . . . 13 OTHER/ DK BRAND . . . 16 (SKIP TO 134) ← **PRETREATED NET** ANY BRAND . . . . . 21 DK BRAND . . . . . 22 (SKIP TO 132) ← OTHER BRAND . . . 96 DK BRAND 98	**LONG-LASTING INSECTICIDE-TREATED NET (LLIN)** PERMANET . . . . . 11 OLYSET . . . . . 12 DURANET . . . . . 13 OTHER/ DK BRAND . . . 16 (SKIP TO 134) ← **PRETREATED NET** ANY BRAND . . . . . 21 DK BRAND . . . . . 22 (SKIP TO 132) ← OTHER BRAND . . . 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 134) ← NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) ← NOT SURE 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 134) ← 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
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

		NET #1	NET #2	NET #3
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 139A)
138	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE PLACE FOR HANDWASHING.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2
139	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT AT THE PLACE FOR HANDWASHING.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B 140 NONE C
139A	Do you have any kind of soap, detergent or ash that you use for **handwashing** in your household?. IF YES: May I see it?	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 NO 3
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)

CHILD LABOR
FOR CHILDREN AGED 5 THROUGH 14

Now I would like to ask about any work that children in this household may do.

LINE NUMBER	NAME OF CHILD FROM COL.2	WORK LAST WEEK		WORK IN LAST YEAR	HOUSEHOLD CHORES		WORK IN FAMILY BUSINESS OR FARM	
WRITE CHILD'S LINE NUMBER FROM COLUMN 1 IN THE HOUSEHOLD SCHEDULE ONLY INCLUDE CHILDREN AGED 5-14 FROM COLUMN 7	WRITE CHILD'S NAME FROM COLUMN 2 IN THE HOUSEHOLD SCHEDULE.	During the past week, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was that for pay or unpaid?	Since last (DAY OF THE WEEK), about how many hours did (NAME) do this work for someone who is not a member of this house-hold? INCLUDE ALL HOURS AT ALL JOBS.	At any time during the past year, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was that for pay or unpaid?	During the past week, did (NAME) help with household chores such as shopping collecting firewood, cleaning, fetching water, or caring for children?	Since last (DAY OF THE WEEK), about how many hours did (NAME) spend doing these chores?	During the past week, did (NAME) do any other family work, on the farm or in a business or selling goods in the street?	Since last (DAY OF THE WEEK), about how many hours did (NAME) do this work?
141	**142**	**143**	**144**	**145**	**146**	**147**	**148**	**149**
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS
		PAID 1 UNPAID 2 NO 3 → GO TO 145	HOURS → GO TO 146	PAID 1 UNPAID 2 NO 3	Y 1 N 2 → GO TO 148	HOURS	Y 1 N 2 → NEXT LINE	HOURS

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

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 2008 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
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	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	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. 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) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
212	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
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.			

		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 2008 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
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	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	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 2008 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 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) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2	GRANTED . . . . . 1 _____ (SIGN) REFUSED 2
212	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
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR WOMEN AGE 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 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 [ ][ ]
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 228)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228)

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
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?		
224	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226)
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	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)
227	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)
228	ASK CONSENT FOR DBS COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER 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 Sierra Leone. For the HIV test, we need a few (more) 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. 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?		
229	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
230	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 Sierra Leone. For the HIV test, we need a few (more) 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. 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?		
231	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)
232	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)
233	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)
234	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	We ask you to allow [SURVEY IMPLEMENTING ORGANIZATION/MINISTRY OF HEALTH] to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify (NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for additional testing (NAME OF ADOLESCENT) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
235	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)
236	ASK CONSENT FOR ADDITIONAL TESTING FROM RESPONDENT.	We ask you to allow [SURVEY IMPLEMENTING ORGANIZATION/MINISTRY OF HEALTH] to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify you. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
237	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)
238	ADDITIONAL TESTS	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
239	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
240	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
241	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.
242	GO BACK TO 216 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, GO TO 243.			

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

243	CHECK COLUMN 10 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN 244. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		MAN 1	MAN 2	MAN 3
244	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
245	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
246	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
247	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)
248	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)
249	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 [ ][ ]
250	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 249 AS RESPONSIBLE FOR NEVER IN UNION MEN 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?		
251	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
252	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?		
253	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)
254	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)
255	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)
256	ASK CONSENT FOR DBS COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 249 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 Sierra Leone. For the HIV test, we need a few (more) 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. 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?		
257	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)

258	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 Sierra Leone. For the HIV test, we need a few more 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. 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?		
259	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 267)
260	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 264)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 264)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 264)
261	MARITAL STATUS: CHECK COLUMN 8.	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)
262	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/OTHER ADULT IDENTIFIED IN 249 AS RESPONSIBLE FOR NEVER IN UNION MEN AGE 15-17.	We ask you to allow [SURVEY IMPLEMENTING ORGANIZATION/MINISTRY OF HEALTH] to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify (NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for additional testing, (NAME OF ADOLESCENT) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
263	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 266)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 266)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 (SIGN) (IF REFUSED, GO TO 266)

264	ASK CONSENT FOR ADDITIONAL TESTING FROM RESPONDENT.	We ask you to allow [SURVEY IMPLEMENTING ORGANIZATION/MINISTRY OF HEALTH] to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify you. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
265	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF GRANTED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF GRANTED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 (SIGN) (IF GRANTED, GO TO 267)
266	ADDITIONAL TESTS	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
267	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
268	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
269	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.
270	GO BACK TO 245 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE MEN, END INTERVIEW.			

2013 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY

WOMAN'S QUESTIONNAIRE

STATISTICS SIERRA LEONE

IDENTIFICATION

LOCALITY NAME _____

LOCAL COUNCIL _____

DISTRICT CODE . . . . . .

PROVINCE NAME AND CODE _____

CHIEFDOM CODE . . . . . .

SECTION CODE . . . . . .

DHS CLUSTER NUMBER . . . . . .

ENUMERATION AREA CODE . . . . . .

RURAL (1) / URBAN (2) . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME OF HOUSEHOLD HEAD _____

WOMAN'S NAME AND LINE NUMBER _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 1 3
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

CHECK COLUMN 12 OF HOUSEHOLD QUESTIONNAIRE

WOMAN WAS SELECTED FOR DOMESTIC VIOLENCE INTERVIEW? YES . . . 1 NO . . . 0

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF INTERIVIEW
KRIO . . . 1
TEMNE . . . 2
OTHER . . . 3 _____ (SPECIFY)

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 Statistics Sierra Leone. We are conducting a survey about health all over Sierra Leone. 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 take part 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 JUNIOR SECONDARY . . . . . 2 SENIOR SECONDARY . . . . . 3 VOCATIONAL / COMMERCIAL / NURSING TECHNICAL / TEACHING . . . . . 4 HIGHER 5	
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 [ ] ↓ JUNIOR SECONDARY OR HIGHER [ ]		→ 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?	CHRISTIAN . . . . . 1 ISLAM . . . . . 2 BAHAI . . . . . 3 TRADITIONAL . . . . . 4 NONE . . . . . 5 OTHER _____ 6 (SPECIFY)	
114	What is your ethnicity?	CREOLE . . . . . 11 FULLAH . . . . . 12 KONO . . . . . 13 LIMBA . . . . . 14 LOKO . . . . . 15 MANDINGO . . . . . 16 MENDE . . . . . 17 SHERBRO . . . . . 18 TEMNE . . . . . 19 OTHER SIERRA LEONE _____ 95 (SPECIFY) OTHER FOREIGN _____ 96 (SPECIFY)	
115	In the last 12 months, how many times have you been away from home for one or more nights? IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	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 [ ][ ]	
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 (first/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
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

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 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?
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
13	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
14	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 2008 OR LATER.	NUMBER OF BIRTHS . . . . . [ ] NONE . . . . . 0 → 226

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	**C** FOR EACH BIRTH SINCE JANUARY 2008 , 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. 2008 OR LATER ↓ LAST PREGNANCY ENDED BEFORE JAN. 2008 [ ] → 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 2008 , 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 2008. **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 2008 ?	YES . . . . . 1 NO 2	→ 238
237	When did the last such pregnancy that terminated before 2008 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 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**. 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: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2	
11	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
12	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	
13	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 . . . . . E PILL . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M 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.	BRAND _____ _____ [ ][ ] (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.	LATEX (144) . . . . . 01 LOVE . . . . . 02 PROTECTOR . . . . . 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 SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PRIVATE DOCTOR'S OFFICE . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL SECTOR _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
308 308A	In what month and year was the sterilization performed? 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 . . . . . [ ][ ][ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 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).	YES ☐ NO ☐	
310	CHECK 308/308A: YEAR IS 2008 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 2007 OR EARLIER ☐ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2008 . 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 2008. 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.		
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ANY METHOD USED ☐ → 314		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 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 SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OUTREACH WORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY)	
315A	Where did you learn how to use the rhythm / lactational amenorrhea method? 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)	PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 OUTREACH WORKER . . . . . 25 OTHER PRIVATE MEDICAL SECTOR _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH / MOSQUE . . . . . 32 FRIEND / RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	

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 . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD 12	 → 323 → 320 → 326 → 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 . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 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 SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 OUTREACH WORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 OUTREACH WORKER . . . . . 25 OTHER PRIVATE MEDICAL SECTOR _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 OTHER _____ 96 (SPECIFY)	→ 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 SECTOR** GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D OUTREACH WORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OUTREACH WORKER . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIEND/RELATIVE . . . . . O 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 2008 OR LATER ☐ ↓ NO BIRTHS IN 2008 OR LATER ☐ →	556
402	CHECK 215: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2008 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/MIDWIFE . B MCH AIDE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D COMMUNITY/ VILLAGE HEALTH WORKER . . . E 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 EACH TYPE OF SOURCE. 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 SECTOR GOVT. HOSPITAL C GOVT. HEALTH CENTER . . . . . D GOVT. HEALTH POST . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . G OTHER PRIVATE MED. SECTOR _____ H (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		
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		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
416	During this pregnancy, how many times did you get a tetanus injection?	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 or iron syrup? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) ← DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets or syrup? 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		
424	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 430) ← DON'T KNOW 8		
425	What drugs did you take? RECORD ALL MENTIONED.	SP/FANSIDAR . . . . . A CHLOROQUINE . . . B OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
426	CHECK 425: SP/FANSIDAR TAKEN FOR MALARIA PREVENTION.	CODE 'A' CIRCLED [ ] ↓ CODE A' NOT CIRCLED [ ] (SKIP TO 430) ←		
427	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES . . . . . [ ][ ]		
428	CHECK 409: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', 'B' OR 'C' CIRCLED [ ] ↓ OTHER [ ] (SKIP TO 430) ←		
429	Did you get the (SP/Fansidar) during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT . . 1 ANOTHER FACILITY VISIT . . . . . 2 TRADITIONAL BIRTH ATTEND. . 3 OTHER SOURCE 6		
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 99998	KG FROM CARD 1 [ ].[ ][ ][ ] KG FROM RECALL 2 [ ].[ ][ ][ ] DON'T KNOW 99998	KG FROM CARD 1 [ ].[ ][ ][ ] KG FROM RECALL 2 [ ].[ ][ ][ ] DON'T KNOW 99998
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/MIDWIFE . B MCH AIDE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE ASSISTED Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B MCH AIDE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE ASSISTED Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B MCH AIDE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D RELATIVE/FRIEND . E OTHER _____ X (SPECIFY) NO ONE ASSISTED 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 SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED. SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 438)	HOME YOUR HOME . . . 11 (SKIP TO 448) OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED. SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448)	HOME YOUR HOME . . . 11 (SKIP TO 448) OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED. SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448)
434A	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998		
435	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO 2		
435A	What was used to cut the umbilical cord?	BLADE FROM DELIVERY BAG . 1 OTHER BLADE . . . 2 RAZOR . . . . . 3 SCISSORS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8		
435B	Was (NAME) wiped dry when he was born?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 436) DON'T KNOW 8 (SKIP TO 436)		
435C	How soon after birth was (NAME) wiped dry?	HOURS . . . [ ][ ] IMMEDIATELY / LESS THAN 1 HOUR . . . 00 24 HRS OR MORE 24 DON'T KNOW 98		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
436	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. 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 442)		
438	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health after you gave birth to (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442)		
439	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE 12 MCH AIDE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . 22 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		
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		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
444	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE 12 MCH AIDE . . . . . 13 OTHER PERSON TRADITIONAL BIRTH ATTENDANT 21 COMMUNITY/ VILLAGE HEALTH WORKER . . . 22 OTHER _____ 96 (SPECIFY)		
445	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . 11 OTHER HOME . . . 12 PUBLIC SECTOR GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED._____ 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)		
451	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] 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 BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)		
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 BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING [ ] DEAD [ ] (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING [ ] DEAD [ ] (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
459	Are you still breastfeeding (NAME)?	YES . . . . . 1 NO 2		
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
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 2008 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 COPY DATES FROM THE CARD.
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
YELLOW FEVER				BCG				BCG			
MEASLES				MEA				MEA			
3RD OPV (POLIO)				P3				P3			
3RD DPT-HEP B+Hib				DPT3				DPT3			
3RD PCV				PCV3				PCV3			
2ND OPV (POLIO)				P2				P2			
2ND DPT-HEP B+Hib				DPT2				DPT3			
2ND PCV				PCV2				PCV2			
1ST OPV (POLIO)				P1				P1			
1ST DPT-HEP B+Hib				DPT1				DPT1			
1ST PCV				PCV1				PCV1			
BCG				BCG				BCG			
OPV 0 (POLIO 0)				P0				P0			
HEPATATIS 0				HEP0				HEP0			
VITAMIN A (MOST RECENT)				VIT A				VIT A			

507	CHECK 506:	HEPATITIS 0 TO YELLOW FEVER ALL RECORDED (GO TO 511) OTHER	HEPATITIS 0 TO YELLOW FEVER ALL RECORDED (GO TO 511) OTHER	HEPATITIS 0 TO YELLOW FEVER 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 510A	Please tell me if (NAME) had any of the following vaccinations: 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	An OPV or Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510D) 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	The first Hepatitis B, that is, an injection in the arm or shoulder?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510F) DON'T KNOW 8
510E	Was the first Hepatitis B 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
510F	A DPT or penta 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 510H) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510H) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510H) DON'T KNOW 8
510G	How many times was the DPT vaccination given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510H	A measles injection - that is, a shot in the arm at the age of 9 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 CAPSULES,	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
512	In the last seven days, was (NAME) given iron pills, or iron syrup like (this/any of these)? SHOW COMMON TYPES OF PILLS/SPRINKLES/ 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
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)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
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 SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ CLINIC . . . . . G PHARMACY . . . H PVT DOCTOR . . . I MOBILE CLINIC J OUTREACH WORKER . K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M TRADITIONAL PRACTITIONER N MARKET . . . . . O OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ CLINIC . . . . . G PHARMACY . . . H PVT DOCTOR . . . I MOBILE CLINIC J OUTREACH WORKER . K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M TRADITIONAL PRACTITIONER N MARKET . . . . . O OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/ CLINIC . . . . . G PHARMACY . . . H PVT DOCTOR . . . I MOBILE CLINIC J OUTREACH WORKER . K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M TRADITIONAL PRACTITIONER N MARKET . . . . . O 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)
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? b) A government-recommended homemade fluid SSS: salt and sugar solution?	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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS I HOME REMEDY/ HERBAL MED-ICINE . . . . . J 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
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?	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)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
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)
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 SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E COMMUNITY HEALTH W. . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ CLINIC . . . . . H PHARMACY . . . I PVT DOCTOR . . . J MOBILE CLINIC K OUTREACH WORKER . L OTHER PRIVATE MED. SECTOR _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O MARKET . . . . . P OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E COMMUNITY HEALTH W. . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ CLINIC . . . . . H PHARMACY . . . I PVT DOCTOR . . . J MOBILE CLINIC K OUTREACH WORKER . L OTHER PRIVATE MED. SECTOR _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O MARKET . . . . . P OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER . . . . . B GOVT HEALTH POST . . . . . C MOBILE CLINIC D OUTREACH WORKER . E COMMUNITY HEALTH W. . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/ CLINIC . . . . . H PHARMACY . . . I PVT DOCTOR . . . J MOBILE CLINIC K OUTREACH WORKER . L OTHER PRIVATE MED. SECTOR _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O MARKET . . . . . P OTHER _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
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. SHOW ANTIMALARIALS AND ASK RESPONDENT TO INDICATE THE ONE SHE USED	**ANTIMALARIAL DRUGS** **SP/FANSIDAR . . . A** MALAFAN . . . . . B **COMBINATION WITH ARTEMISININ . . . C** ARTEQUICK . . . D **ARTHEMETHER & LUMEFANTRINE . E** BI-CORTEM . . . F FANTEM-FORTE G GLOATEM . . . . . H GLUMAC . . . . . I LOKMAL . . . . . J LUMAGLOBE . . . K **ARTESUNATE & AMODIAQUINE . L** ARSUAMOON . . . M DIASUNATE . . . N FALCIMAN . . . O MACSUNATE . . . P WINTHROP . . . Q **ARTESUNATE . . . R** ARSUAMOON . . . S ARTESUN . . . . . T ASU-DENK . . . . . U MALASATE . . . . . V PLASMOTRIN . W SPAFIL . . . . . X **CHLOROQUINE . . . XA** CHLOMAL . . . . . XB MIHIQUIN . . . . . XC WELAQUINE . . . XD QUININE . . . . . XE OTHER ANTI-MALARIAL _____ . . . XF SPECIFY **ANTIBIOTIC DRUGS** AMPICILLIN . . . . . XG AMOXICILLIN . . . . . XH SEPTRIN . . . . . XI INJECTION, CRYSTALINE PENICILLIN . . . . . XJ OTHER ANTIBIOTIC _____ . . . XK SPECIFY **ANTIPYRETIC** ASPIRIN . . . . . XL PARACETAMOL/ PANADOL . . . . XM NOVALGINE . . . . XN IBUPROFEN . . . . XO **OTHER** _____ . XZ SPECIFY **DON'T KNOW** XX	**ANTIMALARIAL DRUGS** **SP/FANSIDAR . . . A** MALAFAN . . . . . B **COMBINATION WITH ARTEMISININ . . . C** ARTEQUICK . . . D **ARTHEMETHER & LUMEFANTRINE . E** BI-CORTEM . . . F FANTEM-FORTE G GLOATEM . . . . . H GLUMAC . . . . . I LOKMAL . . . . . J LUMAGLOBE . . . K **ARTESUNATE & AMODIAQUINE . L** ARSUAMOON . . . M DIASUNATE . . . N FALCIMAN . . . O MACSUNATE . . . P WINTHROP . . . Q **ARTESUNATE . . . R** ARSUAMOON . . . S ARTESUN . . . . . T ASU-DENK . . . . . U MALASATE . . . . . V PLASMOTRIN . W SPAFIL . . . . . X **CHLOROQUINE . . . XA** CHLOMAL . . . . . XB MIHIQUIN . . . . . XC WELAQUINE . . . XD QUININE . . . . . XE OTHER ANTI-MALARIAL _____ . . . XF SPECIFY **ANTIBIOTIC DRUGS** AMPICILLIN . . . . . XG AMOXICILLIN . . . . . XH SEPTRIN . . . . . XI INJECTION, CRYSTALINE PENICILLIN . . . . . XJ OTHER ANTIBIOTIC _____ . . . XK SPECIFY **ANTIPYRETIC** ASPIRIN . . . . . XL PARACETAMOL/ PANADOL . . . . XM NOVALGINE . . . . XN IBUPROFEN . . . . . XO **OTHER** _____ . XZ SPECIFY **DON'T KNOW** XX	**ANTIMALARIAL DRUGS** **SP/FANSIDAR . . . A** MALAFAN . . . . . B **COMBINATION WITH ARTEMISININ . . . C** ARTEQUICK . . . D **ARTHEMETHER & LUMEFANTRINE . E** BI-CORTEM . . . F FANTEM-FORTE G GLOATEM . . . . . H GLUMAC . . . . . I LOKMAL . . . . . J LUMAGLOBE . . . K **ARTESUNATE & AMODIAQUINE . L** ARSUAMOON . . . M DIASUNATE . . . N FALCIMAN . . . O MACSUNATE . . . P WINTHROP . . . Q **ARTESUNATE . . . R** ARSUAMOON . . . S ARTESUN . . . . . T ASU-DENK . . . . . U MALASATE . . . . . V PLASMOTRIN . W SPAFIL . . . . . X **CHLOROQUINE . . . XA** CHLOMAL . . . . . XB MIHIQUIN . . . . . XC WELAQUINE . . . XD QUININE . . . . . XE OTHER ANTI-MALARIAL _____ . . . XF SPECIFY **ANTIBIOTIC DRUGS** AMPICILLIN . . . . . XG AMOXICILLIN . . . . . XH SEPTRIN . . . . . XI INJECTION, CRYSTALINE PENICILLIN . . . . . XJ OTHER ANTIBIOTIC _____ . . . XK SPECIFY **ANTIPYRETIC** ASPIRIN . . . . . XL PARACETAMOL/ PANADOL . . . . XM NOVALGINE . . . . XN IBUPROFEN . . . . . XO **OTHER** _____ . XZ SPECIFY **DON'T KNOW** XX

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
539	CHECK 538: ANY CODE **A - XF** 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: SP/FANSIDAR (**'A' OR 'B'**) GIVEN	CODE **A OR B** CIRCLED ☐ CODE **A OR B** NOT CIRCLED ☐ (SKIP TO 542)	CODE **A OR B** CIRCLED ☐ CODE **A OR B** NOT CIRCLED ☐ (SKIP TO 542)	CODE **A OR B** CIRCLED ☐ CODE **A OR B** NOT CIRCLED ☐ (SKIP TO 542)
541	How long after the fever started did (NAME) first take (SP/Fansidar / Malafan)?	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: COMBINATION WITH ARTEMISININ (ARTEQUICK) ('**C**' TO '**Q**') GIVEN	CODES **C** OR **Q** CIRCLED ☐ CODES **C** OR **Q** NOT CIRCLED ☐ (SKIP TO 547A)	CODES **C** OR **Q** CIRCLED ☐ CODES **C** OR **Q** NOT CIRCLED ☐ (SKIP TO 547A)	CODES **C** OR **Q** CIRCLED ☐ CODES **C** OR **Q** NOT CIRCLED ☐ (SKIP TO 547A)
543	How long after the fever started did (NAME) first take (ARTEMISININ-BASED COMBINATION THERAPY MENTIONED IN C - Q)?	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
547A	CHECK 538: ARTESUNATE ('**R**' - '**X**') GIVEN	CODES **R - X** CIRCLED ☐ CODES **R** OR **X** NOT CIRCLED ☐ (SKIP TO 548)	CODES **R - X** CIRCLED ☐ CODES **R** OR **X** NOT CIRCLED ☐ (SKIP TO 548)	CODES **R - X** CIRCLED ☐ CODES **R** OR **X** NOT CIRCLED ☐ (SKIP TO 548)
547B	How long after the fever started did (NAME) first take (ARTESUNATE)?	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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
548	CHECK 538: CHLOROQUINE ('**XA**' - '**XD**') GIVEN	CODES **XA** - **XD** CIRCLED CODES **XA** OR X**D** NOT CIRCLED (SKIP TO 550)	CODES **XA** - **XD** CIRCLED CODES **XA** OR X**D** NOT CIRCLED (SKIP TO 550)	CODES **XA** - **XD** CIRCLED CODES **XA** OR X**D** NOT CIRCLED (SKIP TO 550)
549	How long after the fever started did (NAME) first take (CHLOROQUINE)?	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: QUININE (**XE**) GIVEN	CODE **XE** CIRCLED CODE **XE** NOT CIRCLED CIRCLED (SKIP TO 552B)	CODE **XE** CIRCLED CODE **XE** NOT CIRCLED CIRCLED (SKIP TO 552B)	CODE **XE** CIRCLED CODE **XE** NOT CIRCLED CIRCLED (SKIP TO 552B)
551	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
552B	CHECK 538: OTHER ANTIMALARIAL ('**XF**') GIVEN	CODE 'XF' CIRCLED CODE 'XF' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	CODE 'XF' CIRCLED CODE 'XF' NOT CIRCLED (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	CODE 'XF' CIRCLED CODE 'XF' NOT CIRCLED (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
552C	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
552D		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 2008 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 ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ → 557		
556	Have you ever heard of a special product called ORS you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
557	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN JANUARY 2011 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ → 601 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) Clear broth?	**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, like Nan, Lactogen or Guigoz?	**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 fortified baby food, like Cerelac, Benemix or Frisocream?	**h)**	1	2	8	
	i) Bread, rice, noodles, porridge, or other foods made from grains?	**i)**	1	2	8	
	j) Pumpkin, carrots 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 or papaws?	**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 ground 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"):					
	NOT A SINGLE "YES" ☐ ↓	AT LEAST ONE "YES" ☐ →				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 →	601
561	How many times did (NAME FROM 557) eat solid, semi-solid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . [ ] DON'T KNOW 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 last 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 [ ][ ]	→ 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 CLIENT/PROSTITUTE 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 CLIENT/PROSTITUTE 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . 3 CASUAL ACQUAINTANCE . . . 4 CLIENT/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 last 12 months 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
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
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

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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D OUTREACH WORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OUTREACH WORKER . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIENDS/RELATIVES . . . . . O 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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D OUTREACH WORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OUTREACH WORKER . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIENDS/RELATIVES . . . . . O 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 . . . . . 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 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?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 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 JUNIOR SECONDARY . . . . . 2 SENIOR SECONDARY . . . . . 3 VOCATIONAL / COMMERCIAL / NURSING TECHNICAL / TEACHING . . . . . 4 HIGHER . . . . . 5 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 ☐ What is your (husband's/ partner's) occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ 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: you, 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 HAS NO EARNINGS . . . . . 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 . . . . . 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 . . . . . 4 OTHER 6	
822	Who usually makes decisions about visits to your family or relatives?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 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: If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES / NO / DK GOES OUT . . . . . 1 2 8 NEGL. CHILDREN . . . 1 2 8 ARGUES . . . . . 1 2 8 REFUSES SEX . . . . . 1 2 8 BURNS FOOD 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	
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	
911	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2008 ☐ ↓ LAST BIRTH BEFORE JANUARY 2008 ☐		→ 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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 STAND-ALONE VCT CENTER . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE CLINIC . . . . . 15 OUTREACH WORKER . . . . . 16 SCHOOL BASED CLINIC . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 STAND-ALONE VCT CENTER . . . . . 22 PHARMACY . . . . . 23 MOBILE CLINIC . . . . . 24 OUTREACH WORKER . . . . . 25 SCHOOL BASED CLINIC . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) OTHER SOURCE HOME . . . . . 31 CORRECTIONAL FACILITY . . . . . 32 OTHER _____ 96 (SPECIFY)	
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
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 95	→ 932

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 95	
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 SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 STAND-ALONE VCT CENTER . . . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE CLINIC . . . . . 15 OUTREACH WORKER . . . . . 16 SCHOOL BASED CLINIC . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 STAND-ALONE VCT CENTER . . . . . 22 PHARMACY . . . . . 23 MOBILE CLINIC . . . . . 24 OUTREACH WORKER . . . . . 25 SCHOOL BASED CLINIC . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) OTHER SOURCE HOME . . . . . 31 CORRECTIONAL FACILITY . . . . . 32 OTHER _____ 96 (SPECIFY)	→ 932
930	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	 → 932

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E OUTREACH WORKER . . . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K OUTREACH WORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) 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	
938	CHECK 613: HAS HAD SEXUAL INTERCOURSE ☐ ↓ NEVER HAD SEXUAL INTERCOURSE ☐ →		946
939	CHECK 937: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		941

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E OUTREACH WORKER . . . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K OUTREACH WORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N 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 they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
947	Is a wife justified in refusing to have sex with her husband when she knows he 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, a minor problem or no problem at all?	BIG PROBLEM / A MINOR PROBLEM / NO PROBLEM AT ALL	
	Getting permission to go to the doctor?	PERMISSION TO GO 1 2 3	
	Getting money needed for advice or treatment?	GETTING MONEY . 1 2 3	
	The distance to the health facility?	DISTANCE 1 2 3	
	Not wanting to go alone?	GO ALONE 1 2 3	
1009	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 1011

	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.		
1010	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE D OTHER _____ X (SPECIFY)	
1011	Sometimes a woman can have a problem of constant leakage of urine or stool from her vagina during the day and night. This problem usually occurs after a difficult childbirth, but may also occur after a sexual assault or after pelvic surgery. Have you ever experienced a constant leakage of urine or stool from your vagina during the day and night?	YES . . . . . 1 NO 2	→ 1013
1012	Have you ever heard of this problem?	YES . . . . . 1 NO 2	→ 1101
1013	Did this problem start after you delivered a baby or had a stillbirth?	AFTER DELIVERED A BABY . . . . . 1 AFTER HAD STILLBIRTH . . . . . 2 NEITHER 3	→ 1015
1014	What do you think caused this problem?	SEXUAL ASSAULT . . . . . 1 PELVIC SURGERY . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW / NOT SURE 8	
1015	Have you sought treatment for this condition?	YES . . . . . 1 NO 2	→ 1017
1016	Why have you not sought treatment? PROBE AND RECORD ALL MENTIONED.	DO NOT KNOW CAN BE FIXED . . . . . A DO NOT KNOW WHERE TO GO . . . . . B TOO EXPENSIVE . . . . . C TOO FAR . . . . . D POOR QUALITY OF CARE . . . . . E COULD NOT GET PERMISSION . . . . F EMBARRASSMENT . . . . . G PROBLEM DISAPPEARED . . . . . H OTHER _____ X (SPECIFY)	→ 1101
1017	Did you have an operation to fix the problem?	YES . . . . . 1 NO 2	
1018	Did the treatment stop the leakage completely? IF NO: Did the treatment reduce the leakage?	YES, STOPPED COMPLETELY . . . . . 1 NOT STOPPED BUT REDUCED . . . . . 2 NOT STOPPED AT ALL . . . . . 3 DID NOT RECEIVE TREATMENT 4	

SECTION 11. MATERNAL 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) [ ] →		1201
1103	How many 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 GO TO (2)	[ ][ ] GO TO GO TO (3)	[ ][ ] GO TO GO TO (4)	[ ][ ] GO TO GO TO (5)	[ ][ ] GO TO GO TO (6)	[ ][ ] GO TO 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?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

IF NO MORE BROTHERS OR SISTERS, GO TO 1201.

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 GO TO (8)	[ ][ ] GO TO GO TO (9)	[ ][ ] GO TO GO TO (10)	[ ][ ] GO TO GO TO (11)	[ ][ ] GO TO GO TO (12)	[ ][ ] GO TO 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	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO
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?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

SECTION 12: FEMALE GENITAL CUTTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1201	Have you ever heard of female circumcision?	YES . . . . . 1 NO 2	→ 1203
1202	In some countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES . . . . . 1 NO 2	→ 1300
1203	Have you yourself ever been circumcised?	YES . . . . . 1 NO 2	→ 1209
1204	Now I would like to ask you what was done to you at that time. Was any flesh removed from the genital area?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1206
1205	Was the genital area just nicked without removing any flesh?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1206	Was your genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1207	How old were you when you were circumcised? IF THE RESPONDENT DOES NOT KNOW THE EXACT AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS . [ ][ ] DURING INFANCY . . . . . 95 DON'T KNOW 98	
1208	Who performed the circumcision?	**TRADITIONAL** TRAD. CIRCUMCISER . . . . . 11 TRAD. BIRTH ATTENDANT . . . . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** DOCTOR . . . . . 21 TRAINED NURSE/MIDWIFE . . . . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1209	CHECK 213 AND 216: HAS ONE LIVING DAUGHTER [ ] ↓ HAS MORE THAN ONE LIVING DAUGHTER [ ] ↓ HAS NO LIVING DAUGHTER [ ]		→ 1219
1210	CHECK 1209: ONE LIVING DAUGHTER [ ] ↓ Has your daughter been circumcised? IF YES: RECORD '01' MORE THAN ONE LIVING DAUGHTER [ ] ↓ Have any of your daughters been circumcised? IF YES: How many? RECORD NUMBER	NUMBER CIRCUMCISED . . . . . [ ][ ] NO DAUGHTER CIRCUMCISED 95	→ 1218
1211	CHECK 1210: ONE LIVING DAUGHTER [ ] ↓ What is your daughter's name? MORE THAN ONE LIVING DAUGHTER [ ] ↓ Which of your daughters was circumcised most recently? _____ (DAUGHTER'S NAME)	DAUGHTER'S LINE NUMBER FROM Q. 212 . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1212	Now I would like to ask you what was done to (NAME OF THE DAUGHTER FROM Q. 1211) at that time. Was any flesh removed from her genital area?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1214
1213	Was her genital area just nicked without removing any flesh?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1214	Was her genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1215	How old was (NAME OF THE DAUGHTER FROM Q. 1211) when this occurred? IF THE RESPONDENT DOES NOT KNOW THE AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS . [ ][ ] DURING INFANCY . . . . . 95 DON'T KNOW 98	
1216	Who performed the circumcision?	**TRADITIONAL** TRAD. CIRCUMCISER . . . . 11 TRAD. BIRTH ATTENDANT . . . . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** . . . . . . DOCTOR . . . . . 21 TRAINED NURSE/MIDWIFE . . . . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1217	Do you have any daughter who is not circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1219
1218	Do you intend to have any of your daughters circumcised in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1219	What benefits do girls themselves get if they are circumcised? PROBE: Any other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE . . . . . A SOCIAL ACCEPTANCE . . . . . B BETTER MARRIAGE PROSPECTS . C PRESERVE VIRGINITY/PREVENT PREMARITAL SEX . . . . . D MORE SEXUAL PLEASURE FOR THE MAN . . . . . E RELIGIOUS APPROVAL . . . . . F OTHER _____ X (SPECIFY) NO BENEFITS . . . . . Y NO OPINION / DON'T KNOW . . . . . Z	
1220	Do you believe that this practice is required by your religion?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1221	Do you think that this practice should be continued, or should it be stopped?	CONTINUED . . . . . 1 DISCONTINUED . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	

SECTION 13: DOMESTIC VIOLENCE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1300	CHECK HOUSEHOLD QUESTIONNAIRE, [COVER PAGE].		
	WOMAN SELECTED FOR THIS SECTION ☐	WOMAN NOT SELECTED ☐	GO TO 1333
1301	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED.		
	PRIVACY OBTAINED 1	PRIVACY NOT POSSIBLE 2	1332
	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 Sierra Leone. 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.		
1302	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 ☐ 1316
1303	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

1304 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 → 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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1305	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 ↓			

1306	CHECK 1305A (a-j): AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		1309
1307	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	
1308	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
1309	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	→ '1311
1310	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	
1311	Does (did) your (last) (husband/partner) drink alcohol?	YES . . . . . 1 NO 2	→ '1313
1312	How often does (did) he get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1313	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	
1314	CHECK 609: MARRIED MORE THAN ONCE ☐ ↓ MARRIED ONLY ONCE ☐		→ '1316
1315	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
1316	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	→ 1319
1317	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)	
1318	In the last 12 months, how often has (this person/have these persons) physically hurt you: often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1319	CHECK 201, 226, AND 230: EVER BEEN PREGNANT (YES ON 201 OR 226 OR 230) ☐ ↓ NEVER BEEN PREGNANT ☐ →		→ 1322
1320	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES . . . . . 1 NO 2	→ 1322
1321	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)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1322	CHECK 601 AND 602: EVER MARRIED/EVER LIVED WITH A MAN ☐ NEVER MARRIED/NEVER LIVED WITH A MAN ☐		1322B
1322A	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	1323 1324A
1322B	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	1326
1323	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)	
1324	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	1325
1324A	CHECK 1305A (h-j) and '1315A(b) AT LEAST ONE 'YES' ☐ NOT A SINGLE 'YES' ☐		1326

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1325	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 time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS ☐☐ DON'T KNOW 98	
1326	CHECK 1305A (a-j), '1315A (a,b), '1316, '1320, '1322A, AND '1322B: AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐		→ 1330
1327	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	→ 1329
1328	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 TRADITIONAL LEADER . . . . . H RELIGIOUS LEADER . . . . . I DOCTOR/MEDICAL PERSONNEL . . . J POLICE . . . . . K LAWYER . . . . . L SOCIAL SERVICE ORGANIZATION M OTHER _____ X (SPECIFY)	→ 1330
1329	Have you ever told any one about this?	YES . . . . . 1 NO 2	
1330	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.

			YES ONCE	YES, MORE THAN ONCE	NO
1331	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?	HUSBAND	1	2	3
		OTHER MALE ADULT . . .	1	2	3
		FEMALE ADULT	1	2	3

1332 INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE

_____

_____

1333	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

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
- 6 PILL
- 7 CONDOM
- 8 FEMALE CONDOM
- 9 DIAPHRAGM
- J FOAM OR JELLY
- K LACTATIONAL AMENORRHEA METHOD
- L RHYTHM METHOD
- M 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	
	12	DEC	01			
	11	NOV	02			
	10	OCT	03			
	09	SEP	04			
2	08	AUG	05			2
0	07	JUL	06			0
1	06	JUN	07			1
3	05	MAY	08			3
*	04	APR	09			*
	03	MAR	10			
	02	FEB	11			
	01	JAN	12			
	12	DEC	13			
	11	NOV	14			
	10	OCT	15			
	09	SEP	16			
2	08	AUG	17			2
0	07	JUL	18			0
1	06	JUN	19			1
2	05	MAY	20			2
*	04	APR	21			*
	03	MAR	22			
	02	FEB	23			
	01	JAN	24			
	12	DEC	25			
	11	NOV	26			
	10	OCT	27			
	09	SEP	28			
2	08	AUG	29			2
0	07	JUL	30			0
1	06	JUN	31			1
1	05	MAY	32			1
*	04	APR	33			*
	03	MAR	34			
	02	FEB	35			
	01	JAN	36			
	12	DEC	37			
	11	NOV	38			
	10	OCT	39			
	09	SEP	40			
2	08	AUG	41			2
0	07	JUL	42			0
1	06	JUN	43			1
0	05	MAY	44			0
*	04	APR	45			*
	03	MAR	46			
	02	FEB	47			
	01	JAN	48			
	12	DEC	49			
	11	NOV	50			
	10	OCT	51			
	09	SEP	52			
2	08	AUG	53			2
0	07	JUL	54			0
0	06	JUN	55			0
9	05	MAY	56			9
*	04	APR	57			*
	03	MAR	58			
	02	FEB	59			
	01	JAN	60			
	12	DEC	61			
	11	NOV	62			
	10	OCT	63			
	09	SEP	64			
2	08	AUG	65			2
0	07	JUL	66			0
0	06	JUN	67			0
8	05	MAY	68			8
*	04	APR	69			*
	03	MAR	70			
	02	FEB	71			
	01	JAN	72			

2013 SIERRA LEONE DEMOGRAPHIC AND HEALTH SURVEY

MAN'S QUESTIONNAIRE

STATISTICS SIERRA LEONE

IDENTIFICATION

LOCALITY NAME _____

LOCAL COUNCIL _____

DISTRICT CODE . . . . . .

PROVINCE NAME AND CODE _____

CHIEFDOM CODE . . . . . .

SECTION CODE . . . . . .

DHS CLUSTER NUMBER . . . . . .

ENUMERATION AREA CODE . . . . . .

RURAL (1) / URBAN (2) . . . . . .

HOUSEHOLD NUMBER . . . . . .

NAME OF HOUSEHOLD HEAD _____

MAN'S NAME AND LINE NUMBER _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR 2 0 1 3
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

CHECK COVER OF HOUSEHOLD QUESTIONNAIRE:

HOUSEHOLD SELECTED FOR MALE INTERVIEW? YES . . . 1 NO . . . 0

CHECK COLUMN 12 OF HOUSEHOLD QUESTIONNAIRE

MAN WAS SELECTED FOR THE DOMESTIC VIOLENCE INTERVIEW? YES . . . 1 NO . . . 0

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF INTERIVIEW

KRIO . . . 1
TEMNE . . . 2
OTHER . . . 3 _____ (SPECIFY)

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 Statistics Sierra Leone. We are conducting a survey about health all over Sierra Leone. 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 take part 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 JUNIOR SECUNDARY . . . . . 2 SENIOR SECONDARY . . . . . 3 VOCATIONAL / COMMERCIAL / NURSING TECHNICAL / TEACHING . . . . . 4 HIGHER 5	
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 [ ] ↓ JUNIOR SECONDARY OR HIGHER [ ]		→ 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?	CHRISTIAN . . . . . 1 ISLAM . . . . . 2 BAHAI . . . . . 3 TRADITIONAL . . . . . 4 NONE . . . . . 5 OTHER _____ 6 (SPECIFY)	
114	What is your ethnicity?	CREOLE . . . . . 11 FULLAH . . . . . 12 KONO . . . . . 13 LIMBA . . . . . 14 LOKO . . . . . 15 MANDINGO . . . . . 16 MENDE . . . . . 17 SHERBRO . . . . . 18 TEMNE . . . . . 19 OTHER SIERRA LEONEAN _____ 21 (SPECIFY) OTHER FOREIGN _____ 22 (SPECIFY)	
115	In the last 12 months, how many times have you been away from home for one or more nights? IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	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 . . . [ ][ ]	
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 . . . . . [ ][ ]	
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ↓ NO LIVING CHILDREN → 301		
214	How old is your (youngest) child?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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**. 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: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2	
11	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
12	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	
13	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?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J FIELDWORKER . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIENDS/RELATIVES . . . . . O OTHER _____ X (SPECIFY)	

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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D FIELDWORKER . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J FIELDWORKER . . . . . K OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIEND/RELATIVE . . . . . O OTHER _____ X (SPECIFY)	

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. 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) WIFE/PARTNER 95	→ 501
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 [ ][ ]	→ 430

		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 CLIENT/PROSTITUTE 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 CLIENT/PROSTITUTE 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 CLIENT/PROSTITUTE 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)
421	CHECK 410:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (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 last 12 months 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

		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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
428	CHECK 420 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐		→ 430
429	CHECK 420 AND 418 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ OTHER ☐		→ 433 → 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 ☐ CONDOM USED ☐ NO CONDOM USED ☐		→ 438 → 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.	LATEX (144) . . . . . 01 LOVE . . . . . 02 PROTECTOR . . . . . 03 OTHER _____ 96 (SPECIFY) 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 SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELDWORKER . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 FIELDWORKER . . . . . 25 OTHER PRIVATE MEDICAL SECTOR _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 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 . . . . . E PILL . . . . . F FEMALE CONDOM . . . . . G DIAPHRAGM . . . . . H FOAM/JELLY . . . . . I LAM . . . . . J RHYTHM METHOD . . . . . K WITHDRAWAL . . . . . L 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 OR QUESTION NOT ASKED ☐ 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 . . . . . 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 ☐ WIFE/PARTNER PREGNANT ☐ How long would you like to wait from now before the birth of (a/another) child? 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: you, your (wife / partner), or you and your (wife / partner) jointly?	RESPONDENT . . . . . 1 WIFE / PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER 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 / PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 (SPECIFY)	
611	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 WIFE / PARTNER . . . . . 2 RESPONDENT AND WIFE/ PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 (SPECIFY)	

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 burns the food?	BURNS FOOD 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 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	
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	
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.		
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 95	
714	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 STAND-ALONE VCT CENTER . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE CLINIC . . . . . 15 FIELDWORKER . . . . . 16 SCHOOL BASED CLINIC . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 STAND-ALONE VCT CENTER . . . 22 PHARMACY . . . . . 23 MOBILE CLINIC . . . . . 24 FIELDWORKER . . . . . 25 SCHOOL BASED CLINIC . . . . . 26 OTHER PRIVATE MEDICAL SECTOR _____ 27 (SPECIFY) OTHER SOURCE HOME . . . . . 31 CORRECTIONAL FACILITY . . . . . 32 OTHER _____ 96 (SPECIFY)	→ 718
716	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 718
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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E FIELDWORKER . . . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) 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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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	
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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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 SECTOR GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B STAND-ALONE VCT CENTER . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE CLINIC . . . . . E FIELDWORKER . . . . . F OTHER PUBLIC SECTOR _____ G (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H STAND-ALONE VCT CENTER . . . I PHARMACY . . . . . J MOBILE CLINIC . . . . . K FIELDWORKER . . . . . L OTHER PRIVATE MEDICAL SECTOR _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N OTHER _____ X (SPECIFY)	
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	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 901
813	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE D OTHER _____ X (SPECIFY)	

SECTION 9: FEMALE GENITAL CUTTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Have you ever heard of female circumcision?	YES . . . . . 1 NO 2	→ 903
902	In a number of countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES . . . . . 1 NO 2	→ 1001
903	What benefits do girls themselves get if they are circumcised? PROBE: Any other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE . . . . . A SOCIAL ACCEPTANCE . . . . . B BETTER MARRIAGE PROSPECTS . . . C PRESERVE VIRGINITY/PREVENT PREMARITAL SEX . . . . . D MORE SEXUAL PLEASURE FOR THE MAN . . . . . E RELIGIOUS APPROVAL . . . . . F OTHER _____ X (SPECIFY) NO BENEFITS . . . . . Y NO OPINION / DON'T KNOW . . . . . Z	
904	Do you believe that this practice is required by your religion?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Do you think that this practice should be continued, or should it be discontinued?	CONTINUED . . . . . 1 DISCONTINUED . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	

SECTION 10: DOMESTIC VIOLENCE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1000	CHECK HOUSEHOLD QUESTIONNAIRE, [COVER PAGE].	MAN SELECTED FOR THIS SECTION ☐ ↓ MAN NOT SELECTED ☐ →	GO TO 1033
1001	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED.	PRIVACY OBTAINED . . . . . 1 ↓ PRIVACY NOT POSSIBLE . . . . . 2 →	1032
	READ TO THE RESPONDENT Now I would like to ask you questions about some other important aspects of life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of women in Sierra Leone. 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.		
1002	CHECK 401 AND 402:	CURRENTLY MARRIED OR LIVING WITH A WOMAN ☐ ↓ FORMERLY MARRIED OR LIVED WITH A WOMAN (READ IN PAST TENSE AND USE 'LAST' WITH WIFE / PARTNER') ☐ ↓ NEVER MARRIED / NEVER LIVED WITH A WOMAN ☐ →	1016

1003 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 male 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

1004 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 →	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
1005	A Did your (last) (wife / 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 her 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 her 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 ↓			

1006	CHECK 1005A (a-j): AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ → 1009		
1007	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	
1008	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1009	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	→ '1011
1010	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	
1011	Does (did) your (last) (wife / partner) drink alcohol?	YES . . . . . 1 NO 2	→ '1013
1012	How often does (did) she get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1013	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	
1014	CHECK 409: MARRIED MORE THAN ONCE ☐ ↓ MARRIED ONLY ONCE ☐		→ '1016
1015	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			

1016	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	→ 1022

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1017	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)	
1018	In the last 12 months, how often has (this person / have these persons) physically hurt you: often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1022	CHECK 401 AND 402: EVER MARRIED / EVER LIVED WITH A WOMAN ☐ ↓ NEVER MARRIED / NEVER LIVED WITH A WOMAN ☐ →		1022B
1022A	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	→ 1023 → 1024A
1022B	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	→ 1026
1023	Who was the person who was forcing you at that time?	CURRENT WIFE / PARTNER . . . . . 01 FORMER WIFE / PARTNER . . . . . 02 CURRENT / FORMER GIRLFRIEND . . . . . 03 FATHER / STEP-FATHER . . . . . 04 MOTHER / STEP-MOTHER 05 BROTHER / STEP-BROTHER . . . . . 06 SISTER / STEP-SISTER 07 OTHER RELATIVE . . . . . 08 IN-LAW . . . . . 09 OWN FRIEND / ACQUAINTANCE . . . . . 10 FAMILY FRIEND . . . . . 11 TEACHER . . . . . 12 EMPLOYER / SOMEONE AT WORK . . . . . 13 POLICE / SOLDIER . . . . . 14 PRIEST / RELIGIOUS LEADER . . . . . 15 STRANGER . . . . . 16 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1024	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	→ 1025
1024A	CHECK 1005A (h-j) and '1015A(b) AT LEAST ONE 'YES' ☐ → NOT A SINGLE 'YES' ☐ →		→ 1026
1025	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 time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS ☐☐ DON'T KNOW 98	
1026	CHECK 1005A (a-j), '1015A (a,b), '1016, '1022A, AND '1022B: AT LEAST ONE 'YES' ☐ → NOT A SINGLE 'YES' ☐ →		→ 1030
1027	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	→ 1029
1028	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)	→ 1030
1029	Have you ever told any one about this?	YES . . . . . 1 NO 2	
1030	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.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
1031	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	
		OTHER MALE ADULT . . .	1	2	3	
		FEMALE ADULT	1	2	3	
1032	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE					
1033	RECORD THE TIME.	HOUR				
		MINUTES				

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: _____