Ethiopia

Demographic and Health Survey

2000

World Summit for Children Indicators: Ethiopia 2000

		Value
	BASIC INDICATORS	
Childhood mortality	Infant mortality rate	97.0 per 1,000
	Under-five mortality rate	166.2 per 1,000
Maternal mortality	Maternal mortality ratio	871 per 100,000
Childhood undernutrition	Percent stunted (of children under 5 years)	51.5
	Percent wasted (of children under 5 years)	10.5
	Percent underweight (of children under 5 years)	47.2
Clean water supply	Percent of households within 15 minutes of safe water supply[1]	10.1
Sanitary excreta disposal	Percent of households with flush toilets	0.3
Basic education	Percent of women 15-49 with completed primary education	10.7
	Percent of men 15-49 with completed primary education	20.5
	Percent of girls 6-12 attending school	23.5
	Percent of boys 6-12 attending school	28.0
	Percent of women 15-49 who are literate	18.5
Children in especially difficult situations	Percent of children who are orphans (both parents dead)	0.8
	Percent of children who do not live with their natural mother	15.2
	Percent of children who live in single adult households	7.6
	SUPPORTING INDICATORS	
Birth spacing	Percent of births within 24 months of a previous birth[2]	19.7
Safe motherhood	Percent of births with medical prenatal care[3]	26.7
	Percent of births with prenatal care in first trimester[3]	6.2
	Percent of births with medical assistance at delivery[4]	5.6
	Percent of births in a medical facility[4]	5.0
	Percent of births at high risk[4]	63.4
Family planning	Contraceptive prevalence rate (any method, married women)	8.1
	Percent of currently married women with an unmet demand for family planning	35.8
	Percent of currently married women with an unmet need for family planning to avoid a high-risk birth	29.1
Maternal nutrition	Percent of women age 15-49 with low BMI	30.1
Low birth weight	Percent of births at low birth weight[5]	12.4
Breastfeeding	Percent of children under 4 months who are exclusively breastfed	62.3
Iodized salt intake	Percent of households that use iodized salt[6]	28.4
Vaccinations	Percent of children whose mothers received at least one dose of tetanus toxoid vaccinations[3]	26.2
	Percent of children 12-23 months with measles vaccination	26.6
	Percent of children 12-23 months fully vaccinated	14.3
Diarrhea control	Percent of children with diarrhea in preceding 2 weeks who received ORS or RHF	18.6
Acute respiratory infection	Percent of children with acute respiratory infection in preceding 2 weeks who were taken to a health facility or provider	15.8

[1] Includes piped water and water from covered well and spring
[2] First births are excluded
[3] Refers to last births in the five years preceding the survey
[4] Refers to all births in the five years preceding the survey
[5] Standardized by mother's assessment of child's size at birth
[6] 25 ppm or more

Ethiopia Demographic and Health Survey 2000

Central Statistical Authority
Addis Ababa, Ethiopia

ORC Macro
Calverton, Maryland, USA

May 2001

The 2000 Ethiopia DHS was implemented by the Central Statistical Authority under the aegis of the Ministry of Health. ORC Macro provided technical assistance through its MEASURE *DHS+* program. The survey was funded principally by the Essential Services for Health in Ethiopia (ESHE) project through a bilateral agreement between the U.S. Agency for International Development (USAID) and the Federal Democratic Republic of Ethiopia. Funding was also provided by the United Nations Population Fund (UNFPA).

Additional information about the Ethiopia DHS may be obtained from the Central Statistical Authority, P.O. Box 1143, Addis Ababa, Ethiopia (telephone: 115131; fax 563885). Information about the MEASURE *DHS+* project may be obtained from ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; e-mail: reports@macroint.com; internet: www.measuredhs.com

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FOREWORD

The 2000 Ethiopia Demographic and Health Survey (DHS) is the first of its kind to be conducted in the country. The survey was conducted by the Central Statistical Authority (CSA) under the aegis of the Ministry of Health and funded primarily by the United States Agency for International Development (USAID). Funding was also provided by the United Nations Population Fund (UNFPA). ORC Macro provided technical assistance under the MEASURE *DHS+* program. The survey collected information on family planning knowledge and use, fertility, infant and child mortality, maternal and child health, and knowledge of HIV/AIDS. Preparatory work for the DHS was initiated in June 1999 and fieldwork was carried out between early February and mid-June 2000.

The findings presented in this report will provide valuable information in the formulation of appropriate population and health policies and programs in the country. Key indicators relating to fertility, mortality and health are provided for the 9 regions and 2 administrative council areas of the country. In addition, data are also provided by urban and rural residence.

Findings from the DHS indicate that there has been some decline in fertility over the last decade. Knowledge of family planning is relatively high in Ethiopia. Nevertheless, the use of contraception is very low, with current use markedly lower than ever use. The mass media are not important sources of information on family planning, indicating tremendous potential for improving information, education and communication in Ethiopia. The majority of Ethiopian women and men prefer to space or limit the number of children that they have, and have a potential need for family planning. If all currently married women who say they want to space or limit the number of children were to use family planning, there would be a more than five-fold increase in the contraceptive prevalence rate in Ethiopia. DHS data also show that child mortality has declined over the last decade. Nevertheless, there is much scope for improvement in maternal and child health. Most mothers received no antenatal care, and the majority of deliveries is non-institutional and receives no assistance from health professionals. It is encouraging to note, however, that knowledge of HIV/AIDS in Ethiopia is high.

The Central Statistical Authority acknowledges the invaluable assistance of a number of institutions and individuals toward the successful completion of the Ethiopia DHS. The CSA is particularly thankful to USAID and UNFPA for funding the survey, to ORC Macro for providing technical assistance, and to UNICEF for providing weighing scales and salt-testing kits used in the survey. The CSA expresses its gratitude to the Ministry of Health and the National Office of Population for their support.

We highly appreciate and commend the dedicated effort of all persons involved in the Ethiopia DHS and in the timely completion of the fieldwork and publication of this report.

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SUMMARY OF FINDINGS

The 2000 Ethiopia Demographic and Health Survey (DHS) is a nationally representative survey of 15,367 women age 15-49 and 2,607 men age 15-59. The Ethiopia DHS is the first comprehensive nationally representative population and health survey conducted in Ethiopia and the first to be implemented as part of the worldwide Demographic and Health Surveys (DHS) project. The primary purpose of the Ethiopia DHS is to furnish policymakers and planners with detailed information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition. In addition, the survey collected information on knowledge of HIV/AIDS and other sexually transmitted infections.

FERTILITY

Survey results indicate that fertility has declined in the last decade from 6.4 births per woman in 1990 to 5.9 births per woman in 2000, a decline of half a child. There are distinct differences by residence, with rural women having twice as many children as urban women. Fertility is highest in the Oromiya Region (6.4 births per woman) and lowest in Addis Ababa (1.9 births per woman). Education has a marked effect on fertility, with uneducated mothers having twice as many children as women with at least some secondary education.

Childbearing starts early. At current age-specific rates of childbearing, an Ethiopian woman will have had more than half of her lifetime births by age 30, and nearly three-fourths by age 35.

Several factors could account for the decline in fertility in Ethiopia. Over the last 10 years, there has been a decline in the percentage of women currently in union from 72 percent in 1990 to 64 percent in 2000. This decline in nuptiality is observed for all age groups. The median age at marriage has also risen over the last two decades from around 16 years for women age 30-49 to 18 years for women age 20-24. There has also been a rise in the median age at first birth during the last 10 years. In addition, the percentage of women married by age 15 has declined from 35 percent among women age 35-39 to 14 percent among those currently age 15-19.

The median age at first sexual intercourse for women is the same as the median age at marriage, while men become sexually active well before marriage. The median age at first sexual intercourse for men is 20.3 years, three years earlier than the median age at first marriage. In general, Ethiopian men marry more than seven years later than women.

Overall, 14 percent of currently married women are married to men who are in a polygynous union. Older women, rural women, women residing in the Gambela, Affar, and SNNP regions, and uneducated women more likely to be in a polygynous union than other women. About one in eleven men is in a polygynous union.

The interval between births is relatively long in Ethiopia. Fifty-seven percent of all births occur nearly three years after a previous birth. Postpartum insusceptibility is one of the major factors contributing to the long birth interval in Ethiopia. The median duration of amenorrhea is 19 months, postpartum abstinence is 2 months, and insusceptibility is 20 months.

FAMILY PLANNING

Knowledge of family planning is relatively high in Ethiopia, with 86 percent of currently married women and 92 percent of currently married men having heard of at least one method of contraception. The pill and injectables are the most widely known modern methods among both women and men.

Use of contraception is very low, with a noticeable discrepancy between ever use and current use. Seventeen percent of currently married women and 25 percent of currently married men have used a family planning method at least once in

their lifetime. However, only 8 percent of women and 15 percent of men are currently using a method. Current use of modern methods is even lower, with 6 percent of women and 9 percent of men currently using a modern method. Much of the male-female difference in current use is due to the higher level of reported use of the pill and injectables by men. Men are also three times more likely than women to report use of traditional methods, especially periodic abstinence. More than three in four current users of modern methods (78 percent) obtain their method from the public sector, while 16 percent and 6 percent, respectively, obtain their method from the private medical sector or other private sources.

The contraceptive prevalence rate in Ethiopia for all methods has increased over the last decade from 5 percent in 1990 to 8 percent in 2000. The use of modern contraceptive methods doubled over the 10-year period. Much of this increase can be attributed to increase in the use of injectables, from virtually nil in 1990 to 3 percent in 2000.

The mass media is not an important source of information on family planning. Only 17 percent of women and 29 percent of men have heard a family planning message on the radio and/or television. Although the large majority of women who know of family planning approve of its use (69 percent), only 38 percent believe that their husband approves of its use. Nevertheless, nearly one in two married couples approves of the use of family planning.

The desire for more children is the major reason given by currently married nonusers for not intending to use a method of contraception in the future. Forty-two percent of currently married women and 65 percent of currently married men reported this reason for non-use.

The majority of Ethiopian women (68 percent) and men (68 percent) prefer to space or limit the number of children they have, and have a potential need for family planning. More than one in three currently married women has an unmet need for family planning (36 percent). The need for spacing (22 percent) is higher than the need for limiting (14 percent). If all currently married women who say they want to space or limit the number of children were to use family planning, the contraceptive prevalence rate in Ethiopia would increase from 8 percent to 44 percent.

Child Health

At current mortality levels, one of every 6 Ethiopian children will die before the fifth birthday, with 58 percent of these deaths occurring during the first year of life. The DHS data show, however, that mortality has declined over the last 15 years. Under-five mortality is 21 percent lower now than it was five to nine years ago, with the pace of decline in infant mortality (25 percent) somewhat faster than the decline in child mortality (18 percent).

Mortality is consistently lower in urban areas than in rural areas, with mortality lowest in Addis Ababa, the most urbanized area of the country. Nevertheless, even in Addis Ababa, one in nine children dies before the fifth birthday. The corresponding rates are about one in four in the Affar and Gambela regions. Maternal education is strongly correlated with child mortality. Neonatal mortality is 60 percent lower, infant mortality is 47 percent lower, and under-five mortality is 55 percent lower among mothers with some secondary education than among mothers with no education.

Survival of infants and children is strongly influenced by access to maternal health care. Neonatal death is 33 percent lower when mothers have access to either antenatal or delivery care, and 92 percent lower when mothers have access to both antenatal and delivery care, than when neither service is used. With the exception of child mortality, male children in general experience higher mortality than female children. Mortality is higher among children born to very young mothers (less than 20 years) and older mothers (more than 40 years), first births and births of order seven and higher, and children born within two years of a previous birth.

Twelve percent of children are fully vaccinated by 12 months of age, 41 percent have received the BCG vaccination, and 21 percent have been vaccinated against measles. Three in four children age 12-23 months received the first dose of polio vaccine by 12 months of age, one in two received the second dose, and about one in three received the third dose. While DPT and polio vaccines are often administered at the same time, polio coverage in Ethiopia is much higher than DPT coverage. This is primarily due to the success of the national immunization day campaign, during which polio vaccines are administered. While coverage for the first dose of DPT is relatively high (40 percent), there is a 55 percent decline in coverage between the first and third doses. The dropout between the first and third doses of polio is also marked—a 59 percent decline. There has been little change in the percentage of children fully vaccinated over the last four years; however, the percentage of children who received no vaccinations at all has declined from 31 percent among children age 48-59 months, to 25 percent among children age 12-23 months.

One in four children under age five showed symptoms of acute respiratory infection (ARI), in the two weeks before the survey. Use of a health facility for the treatment of symptoms of ARI is low, with only 16 percent of children taken to a health facility or provider.

Twenty-eight percent of children under five were reported to have had fever, a major manifestation of malaria, in the two weeks before the survey. Seventy-eight percent of these children received no treatment at all. Aspirin (8 percent) and antibiotics (6 percent) are the most commonly used treatments for fever. Few children with fever are treated with antimalarial medication.

Nationally, 24 percent of all children under five had diarrhea at some time in the two weeks before the survey. Only 13 percent of these children were taken to a health provider. Forty-five percent of children with diarrhea were treated with some kind of oral rehydration therapy (ORT): 13 percent were treated with ORS (solution prepared from ORS packets); 9 percent were given recommended home fluids (RHF) prepared at home; 19 percent received either ORS or RHF; and 35 percent were given increased fluids. A large proportion of children with diarrhea (39 percent) did not receive any type of treatment at all.

Maternal Health

Twenty-seven percent of mothers who had a live birth in the five years preceding the survey received antenatal care from health professionals; less than 1 percent of mothers received antenatal care from trained and untrained traditional birth attendants. No antenatal care was received by nearly three-quarters (73 percent) of mothers. Only one in ten women make four or more antenatal care visits during their entire pregnancy. The median number of antenatal care visits is 2.5, about five times less than the recommended number.

Among mothers who received antenatal care one in four reported that they were informed about pregnancy complications during their antenatal care visits. Height and weight measurements were collected for 67 percent and 43 percent of mothers, respectively. Blood pressure measurement was included in the antenatal care for 69 percent of mothers, and urine and blood sampling was done for 21 and 25 percent of mothers, respectively. Seventeen percent of women who had a live birth in the five years preceding the survey received two or more doses of tetanus toxoid injections during pregnancy. Nine percent reported having received antimalarial medication.

An overwhelming majority of births in the five years before the survey were delivered at home (95 percent). Only 6 percent of births were delivered with the assistance of a trained health professional, that is, a doctor, nurse or midwife, while 4 percent were delivered by a trained birth attendant (TBA). The majority of births (85 percent) were attended by either an untrained TBA (26 percent) or a relative, or some other person (58 percent). Six percent of all births were delivered without assistance.

Postnatal care is extremely low in Ethiopia. Nine

in 10 mothers who had a live birth in the five years preceding the survey received no postnatal care (90 percent). Of those who received postnatal care, half (5 percent) were women who delivered in a health facility. Only 8 percent of mothers received postnatal care within the crucial first two days of delivery, and 1 percent received care three to seven days after delivery.

Breastfeeding and Nutrition

Breastfeeding is nearly universal in Ethiopia, and the median duration of any breastfeeding is long (26 months). Exclusive breastfeeding, on the other hand, is relatively short, with a median duration of 3 months; nearly one in seven children under 4 months of age is given other milk, and 6 percent receive other liquids. The use of a bottle with a nipple is common (13 percent of children under 4 months) and bottle-feeding starts as early as 0-1 month.

The level of malnutrition is significant with more than one in two Ethiopian children under five years of age stunted (short for their age), 11 percent wasted (thin for their age), and 47 percent underweight. In general, rural children and children of uneducated mothers are more likely to be stunted, wasted, or underweight than other children. Children in the Tigray, Amhara, and SNNP regions are more likely to be stunted, children in the Somali and Gambela regions are more likely to be wasted, and children in the SNNP, Amhara, and Affar regions are more likely to be underweight, than other children.

Survey results also show that the level of chronic energy deficiency in Ethiopia is relatively high. Nearly one in three women falls below the cut-off of 18.5 for the body mass index, which utilizes both the height and weight to measure thinness.

HIV/AIDS and STIs

Most women (85 percent) and men (96 percent) have heard of AIDS. The most important source of information on AIDS is community meetings, with 80 percent and 71 percent of women and men, respectively, having heard of AIDS at a community meeting. Men are much more likely than women to have heard about AIDS on the radio and television. Three times as many women as men said that they had not heard of AIDS or did not know if AIDS can be avoided, while 5 percent of women and 3 percent of men stated that there is no way to avoid getting AIDS. Twenty-nine percent of women and 6 percent of men do not know a specific way to avoid contracting the virus (HIV) that causes AIDS. Most respondents (53 percent of women and 70 percent of men) believe that having sex with only one partner is the single most effective way to avoid contracting HIV. Thirty-seven percent of women and 55 percent of men believe that a healthy-looking person can have the AIDS virus. Fifty-eight percent of women and 72 percent of men also recognize that the disease can be transmitted from a mother to her child during pregnancy, at delivery, or through breastfeeding.

One in four women and one in two men who are currently married or living with a partner have discussed the prevention of HIV/AIDS with their spouse or partner. Nearly twice as many women as men who have heard of AIDS believed that a person who knows that she/he has the AIDS virus should be allowed to keep this information private. About one in two women and men (45 percent and 50 percent, respectively) are willing to care for relatives who are infected with the AIDS virus in their house. Overall, a very small percentage of men (2 percent) said that they have been tested for AIDS. Nearly two in three men who have not been tested for AIDS say they want to be tested.

Thirty-seven percent of women and 19 percent of men did not know of any other STIs. One in four women and 14 percent of men did not know of any signs or symptoms of STIs in a man while 27 percent of women and 41 percent of men did not know of any signs or symptoms of STIs in a woman. About 3 percent of men mentioned that they had experienced an infection in the 12 months preceding the survey. One in three men sought advice or treatment from a government medical facility. Fifty-four percent of men with an STI or associated symptoms did not inform their partner and 58 percent took no action to protect their partner.

Women's Status

The DHS data shed some light on the status of women in Ethiopia. Fourteen percent of currently married women are in a polygynous union, with older women more likely than younger women to have a husband with several wives. There has been little change in the level of polygyny over the last decade.

While the majority of Ethiopians have little or no education, women are generally less educated than men. The male-female gap in education is more obvious at lower levels of education primarily because the proportion of males and females attending higher levels of education is so small. The net attendance ratio, which indicates participation in primary schooling among those age 7-12 years, and secondary schooling among those age 13-18 years, is also lower among females than males.

Fifty-six percent of women were working at the time of the survey, 7 percent were not working but had worked during the 12 months prior to the survey, and 37 percent did not work in the preceding 12 months. Agriculture is the dominant sector of the economy, employing 58 percent of women in the 12 months preceding the survey. Nearly half of the working women (48 percent) are self-employed, 43 percent work for a family member, and 9 percent work for someone else. Thirty-five percent of working women receive cash only, 5 percent are paid in cash and in kind, 19 percent are paid in kind only, and 41 percent do not receive any form of payment. Three-fourths of women who work for cash reported that they alone are mainly responsible for making decisions on how their earnings is spent, 16 percent said they make these decisions jointly with their husband/partner, and 2 percent said their husband/partner alone decides.

A sizable majority of women (85 percent) believe that a husband is justified in beating his wife for at least one reason. Two in three women believe that a husband is justified in beating his wife if she burns the food or neglects the children. A slightly smaller percentage agree that if a woman argues with her husband (61 percent), or goes out without telling him (56 percent), then he is justified in beating her. One in two women believe that a husband is justified in beating his wife if she refuses to have sex with him.

The practice of female circumcision is widespread in Ethiopia, with 80 percent of all women having been circumcised. More than half of the women who had one or more living daughters reported that at least one of their daughters had been circumcised.

One in four Ethiopian women who died in the seven years preceding the survey died from pregnancy or pregnancy-related causes. The maternal mortality ratio, which measures the obstetric risk associated with each live birth, is 871 deaths per 100,000 live births for the period 1994-2000.

INTRODUCTION 1

1.1 History, Geography, and Economy

Ethiopia is an ancient country with a rich diversity of peoples and cultures and a unique alphabet that has existed for more than 3,000 years. The country has always maintained its independence, even during the colonial era in Africa. Ethiopia was ruled by successive emperors and kings with a feudal system of government until 1974. In 1974, the military took over the reign of rule by force and administered the country until May 1991. Currently, a federal system of government exists, and political leaders are elected every five years. The government is made up of two tiers of parliament, the House of the Council of Peoples Representatives and the House of Federal States, with the regions, zones, *weredas,* and *kebeles* within them having elected council members. The administrative boundaries within the country have changed three times since the mid-1970s, and at present Ethiopia has nine regional states, Addis Ababa City Administration and Dire Dawa Administration Council.

Ethiopia is situated in the Horn of Africa between 3 and 15 degrees north latitude and 33 and 48 degrees east longitude. It is a country with great geographical diversity; its topographic features range from the highest peak at Ras Dashen, which is 4,550 meters above sea level, down to the Affar Depression at 110 meters below sea level (CSA, 2000). The climatic condition of the country varies with the topography, with temperatures as high as 47 degrees Celsius in the Affar Depression and as low as 10 degrees Celsius in the highlands. The total area of the country is about 1.1 million square kilometers and Djibouti, Eritrea, Sudan, Kenya, and Somalia border it.

Ethiopia is an agrarian country, and agriculture accounts for 54 percent of the gross domestic product (GDP), employs about 80 percent of the population, and accounts for about 90 percent of the exports (CSA, 2000). The country is one of the least developed in the world, with a per capita gross national product (GNP) in 1998 of US$100 (PRB, 2000). Coffee is the main export of the country. The Ethiopian currency is the Birr, and at present, 1 US dollar is equivalent to about 8 Birr. Between 1974 and 1991, the country operated a central command economy under the socialist banner of the Derg regime. However, since their overthrow, Ethiopia has moved toward a market-oriented economy. At present, the country has two government-owned commercial banks and six privately owned commercial banks, one government-owned insurance company and seven private insurance companies (NBE, 2000). There are also 15 microfinancing institutions established by private organizations.

1.2 Population

Table 1.1 provides a summary of the basic demographic indicators for Ethiopia from data collected in the two population and housing censuses carried out in 1984 and 1994. The population increased over the decade from 42.6 million in 1984 to 53.5 million in 1994. There was a slight decline in the population growth rate over the decade, from 3.1 percent in 1984 to 2.9 percent in 1994. Ethiopia is one of the least urbanized countries in the world, with less than 14 percent of the country urbanized in 1994. Female life expectancy is about two years higher than male life expectancy. Over the decade, life expectancy for both males and females did not improve.

The majority of the population lives in the highland areas of the country. The main occupation of the settled population is farming, while in the lowland areas, the mostly pastoral population moves from place to place with their livestock in search of grass and water. Christianity and Islam are the main religions; 51 percent of the population are Orthodox Christians, 33 percent are Muslims, and 10 percent are Protestants. The rest follow a diversity of other faiths. The country is home to about 80 ethnic groups that vary in population size from more than 18 million to less than 100 (CSA, 1998).

Table 1.1 Basic demographic indicators

Demographic indicators from various sources, Ethiopia

Indicator	1984 Census[1]	1994 Census[2]
Population (millions)	42.6	53.5
Intercensal growth rate (percent)	3.1	2.9
Density (per square km.)	34.0	48.6
Percent urban	11.4	13.7
Life expectancy		
Male	51.1	50.9
Female	53.4	53.5

[1] Including Eritrea; CSA, 1991
[2] CSA, 1998

1.3 Health and Family Planning

The health system in Ethiopia is underdeveloped, and transportation problems are severe. The majority of the population resides in the rural areas and has little access to any type of modern health institution. It is estimated that about 75 percent of the population suffers from some type of communicable disease and malnutrition, which are potentially preventable (TGE, 1995). There was no health policy up through the 1950s; however, in the early 1960s, a health policy initiated by the World Health Organization (WHO) was adopted. In the mid-1970s, during the Derg regime, an elaborate health policy with emphasis on disease prevention and control was formulated. This policy gave priority to rural areas and advocated community involvement (TGE, 1993a). At present, the government health policy takes into account population dynamics, food availability, acceptable living conditions, and other requisites essential for health improvements (TGE, 1993a). The present health policy arises from the fundamental principle that health constitutes physical, mental, and social well-being for the enjoyment of life and for optimal productivity. To realize this objective, the government has established the Health Sector Development Program, which incorporates a 20-year health development strategy, through a series of 5-year investment programs (MOH, 1999). This program calls for the democratization and decentralization of health services; development of preventive health care; capacity building within the health service system; equitable access to health services; self-reliance; promotion of intersectoral activities and participation of the private sector, including non-governmental organizations (NGOs); and cooperation and collaboration with all countries in general and neighboring countries in particular and between regional and international organizations (TGE, 1993a).

Population policies had been accorded a low priority in Ethiopia prior to the early 1990s. After the end of the Derg regime, the Transitional Government adopted a national population policy in 1993 (TGE, 1993b). The primary objective of the population policy was to harmonize the rate of population growth with socioeconomic development to achieve a high level of welfare. The main long-term objective was to close the gap between high population growth and low economic productivity and to expedite socioeconomic development through holistic integrated programs. Other objectives included preserving the environment and reducing rural-urban migration and reducing morbidity and mortality, particularly infant and child mortality. More specifically, the population policy targeted a reduction in the total fertility rate from 7.7 children per woman in 1990 to 4.0 children per woman in 2015 and an increase in contraceptive prevalence from 4 percent in 1990 to 44 percent in 2015 (TGE, 1993b). Family planning and related services and information are disseminated to the population through community organizations and women's and youth groups.

1.4 OBJECTIVES AND ORGANIZATION OF THE SURVEY

The principal objective of the Ethiopia Demographic and Health Survey (DHS) is to provide current and reliable data on fertility and family planning behavior, child mortality, children's nutritional status, the utilization of maternal and child health services, and knowledge of HIV/AIDS. This information is essential for informed policy decisions, planning, monitoring, and evaluation of programs on health in general and reproductive health in particular at both the national and regional levels. A long-term objective of the survey is to strengthen the technical capacity of the Central Statistical Authority to plan, conduct, process, and analyze data from complex national population and health surveys. Moreover, the 2000 Ethiopia DHS is the first survey of its kind in the country to provide national and regional estimates on population and health that are comparable to data collected in similar surveys in other developing countries. As part of the worldwide DHS project, the Ethiopia DHS data add to the vast and growing international database on demographic and health variables. The Ethiopia DHS collected demographic and health information from a nationally representative sample of women and men in the reproductive age groups 15-49 and 15-59, respectively.

The Ethiopia DHS was carried out under the aegis of the Ministry of Health and was implemented by the Central Statistical Authority. ORC Macro provided technical assistance through its MEASURE *DHS+* project. The survey was principally funded by the Essential Services for Health in Ethiopia (ESHE) project through a bilateral agreement between the United States Agency for International Development (USAID) and the Federal Democratic Republic of Ethiopia. Funding was also provided by the United Nations Population Fund (UNFPA).

Using systematic sampling with probabilities proportional to size, 539 enumeration areas (EAs)—138 in urban areas and 401 in rural areas—were selected initially. A complete household listing operation was carried out in each selected EA, and a systematic sample of 27 households per EA was selected in all the regions in the second stage in order to provide statistically reliable estimates of key demographic and health variables. The Ethiopia DHS used three questionnaires: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. These questionnaires were developed in the English language and translated into the five principal languages in use in the country—Amarigna, Oromigna, Tigrigna, Somaligna, and Afarigna. A four-week training course was held for interviewers, editors, and supervisors in general interviewing techniques, field procedures, and monitoring data quality. Data were collected by 38 teams, each comprised of four female interviewers, one male interviewer, one female editor, and a male team supervisor. The fieldwork was closely monitored for data quality through actual field visits and through field check tables. The survey was fielded between February and May 2000. Of the 14,642 households selected, interviews were completed for 14,072 households, 15,367 women age 15-49, and 2,607 men age 15-59 (see Table 1.2). Details of the fieldwork and sample design are presented in Appendix A.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Ethiopia 2000

Result	Residence		
	Urban	Rural	Total
Household interviews			
Households sampled	3,793	10,849	14,642
Households occupied	3,666	10,501	14,167
Households interviewed	3,629	10,443	14,072
Household response rate	99.0	99.4	99.3
Individual interviews: women			
Number of eligible women	4,636	11,080	15,716
Number of eligible women interviewed	4,543	10,824	15,367
Eligible woman response rate	98.0	97.7	97.8
Household interviews			
Households sampled	691	1,999	2,690
Households occupied	671	1,954	2,625
Households interviewed	668	1,944	2,612
Household response rate	99.6	99.5	99.5
Individual interviews: men			
Number of eligible men	737	2,034	2,771
Number of eligible men interviewed	680	1,927	2,607
Eligible man response rate	92.3	94.7	94.1

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

This chapter provides a summary of the socioeconomic characteristics of households and respondents surveyed, including age, sex, place of residence, educational status, religion, ethnicity, household facilities, and household characteristics. Information collected on the characteristics of the households and respondents is important in understanding and interpreting the findings of the survey and also provides indicators of the representativeness of the survey. The information is also useful in understanding and identifying the major factors that determine or influence the basic demographic indicators of the population.

Due to the way the sample was designed, the number of cases in some regions appear small since they are weighted to make the regional distribution nationally representative. Throughout this report, numbers in the tables reflect weighted numbers. To ensure statistical reliability, percentages based on 25 to 49 unweighted cases are shown within parentheses, and percentages based on fewer than 25 unweighted cases are suppressed.

Wherever possible, the Ethiopia DHS data is compared with data from the 1990 National Family and Fertility Survey (NFFS) conducted by the Central Statistical Authority (CSA, 1993). The NFFS primarily targeted women age 15-49. Husbands of currently married women were also covered. Due to security and other reasons, the NFFS excluded from its coverage Eritrea, Tigray, Asseb, and Ogaden autonomous regions. In addition, fieldwork could not be carried out for Northern Gondar, Southern Gondar, Northern Wello, and Southern Wello due to security reasons.

The Ethiopia DHS collected information from all usual residents of a selected household (the de jure population) and persons who had stayed in the selected household the night before the interview (the de facto population). Since the difference between these two populations is very small and to maintain comparability with other DHS reports, all tables in this report refer to the de facto population unless otherwise specified. A household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating their food.

2.1 DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLDS

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also very important variables in the study of mortality, fertility, and nuptiality. The effect of variations in sex composition from one population group to another should be taken into account in comparative studies of mortality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

The distribution of the household population in the Ethiopia DHS is shown in Table 2.1 by five-year age groups, according to urban-rural residence and sex. The total population counted in the survey was 66,830, with females slightly outnumbering males. The results indicate an overall sex ratio of 98 males per 100 females. The sex ratio is higher in rural areas (100 males per 100 females) than in urban areas (87 males per 100 females). The sex ratio observed in the Ethiopia DHS is consistent with that of the 1990 NFFS (CSA, 1993).

Table 2.1 Household population by age, sex, and residence

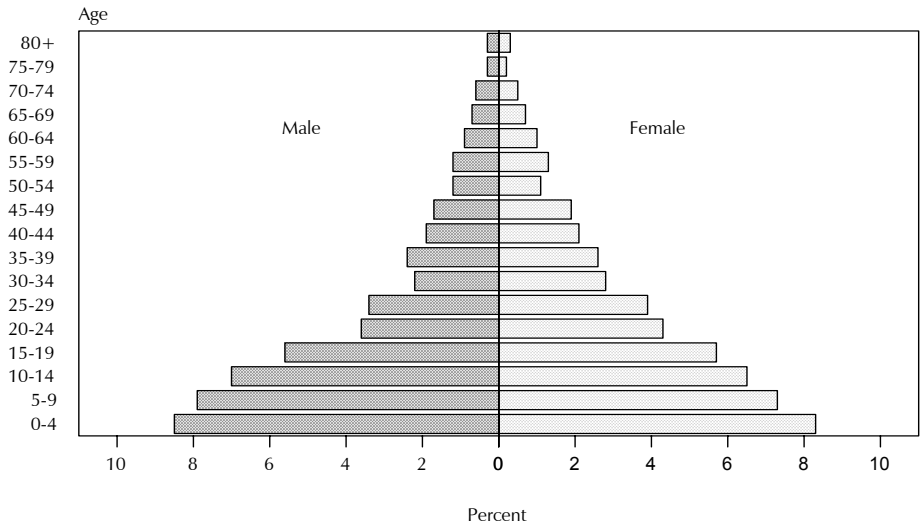
Percent distribution of the de facto household population by five-year age group, according to sex and residence, Ethiopia 2000

	Urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	12.3	11.7	11.9	18.0	17.4	17.7	17.2	16.5	16.9
5-9	12.3	10.9	11.5	16.6	15.2	15.9	16.1	14.5	15.3
10-14	14.2	13.0	13.6	14.2	12.8	13.5	14.2	12.9	13.5
15-19	15.2	16.1	15.7	10.8	10.4	10.6	11.4	11.2	11.3
20-24	9.8	10.9	10.4	6.9	8.2	7.6	7.3	8.6	8.0
25-29	8.0	9.8	9.0	6.7	7.3	7.0	6.9	7.7	7.3
30-34	5.9	5.9	5.9	4.1	5.4	4.8	4.4	5.5	4.9
35-39	5.7	5.6	5.7	4.6	5.0	4.8	4.8	5.1	4.9
40-44	4.6	3.7	4.1	3.6	4.2	3.9	3.8	4.1	4.0
45-49	3.3	3.1	3.2	3.4	3.9	3.6	3.4	3.8	3.6
50-54	1.8	1.9	1.8	2.6	2.3	2.5	2.5	2.2	2.4
55-59	2.0	2.1	2.1	2.5	2.7	2.6	2.4	2.6	2.5
60-64	1.6	1.9	1.8	1.7	1.9	1.8	1.7	1.9	1.8
65-69	1.0	1.4	1.3	1.5	1.4	1.5	1.4	1.4	1.4
70-74	0.8	0.9	0.8	1.2	1.0	1.1	1.1	1.0	1.0
75-79	0.5	0.5	0.5	0.7	0.5	0.6	0.6	0.5	0.6
80 +	0.9	0.6	0.7	0.7	0.5	0.6	0.7	0.5	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,483	5,129	9,612	28,565	28,653	57,219	33,048	33,782	66,830

Note: Table is based on the de facto population; i.e., persons who stayed in the household the night before the interview.

The age structure of the household population observed in the survey is typical of a society with a youthful population. The sex and age distribution of the population is also shown in the population pyramid in Figure 2.1. Ethiopia has a pyramidal age structure due to the large number of children under 15 years of age. Children under 15 years of age account for 46 percent of the population, a feature of populations with high fertility levels (Table 2.1). Fifty-one percent of the population is in the age group 15-64 and almost 4 percent are over 65.

Figure 2.1 **Population Pyramid of Ethiopia**



Ethiopia DHS 2000

2.2 HOUSEHOLD COMPOSITION

Table 2.2 shows the distribution of households in the survey by the sex of the head of the household and by the number of household members in urban and rural areas. Households in Ethiopia are predominantly male headed, a common feature of most African countries. Less than one-fourth of households are headed by females with the proportion of female-headed households higher in urban areas than in rural areas.

The average household size observed in the survey is 4.8 persons, which is similar to the average household size observed in the 1994 Census (CSA, 1999). Rural households have 4.9 persons per household and are slightly larger than urban households (4.2 persons). Single-person households are more common in urban areas (13 percent) than in rural areas (4 percent). Only 7 percent of households have nine or more members.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size, according to residence, Ethiopia 2000

Characteristic	Residence		
	Urban	Rural	Total
Sex of head of household			
Male	64.6	78.7	76.4
Female	35.4	21.3	23.6
Total	100.0	100.0	100.0
Number of usual members			
1	12.8	3.6	5.1
2	15.0	9.9	10.7
3	17.0	14.9	15.2
4	15.2	17.7	17.3
5	12.8	16.7	16.1
6	10.0	14.2	13.5
7	6.2	9.7	9.1
8	4.7	6.5	6.2
9+	6.4	6.8	6.7
Total	100.0	100.0	100.0
Mean size	4.2	4.9	4.8

Note: Table is based on de jure members; i.e., usual residents.

Detailed information on children's living arrangements and orphanhood is presented in Table 2.3. In Ethiopia, 71 percent of children under 15 live with both parents, 14 percent live with only their mother, 4 percent live with only their father, and 10 percent live with neither parent. Nine percent of children live with their mother even though their father is alive, 2 percent of children live with their father even though their mother is alive, and 7 percent live with neither parent even though both of them are alive. Seven percent of children do not have a father alive and 4 percent do not have a mother alive. The percentage of children not living with their parents increases with age of the child. The proportion of children living with both parents varies little by sex. However, rural children are more likely to live with both parents than urban children. The highest proportion of children living with both parents is in Benishangul-Gumuz (75 percent), while the lowest proportion is in Addis Ababa (56 percent).

Table 2.3 Children's living arrangements

Percent distribution of de jure children under age 15 by survival status of parents and children's living arrangements, according to background characteristics, Ethiopia 2000

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/mother	Total	Number
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead			
Age												
<2	86.7	10.8	0.8	0.2	0.3	0.6	0.2	0.0	0.1	0.4	100.0	6,600
2-4	78.0	10.1	2.8	1.4	0.9	5.0	0.6	0.3	0.2	0.7	100.0	6,468
5-9	69.3	8.8	5.4	2.7	2.2	7.8	1.0	1.3	0.9	0.6	100.0	8,528
10-14	59.2	7.1	8.8	3.2	4.2	10.7	1.7	2.7	1.6	0.7	100.0	9,167
Sex												
Male	70.9	8.5	5.2	2.5	2.3	6.7	1.1	1.3	0.8	0.7	100.0	15,778
Female	70.5	9.2	5.2	1.9	2.1	7.3	1.0	1.4	0.9	0.5	100.0	14,984
Residence												
Urban	56.8	14.4	7.8	3.2	2.4	9.8	1.2	1.5	1.9	1.1	100.0	3,559
Rural	72.5	8.1	4.9	2.1	2.2	6.6	1.0	1.3	0.7	0.6	100.0	27,204
Region												
Tigray	62.0	21.1	6.7	0.7	1.2	4.3	1.2	0.7	0.8	1.2	100.0	2,058
Affar	63.3	9.4	8.3	2.9	6.3	3.4	2.3	1.7	2.4	0.1	100.0	317
Amhara	70.9	8.5	5.2	3.4	1.7	6.5	1.1	1.3	0.8	0.6	100.0	8,291
Oromiya	72.9	7.7	4.7	1.8	2.6	6.6	0.9	1.2	0.8	0.8	100.0	11,730
Somali	73.3	5.5	5.5	0.7	4.2	5.2	0.6	2.0	1.8	1.2	100.0	433
Benishangul-Gumuz	74.9	7.4	6.6	1.4	2.7	3.5	1.1	1.2	0.9	0.2	100.0	313
SNNP	70.9	7.4	5.1	2.0	2.3	8.9	1.0	1.6	0.7	0.2	100.0	6,741
Gambela	59.1	15.8	7.5	2.5	1.6	7.1	2.0	2.1	2.0	0.5	100.0	67
Harari	64.2	11.9	9.5	1.7	1.0	6.5	1.2	1.2	1.4	1.3	100.0	65
Addis Ababa	56.0	11.3	7.7	3.0	1.7	13.0	2.2	2.3	1.6	1.2	100.0	641
Dire Dawa	69.4	9.6	5.8	2.5	1.4	5.9	1.9	1.4	1.0	1.1	100.0	107
Total	70.7	8.8	5.2	2.2	2.2	7.0	1.0	1.3	0.8	0.6	100.0	30,763

Note: Orphans are children with both parents dead.

2.3 HOUSEHOLD EDUCATION

Studies show that education is one of the major socioeconomic factors that influence a person's behavior and attitude. In general, the higher the level of education of a woman, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children.

2.3.1 Educational Attainment of Household Population

Information on the educational level of the male and female population age 6 and over is presented in Table 2.4. Survey results show that the majority of Ethiopians have little or no education, with females much less educated than males. Sixty-two percent of males and 77 percent of females have no education, and 27 percent of males and 17 percent of females have only some primary education. Less than 3 percent of males and 1 percent of females have completed primary education only, and 6 percent of males and 4 percent of females have attended, but not completed, secondary school.[1] Only 3 percent of males and 1 percent of females have completed secondary school or higher. The male-female gap in education is more obvious at lower levels of education primarily because the proportion of males and females attending higher levels of education is so small.

[1] Secondary education refers to both junior secondary (grades 7-8) and senior secondary (grades 9-12).

Table 2.4 Educational attainment of household population

Percent distribution of the de facto male and female household populations age six and over by highest level of education attended, according to background characteristics, Ethiopia 2000

Background characteristic	Level of education: No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number
MALE									
Age									
6-9	80.6	19.0	0.0	0.0	0.0	0.0	0.4	100.0	4,333
10-14	50.0	47.0	1.4	1.4	0.0	0.0	0.2	100.0	4,694
15-19	43.9	37.2	5.4	12.6	0.7	0.0	0.2	100.0	3,771
20-24	46.5	30.3	4.7	13.1	4.7	0.5	0.1	100.0	2,427
25-29	48.1	26.8	6.6	10.6	4.6	3.0	0.3	100.0	2,284
30-34	49.6	25.0	4.7	11.7	5.4	3.0	0.5	100.0	1,440
35-39	57.8	21.5	3.8	9.9	3.6	2.9	0.4	100.0	1,572
40-44	67.4	15.9	3.7	5.8	3.9	3.1	0.2	100.0	1,249
45-49	77.4	15.0	1.4	4.0	0.8	0.9	0.5	100.0	1,118
50-54	86.2	9.6	1.0	1.2	1.0	0.8	0.0	100.0	834
55-59	87.9	9.5	0.8	0.8	0.4	0.5	0.2	100.0	798
60-64	89.2	8.0	0.4	1.1	0.3	0.8	0.3	100.0	572
65+	95.5	3.3	0.2	0.4	0.2	0.1	0.3	100.0	1,289
Residence									
Urban	24.3	30.9	6.4	24.3	9.2	4.8	0.2	100.0	3,808
Rural	67.7	26.2	2.2	2.9	0.4	0.2	0.3	100.0	22,579
Region									
Tigray	65.4	24.1	3.0	5.2	0.7	1.4	0.2	100.0	1,540
Affar	78.0	13.0	1.6	4.0	2.1	0.7	0.6	100.0	305
Amhara	74.4	18.9	1.6	3.4	0.7	0.6	0.3	100.0	7,057
Oromiya	60.1	29.3	2.8	5.5	1.3	0.5	0.4	100.0	10,013
Somali	83.0	10.2	2.0	2.8	0.8	0.6	0.7	100.0	397
Benishangul-Gumuz	55.2	33.0	3.2	5.8	1.0	1.6	0.1	100.0	278
SNNP	52.7	34.6	3.7	6.8	1.3	0.7	0.1	100.0	5,713
Gambela	36.0	40.3	5.9	12.2	2.3	3.0	0.3	100.0	64
Harari	37.3	30.3	4.8	17.5	7.2	2.3	0.6	100.0	62
Addis Ababa	14.5	27.2	6.0	26.7	17.9	7.5	0.2	100.0	853
Dire Dawa	38.5	24.3	6.0	16.9	10.8	3.3	0.2	100.0	104
Total	61.5	26.9	2.8	6.0	1.7	0.9	0.3	100.0	26,386
FEMALE									
Age									
6-9	82.4	17.2	0.0	0.0	0.0	0.0	0.4	100.0	4,075
10-14	59.9	37.0	1.9	1.0	0.0	0.0	0.2	100.0	4,350
15-19	61.6	23.6	2.4	11.8	0.7	0.0	0.0	100.0	3,793
20-24	69.6	16.0	1.7	8.8	3.3	0.6	0.0	100.0	2,903
25-29	70.8	14.0	2.5	7.5	3.9	1.2	0.1	100.0	2,600
30-34	79.3	12.5	1.4	3.7	2.0	1.0	0.0	100.0	1,863
35-39	86.2	8.0	0.7	1.9	2.0	0.8	0.3	100.0	1,718
40-44	93.4	4.0	0.5	1.0	0.5	0.6	0.0	100.0	1,396
45-49	96.2	2.6	0.1	0.7	0.2	0.1	0.0	100.0	1,269
50-54	97.2	1.7	0.0	0.4	0.3	0.2	0.2	100.0	748
55-59	98.5	1.3	0.0	0.1	0.0	0.0	0.0	100.0	871
60-64	99.1	0.3	0.1	0.0	0.0	0.0	0.4	100.0	655
65+	99.6	0.2	0.0	0.0	0.0	0.0	0.2	100.0	1,127
Residence									
Urban	39.8	28.8	4.4	19.3	6.2	1.5	0.0	100.0	4,452
Rural	83.9	14.1	0.6	0.9	0.1	0.1	0.2	100.0	22,918
Region									
Tigray	76.8	18.0	1.5	2.6	0.6	0.3	0.1	100.0	1,830
Affar	85.0	9.2	1.4	3.2	0.6	0.3	0.3	100.0	291
Amhara	80.1	15.5	0.9	2.6	0.6	0.2	0.1	100.0	7,068
Oromiya	78.6	15.6	0.9	3.8	0.6	0.3	0.2	100.0	10,234
Somali	89.3	7.7	0.4	1.3	0.3	0.1	0.8	100.0	344
Benishangul-Gumuz	76.5	19.3	1.5	1.8	0.4	0.2	0.3	100.0	289
SNNP	77.3	17.6	1.2	2.9	0.8	0.1	0.1	100.0	6,008
Gambela	62.0	28.5	2.2	5.5	0.8	0.8	0.3	100.0	65
Harari	57.2	21.4	2.6	12.5	5.7	0.5	0.1	100.0	69
Addis Ababa	30.6	26.5	5.8	21.5	12.0	3.6	0.0	100.0	1,046
Dire Dawa	53.4	21.1	3.7	14.3	6.2	1.1	0.1	100.0	126
Total	76.7	16.5	1.2	3.9	1.1	0.3	0.2	100.0	27,370

Note: Totals include 6 men and 3 women for whom information on age is not available.
[1] Completed grade 6 at the primary level

An investigation of the changes in educational attainment by successive age groups indicates the long-term trend of the country's educational achievement. Survey results show that there has been a marked improvement in the educational attainment of women. For example, the proportion of women with no education has declined significantly from nearly 100 percent among women age 65 and over to 60 percent among women age 10-14. A similar trend is noticeable among men, with the proportion of men with no education declining from 96 percent among those age 65 and over to 50 percent among those age 10-14.

As expected, educational attainment is much higher among the urban than among the rural population. For example, 76 percent of males and 60 percent of females in urban areas have some education, compared with only 32 percent of males and 16 percent of females in rural areas. Regarding regional variation, the proportion of men and women with no education is the highest in the Somali Region (83 percent and 89 percent, respectively) and the lowest in the capital city of Addis Ababa (15 percent and 31 percent, respectively).

2.3.2 School Attendance Ratios

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) by school level, sex, residence, and region are shown in Table 2.5. The NAR indicates participation in primary schooling for the population age 7-12 and secondary schooling for the population age 13-18. The GAR measures participation at each level of schooling among those of any age from 5 to 24. The GAR is nearly always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level.[2] An NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

Less than one-third of children who should be attending primary school are currently doing so at that level. At the same time, only 12 percent of secondary-school-age youths are in school at that level. The NAR is higher among males than among females at both the primary and secondary levels. Attendance ratios are much lower in rural areas than in urban areas and are the lowest in the Somali Region.

The GAR is also higher among males than among females, at 70 and 49 at the primary-school level, respectively, and 20 and 15 at the secondary-school level, respectively, indicating higher attendance among males than among females. Although the overall GAR at the primary-school level is 60, there are significant levels of overage and/or underage participation in the urban areas among both males (116) and females (110) and in Addis Ababa (112).

[2] Students who are overage for a given level of schooling may have started school overage, may have repeated one or more grades in school, or may have dropped out of school and later returned.

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Ethiopia 2000

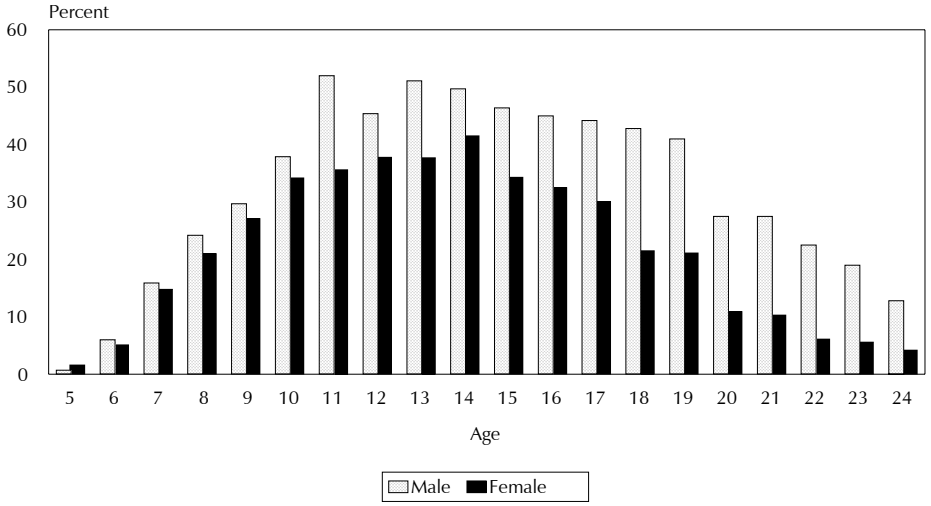
Background characteristic	Net attendance ratio (NAR)[1]			Gross attendance ratio (GAR)[2]		
	Male	Female	Total	Male	Female	Total
			PRIMARY SCHOOL			
Residence						
Urban	75.4	72.6	74.0	115.6	109.9	112.6
Rural	27.4	20.9	24.3	63.7	40.0	52.2
Region						
Tigray	28.5	35.0	31.6	59.7	60.4	60.0
Affar	22.4	19.9	21.2	36.1	28.9	32.6
Amhara	30.3	32.8	31.5	53.0	49.0	51.1
Oromiya	30.8	24.3	27.6	75.8	47.1	61.7
Somali	11.8	14.0	12.9	24.0	23.1	23.6
Benishangul-Gumuz	41.1	27.5	34.0	86.5	54.9	70.0
SNNP	36.6	19.5	28.0	82.2	43.1	62.6
Gambela	67.8	47.6	58.0	135.6	94.5	115.6
Harari	66.4	58.7	62.7	108.9	81.7	95.8
Addis Ababa	80.9	73.1	76.7	115.8	108.2	111.7
Dire Dawa	57.8	46.8	52.0	92.5	72.9	82.2
Total	32.8	27.5	30.2	69.5	48.9	59.5
			SECONDARY SCHOOL			
Residence						
Urban	56.2	44.9	50.2	80.3	62.4	70.7
Rural	4.2	1.6	3.0	8.0	2.8	5.6
Region						
Tigray	18.8	12.4	15.8	29.3	18.8	24.4
Affar	8.9	7.5	8.1	11.8	9.7	10.7
Amhara	11.3	7.9	9.7	14.7	11.7	13.3
Oromiya	10.9	8.9	9.9	16.9	11.3	14.3
Somali	6.3	1.9	4.2	9.2	1.9	5.8
Benishangul-Gumuz	10.5	5.8	8.1	16.3	7.6	11.9
SNNP	8.3	7.6	8.0	18.8	12.3	15.7
Gambela	24.3	13.7	19.4	39.5	20.7	31.0
Harari	36.4	22.6	29.9	51.1	38.8	45.3
Addis Ababa	57.3	47.3	51.5	79.4	68.5	73.1
Dire Dawa	38.0	28.4	32.8	56.1	44.0	49.6
Total	12.5	10.4	11.5	19.6	14.9	17.3

[1] The NAR for primary school is the percentage of the primary-school-age (7-12 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (13-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100%.
[2] The GAR for primary school is the total number of primary school students, among those of any age, expressed as the percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students 5-24 years, expressed as the 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%.

The age-specific attendance rates (ASARs) for the population age 5 and over by sex are shown in Figure 2.2. The ASAR indicates participation in schooling at any level, from primary to higher levels of education. Although the minimum age for schooling in Ethiopia is 7, there are some children enrolled prior to this age. Nevertheless, only 15 percent of children age 7 are attending school, indicating that a large majority of children in Ethiopia at that age have not entered the school system. There is little difference in the proportion of males and females attending school up to age 10, after which a significantly higher proportion of males than females attends school.

Figure 2.2 **Age-Specific Attendance Rates**

(Percentage of the De Facto Household Population Age 5-24 Years Attending School, by Age and Sex)



Ethiopia DHS 2000

2.4 HOUSING CHARACTERISTICS

The physical characteristics of households are important in assessing the general socioeconomic condition of the population. In the Ethiopia DHS respondents to the household questionnaire were asked about access to electricity, source of drinking water and time taken to the nearest source, type of toilet facility, main material of floors, and number of rooms used for sleeping. The results are presented in Table 2.6.

Thirteen percent of households have electricity, but this varies widely by place of residence. Less than 1 percent of households in rural areas have access to electricity, compared with three-fourths of urban households. Eighteen percent of households have access to piped drinking water, 40 percent of households fetch water from open springs, 27 percent get their drinking water from rivers, and 8 percent of households have access to a protected well or spring. Urban households are much more likely than rural households to have access to a protected source of drinking water. For example, 81 percent of urban households have access to piped water, compared with only 5 percent of rural households. The proportion of households with access to piped water has increased from about 14 percent in 1994 (CSA, 1999) to 18 percent in 2000. Households that did not have drinking water within their own compound were also asked for the time taken to fetch water. Twenty-six percent of all households (53 percent

urban and 21 percent rural) take less than 15 minutes to fetch drinking water. The median time taken to access drink-ing water is 29.2 minutes. On average, rural households take three times longer to access drinking water than urban households.

The majority of Ethiopian households (82 percent) do not have a toilet facility. A small proportion (17 percent) uses a traditional pit toilet. Ventilated pit latrines and flush toilets account for less than 1 percent. In urban areas, 70 percent of households have access to at least one form of toilet—66 percent use a traditional pit toilet, 2 percent of households have a flush toilet, and another 2 percent use a ventilated pit latrine. However, even though urban households have better toilet facilities, a significant proportion (30 percent) do not have any facility at all.

Fifty-four percent of households have floors made of earth or sand and 39 percent have dung floors. Rural houses are more likely than urban houses to use earth, sand, or dung. In contrast, urban houses are more likely than rural houses to have floors with vinyl/tiles/brick/carpet (12 percent) or cement (19 percent).

Data on the number of persons per sleeping room were also collected to provide information on crowdedness. Thirty-eight percent of households have three or four persons per sleeping room, and 25 percent have only one or two persons per sleeping room. Rural households are relatively more crowded than urban households in Ethiopia. The mean number of persons per sleeping room in rural areas is 4.3, compared with 3.2 in urban areas. The mean number of persons per sleeping room overall is 4.1.

Table 2.6 Housing characteristics

Percent distribution of households by background characteristics, according to residence, Ethiopia 2000

Background characteristic	Residence		
	Urban	Rural	Total
Electricity			
Yes	76.2	0.4	12.7
No	23.8	99.6	87.3
Total	100.0	100.0	100.0
Source of drinking water			
Piped into dwelling	0.6	0.0	0.1
Piped into compound	28.2	0.0	4.6
Piped outside compound	52.0	5.3	12.9
Open well	1.7	3.6	3.3
Open spring	5.1	47.2	40.4
Covered well	2.1	3.0	2.8
Covered spring	3.2	5.2	4.9
River	6.9	31.4	27.4
Pond/lake/dam	0.1	4.3	3.6
Other	0.2	0.0	0.1
Total	100.0	100.0	100.0
Time to water source (in minutes)			
Percentage <15 minutes	52.7	21.2	26.3
Median time to source	9.8	29.3	29.2
Sanitation facility			
Own flush toilet	1.9	0.0	0.3
Traditional pit toilet	66.3	7.9	17.4
Vent. improved pit latrine	1.9	0.0	0.3
No facility/bush	29.9	92.0	81.9
Total	100.0	100.0	100.0
Main floor material			
Earth/sand	39.9	56.2	53.5
Dung	26.1	41.5	39.0
Rudimentary floor	2.0	0.4	0.6
Vinyl/tiles/brick/carpet	12.4	1.6	3.3
Cement	18.5	0.4	3.3
Other	1.1	0.0	0.2
Total	100.0	100.0	100.0
Persons per sleeping room			
1-2	43.8	21.8	25.4
3-4	36.8	37.9	37.7
5-6	14.4	25.4	23.6
7+	5.0	14.8	13.2
Missing/Don't know	0.0	0.1	0.1
Total	100.0	100.0	100.0
Mean	3.2	4.3	4.1
Total	2,280	11,792	14,072

2.5 HOUSEHOLD POSSESSIONS

Information on ownership of durable goods and other possessions is presented in Table 2.7. One-fifth of all households has a radio, about 2 percent have a television, and 1 percent have a telephone. In general, households in rural Ethiopia are less likely to possess consumer items like radios, televisions, telephones, electric *mitads* (lamps), or kerosene or pressure lamps. Twice as many urban households as rural households are also likely to own a bed or table. In contrast, most rural households own the home they live in and their crop land. Not surprisingly, livestock ownership is more concentrated in

rural than in urban households.

The survey also collected information on means of transport (for humans as well as for goods) available to households. Most households in Ethiopia do not have a means of transport. The predominant mode of transport in rural areas is horses and/or mules, which are owned by 7 percent of rural households.

Table 2.7 Household durable goods

Percentage of households possessing various durable consumer goods and means of transport, by residence, Ethiopia 2000

Durable consumer goods	Residence		
	Urban	Rural	Total
Household possessions			
Radio	61.3	12.8	20.7
Television	11.7	0.0	1.9
Telephone	7.9	0.0	1.3
Electric *mitad*[1]	12.4	0.0	2.0
Kerosene/pressure lamp	17.2	8.5	9.9
Bed/table	84.8	41.6	48.6
Own house	46.0	96.4	88.3
Crop land	16.3	92.0	79.7
Cattle/camels	20.4	75.2	66.4
Horse/mule/donkey	6.4	29.5	25.7
Sheep/goats	12.8	39.7	35.4
Cash crop	4.0	29.1	25.1
Means of transport			
Bicycle	3.5	0.3	0.8
Motorcycle/scooter	0.5	0.0	0.1
Car/truck	2.1	0.0	0.3
Horse/mule	2.5	7.2	6.5
Number of households	2,280	11,792	14,072

[1] *Mitad* is lamp

2.6 BEDNETS

Information about the possession of bednets by the household was also collected. Table 2.8 presents the proportion of households owning bednets by urban-rural residence and region. Only 1 percent of households in Ethiopia have bednets, with urban households slightly more likely than rural households to possess bednets (3 percent and 1 percent, respectively). Households in the Affar, Gambela, and Somali regions are more likely to have bednets (31 percent, 12 percent, and 6 percent, respectively) primarily because the prevalence of malaria is high in those regions. Only 18 percent of households with bednets use impregnated nets.

Table 2.8 Possession of bednets

Percentage of households owning bednets, by background characteristics, Ethiopia 2000

Background characteristic	Among all households		Among households with bednets,	
	Percentage with bednets	Number of households	Percentage impregnated	Number of households
Residence				
Urban	3.1	2,280	13.5	72
Rural	0.6	11,792	21.6	77
Region				
Tigray	3.1	993	(32.4)	30
Affar	30.5	163	2.5	50
Amhara	0.7	3,930	*	26
Oromiya	0.3	5,078	*	13
Somali	6.2	171	(4.9)	11
Benishangul-Gumuz	1.9	151	*	3
SNNP	0.2	2,985	*	6
Gambela	11.7	38	(17.9)	4
Harari	1.2	38	*	0
Addis Ababa	0.7	461	*	3
Dire Dawa	2.0	66	*	1
Total	1.1	14,072	17.7	148

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.

2.7 HEALTH FACILITIES

The Ethiopia DHS collected information about the use of health services in the 12 months preceding the survey. Table 2.9 shows the type of service utilized by urban-rural residence. Two in five households (44 percent) utilized some type of health service, with the most common treatments sought for a sick child (31 percent) and for immunization (24 percent). A higher percentage of urban than rural households utilized any type of health service, with urban households being three times more likely than rural households to have accessed information on the prevention of sexually transmitted infections (STIs) and breastfeed-

ing and infant feeding.

Table 2.9 Use of health facility services

Percentage of households that utilized health services at any time during the 12 months preceding the survey, by type of health service and residence, Ethiopia 2000

Type of health service	Residence		
	Urban	Rural	Total
Treatment for sick child	36.4	29.8	30.8
Immunization	29.5	23.2	24.2
Family planning	19.4	8.4	10.1
Prenatal, postnatal, and delivery care	12.0	5.7	6.7
Information on STI prevention	19.5	7.1	9.1
Information on breastfeeding and infant feeding	14.7	5.5	7.0
Any service	53.8	42.6	44.4
Number	2,280	11,792	14,072

Households were also asked about the type of health institutions visited (Table 2.10). The majority of households (42 percent) that utilized health services did so at government health stations or clinics, and 29 percent used government health centers. About one in two urban households went to government health centers, whereas one in two rural households visited government health stations or clinics. Fifteen percent of households utilizing care did so at private health facilities, with little difference between urban and rural households.

Table 2.10 Types of health facilities utilized

Percentage of households that utilized health services at any time during the 12 months preceding the survey, by type of facility visited and residence, Ethiopia 2000

Type of facility	Residence		
	Urban	Rural	Total
Government facility			
Hospital	22.0	4.6	8.1
Health center	52.5	23.6	29.3
Health station/clinic	15.6	48.6	42.1
Health post	1.0	6.2	5.2
Community-based outlet	2.2	1.1	1.3
Other facility			
Non-governmental organization	7.1	5.8	6.1
Private hospital/doctor/clinic	15.2	14.7	14.8
Kebele (during campaign)	0.6	4.0	3.3
Other	2.4	1.4	1.6
Number	1,226	5,021	6,247

The survey also included questions on whether any member of a household had bought drugs, that is, medicines, in the 12 months prior to the survey. Table 2.11 shows that nearly one in two households had used medicines in the past 12 months, with urban households and households in Addis Ababa more likely to have done so. Pharmacies or other medical facilities served as the main source of medicines, with 89 percent of households that used medicines in the 12 months prior to the survey obtaining their medicines from them. On the other hand, 15 percent of those who bought medicines had obtained them from nonmedical facilities. Urban households are slightly more likely to have obtained medicines from medical facilities, whereas rural households are three times more likely than urban households to have obtained medicines from nonmedical facilities. Most households in Addis Ababa obtain their medicines from pharmacies or medical facilities. Nonmedical facilities are visited most often by households in the Oromiya and Amhara regions.

Table 2.11 Utilization and source of drugs

Percentage of households that bought drugs in the 12 months preceding the survey, by source of drugs and background characteristics, Ethiopia 2000

Background characteristic	Households that bought drugs in the 12 months preceding the survey		Among households that bought drugs, source of drugs used in the 12 months preceding the survey		
	Percentage	Number of households	Pharmacy/ other medical facility	Non-medical facility	Number of households that bought drugs
Residence					
Urban	60.0	2,280	96.9	5.2	1,369
Rural	46.2	11,792	86.6	16.8	5,443
Region					
Tigray	49.7	993	98.5	2.5	494
Affar	51.4	163	96.6	5.6	84
Amhara	34.7	3,930	86.3	16.4	1,363
Oromiya	54.3	5,078	86.2	18.7	2,758
Somali	40.4	171	98.3	3.6	69
Benishangul-Gumuz	55.7	151	92.0	10.5	84
SNNP	53.3	2,985	88.6	13.1	1,591
Gambela	52.3	38	97.1	3.0	20
Harari	52.7	38	93.1	11.0	20
Addis Ababa	63.4	461	98.3	1.7	292
Dire Dawa	55.6	66	96.6	4.0	37
Total	48.4	14,072	88.6	14.5	6,812

RESPONDENT'S CHARACTERISTICS AND STATUS

3

The objective of this chapter is to provide a demographic and socioeconomic profile of the 2000 Ethiopia DHS sample. Information on the basic characteristics of women and men interviewed in the survey is essential for the interpretation of findings presented later in the report and can provide an approximate indication of the representativeness of the survey.

3.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

The distribution of women age 15-49 and men age 15-59 by background characteristics including age, marital status, place of residence, region, educational level, and religion is shown in Table 3.1.

Relatively high proportions of women are in the younger age groups, with three-fifths under age 30. The proportion of women and men declines with age. This is true for men as well, with the proportion of men declining after age 44. Despite the older average age of males interviewed, a larger percentage of male respondents (40 percent) reported never having been married, compared with female respondents (24 percent). The majority of respondents (more than 80 percent) live in the rural areas. Two in five respondents live in the Oromiya Region, one in four in the Amhara Region, and one in five in the Southern Nations, Nationalities, and Peoples (SNNP) Region.

Men are more educated than women. Three in four women and one in two men have never been to school. Sixteen percent of women and 33 percent of men had attended only primary education, and 9 percent of women and 15 percent of men had at least some secondary education or higher. Due to small numbers, respondents with higher education are grouped together with those who had secondary education, and the education category is reclassified into "secondary and higher" in subsequent tables in this report.

In terms of religious affiliation, one in two women and men are Orthodox, nearly one in three are Muslim, and 16 percent are Protestant. Thirty-five percent of women and 37 percent of men are Oromos, 32 percent of women and 30 percent of men are Amharas, 7 percent of women and 6 percent of men are Tigraway, and 5 percent of women and 4 percent of men are Guragies.

The fact that the Ethiopia DHS interviewed both women and men in some selected households allows the unique opportunity to study couples' attitudes and behaviors regarding fertility and family planning. The survey gathered data from 1,355 couples, and some basic characteristics of spouses are shown in Table 3.2.

The wife is 5 to 9 years younger than her husband among more than 2 in 5 couples, while the wife is 0 to 4 years or 10 to14 years younger among 1 in 5 couples. Among 11 percent of the couples the wife is 15 or more years younger than her husband. The mean age difference between a husband and his wife is eight years. However, the mean age difference between a husband and his second wife (in cases where the husband is in a polygynous union) is nearly 14 years. In a majority of the cases (57 percent), neither the husband nor his wife are educated. Three percent of wives are more educated than their husbands, while one in four husbands are more educated than their wives. In 16 percent of the cases, both husband and wife are equally educated.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men by background characteristics, Ethiopia 2000

Background characteristic	Weighted percent	Number of women: Weighted	Number of women: Un-weighted	Weighted percent	Number of men: Weighted	Number of men: Un-weighted
Age						
15-19	24.1	3,710	3,584	23.0	600	571
20-24	18.6	2,860	2,844	15.6	408	419
25-29	16.8	2,585	2,716	13.2	343	367
30-34	12.0	1,841	1,902	10.6	276	278
35-39	11.2	1,716	1,762	11.7	304	301
40-44	9.1	1,392	1,324	7.0	182	217
45-49	8.2	1,264	1,235	7.9	207	183
50-54	NA	NA	NA	5.4	142	132
55-59	NA	NA	NA	5.6	146	139
Marital status						
Never married	24.0	3,688	3,979	39.9	1,040	1,056
Married	62.8	9,653	9,203	55.7	1,452	1,405
Living together	0.9	136	177	0.3	8	28
Divorced/separated	8.7	1,344	1,351	3.6	93	90
Widowed	3.6	546	657	0.5	14	28
Residence						
Urban	18.2	2,791	4,543	14.5	379	680
Rural	81.8	12,576	10,824	85.5	2,228	1,927
Region						
Tigray	6.3	969	1,306	5.2	136	183
Affar	1.2	178	858	1.3	34	154
Amhara	24.9	3,820	1,909	24.1	630	321
Oromiya	38.6	5,937	2,578	40.4	1,054	474
Somali	1.1	175	844	1.4	36	168
Benishangul-Gumuz	1.0	160	992	1.2	31	196
SNNP	21.4	3,285	2,028	21.7	566	356
Gambela	0.3	40	876	0.3	7	153
Harari	0.3	41	908	0.3	7	148
Addis Ababa	4.5	684	2,015	3.6	95	292
Dire Dawa	0.5	79	1,053	0.5	12	162
Education						
No education	75.2	11,551	10,586	52.1	1,358	1,270
Primary	15.8	2,425	2,530	33.0	860	770
Secondary	8.5	1,304	2,092	12.8	333	483
Higher	0.6	87	159	2.1	56	84
Religion						
Orthodox	50.5	7,763	7,280	49.7	1,296	1,198
Catholic	1.1	175	133	0.4	11	19
Protestant	15.8	2,432	2,099	15.7	410	332
Muslim	29.0	4,456	5,371	30.9	806	968
Other	3.5	540	484	3.1	85	90
Ethnic group						
Affar	0.8	117	585	1.0	27	105
Amhara	31.8	4,886	4,431	30.1	785	692
Guragie	5.4	836	862	4.3	111	140
Oromo	34.6	5,315	4,161	37.0	965	759
Sidamo	3.9	592	355	3.7	97	62
Somali	1.2	182	785	1.7	45	154
Tigraway	6.7	1,032	1,483	5.5	143	209
Welaita	2.2	340	230	1.9	50	39
Other	13.5	2,067	2,475	14.7	383	447
Total	100.0	15,367	15,367	100.0	2,607	2,607

Note: Education refers to the highest level ever attended whether or not that level was completed.
NA = Not applicable

Table 3.2 Differential characteristics between spouses

Percent distribution of couples by age difference between spouses and level of education, Ethiopia 2000

Differential characteristics	Percent
Age difference	
Wife older	(2.0)
Wife 0-4 years younger	22.0
Wife 5-9 years years younger	42.8
Wife 10-14 years younger	22.0
Wife 15+ years younger	11.4
Mean age difference	
1st wife	8.2
2nd wife	(13.8)
All wives	8.3
Level of education	
Neither husband nor wife educated	56.7
Wife educated, husband not	2.9
Husband educated, wife not	24.8
Both husband and wife educated	15.6
Total	100.0
Number of couples	1,355

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

3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Table 3.3 shows the educational level of female and male respondents by selected background characteristics. Three-fourths of women and more than half of men have no formal education. Among men and women who attended school, the majority (14 percent of all women and 29 percent of men) has not completed primary education. Twice as many men as women have completed secondary education or higher.

The level of education varies greatly according to residence. Two-thirds of women and 84 percent of men who live in urban areas have been to school, while 41 percent of women and 61 percent of men have reached the secondary level of education. But for the more than 80 percent of Ethiopia's population that lives in rural areas, educational attainment is substantially lower, with 84 percent of women and 58 percent of men having never attended school. Only 2 percent of women and 7 percent of men have attained secondary-level schooling in rural areas. Residents of the heavily urban areas of the country like Addis Ababa, Dire Dawa, and the Harari Region have higher levels of educational attainment, especially at the secondary level or higher.

Table 3.3 Educational attainment by background characteristics

Percent distribution of women and men by highest level of schooling attended, by background characteristics, Ethiopia 2000

Background characteristic	Highest level of schooling attained						Total	Number
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary	More than secondary		
WOMEN								
Age								
15-19	61.0	23.9	2.4	11.9	0.7	0.0	100.0	3,710
20-24	70.5	15.9	1.5	8.5	3.3	0.5	100.0	2,860
25-29	70.1	14.5	2.6	7.8	3.8	1.2	100.0	2,585
30-34	79.2	12.6	1.4	3.7	2.1	1.0	100.0	1,841
35-39	86.5	8.0	1.0	1.8	1.9	0.7	100.0	1,716
40-44	93.3	3.9	0.5	1.2	0.6	0.6	100.0	1,392
45-49	96.4	2.6	0.2	0.5	0.2	0.1	100.0	1,264
Residence								
Urban	35.8	18.9	4.6	28.7	9.8	2.3	100.0	2,791
Rural	83.9	13.1	1.0	1.7	0.2	0.2	100.0	12,576
Region								
Tigray	77.8	13.1	2.3	5.0	1.2	0.6	100.0	969
Affar	84.7	6.5	2.5	4.9	1.0	0.5	100.0	178
Amhara	83.5	9.5	1.2	4.5	0.9	0.4	100.0	3,820
Oromiya	75.8	15.1	1.2	6.4	1.0	0.4	100.0	5,937
Somali	88.5	7.0	1.0	2.7	0.6	0.2	100.0	175
Benishangul-Gumuz	76.4	16.9	2.4	3.1	0.8	0.3	100.0	160
SNNP	73.8	18.0	1.7	5.0	1.4	0.1	100.0	3,285
Gambela	60.2	25.4	3.5	8.7	1.3	0.9	100.0	40
Harari	53.4	13.2	2.9	20.0	9.5	0.9	100.0	41
Addis Ababa	25.0	16.8	5.9	29.0	18.4	5.0	100.0	684
Dire Dawa	46.0	15.5	4.6	22.3	10.1	1.6	100.0	79
Total	75.2	14.1	1.6	6.6	1.9	0.6	100.0	15,367
MEN								
Age								
15-19	38.8	41.4	5.7	13.3	0.9	0.0	100.0	600
20-24	40.4	36.4	3.1	14.6	4.6	0.8	100.0	408
25-29	43.7	31.6	7.5	8.7	4.5	4.0	100.0	343
30-34	41.3	31.9	3.0	11.3	7.8	4.7	100.0	276
35-39	49.9	27.1	4.3	11.3	4.1	3.2	100.0	304
40-44	69.4	15.6	1.4	6.2	2.1	5.3	100.0	182
45-49	79.9	16.1	0.2	3.1	0.5	0.2	100.0	207
50-54	86.3	10.0	0.3	0.3	0.5	2.5	100.0	142
55-59	89.8	8.0	0.2	0.4	0.0	1.6	100.0	146
Residence								
Urban	16.3	18.3	4.1	33.3	16.0	12.0	100.0	379
Rural	58.2	31.1	3.7	5.7	0.8	0.4	100.0	2,228
Region								
Tigray	54.5	23.3	3.7	14.2	2.1	2.2	100.0	136
Affar	72.1	10.2	2.9	8.6	3.9	2.3	100.0	34
Amhara	76.9	12.6	1.5	6.2	0.6	2.1	100.0	630
Oromiya	48.4	36.7	3.7	7.1	2.6	1.5	100.0	1,054
Somali	68.7	16.6	5.7	4.2	1.0	3.8	100.0	36
Benishangul-Gumuz	46.6	34.0	8.2	7.1	0.4	3.6	100.0	31
SNNP	37.0	39.9	5.3	14.1	2.7	1.0	100.0	566
Gambela	35.4	29.0	9.4	14.0	4.1	8.2	100.0	7
Harari	39.9	18.7	4.5	24.5	9.7	2.7	100.0	7
Addis Ababa	8.0	15.3	6.3	30.1	27.3	13.1	100.0	95
Dire Dawa	25.7	15.2	7.7	24.7	18.8	7.9	100.0	12
Total	52.1	29.3	3.7	9.7	3.0	2.1	100.0	2,607

[1] Completed grade 6 at the primary level
[2] Completed grade 12 at the secondary level

3.3 LITERACY

In the Ethiopia DHS, literacy was determined by a respondent's ability to read part or all of a sentence in any language that the respondent was familiar with. The questions assessing literacy were asked only of respondents who have not attended school or have attended primary school only. Literacy is widely acknowledged as benefiting both the individual and society and is associated with a number of positive outcomes for health and nutrition.

Table 3.4 shows that only 19 percent of women and 40 percent of men are literate, while 6 percent of women and 13 percent of men are only partially literate. There is a much lower literacy level among rural women and men than among those living in the urban areas. Literacy levels vary widely among regions, from a high of 68 percent among women in Addis Ababa to a low of 9 percent of women in the Somali Region. Literacy among men ranges from a high of 87 percent in Addis Ababa to a low of 16 percent in the Somali Region.

3.4 EXPOSURE TO MASS MEDIA

The Ethiopia DHS collected information on the exposure of respondents to both the broadcast and print media. This information is important because it provides an indication of the exposure of women to the mass media and is used to disseminate family planning, health, and other information. Access to mass media is generally low in Ethiopia. Table 3.5 shows that 86 percent of women and 73 percent of men have no exposure to the mass media. Generally men have a higher exposure to the mass media than women. Listening to the radio is the most common way of accessing the media. Nevertheless, only about one in ten women and one in four men listen to the radio at least once a week.

Media exposure varies with the age of the respondent. Men and women in the older age groups tend to listen to the radio or read a newspaper less frequently than younger men and women. There are significant geographic differences in media exposure. Urban women and men have better access to all three media sources than their rural counterparts. Due to lower literacy levels, rural women are much less likely to report that they read a newspaper at least once a week. Despite the place of residence, the level of exposure of women and men to radio broadcasts is greater than all other media sources. Very likely due to the greater ownership of a television set, women and men residing in urban areas have a much greater exposure to television than rural women and men. Among the regions, women and men residing in Addis Ababa, Dire Dawa, and the Harari Region have a greater exposure to all three media, compared with other regions, since these areas are relatively more urban. Women and men residing in the Amhara Region are the least likely to be exposed to the media. As expected, media exposure is highly related with the educational level of the respondent. One in two women and 65 percent of men with secondary or higher levels of education listen to the radio at least once a week, whereas only 5 percent of uneducated women and 10 percent of uneducated men reported listening to the radio at least once a week. Regarding the printed media, only 3 percent of women and 6 percent of men with primary education reported reading a newspaper at least once a week, compared with 14 percent of women and 27 percent of men with secondary and higher education.

Table 3.4 Literacy

Percent distribution of women and men by level of schooling attended and by level of literacy, according to background characteristics, Ethiopia 2000

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	No card with required language	Total	Number	Percent literate[1]
WOMEN								
Age								
15-19	12.6	14.5	5.5	66.4	1.0	100.0	3,710	27.1
20-24	12.2	8.7	5.5	73.3	0.3	100.0	2,860	20.9
25-29	12.8	11.7	7.2	68.0	0.3	100.0	2,585	24.5
30-34	6.7	8.5	9.0	75.7	0.0	100.0	1,841	15.3
35-39	4.5	7.4	5.5	82.5	0.0	100.0	1,716	11.9
40-44	2.3	3.8	4.7	89.2	0.0	100.0	1,392	6.1
45-49	0.8	2.4	2.5	94.3	0.0	100.0	1,264	3.2
Residence								
Urban	40.8	17.0	7.5	34.4	0.3	100.0	2,791	57.7
Rural	2.0	7.8	5.5	84.3	0.4	100.0	12,576	9.8
Region								
Tigray	6.8	10.3	5.6	77.4	0.0	100.0	969	17.0
Affar	6.4	6.4	3.8	83.0	0.4	100.0	178	12.7
Amhara	5.8	10.2	5.8	78.0	0.2	100.0	3,820	16.0
Oromiya	7.8	7.5	6.4	78.1	0.1	100.0	5,937	15.3
Somali	3.5	5.8	2.9	87.8	0.0	100.0	175	9.2
Benishangul-Gumuz	4.3	12.7	5.4	77.5	0.2	100.0	160	17.0
SNNP	6.5	10.8	5.0	76.6	1.1	100.0	3,285	17.4
Gambela	10.9	8.8	10.1	65.8	4.3	100.0	40	19.8
Harari	30.4	8.0	6.3	55.1	0.2	100.0	41	38.4
Addis Ababa	52.3	15.7	8.1	23.7	0.2	100.0	684	68.0
Dire Dawa	34.0	15.8	2.4	47.4	0.1	100.0	79	49.8
Total	9.1	9.5	5.9	75.2	0.3	100.0	15,367	18.5
MEN								
Age								
15-19	14.2	25.9	10.3	49.4	0.2	100.0	600	40.1
20-24	20.0	24.3	14.4	41.3	0.0	100.0	408	44.3
25-29	17.2	31.4	15.7	35.1	0.5	100.0	343	48.6
30-34	23.8	27.9	8.1	40.3	0.0	100.0	276	51.6
35-39	18.7	33.2	13.1	34.7	0.3	100.0	304	51.9
40-44	13.5	21.2	11.8	53.4	0.0	100.0	182	34.8
45-49	3.8	10.4	21.6	63.3	0.0	100.0	207	14.2
50-54	3.4	19.2	12.3	65.1	0.0	100.0	142	22.6
55-59	2.0	10.6	14.8	71.2	1.4	100.0	146	12.7
Residence								
Urban	61.3	18.3	8.1	11.8	0.0	100.0	379	79.5
Rural	7.0	25.7	13.9	53.0	0.3	100.0	2,228	32.8
Region								
Tigray	18.5	29.1	12.5	40.0	0.0	100.0	136	47.5
Affar	14.8	9.1	8.8	65.2	2.2	100.0	34	23.9
Amhara	8.9	24.3	15.7	51.1	0.0	100.0	630	33.2
Oromiya	11.1	21.4	14.4	53.0	0.2	100.0	1,054	32.5
Somali	9.0	7.0	26.5	57.2	0.1	100.0	36	16.0
Benishangul-Gumuz	11.2	30.2	14.4	42.6	1.5	100.0	31	41.4
SNNP	17.7	33.3	8.9	39.3	0.5	100.0	566	51.0
Gambela	26.3	36.4	6.5	30.2	0.0	100.0	7	62.7
Harari	36.9	17.4	9.4	36.3	0.0	100.0	7	54.3
Addis Ababa	70.5	16.9	6.2	6.5	0.0	100.0	95	87.3
Dire Dawa	51.5	20.3	3.2	23.5	1.5	100.0	12	71.8
Total	14.9	24.7	13.1	47.0	0.2	100.0	2,607	39.6

Note: Total includes women and men with missing information on literacy, who are not shown separately.
[1] Includes respondents who attended at least secondary school or higher and respondents who can read a whole sentence.

Table 3.5 Exposure to mass media

Percentage of women and men who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio at least once a week, by background characteristics, Ethiopia 2000

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	All three media	No mass media	Number
			WOMEN			
Age						
15-19	3.1	7.1	14.5	0.9	81.0	3,710
20-24	1.9	4.6	11.6	0.7	85.9	2,860
25-29	1.5	5.2	13.2	0.4	84.4	2,585
30-34	1.3	3.0	8.9	0.6	89.3	1,841
35-39	0.8	2.6	9.7	0.1	89.2	1,716
40-44	0.6	1.7	7.1	0.4	92.1	1,392
45-49	0.2	1.4	6.4	0.1	92.8	1,264
Residence						
Urban	7.2	21.8	36.0	2.8	53.6	2,791
Rural	0.4	0.5	5.7	0.0	93.7	12,576
Region						
Tigray	1.8	4.7	15.6	0.1	81.8	969
Affar	0.7	3.8	7.2	0.0	89.4	178
Amhara	0.5	2.1	7.7	0.1	91.2	3,820
Oromiya	1.7	2.6	9.3	0.4	88.7	5,937
Somali	2.0	2.7	7.7	0.4	89.9	175
Benishangul-Gumuz	1.6	0.9	10.5	0.0	87.7	160
SNNP	0.8	2.1	9.8	0.2	88.9	3,285
Gambela	2.2	6.1	9.4	0.2	86.1	40
Harari	5.1	23.8	31.6	3.4	61.2	41
Addis Ababa	11.5	39.9	46.7	6.0	36.3	684
Dire Dawa	5.1	30.7	26.9	2.4	59.0	79
Education						
No education	0.0	0.8	4.8	0.0	94.6	11,551
Primary	2.6	5.8	19.3	0.5	76.6	2,425
Secondary and higher	13.8	31.1	50.4	5.1	35.3	1,391
Total	1.7	4.4	11.2	0.5	86.4	15,367
			MEN			
Age						
15-19	8.0	12.3	24.2	3.2	68.6	600
20-24	7.3	7.2	23.4	2.3	73.2	408
25-29	8.0	6.1	27.0	2.1	68.1	343
30-34	6.0	9.0	33.0	1.9	65.0	276
35-39	5.5	6.1	25.9	2.3	69.9	304
40-44	6.5	8.8	28.8	4.5	70.2	182
45-49	1.4	1.6	16.0	0.6	83.7	207
50-54	2.7	1.9	10.3	1.4	89.3	142
55-59	0.3	3.6	11.2	0.3	88.1	146
Residence						
Urban	22.3	36.4	63.5	13.4	26.7	379
Rural	3.3	2.6	17.0	0.4	80.3	2,228
Region						
Tigray	16.0	21.1	33.0	11.3	60.9	136
Affar	1.2	6.7	26.0	0.6	72.2	34
Amhara	3.1	3.3	10.8	1.1	87.2	630
Oromiya	4.8	5.1	25.8	1.0	70.5	1,054
Somali	0.0	12.1	36.7	0.0	62.3	36
Benishangul-Gumuz	1.9	1.5	17.4	0.0	81.7	31
SNNP	4.6	3.8	22.9	0.5	73.7	566
Gambela	6.1	11.4	36.7	3.8	60.8	7
Harari	13.8	29.4	49.7	6.3	40.1	7
Addis Ababa	34.8	55.6	67.2	21.2	18.2	95
Dire Dawa	30.8	55.0	59.0	22.7	26.4	12
Education						
No education	0.2	1.2	9.6	0.0	89.6	1,358
Primary	5.8	6.6	27.4	1.0	66.8	860
Secondary and higher	27.1	31.3	65.4	13.1	25.7	388
Total	6.0	7.5	23.8	2.3	72.6	2,607

3.5 EMPLOYMENT

Respondents were asked a number of questions to elicit their employment status at the time of the survey and continuity of employment in the 12 months prior to the survey. Table 3.6.1 shows this information for women, according to different background characteristics. Fifty-seven percent of women were working at the time of the survey, 7 percent worked during the 12 months prior to the

Table 3.6.1 Employment: women

Percent distribution of women by employment status and continuity of employment, according to background characteristics, Ethiopia 2000

Background characteristic	Employment in the 12 months preceding the survey: Currently employed	Employment in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Total	Number	Continuity of employment among those who worked in the 12 months preceding the survey: All year	Season-ally	Occasion-ally	Missing/ don't know	Total	Number
Age											
15-19	49.5	6.7	43.8	100.0	3,710	48.7	20.8	30.4	0.1	100.0	2,085
20-24	55.8	7.2	37.0	100.0	2,860	47.3	26.8	25.0	0.9	100.0	1,801
25-29	59.8	6.6	33.4	100.0	2,585	53.4	24.1	21.7	0.8	100.0	1,718
30-34	56.8	7.7	35.2	100.0	1,841	51.9	24.0	22.9	1.3	100.0	1,188
35-39	59.1	5.6	35.3	100.0	1,716	55.8	24.1	19.4	0.8	100.0	1,110
40-44	62.6	7.2	30.2	100.0	1,392	52.4	22.1	25.3	0.2	100.0	971
45-49	61.2	6.6	32.2	100.0	1,264	54.0	22.5	22.4	1.1	100.0	857
Current marital status											
Never married	50.1	6.0	43.9	100.0	3,688	48.9	17.0	33.9	0.2	100.0	2,069
Currently married/ living together	56.1	7.2	36.7	100.0	9,789	50.0	27.1	22.3	0.7	100.0	6,194
Divorced, separated, widowed	71.0	6.6	22.4	100.0	1,890	60.1	17.8	20.6	1.5	100.0	1,467
Number of living children											
0	51.9	6.4	41.7	100.0	5,191	51.0	19.3	29.4	0.4	100.0	3,024
1-2	58.4	7.5	34.0	100.0	3,882	50.8	25.5	22.8	0.9	100.0	2,562
3-4	59.7	6.9	33.4	100.0	3,032	52.3	24.8	21.8	1.1	100.0	2,018
5+	58.6	6.6	34.7	100.0	3,262	51.3	26.0	22.1	0.6	100.0	2,126
Residence											
Urban	50.5	5.9	43.3	100.0	2,791	68.0	8.2	22.3	1.5	100.0	1,576
Rural	57.8	7.0	35.2	100.0	12,576	48.1	26.5	24.9	0.5	100.0	8,154
Region											
Tigray	72.1	7.8	20.1	100.0	969	78.5	13.7	7.4	0.4	100.0	775
Afar	57.6	2.8	39.5	100.0	178	69.6	14.0	15.5	0.8	100.0	107
Amhara	69.0	7.0	24.0	100.0	3,820	54.6	29.1	16.0	0.2	100.0	2,903
Oromiya	49.6	6.9	43.5	100.0	5,937	45.8	23.2	29.6	1.4	100.0	3,351
Somali	31.6	6.9	61.5	100.0	175	75.9	8.7	12.6	2.8	100.0	67
Ben-Gumz	67.8	11.6	20.6	100.0	160	55.3	31.3	13.4	0.1	100.0	127
SNNP	53.3	6.5	40.2	100.0	3,285	38.0	23.5	38.1	0.4	100.0	1,964
Gambela	42.8	5.6	51.4	100.0	40	33.4	14.7	51.1	0.8	100.0	19
Harari	54.3	4.3	41.3	100.0	41	69.0	14.9	15.6	0.6	100.0	24
Addis	44.2	5.8	49.8	100.0	684	74.4	7.5	18.1	0.1	100.0	342
Dire Dawa	58.4	5.2	36.5	100.0	79	75.5	18.4	6.2	0.0	100.0	50
Education											
No education	58.6	7.0	34.4	100.0	11,551	50.6	25.3	23.5	0.7	100.0	7,572
Primary	52.8	7.2	40.0	100.0	2,425	48.7	20.1	30.5	0.7	100.0	1,454
Secondary and higher	45.8	4.8	49.4	100.0	1,391	64.4	12.3	22.5	0.9	100.0	704
Total	56.5	6.8	36.6	100.0	15,367	51.3	23.5	24.5	0.7	100.0	9,730

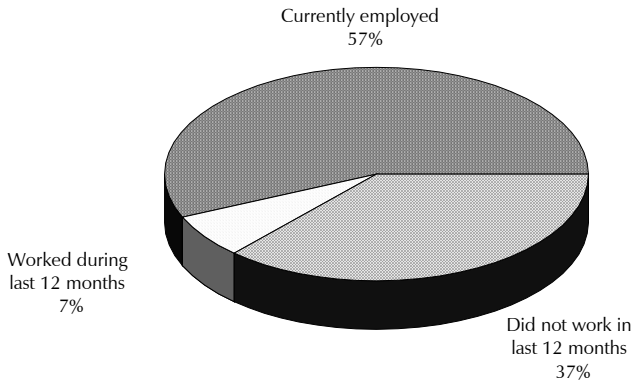
Note: Total for employment status in the 12 months preceding the survey includes women whose employment status was missing or not known, who are not shown separately.

survey, and 37 percent did not work at all (Figure 3.1). Fifty-one percent of women employed in the 12 months preceding the survey were employed all year, 24 percent were employed seasonally, and another 25 percent were employed occasionally.

Women age 40-49 are the most active group, while women under 20 are relatively less active. Divorced, separated, and widowed women are more likely to be gainfully employed than other women. Women with children were also more likely to be working at the time of the survey than women with no children.

A higher proportion of rural women than urban women are currently working (58 percent and 51 percent, respectively). However, rural women are more likely to have seasonal jobs than urban women; about 27 percent of women in rural areas work seasonally, compared with only 8 percent in urban areas. There exists a notable variation in the proportion of women currently working among the regions, ranging from 72 percent in the Tigray Region to 32 percent in the Somali Region.

Figure 3.1 **Percent Distribution of Women Age 15-49 by Employment Status**



Note: Percentages add to more than 100 due to rounding. Ethiopia DHS 2000

In a relatively less industrialized country such as Ethiopia, education is no guarantee for employment. Among the small proportion of women who attained secondary and higher levels of education, 49 percent were not working in the 12 months preceding the survey, compared with those who received no education at all (34 percent). Seasonal employment is more common among uneducated women (25 percent) than among those with secondary and higher education (12 percent).

Table 3.6.2 shows employment information for men. Eighty-seven percent of men were working at the time of the survey, 5 percent worked in the 12 months prior to the survey, and 8 percent did not work at all.

Men 25 years and older are more active than younger men, as are currently married men and those living together, men with living children, men living in the Affar and Amhara regions, and men with no education.

Table 3.6.2 Employment: men

Percent distribution of men by employment status, according to background characteristics, Ethiopia 2000

Background characteristic	Employment in the 12 months preceding the survey: Currently employed	Employment in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Total	Number
Age					
15-19	66.9	10.9	22.1	100.0	600
20-24	85.4	6.6	8.0	100.0	408
25-29	94.7	3.9	1.4	100.0	343
30-34	94.6	3.3	2.1	100.0	276
35-39	96.5	1.9	1.6	100.0	304
40-44	95.8	2.5	1.7	100.0	182
45-49	97.9	0.1	2.0	100.0	207
50-54	91.8	2.6	5.6	100.0	142
55-59	94.7	1.9	3.4	100.0	146
Current marital status					
Never married	74.2	9.5	16.3	100.0	1,040
Currently married/ living together	96.6	2.2	1.3	100.0	1,460
Divorced, separated, widowed	86.1	1.7	12.2	100.0	107
Number of living children					
0	77.1	8.3	14.5	100.0	1,206
1-2	95.9	2.6	1.5	100.0	452
3-4	96.7	1.3	1.9	100.0	398
5+	95.3	2.5	2.1	100.0	551
Residence					
Urban	73.0	7.2	19.8	100.0	379
Rural	89.7	4.7	5.6	100.0	2,228
Region					
Tigray	75.7	7.4	16.5	100.0	136
Afar	93.2	0.8	6.0	100.0	34
Amhara	92.5	2.3	5.2	100.0	630
Oromiya	86.3	4.4	9.2	100.0	1,054
Somali	86.0	5.6	8.4	100.0	36
Ben-Gumz	89.6	7.4	3.0	100.0	31
SNNP	88.9	8.2	2.9	100.0	566
Gambela	76.7	7.9	15.4	100.0	7
Harari	74.9	7.3	17.8	100.0	7
Addis	70.2	7.4	22.4	100.0	95
Dire Dawa	71.3	9.1	19.6	100.0	12
Education					
No education	94.0	2.9	3.1	100.0	1,358
Primary	84.0	7.3	8.6	100.0	860
Secondary and higher	70.6	7.6	21.8	100.0	388
Total	87.2	5.0	7.7	100.0	2,607

Note: Total includes men whose employment status is missing or not known, who are not shown separately.

3.6 OCCUPATION

Tables 3.7.1 and 3.7.2 show data on employed women and men by their occupation. Agriculture is the dominant sector of the economy; 58 percent of employed women and 84 percent of employed men work in agriculture. Most of the women and men currently working in nonagricultural sectors are engaged in sales and services followed by skilled manual professions. For women working in agriculture, the data are also presented by type of land holding. Comparable data on land holding is not available for men. The majority of women (53 percent) work on their own land.

Table 3.7.1 Occupation: women

Percent distribution of women who worked in the 12 months preceding the survey by occupation (agricultural and nonagricultural) and type of agricultural land worked or type of nonagricultural employment, according to background characteristics, Ethiopia 2000

	Agricultural				Nonagricultural						
								Manual			
Background characteristic	Own land	Family land	Rented land	Someone else's land	Prof./ Tech./ Manag.	Clerical	Sales and services	Skilled	Unskilled	Total	Number
Age											
15-19	46.7	2.9	2.8	1.5	0.0	0.3	28.5	15.3	1.0	100.0	2,085
20-24	45.4	1.9	3.9	2.4	1.0	1.2	27.1	14.8	1.3	100.0	1,801
25-29	52.8	1.0	3.0	2.3	2.2	1.8	21.6	13.7	1.0	100.0	1,718
30-34	56.6	0.4	1.7	1.8	1.6	0.7	19.3	15.6	1.5	100.0	1,188
35-39	57.1	0.1	0.9	2.6	1.8	1.2	19.5	15.7	1.1	100.0	1,110
40-44	58.5	0.5	0.7	1.0	1.0	0.5	17.9	18.8	1.1	100.0	971
45-49	65.1	0.4	0.6	1.1	0.2	0.4	18.9	12.5	0.3	100.0	857
Current marital status											
Never married	32.8	1.4	0.4	1.2	1.1	2.0	39.3	19.6	1.2	100.0	2,069
Currently married or living together	61.6	1.3	3.2	1.9	1.2	0.6	16.0	12.9	0.7	100.0	6,194
Divorced, separated, widowed	43.2	1.2	0.7	2.6	0.7	0.6	29.4	18.1	2.6	100.0	1,467
Number of living children											
0	39.9	2.0	1.2	1.4	1.3	1.6	33.0	17.3	1.2	100.0	3,024
1-2	50.8	2.1	4.5	2.1	1.5	0.9	20.9	15.3	1.4	100.0	2,562
3-4	59.4	0.2	2.4	2.3	0.8	0.5	17.8	14.8	1.3	100.0	2,018
5+	67.0	0.4	1.0	1.8	0.6	0.3	16.2	12.1	0.3	100.0	2,126
Residence											
Urban	2.5	0.3	0.1	0.4	4.6	5.4	53.1	27.8	3.9	100.0	1,576
Rural	62.4	1.5	2.7	2.2	0.4	0.0	17.1	12.7	0.5	100.0	8,154
Region											
Tigray	66.6	4.3	2.1	1.0	1.8	1.6	13.3	6.2	2.5	100.0	775
Affar	53.5	1.1	0.7	1.1	2.3	1.6	22.4	10.5	5.7	100.0	107
Amhara	72.5	1.2	5.0	1.8	0.5	0.2	8.8	8.3	0.6	100.0	2,903
Oromiya	50.4	1.3	1.4	2.4	0.8	0.3	23.1	19.1	0.6	100.0	3,351
Somali	26.9	0.4	0.0	1.0	0.7	1.5	52.1	15.6	1.4	100.0	67
Benishangul-Gumuz	77.2	2.6	2.6	1.5	0.6	0.5	8.2	5.7	1.0	100.0	127
SNNP	31.9	0.5	0.4	1.6	1.0	0.9	39.6	23.6	0.4	100.0	1,964
Gambela	21.6	1.3	0.0	1.7	2.8	2.0	26.3	28.6	14.6	100.0	19
Harari	6.4	0.2	0.0	19.1	4.5	3.4	53.3	8.7	3.9	100.0	24
Addis Ababa	0.3	0.0	0.1	0.1	7.6	9.7	62.6	11.5	7.9	100.0	342
Dire Dawa	25.9	0.2	0.0	5.1	3.0	5.1	48.0	8.4	4.2	100.0	50
Education											
No education	59.9	1.4	2.6	2.2	0.0	0.0	19.2	13.6	0.8	100.0	7,572
Primary	36.9	1.1	1.6	0.9	0.2	0.2	34.6	20.5	1.9	100.0	1,454
Secondary and higher	8.6	0.7	0.3	0.6	14.5	11.9	39.3	20.6	1.8	100.0	704
Total	52.7	1.3	2.3	1.9	1.1	0.9	23.0	15.1	1.1	100.0	9,730

Note: Prof./Tech./Manag. includes professional, technical, and managerial occupations. Total includes women with missing information on type of agricultural land and occupation, who are not shown separately.

Table 3.7.2 Occupation: men

Percent distribution of men who worked in the 12 months preceding the survey by occupation, according to background characteristics, Ethiopia 2000

Background characteristic	Agri-culture	Prof./ Tech./ Manag.	Clerical	Sales and services	Manual		Total	Number
					Skilled	Unskilled		
Age								
15-19	88.3	0.0	0.1	5.5	3.5	1.5	100.0	467
20-24	83.3	2.0	1.3	6.7	4.1	2.3	100.0	375
25-29	81.2	4.2	0.7	6.2	5.5	2.2	100.0	338
30-34	77.8	5.9	1.2	7.0	5.4	1.9	100.0	270
35-39	76.0	5.2	1.2	7.8	7.6	2.0	100.0	299
40-44	76.5	10.4	0.1	4.1	7.3	1.6	100.0	179
45-49	95.0	0.7	0.3	2.9	1.1	0.0	100.0	203
50-54	90.9	3.7	0.0	4.7	0.2	0.0	100.0	134
55-59	91.8	1.9	0.0	3.2	2.7	0.2	100.0	141
Current marital status								
Never married	83.2	2.3	0.7	7.0	4.6	1.5	100.0	870
Currently married/ living together	84.1	3.9	0.6	5.2	4.3	1.5	100.0	1,442
Divorced, separated, widowed	86.5	4.2	0.0	2.9	3.6	2.8	100.0	94
Number of living children								
0	83.2	2.4	0.7	6.8	4.6	1.8	100.0	1,031
1-2	78.8	5.7	0.7	4.7	5.7	3.8	100.0	445
3-4	85.6	2.1	0.8	6.4	4.5	0.4	100.0	390
5+	88.1	4.3	0.3	4.2	3.0	0.0	100.0	540
Residence								
Urban	12.2	20.1	4.3	30.3	22.1	9.2	100.0	304
Rural	94.2	0.9	0.1	2.2	1.9	0.4	100.0	2,102
Region								
Tigray	76.3	4.5	2.5	9.2	5.7	0.6	100.0	113
Affar	62.6	7.7	3.6	15.8	2.5	7.1	100.0	32
Amhara	91.4	2.7	0.0	2.7	2.1	0.8	100.0	597
Oromiya	87.6	2.1	0.5	3.8	4.6	1.4	100.0	957
Somali	70.1	9.0	0.2	12.9	5.4	1.3	100.0	33
Benishangul-Gumuz	86.5	4.2	0.0	6.5	1.3	1.1	100.0	30
SNNP	85.2	2.8	0.2	6.8	2.4	1.7	100.0	550
Gambela	56.0	7.3	3.2	17.1	10.7	5.7	100.0	6
Harari	52.9	9.0	1.5	13.0	19.7	3.8	100.0	6
Addis Ababa	1.9	20.5	7.1	31.0	31.6	6.6	100.0	74
Dire Dawa	27.8	9.5	3.4	25.4	27.1	6.4	100.0	10
Education								
No education	93.8	0.4	0.0	2.2	2.5	0.8	100.0	1,316
Primary	85.6	1.0	0.1	6.1	3.9	2.7	100.0	786
Secondary and higher	36.4	22.0	4.7	20.2	14.0	1.8	100.0	304
Total	83.9	3.4	0.6	5.8	4.4	1.6	100.0	2,406

Note: Prof./Tech./Manag. refers to professional, technical, and managerial occupations. Total includes men with missing information on occupation who are not shown separately.

The age pattern of occupation varies by the type of work. The proportion of women and men currently working in agriculture increases with age, whereas the opposite is true for those working in sales and services. The majority of women working in agriculture are made up of currently married women and those who have many children.

As expected, rural women and men are more likely to be employed in agriculture; 69 percent of women and 94 percent of men living in the rural areas work in agriculture. On the other hand, 53 percent of urban women and 30 percent of urban men are employed in sales and services.

Education influences the type of occupation. Sixty-six percent of women and 94 percent of men who are employed and have never attended school work in agriculture. Eighty-eight percent of women and 63 percent of men with secondary or higher education are employed in nonagricultural occupations.

3.7 EMPLOYER AND FORM OF EARNINGS

Table 3.8 shows that nearly half of the working women (48 percent) are self-employed, 43 percent work for a family member, and only 9 percent work for someone else. Almost all working women in rural areas are either self-employed or work for a family member, while 40 percent of working women in urban areas work for a nonfamily member. Similarly, less educated women and women engaged in agriculture are much more likely to work for a family member.

Table 3.8 Employer and form of earnings

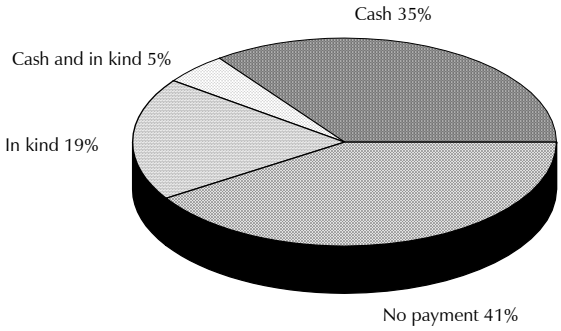
Percent distribution of women who worked in the 12 months preceding the survey by employer and type of earnings (cash, in kind, no payment), according to background characteristics, Ethiopia 2000

Background characteristic	Self-employed		Employed by a nonfamily member		Employed by a family member		Total	Number
	Earns cash[1]	Does not earn cash[2]	Earns cash[1]	Does not earn cash[2]	Earns cash[1]	Does not earn cash[2]		
Age								
15-19	27.2	11.2	8.4	2.3	4.0	46.9	100.0	2,085
20-24	29.1	19.1	8.8	1.8	4.9	36.3	100.0	1,801
25-29	25.0	23.4	9.8	0.9	4.2	36.7	100.0	1,718
30-34	24.5	22.5	9.2	0.8	5.4	37.6	100.0	1,188
35-39	27.9	28.2	7.9	1.3	4.6	29.9	100.0	1,110
40-44	26.2	23.5	5.8	0.6	6.6	37.3	100.0	971
45-49	27.9	27.8	3.4	0.0	3.3	37.2	100.0	857
Residence								
Urban	35.3	7.1	36.6	2.9	6.1	12.0	100.0	1,576
Rural	25.2	23.5	2.6	1.0	4.3	43.3	100.0	8,154
Region								
Tigray	16.5	28.6	4.7	2.9	1.6	45.7	100.0	775
Affar	1.8	20.3	20.9	0.4	3.2	52.9	100.0	107
Amhara	18.7	42.3	4.7	1.3	1.6	31.3	100.0	2,903
Oromiya	23.1	11.5	5.0	1.7	7.7	51.0	100.0	3,351
Somali	48.4	24.2	8.9	0.0	9.3	9.3	100.0	67
Benishangul-Gumuz	18.3	29.0	4.2	1.0	2.8	44.6	100.0	127
SNNP	51.1	5.3	6.9	0.2	5.4	31.1	100.0	1,964
Gambela	45.5	7.1	22.9	0.0	4.2	20.0	100.0	19
Harari	27.4	24.8	26.2	0.6	11.1	10.0	100.0	24
Addis Ababa	20.5	0.1	71.8	1.6	2.9	3.0	100.0	342
Dire Dawa	41.6	8.7	38.8	0.3	0.6	9.8	100.0	50
Education								
No education	25.5	23.7	4.6	1.2	4.4	40.6	100.0	7,572
Primary	35.4	12.0	8.5	1.7	5.1	37.1	100.0	1,454
Secondary and higher	23.8	7.7	44.1	2.2	6.6	15.6	100.0	704
Occupation								
Agriculture	4.7	32.5	1.3	1.1	0.5	59.8	100.0	5,687
Non-agriculture	58.0	4.4	17.6	1.6	10.4	7.9	100.0	4,043
Total	26.9	20.8	8.1	1.3	4.6	38.3	100.0	9,730

Note: Total includes women with missing information on type of employer or earnings and/or employment status.
[1] Includes both women who receive only cash and those who receive cash and in-kind payment.
[2] Includes both women who receive only in-kind payment and those who receive no payment.

Employment is assumed to go hand in hand with payment for work. Not all women receive earnings for the work they do, however, and among women who do receive earnings not all receive earnings in cash. Thirty-five percent of women receive cash only for their work, 5 percent are paid in cash and in kind, 19 percent are paid in kind only, and 41 percent do not receive any form of payment (Figure 3.2). Highly educated women and those engaged in nonagricultural occupations are much more likely to earn cash than other women. Seventy-five percent of women with secondary and higher education earn cash, compared with 35 percent of uneducated women (Table 3.8). Additionally, 86 percent of women involved in nonagricultural occupations earn cash, compared with only 7 percent of women working in agriculture.

Figure 3.2 **Percent Distribution of Employed Women Age 15-49 by Type of Earnings**



Ethiopia DHS 2000

3.8 Decision on Use of Earnings

To assess women's autonomy, information was sought in the Ethiopia DHS on the extent of control women exercise over their earnings. Employed women who earn cash for their work were asked for the main decisionmaker on the use of their earnings. Table 3.9 shows that three-fourths of women report that they are mainly responsible for making decisions on how their earnings will be spent, 16 percent say that they make these decisions jointly with their husband/partmer, and only 2 percent say that the husband/partner alone decides.

Younger women age 15-24 and older women age 40-49 are somewhat more likely to make independent decisions on their earnings than women in the middle age groups. Among currently married women, 62 percent report that they alone make the decisions about how their earnings will be used, while 32 percent say that decisions are made jointly with their husband/partner. Women with no children are more likely than women with one or more children to make independent decisions on the use of their earnings and are also more likely than other women to make joint decisions with someone other than their husband. There are no significant differences between urban and rural women in who makes the decision about how the woman's earnings will be spent. However, regional differences exist, with the proportion of women making independent decisions ranging from 82 percent in the SNNP Region to 35 percent in the Benishangul-Gumuz Region. Working women are more likely to decide jointly with their husband on how to spend the money they earn if they have completed secondary school or higher than if they have only primary education.

Table 3.9 Decision on use of earnings

Percent distribution of women who worked in the 12 months preceding the survey receiving cash earnings by person who decides how earnings are used, according to background characteristics, Ethiopia 2000

Background characteristic	Person who decides how earnings are used					Missing	Total	Number of women
	Self only	Husband/ Partner	Jointly with husband/ partner	Someone else	Jointly with someone else			
Age								
15-19	78.9	0.6	3.5	6.3	10.4	0.2	100.0	826
20-24	74.4	2.5	16.2	0.8	5.2	0.9	100.0	769
25-29	71.1	2.8	20.6	1.0	4.1	0.4	100.0	671
30-34	70.8	2.5	26.3	0.1	0.0	0.3	100.0	465
35-39	69.9	3.7	23.7	0.3	1.5	0.9	100.0	450
40-44	77.9	1.2	18.6	0.1	0.9	1.3	100.0	375
45-49	82.1	1.0	14.1	0.0	0.6	2.2	100.0	297
Current marital status								
Never married	82.9	0.0	0.0	5.3	11.6	0.2	100.0	1,127
Currently married/ living together	62.4	4.1	32.3	0.1	0.3	0.9	100.0	1,956
Divorced, separated, widowed	94.3	0.0	0.1	0.8	3.7	1.2	100.0	769
Number of living children								
0	80.1	0.5	4.7	4.5	9.3	0.9	100.0	1,446
1-2	70.1	2.8	23.9	0.2	3.0	0.0	100.0	1,036
3-4	75.3	2.8	20.8	0.0	0.0	1.1	100.0	725
5+	69.7	3.4	25.8	0.0	0.0	1.0	100.0	645
Residence								
Urban	75.8	1.8	15.2	2.0	4.4	0.8	100.0	1,229
Rural	74.3	2.2	17.0	1.6	4.2	0.7	100.0	2,623
Region								
Tigray	66.8	4.0	16.0	0.6	11.6	1.1	100.0	176
Affar	65.6	0.6	27.1	4.6	2.1	0.0	100.0	28
Amhara	56.1	4.2	29.4	3.3	4.7	2.4	100.0	728
Oromiya	79.7	1.4	14.0	0.9	3.5	0.6	100.0	1,200
Somali	67.8	4.9	12.3	6.3	8.7	0.0	100.0	45
Benishangul-Gumuz	35.1	16.3	41.6	3.2	3.6	0.2	100.0	32
SNNP	81.9	1.1	11.6	1.1	4.1	0.2	100.0	1,246
Gambela	68.9	5.0	24.1	0.2	1.2	0.6	100.0	14
Harari	80.9	0.9	8.7	3.2	6.2	0.0	100.0	15
Addis Ababa	80.8	0.8	11.5	3.4	3.4	0.0	100.0	326
Dire Dawa	75.1	1.3	21.3	0.7	1.4	0.2	100.0	41
Education								
No education	73.9	2.5	17.3	1.9	3.7	0.8	100.0	2,611
Primary	80.7	0.4	11.0	1.5	5.6	0.8	100.0	716
Secondary and higher	71.2	2.1	19.3	1.4	5.6	0.5	100.0	524
Total	74.8	2.1	16.4	1.7	4.3	0.7	100.0	3,852

3.9 WOMEN'S ATTITUDE TOWARD WIFE BEATING

The Ethiopia DHS gathered information on women's attitude toward wife beating, a proxy for women's perception of their status. Women were asked whether a husband is justified in beating his wife under a series of circumstances. The results are summarized in Table 3.10. A sizable majority of women (85 percent) believe that a husband is justified in beating his wife for at least one reason. Two in three women believe that a husband is justified in beating his wife if she burns the food or neglects

Table 3.10 Women's agreement with reasons for wife beating

Percentage of women who agree with specific reasons justifying a husband hitting or beating his wife and percentage who agree with at least one of the reasons, by background characteristics, Ethiopia 2000

Background characteristic	Reasons justifying a husband hitting or beating his wife					Agrees with at least one specified reason	Number
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses sexual relations		
Age							
15-19	62.6	59.1	52.9	62.8	43.5	82.1	3,710
20-24	64.1	61.4	56.4	64.3	49.5	84.5	2,860
25-29	63.0	61.5	55.4	63.7	52.1	83.9	2,585
30-34	66.7	63.5	57.9	65.2	54.2	85.3	1,841
35-39	64.3	60.9	57.1	67.6	53.5	85.2	1,716
40-44	64.7	60.9	57.6	64.3	56.2	85.6	1,392
45-49	70.2	65.3	61.5	66.9	58.9	89.6	1,264
Current marital status							
Never married	57.7	53.5	49.4	60.3	38.7	77.9	3,688
Married or living together	67.9	64.7	59.4	66.4	55.9	87.3	9,789
Divorced, separated, widowed	59.5	59.2	52.5	63.1	48.5	83.0	1,890
Number of living children							
0	59.6	56.2	51.2	61.5	42.5	80.4	5,191
1-2	66.0	62.8	56.7	64.7	53.3	85.6	3,882
3-4	67.3	64.9	59.1	67.7	55.6	87.1	3,032
5+	67.7	64.4	60.7	66.2	56.9	87.4	3,262
Residence							
Urban	41.0	39.6	38.2	51.6	29.0	69.0	2,791
Rural	69.7	66.1	60.2	67.4	55.7	87.9	12,576
Region							
Tigray	57.7	56.5	55.9	68.1	41.0	85.7	969
Affar	72.6	71.1	70.6	75.0	70.5	85.7	178
Amhara	66.6	67.9	59.4	65.1	51.6	88.4	3,820
Oromiya	64.7	62.2	55.5	61.5	54.0	84.1	5,937
Somali	48.8	61.5	63.9	65.2	52.0	80.6	175
Benishangul-Gumuz	70.4	61.4	59.0	68.7	51.1	85.0	160
SNNP	73.2	62.3	60.1	73.4	55.2	87.6	3,285
Gambela	57.1	54.4	52.7	56.5	36.1	83.4	40
Harari	28.7	25.8	17.7	28.6	19.9	49.8	41
Addis Ababa	23.3	20.8	22.9	40.0	11.8	54.4	684
Dire Dawa	42.2	46.7	44.0	55.3	37.8	66.9	79
Education							
No education	69.5	65.6	60.4	67.0	56.2	88.1	11,551
Primary	61.6	59.6	53.0	65.8	44.8	83.0	2,425
Secondary and higher	27.4	28.3	27.0	41.8	17.1	56.9	1,391
Employment							
Not employed	63.7	59.5	54.8	62.5	49.6	84.0	5,630
Employed for cash	60.1	56.9	52.6	63.9	47.1	81.4	3,852
Employed not for cash	68.0	65.9	59.9	66.8	54.5	87.0	5,885
All women	64.5	61.3	56.2	64.5	50.9	84.5	15,367

the children. A slightly smaller percentage agree that if a woman argues with her husband (61 percent) or goes out without telling him (56 percent), then he is justified in beating her. One in two women believe that a husband is justified in beating his wife if she refuses to have sex with him. The percentage of women who agree with at least one of the reasons justifying a husband beating his wife is slightly higher if the woman is older; married; has one or more children; or if she is employed, but not for cash. The differences are more notable by level of education and urban-rural residence. Educated women and urban women are less likely to agree that a man is justified in beating his wife for any reason at all compared with uneducated women. For example, 57 percent of women with secondary and higher education agree with at least one specified reason, compared with 88 percent of uneducated women

and 83 percent of those with primary education. Furthermore, 88 percent of rural women agree with at least one of the reasons justifying a husband beating his wife, compared with 69 percent among urban women.

3.10 FEMALE CIRCUMCISION

Women interviewed in the survey were asked a series of questions on female circumcision in order to obtain information on the practice in Ethiopia and women's attitudes toward it. Women were asked about both their own experience with circumcision and the experience of their daughters.

As seen in Table 3.11, the practice of female circumcision is widespread in Ethiopia; 80 percent of all women have been circumcised. The prevalence of female circumcision is lower among women living in the Tigray (36 percent) and Gambela (43 percent) regions, while it reaches almost 100 percent in the Somali and Affar regions. Urban-rural residence, education, and work status do not make any notable difference in the practice of female circumcision. The practice is slightly lower among younger women.

There is widespread support for female circumcision among Ethiopian women. When asked whether the practice should continue, 60 percent of all women stated that they supported circumcision (Table 3.11). Support for the practice is greatly influenced by residence and level of education. Rural women are twice as likely to support the practice as urban women. Women living in Addis Ababa and in the Tigray and Gambela regions are relatively less likely to support the continuation of the practice. Women with secondary and higher levels of education are also significantly less likely to support the practice (19 percent), compared with women with no education (67 percent), as are women working for cash (56 percent), compared with other women.

Table 3.11 Prevalence of female circumcision

Percentage of women who have been circumcised and the percentage who support continuation of the practice of female circumcision, by background characteristics, Ethiopia 2000

Background characteristic	Percentage of women circumcised	Percentage who support practice	Number
Age			
15-19	70.7	53.4	3,710
20-24	78.3	57.0	2,860
25-29	81.4	58.5	2,585
30-34	86.1	65.2	1,841
35-39	83.6	63.6	1,716
40-44	85.8	66.3	1,392
45-49	86.8	66.7	1,264
Residence			
Urban	79.8	31.0	2,791
Rural	79.9	66.1	12,576
Region			
Tigray	35.7	25.3	969
Affar	98.6	76.5	178
Amhara	79.7	60.3	3,820
Oromiya	89.8	69.6	5,937
Somali	99.7	77.3	175
Benishangul-Gumuz	73.7	53.8	160
SNNP	73.5	59.8	3,285
Gambela	42.9	26.8	40
Harari	94.3	51.3	41
Addis Ababa	79.8	16.2	684
Dire Dawa	95.1	45.5	79
Education			
No education	80.4	67.0	11,551
Primary	78.4	48.5	2,425
Secondary and higher	78.2	18.6	1,391
Employment			
Not employed	79.5	59.1	5,630
Employed for cash	84.4	56.1	3,852
Employed not for cash	77.3	62.7	5,885
Total	79.9	59.7	15,367

Women interviewed in the survey who had at least one living daughter were asked questions about the circumcision experience of their daughters. Table 3.12 shows that more than half of the women reported that at least one of their daughters has been circumcised. Older, rural, and less-educated women are more likely to have at least one circumcised daughter, compared with the other women. Women with secondary education or higher are least likely (26 percent) to have a circumcised daughter, compared with 56 percent among uneducated women and 36 percent among those with

primary education. There is substantial variation by region in the percentage of women with at least one circumcised daughter, ranging from 94 percent among women in the Affar Region to 37 percent in the SNNP Region. Surprisingly, women who are not employed are less likely than women who are employed to have at least one circumcised daughter.

Table 3.13 presents the distribution of most recently circumcised daughters by age at circumcision. More than half of the daughters were reported by their mothers to have been circumcised before age one. The median age at the time of circumcision is zero years.

Table 3.13 Age at circumcision for daughters

Percent distribution of most recently circumcised daughters according to age at the time of circumcision, Ethiopia 2000

Age at circumcision	Percentage of daughters
<1	52.5
1-2	5.4
3-4	6.2
5-6	7.6
7-8	9.5
9-10	6.8
11-12	4.0
13-14	2.7
15+	4.7
Don't know/Missing	0.6
Total	100.0
Number of daughters	3,984
Median age	0.0
Mean age	3.8

Table 3.12 Daughters' circumcision experience

Percentage of women with daughters who report that they have at least one circumcised daughter by background characteristics, Ethiopia 2000

Background characteristic	Percentage with a daughter circumcised	Number of women
Age		
15-19	32.6	181
20-24	27.1	980
25-29	31.9	1,520
30-34	43.5	1,436
35-39	61.9	1,325
40-44	74.7	1,152
45-49	80.8	1,065
Residence		
Urban	43.8	1,091
Rural	53.2	6,568
Region		
Tigray	39.0	423
Affar	93.6	94
Amhara	78.5	2,016
Oromiya	43.2	3,102
Somali	57.7	101
Benishangul-Gumuz	63.8	77
SNNP	37.0	1,556
Gambela	43.4	11
Harari	44.8	19
Addis Ababa	39.8	226
Dire Dawa	39.9	33
Education		
No education	55.8	6,371
Primary	35.7	878
Secondary and higher	25.9	410
Employment		
Not employed	44.1	2,599
Employed for cash	53.2	1,857
Employed not for cash	57.5	3,203
Total	51.9	7,659

Ninety-two percent of the circumcisions were performed by a traditional circumciser (Table 3.14). A traditional birth attendant was responsible for 6 percent of the circumcisions, and less than 1 percent were performed by some other health professional.

In an effort to obtain basic information on the severity of female circumcision, women who have been circumcised were asked whether their vaginal area was sewn closed. The same information was asked about their most recently circumcised daughters. Only 3 percent of circumcised women and an equal proportion of the most recently circumcised daughters had had their vaginal area sewn closed (Table 3.15). This suggests that the most severe form of circumcision is not common in Ethiopia.

Table 3.14 Person who performed the circumcision

Percent distribution of most recently circumcised daughters , according to the person who performed the circumcision, Ethiopia 2000

Person performing circumcision	Percentage of daughters
Traditional circumciser	92.0
Traditional birth attendant	5.5
Other traditional	0.9
Health professional	0.8
Don't know/Missing	0.8
Total	100.0
Number	3,984

Table 3.15 Severity of circumcision

Percent distribution of women who have been circumcised and of most recently circumcised daughters, according to severity of the circumcision, Ethiopia 2000

Severity of circumcision	Women	Daughters
Vaginal area sewn closed	2.9	3.4
Vaginal area not sewn	96.2	96.5
Don't know/Missing	0.9	0.1
Total	100.0	100.0
Number	12,280	3,984

FERTILITY 4

Fertility is the most important component of population dynamics and plays a major role in changing the size and structure of the population of a given area. Ethiopia, like most countries in sub-Saharan Africa, is characterized by rapid population growth, which is influenced by a high level of fertility. Comprehensive information on fertility and the factors affecting it were not totally available until the results of the 1990 National Family and Fertility Survey became available (CSA, 1993). Since then, no detailed information has been obtained to evaluate fertility trends and the magnitude of change in fertility. The Ethiopia DHS fills this data gap and generates detailed information on fertility that will be useful for the formulation of policies and the design of programs.

Current fertility levels, trends and differentials in fertility, cumulative fertility, birth intervals, age at first birth, and adolescent fertility are examined in this chapter. The fertility indicators presented in this chapter are based on information obtained from women age 15-49. All women who were interviewed in the survey were asked to report on the total number of sons and daughters who were living at home, the number living elsewhere, and the number who had died. A complete birth history was then obtained, including for each birth, name, whether the birth was single or multiple, month and year of birth, survival status, and age at death for dead children.

Table 4.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the five years preceding the survey, by residence, Ethiopia 2000

	Residence		
Age group	Urban	Rural	Total
15-19	60	123	110
20-24	149	266	244
25-29	156	289	264
30-34	160	264	248
35-39	97	199	183
40-44	33	109	100
45-49	4	27	24
TFR 15-49	3.3	6.4	5.9
TFR 15-44	3.3	6.3	5.7
GFR	111	211	193
CBR	30.7	42.9	41.3

Note: Rates are for the period 1-60 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate for ages 15-49 expressed per woman
GFR: General fertility rate (births ÷ no. of women 15-44) expressed per 1,000 women
CBR: Crude birth rate expressed per 1,000 population
ASFR: Age-specific fertility rate expressed per 1,000 women

4.1 CURRENT FERTILITY

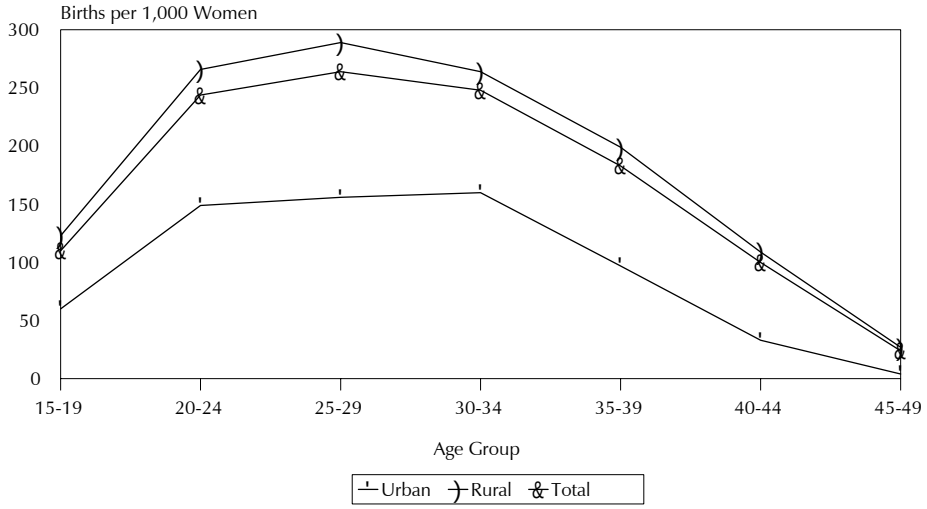
The current level of fertility refers to data on live births occurring in the five-year period preceding the survey, which was obtained from the birth history data. From this information, reported measures of fertility were computed and presented in Table 4.1. The reported summary measures include age-specific fertility rates (ASFRs),[1] total fertility rates (TFRs) for women age 15-44 and 15-49, the general fertility rate (GFR), and the crude birth rate (CBR). The ASFRs represent the number of live births per 1,000 women in the age group. The TFR is the number of children a woman would have by the end of her reproductive years if she experienced the current rate of childbearing at each age of her childbearing years assuming that she survived to the end of her reproductive age. The GFR is defined as the annual number of births per

[1] Numerators of the ASFRs are calculated by summing the number of live births that occurred in the period 1-60 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by age (in five-year groups) of the mother at the time of birth (determined by the mother's birth date). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1-60 months preceding the survey.

1,000 women age 15-44, and the CBR refers to the total number of births occurring in a given year per 1,000 population.

The total fertility rate in Ethiopia for the five years[2] preceding the survey (representing early 1995 to early 2000) is 5.9 children per woman. The TFR in the rural areas is 6.4 and is almost twice as high as the TFR in the urban areas (3.3). The ASFRs presented in Table 4.1 and Figure 4.1 by urban-rural residence indicate that in Ethiopia, childbearing begins at early ages. The ASFR is lower among adolescents and increases up to age 25-29 and declines thereafter. The rates are higher in rural areas than in urban areas at all ages. The maximum fertility occurs at age 25-29 among rural women and 30-34 among urban women. At the current rate of childbearing, an Ethiopian woman would have more than half of her lifetime births (3.1) by age 30 and nearly three-fourths of the total children she will ever have (4.3) by age 35. The GFR, also presented in Table 4.1, is 193 per 1,000 women age 15-44 for the five years prior to the survey. Like the TFR, the GFR and CBR also vary by urban-rural residence. Thus, with a GFR of 211 per 1,000, the average annual number of births to rural women is double that for urban women (111 per 1,000). Similarly, the CBR in the rural areas (43 per 1,000) is much higher than the CBR in the urban areas (31 per 1,000).

Figure 4.1 **Age-specific Fertility Rates by Urban-Rural Residence**



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[2] A three-year rate is usually shown for DHS surveys but it was decided that a five-year rate would be more appropriate in Ethiopia since it is closer to estimates of fertility that are currently being used.

4.2 FERTILITY DIFFERENTIALS

Table 4.2 and Figure 4.2 present differentials in fertility by urban-rural residence, region, and education. The figures show large differences in the level of fertility among regions. Fertility is lowest in Addis Ababa at 1.9 children per woman and highest in Oromiya at 6.4 children per woman. High levels of fertility are also observed in the Amhara and SNNP regions, with TFRs at 5.9 in each of these regions. Female education is known to be inversely related to fertility. With a TFR of 6.2, a woman with no education has about 1 child more than a woman with primary education (5.1) and about 3 children more than a woman with at least some secondary education (3.1).

The mean number of children ever born to women by the end of their reproductive period, age 40-49, is a measure of the average completed fertility (Table 4.2). If fertility remained constant in the recent past and the reported data on both children ever born and births during the five years preceding the survey are reasonably accurate, the average completed fertility should be equal to the total fertility rate. Comparison of the mean number of children ever born to women age 40-49 with the TFR suggests a decline of about one child per woman in Ethiopia over the past 10 to 15 years. Even though fertility has declined both in urban and rural areas, the difference between the level of completed and current fertility is more pronounced in urban areas (2.2) than in rural areas (0.8). Although fertility decline has occurred in all regions and at all educational levels, a noticeably large decline is observed in Addis Ababa.

Table 4.2 Fertility by background characteristics

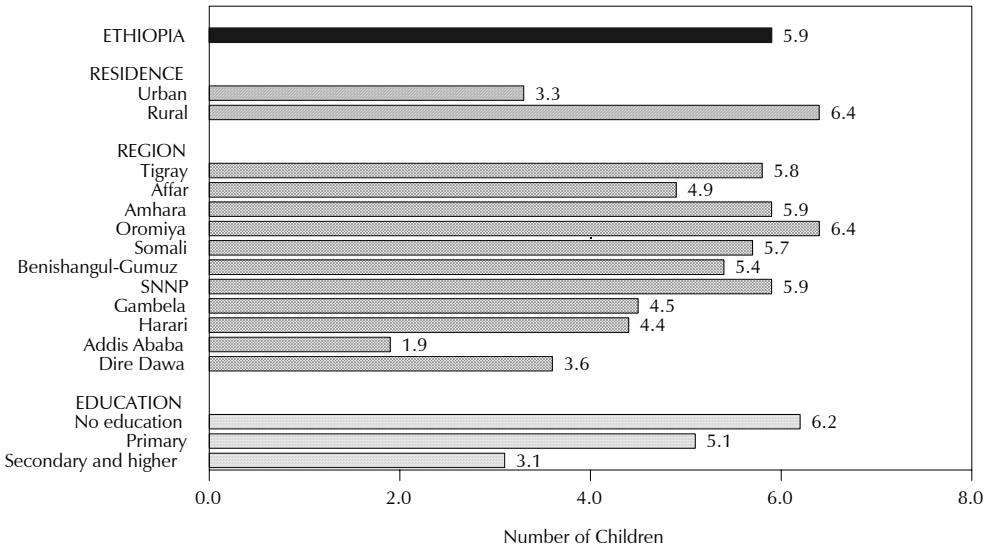
Total fertility rate for the five years preceding the survey, percentage currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Ethiopia 2000

Background characteristic	Total fertility rate	Percentage currently pregnant[1]	Mean number of children ever born to women age 40-49
Residence			
Urban	3.3	6.1	5.5
Rural	6.4	10.2	7.2
Region			
Tigray	5.8	7.9	6.8
Affar	4.9	8.6	6.4
Amhara	5.9	8.5	6.9
Oromiya	6.4	10.3	7.2
Somali	5.7	13.1	7.7
Benishangul-Gumuz	5.4	10.5	6.6
SNNP	5.9	10.7	7.2
Gambela	4.5	8.4	6.0
Harari	4.4	7.3	6.3
Addis Ababa	1.9	3.3	4.7
Dire Dawa	3.6	6.9	5.4
Education			
No education	6.2	10.6	7.1
Primary	5.1	6.6	5.9
Secondary and higher	3.1	4.8	4.6
Total	5.9	9.4	7.0

[1] Women age 15-49 years

Table 4.2 also shows the percentage of women who reported being pregnant at the time of the survey. This percentage may be underreported since women may not be aware of a pregnancy, especially at the very early stages, and some women who are early in the pregnancy, may not want to reveal that they are pregnant. Nine percent of women reported that they were pregnant at the time of the survey. The proportion of pregnant women is lower in urban areas (6 percent) than in rural areas (10 percent). Addis Ababa has the lowest proportion currently pregnant (3 percent), whereas the highest proportion pregnant is reported in the Somali Region (13 percent). Regarding differentials in current pregnancy status by level of education, the pattern is similar to that observed for the TFR.

Figure 4.2 **Total Fertility Rates by Selected Background Characteristics**



Ethiopia DHS 2000

4.3 TRENDS IN FERTILITY

Table 4.3 shows the reported ASFRs and the TFRs for the 1990 NFFS (CSA, 1993) and the 2000 Ethiopia DHS. The TFR declined from 6.4 births per woman in the 1990 NFFS to 5.9 births per woman in the Ethiopia DHS, a drop of 0.5 children on average. Fertility has declined in every age group, except for the age group 15-19. The greatest decline was among women age 45-49 (57 percent), followed by women age 20-24 (11 percent).

Table 4.3 Trends in fertility

Age-specific fertility rates (per 1,000 women) and total fertility rates, Ethiopia 1990 and 2000

Age group	1990 NFFS[1]	2000 Ethiopia DHS
15-19	95	110
20-24	275	244
25-29	289	264
30-34	257	248
35-39	199	183
40-44	105	100
45-49	56	24
Total fertility rate	6.4	5.9

Note: Rates for the 1990 NFFS are for the 12 months preceding the survey, and rates for the Ethiopia DHS are for the five years preceding the survey.
[1] CSA, 1993

Data from the Ethiopia DHS on age-specific fertility rates for successive five-year periods preceding the survey provide further evidence of a decline in fertility (Table 4.4). Figures in brackets represent partial fertility rates due to truncation. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey, because these women were 50 years and older at the time of the survey and were not interviewed. A substantial decline in ASFRs is seen between five to nine years before the survey and zero to four years before the survey. In fact, the ASFRs had started to decline even earlier than this period (from 10 to14 years before the survey) among women age 15-19, 20-24, and 35-39. The cumulative fertility rates computed for women age 15-34 for the successive five years preceding the survey also show a sustained decline in the level of fertility for the period 0 to19 years prior to the survey. The level of fertility decreased from a cumulative fertility of 5.3 for the period 15 to 19 years before the survey to 4.3 for the period 0 to 4 years before the survey.

4.4 CHILDREN EVER BORN AND LIVING

The level of lifetime fertility is based on information about the total number of children ever born. From this information, the mean number of children born per woman (average parity) in a given age is computed to measure the cumulative experience from the beginning of the reproductive time to the age at the time of the survey. Table 4.5 shows the percent distribution of women by the number of children ever born and the mean number of children ever born and living, by five-year age groups, for all women and currently married women. The mean number of children ever born increases with women's age. From an average of 0.2 children among adolescents, the average parity is 2.7 children among women in their late twenties and 7.2 children among those at the end of their reproductive years. The distribution of women by the number of children ever born shows that childbearing in Ethiopia starts at an early age. Among teenage women, 13 percent have given birth to at least one child, and among women in their early twenties, more than one-third already have two or more children. Among women in their early thirties, more than 72 percent have had at least four children, and more than half of the women age 45-49 have given birth to eight or more children. A similar pattern is observed for currently married women except that mean parities are higher among currently married women than among all women at every age.

Table 4.4 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, Ethiopia 2000

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	110	128	176	192
20-24	244	283	291	288
25-29	264	300	297	299
30-34	248	278	266	[285]
35-39	183	213	[254]	
40-44	100	[130]		
45-49	[24]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

The Ethiopia DHS results also indicate that childlessness decreases with increasing age. Among teenage women, 87 percent of all women and 52 percent of currently married women are childless. However, among women in their early twenties, the proportion decreases to 38 percent for all women and 13 percent for currently married women. The percentage childless among currently married women at the end of the reproductive period (age 45-49) is a rough estimate of primary infertility. Voluntary childlessness is rare in Ethiopia, and married women with no live births are likely to be unable to bear children at all. The results indicate that primary infertility among currently married women is low (2 percent). The level of primary infertility has decreased from 3.9 percent reported in the 1990 NFFS (CSA, 1993).

Information on children ever born was collected for all men interviewed in the survey. They were asked to report on the total number of children living at home, the number living elsewhere, and those who had died. The average number of children by age group is computed from the total number of children ever born. The proportion of children ever born for all men and for currently married men is presented in the bottom two panels of Table 4.5.

The average number of children ever born increases with increasing age. Men in their early twenties have an average of less than 1 child (0.2); this increases to almost 3 children among men in their early thirties, 6 children among men in their early forties, and 8 or more children among men age 45 and over. The results for men who are currently married differ from those for all men particularly at younger ages. For example, the proportion of men in the age group 20-24 who had never had a child is two and a half times higher among all men than among currently married men.

Table 4.5 Children ever born and living

Percent distribution of all women and currently married women and of all men and currently married men by number of children ever born (CEB), and mean number of children ever born and mean number of living children, according to age group, Ethiopia 2000

Age	Number of children ever born											Total	Number	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	87.2	10.5	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,710	0.15	0.13
20-24	38.1	24.3	22.2	11.3	3.3	0.5	0.2	0.0	0.0	0.1	0.0	100.0	2,860	1.20	1.02
25-29	14.6	12.7	19.7	22.2	16.1	9.3	3.4	1.3	0.7	0.1	0.0	100.0	2,585	2.65	2.17
30-34	4.5	4.6	9.0	10.4	17.0	19.8	16.9	10.2	5.2	1.7	0.7	100.0	1,841	4.57	3.62
35-39	3.5	2.9	5.8	8.0	8.3	14.8	18.9	15.6	10.6	6.2	5.3	100.0	1,716	5.66	4.40
40-44	1.8	3.4	3.6	3.7	6.2	11.1	12.4	15.4	15.3	12.9	14.0	100.0	1,392	6.74	4.99
45-49	2.4	2.4	4.0	4.1	5.3	6.9	10.3	12.6	16.2	13.1	22.8	100.0	1,264	7.23	5.21
Total	31.9	10.6	10.3	8.7	7.3	7.3	6.7	5.6	4.6	3.2	3.8	100.0	15,367	3.09	2.39
CURRENTLY MARRIED WOMEN															
15-19	51.5	39.9	7.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	862	0.58	0.50
20-24	13.4	31.8	31.8	16.7	5.0	0.8	0.3	0.0	0.0	0.1	0.0	100.0	1,807	1.73	1.48
25-29	5.1	10.8	21.7	25.6	19.1	11.3	3.9	1.4	0.9	0.1	0.0	100.0	2,051	3.06	2.52
30-34	2.0	3.7	7.1	9.6	17.3	22.0	19.1	11.4	5.1	2.0	0.8	100.0	1,572	4.87	3.89
35-39	2.7	2.7	4.3	7.0	8.3	14.5	19.4	16.8	11.7	6.7	6.1	100.0	1,441	5.90	4.63
40-44	1.5	3.1	2.6	2.5	5.4	10.1	11.0	15.5	16.3	15.2	16.7	100.0	1,096	7.10	5.32
45-49	1.9	1.4	3.0	3.7	4.4	4.9	9.5	13.3	17.6	14.2	26.1	100.0	961	7.65	5.60
Total	9.2	13.1	13.5	11.7	10.0	9.8	9.0	7.6	6.3	4.4	5.5	100.0	9,789	4.21	3.30
ALL MEN															
15-19	99.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	600	0.00	0.00
20-24	85.5	9.1	3.7	1.0	0.6	0.0	0.0	0.0	0.1	0.0	0.0	100.0	408	0.22	0.19
25-29	40.8	22.5	17.5	11.9	4.1	2.4	0.8	0.0	0.0	0.0	0.0	100.0	343	1.27	1.06
30-34	20.2	8.3	24.7	17.8	11.2	12.0	2.4	2.0	0.1	0.1	1.2	100.0	276	2.59	2.14
35-39	7.0	2.8	9.8	17.3	19.1	14.2	14.1	10.4	2.7	0.6	1.9	100.0	304	4.26	3.44
40-44	6.4	6.0	5.0	11.0	5.0	6.6	18.0	13.4	10.9	8.1	9.6	100.0	182	5.88	4.37
45-49	2.1	0.4	2.4	4.4	6.0	5.6	12.8	10.6	14.6	13.9	27.3	100.0	207	7.95	5.87
50-54	0.0	1.1	3.0	2.4	0.3	4.4	11.9	15.7	18.8	12.6	29.7	100.0	142	8.45	6.48
55-59	2.4	1.8	1.7	4.7	4.6	4.8	2.8	15.9	19.6	13.6	28.1	100.0	146	8.03	5.87
Total	45.4	6.3	7.5	7.1	5.1	4.7	5.1	4.9	4.4	3.2	6.4	100.0	2,607	2.92	2.25
CURRENTLY MARRIED MEN															
15-19	*	*	*	*	*	*	*	*	*	*	*	100.0	7	0.25	0.00
20-24	33.9	40.1	17.2	5.3	3.2	0.0	0.0	0.0	0.3	0.0	0.0	100.0	76	1.06	0.87
25-29	12.5	32.5	26.8	16.9	6.3	3.7	1.3	0.0	0.1	0.0	0.0	100.0	222	1.88	1.59
30-34	6.3	7.5	29.8	21.4	13.5	14.6	2.8	2.4	0.1	0.1	1.4	100.0	228	3.11	2.56
35-39	3.8	2.9	10.5	17.6	18.8	15.2	14.6	11.1	2.9	0.6	2.0	100.0	284	4.43	3.58
40-44	3.4	6.2	3.7	11.6	5.1	6.2	19.2	14.3	11.7	8.5	10.2	100.0	171	6.16	4.57
45-49	1.0	0.2	1.4	4.7	4.8	6.0	12.8	10.2	14.7	14.8	29.4	100.0	192	8.22	6.10
50-54	0.0	1.1	3.1	2.3	0.4	4.5	12.1	16.0	19.1	11.4	30.2	100.0	139	8.46	6.51
55-59	1.1	1.9	0.3	4.8	4.7	4.9	2.9	16.4	20.2	14.0	28.9	100.0	142	8.24	6.02
Total	6.4	9.9	12.6	12.3	8.6	8.2	8.8	8.6	7.7	5.5	11.4	100.0	1,460	5.10	3.92

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

Comparison of these results with those obtained for women who are currently in union shows that at younger ages, the average number of children ever born increases more rapidly with increasing age among currently married women than among currently married men. However, at older ages, the average number of children ever born is higher for currently married men than that for currently married women (8.2 for men and 7.7 for women at age 45-49). The more rapid rise in number of children ever born among younger women than among younger men is due to their earlier entrance into marital union. Among men, the higher level of average number of children ever born at older ages may be explained by the fact that men are more likely to enter into multiple unions and therefore may have more children than their wives.

4.5 Birth Intervals

Longer birth intervals contribute to improved health status of both mother and child. Infants born within two years of the birth of a previous child experience a higher risk of health problems. Table 4.6 shows the distribution of second and higher order births that occurred in the five years preceding the survey by the number of months since the previous birth, according to background variables.

In Ethiopia, 20 percent of nonfirst births occur less than 24 months after the preceding birth, with 8 percent occurring less than 18 months after the preceding birth. Forty-three percent of women give birth at least 36 months after the previous birth. The overall median birth interval is 34 months. This means that half of the births in Ethiopia occur close to three years after the previous birth. Data also indicate that birth intervals increase with increasing age of women. Thirty-seven percent of births to women age 15-19 occurred within two years of the previous birth, compared with only 14 percent of births among women age 40 and above. The median birth interval rises from 26 months among women age 15-19 to 38 months among women age 40 and above. Birth intervals do not seem to vary much by birth order, sex of the preceding child, or urban-rural residence. However, the birth interval does vary markedly by the survival status of the preceding birth. Four times as many births occurred within an 18-month interval when the preceding child had died than when it was still alive. The median birth interval is 34 months if the previous child is living, but falls to 28 months if the preceding child is dead. Median birth intervals are shorter in the Somali and Harari regions and relatively longer in Addis Ababa and in the Gambela Region. The level of education of mothers does not significantly affect the length of the birth interval.

Table 4.6 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to demographic and background characteristics, Ethiopia 2000

Characteristic	Months since preceding birth					Total	Median number of months since preceding birth	Number
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	18.8	18.5	47.1	7.7	7.9	100.0	25.8	92
20-29	11.9	12.7	40.1	22.3	13.0	100.0	30.8	4,254
30-39	5.7	10.5	36.8	25.2	21.7	100.0	35.0	4,183
40-49	4.8	8.8	32.1	26.4	27.9	100.0	37.5	1,380
Birth order								
2-3	10.0	12.6	37.7	21.3	18.5	100.0	32.2	3,669
4-6	7.5	9.2	37.8	25.6	19.8	100.0	34.7	3,794
7 +	7.4	12.5	37.4	25.4	17.3	100.0	33.6	2,445
Sex of preceding birth								
Male	8.9	11.5	36.3	24.0	19.3	100.0	33.8	5,157
Female	7.8	11.1	39.2	23.9	18.1	100.0	33.5	4,751
Survival of preceding birth								
Dead	22.8	15.6	28.1	16.7	16.8	100.0	27.8	1,847
Living	5.1	10.3	39.8	25.6	19.2	100.0	34.4	8,061
Residence								
Urban	10.2	9.7	33.7	16.2	30.3	100.0	35.2	921
Rural	8.2	11.5	38.1	24.8	17.5	100.0	33.5	8,987
Region								
Tigray	6.0	7.0	42.8	25.7	18.5	100.0	34.4	656
Affar	12.0	16.6	30.9	20.7	19.8	100.0	31.9	95
Amhara	6.4	7.9	33.4	29.8	22.5	100.0	36.6	2,614
Oromiya	10.3	13.4	40.2	20.8	15.4	100.0	31.4	4,047
Somali	15.9	21.6	28.0	19.4	15.2	100.0	27.6	120
Benishangul-Gumuz	9.0	11.9	36.0	24.6	18.5	100.0	34.3	96
SNNP	7.4	11.8	38.4	23.1	19.3	100.0	33.4	2,099
Gambela	2.2	9.1	22.5	29.9	36.3	100.0	40.5	21
Harari	12.0	17.0	33.5	19.1	18.3	100.0	30.0	19
Addis Ababa	7.0	12.6	23.5	16.0	40.9	100.0	40.8	112
Dire Dawa	10.8	16.9	37.2	20.5	14.6	100.0	31.2	30
Education								
No education	7.8	11.3	37.7	24.5	18.7	100.0	33.8	8,272
Primary	11.6	10.4	38.2	23.2	16.6	100.0	32.4	1,259
Secondary and higher	11.0	12.9	35.7	14.9	25.5	100.0	32.6	377
Total	8.4	11.3	37.7	24.0	18.7	100.0	33.6	9,908

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.

4.6 AGE AT FIRST BIRTH

Early age at childbearing has a detrimental effect on the health of both mother and child. It also indicates a longer reproductive span and higher level of fertility. Table 4.7 presents the distribution of women by age at first birth and median age at first birth according to age at the time of the survey.

Childbearing begins early in Ethiopia. More than 50 percent of women age 30 and above have had their first birth in their teens, and even among the cohort age 20-24, a sizable proportion (44 percent) have had a birth before age 20. The median age at first birth is 20 years for the youngest cohort (age 25-29) for whom a median could be computed and varies between 18 and 19 for the older cohorts, indicating a rise in the median age at first birth during the most recent period.

Table 4.7 Age at first birth

Percent distribution of women by age at first birth, according to current age, Ethiopia 2000

Current age	No birth	Age at first birth <15	15-17	18-19	20-21	22-24	25+	Total	Number	Median age at first birth
15-19	87.2	1.1	8.4	NA	NA	NA	NA	100.0	3,710	a
20-24	38.1	3.3	20.9	19.4	13.8	NA	NA	100.0	2,860	a
25-29	14.6	5.7	23.8	19.4	17.1	14.8	4.5	100.0	2,585	20.1
30-34	4.5	6.5	36.5	22.9	12.1	10.5	7.0	100.0	1,841	18.5
35-39	3.5	9.9	29.7	18.2	16.8	12.1	9.8	100.0	1,716	19.1
40-44	1.8	6.6	39.5	23.1	12.2	9.8	7.0	100.0	1,392	18.4
45-49	2.4	8.0	32.2	23.0	15.9	10.6	7.9	100.0	1,264	18.7

NA = Not applicable
[a] Omitted in populations where less than 50 percent of the women in the age group × to × + 4 have had a birth by age ×

Table 4.8 presents the median age at first birth by background characteristics and age at the time of the survey. The median age at first birth is higher in urban areas than in rural areas, with a difference of one year among women age 25-49. Addis Ababa has the highest median age at first birth (21.7), followed closely by Dire Dawa (21.4). The Amhara Region has the lowest median age at first birth (18). There is a positive relationship between educational attainment and median age at first birth.

Table 4.8 Median age at first birth by background characteristics

Median age at first birth among women age 25-49 years, by current age and background characteristics, Ethiopia 2000

Background characteristic	Current age 25-29	30-34	35-39	40-44	45-49	Women age 25-49
Residence						
Urban	22.5	18.8	18.8	18.8	18.4	20.0
Rural	19.6	18.5	19.1	18.3	18.8	18.9
Region						
Tigray	19.1	18.7	19.0	19.0	19.2	19.0
Affar	21.0	20.1	19.6	21.5	19.4	20.2
Amhara	18.8	17.5	18.3	17.4	17.7	18.0
Oromiya	20.1	18.5	18.8	18.3	18.8	19.0
Somali	20.3	19.3	19.0	18.0	20.1	19.5
Benishangul-Gumuz	19.3	18.4	19.4	19.7	18.8	19.1
SNNP	21.3	19.5	20.6	18.8	19.7	20.1
Gambela	19.8	17.3	18.7	18.2	20.6	18.7
Harari	20.6	19.9	18.0	17.6	19.6	19.3
Addis Ababa	a	23.7	19.3	19.2	19.2	21.7
Dire Dawa	23.6	20.8	21.2	20.4	19.4	21.4
Education						
No education	19.6	18.4	19.0	18.2	18.7	18.8
Primary	20.3	19.0	20.5	20.0	17.9	19.8
Secondary and higher	24.4	21.0	20.4	20.6	21.6	22.9
All women	20.1	18.5	19.1	18.4	18.7	19.0

[a] Omitted because less than 50 percent of the women ages 25 to 29 have had a birth by age 25

The median age at first birth is 19 years among women with no education and increases to 20 years among women with primary education and to 23 years among women with at least secondary education. This means that women with no education become mothers four years earlier than those who have attained at least a secondary level of education.

4.7 Teenage Pregnancy and Motherhood

In addition to the relatively higher level of pregnancy complications among young mothers, due to physiological immaturity, inexperience associated with child care practices also influences maternal and infant health. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility. Table 4.9 presents the proportion of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics.

Table 4.9 Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Ethiopia 2000

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number
Age				
15	0.7	0.5	1.2	892
16	3.5	3.0	6.5	798
17	12.0	3.5	15.5	659
18	22.0	5.4	27.4	827
19	33.8	5.9	39.7	534
Residence				
Urban	6.8	2.4	9.1	816
Rural	14.5	3.8	18.3	2,894
Region				
Tigray	18.6	2.3	20.9	234
Affar	16.6	4.5	21.1	34
Amhara	21.9	3.2	25.0	842
Oromiya	11.4	4.4	15.8	1,594
Somali	10.1	2.7	12.7	43
Benishangul-Gumuz	17.1	5.2	22.2	41
SNNP	5.5	2.6	8.1	688
Gambela	21.9	4.1	26.0	8
Harari	9.1	3.8	12.9	9
Addis Ababa	3.5	1.2	4.7	199
Dire Dawa	7.2	3.8	11.0	18
Education				
No education	16.4	4.4	20.8	2,265
Primary	7.4	1.5	8.9	977
Secondary and higher	6.5	3.0	9.5	468
Total	12.8	3.5	16.3	3,710

Sixteen percent of women age 15-19 have already become mothers or are currently pregnant with their first child. The percentage of women who have begun childbearing increases rapidly with age, from 1 percent among women age 15, to 40 percent among women age 19. Twice as many teenagers residing in rural areas as in urban areas have begun childbearing. The level of teenage parenthood is also more than twice as high among women with no education than among women with primary or higher levels of education. Childbearing among teenagers is lowest in Addis Ababa (5 percent) and highest in the Gambela Region (26 percent).

FERTILITY REGULATION 5

Information on knowledge of family planning methods provides a measure of the level of awareness of contraception in the population and indicates the success of information, education, and communication (IEC) programs. In addition, knowledge of at least one method and a positive attitude toward contraception is a prerequisite for the use of contraception.

Information collected in the 2000 Ethiopia DHS on knowledge, behavior, and attitudes toward family planning methods, as well as exposure to media messages about family planning, is presented in this chapter. The levels and trends of ever use and current use of family planning are also discussed.

5.1 KNOWLEDGE OF CONTRACEPTION

The level of knowledge of contraception was measured in two ways. Respondents were first asked to mention all the methods of contraception that they had heard of. When a respondent failed to mention a particular method spontaneously, the interviewer described the method to see if the respondent recognized it. Thus, in the Ethiopia DHS, those who have ever heard of a contraceptive method include those who spontaneously report having heard of a method and those who acknowledge having heard about a method after probing.

Information was collected for eight modern methods—the pill, the IUD, injectables, implants, vaginal methods (including diaphragm, foam, jelly, or cream), condoms, and female and male sterilization—and two traditional methods—periodic abstinence and withdrawal. In addition, provision was made in the questionnaire to record any other methods mentioned spontaneously.

Table 5.1 shows the percentage of all women and men, currently married women and men, sexually active and inactive unmarried women and men, and women and men with no sexual experience, who have heard about specific contraceptive methods. Although the table presents findings for all married and unmarried women and men, this report pays particular attention to currently married women since they have the greatest level of exposure to the risk of pregnancy. Even though modern family planning in Ethiopia is a recent phenomenon, particularly in rural areas, knowledge of contraceptive methods is relatively high, with 82 percent of all women age 15-49 and 86 percent of all men age 15-59 knowing at least one method of family planning.

Knowledge is slightly higher among currently married women and men (86 and 92 percent, respectively) than among all women and men. In general, however, Ethiopian men are more likely to have heard of a contraceptive method than women. Among currently married women and men, for instance, men had higher levels of knowledge for all the methods, with the difference in knowledge being particularly higher for condoms and traditional methods.

The pill is the most widely known modern method, with 82 percent of currently married women and 85 percent of currently married men having heard of it. It is followed by injectables, which are known by seven in ten married women and men. Vaginal methods are the least recognized modern method, mentioned by 4 percent of currently married women and 6 percent of currently married men.

Table 5.1 Knowledge of contraceptive methods

Percentage of all women and men, of currently married women and men, of sexually active unmarried women and men, of sexually inactive unmarried women and men, and of women and men with no sexual experience who know any contraceptive method, by specific method, Ethiopia 2000

Contraceptive method	All women	Currently married women	Unmarried women: ever had sex		Unmarried women: never had sex	All men	Currently married men	Unmarried men: ever had sex		Unmarried men: never had sex
			Sexually active[1]	Not sexually active[2]				Sexually active[1]	Not sexually active[2]	
Any method	81.5	86.2	90.5	83.6	67.0	86.1	91.6	92.2	92.4	72.2
Any modern method	80.8	85.3	90.5	83.0	66.6	84.7	89.7	89.6	90.9	72.2
Pill	77.5	81.9	88.2	80.2	63.1	78.1	85.1	83.9	80.4	63.1
IUD	11.1	10.2	22.9	16.2	10.6	11.7	11.9	17.3	15.7	9.1
Injectables	65.3	69.6	84.9	69.2	50.1	62.2	70.4	54.6	66.2	45.8
Diaphragm/Foam/Jelly	4.4	3.6	10.5	5.7	5.4	7.5	5.6	13.6	10.1	9.5
Condom	33.0	29.2	68.9	42.3	36.6	64.7	66.6	78.4	73.9	56.0
Female sterilization	23.1	23.9	33.3	26.8	18.5	32.6	39.1	40.2	33.7	18.8
Male sterilization	4.8	4.7	9.0	5.5	4.4	12.6	12.8	18.0	15.8	10.2
Implants	13.6	13.2	30.9	17.8	11.4	13.9	15.2	22.8	12.2	11.1
Any traditional method	24.3	24.1	47.8	28.7	21.4	48.0	54.1	62.1	58.6	30.7
Periodic abstinence	21.8	21.5	45.4	25.6	19.3	44.2	50.3	57.3	52.6	27.7
Withdrawal	10.7	9.7	28.7	13.6	11.1	26.7	26.5	33.5	39.5	21.2
Other methods	1.5	1.7	0.2	2.0	0.6	2.6	3.1	2.4	2.8	1.7
Mean no. of methods known	2.7	2.7	4.2	3.0	2.3	3.6	3.9	4.2	4.0	2.7
Number	15,367	9,789	179	1,900	3,499	2,607	1,460	79	307	761

[1] Unmarried women/men who have had sexual intercourse in the one month preceding the survey
[2] Unmarried women/men who have ever had sexual intercourse but have *not* had sexual intercourse in the one month preceding the survey

Although men are more than twice as likely as women to report knowledge of traditional methods, in general, however, traditional methods are less widely known than modern methods by both women and men. Nearly one-fourth of currently married women and 54 percent of currently married men reported that they know of at least one traditional method. The most widely known traditional method is periodic abstinence, which is recognized by more than one-fifth of currently married women (22 percent) and half of currently married men. Withdrawal is not as well known, with only one in ten currently married women and one in four currently married men having heard of the method.

Table 5.2 presents the correspondence between the contraceptive knowledge of husbands and wives (1,355 couples) in the Ethiopia DHS. Knowledge of at least one method of contraception by both spouses is relatively high (82 percent). For couples in which only one partner knows of a method, husbands are more likely to know the method than their wives. Husbands are ten and seven times more likely than their wives to know of condoms and traditional methods, respectively.

Table 5.2 Couples' knowledge of contraceptive methods

Percent distribution of couples by contraceptive knowledge, according to specific methods, Ethiopia 2000

Background characteristic	Both know method	Husband knows method, wife doesn't	Wife knows method, husband doesn't	Neither knows method	Total
Any method	81.6	10.5	5.7	2.2	100.0
Any modern method	79.5	10.8	6.6	3.1	100.0
Pill	72.8	12.7	9.2	5.3	100.0
IUD	4.6	7.3	3.6	84.5	100.0
Injectables	56.0	15.1	14.8	14.1	100.0
Diaphragm/Foam/Jelly	1.3	3.9	1.7	93.1	100.0
Condom	24.2	42.5	4.2	29.1	100.0
Female sterilization	13.6	26.3	11.5	48.5	100.0
Male sterilization	1.6	11.4	2.7	84.2	100.0
Implants	5.8	9.0	6.8	78.3	100.0
Any traditional method	20.7	34.0	5.0	40.3	100.0
Periodic abstinence	17.9	32.7	4.4	45.0	100.0
Withdrawal	7.4	19.0	2.9	70.7	100.0
Other methods	0.0	3.0	1.5	95.5	100.0

Note: Table is based on 1,355 couples.

Table 5.3 shows the percentage of currently married respondents who know of at least one modern method of contraception according to background characteristics. With the exception of men in the youngest cohort, differentials in knowledge of a method by age are not very large. However, the difference by place of residence, region, and education is marked. Not surprisingly, the level of knowledge of modern methods among currently married women and men in urban areas is higher than in rural areas (98 percent versus 84 percent for women and 98 percent versus 88 percent for men). Knowledge of modern methods is almost universal among currently married women in Addis Ababa (99 percent) and Dire Dawa (95 percent), the most urbanized areas, while it is the lowest in the Affar and Somali regions, where less than 60 percent of currently married women in each region report knowledge of at least one modern method. Knowledge of modern methods among currently married men is relatively higher in the Harari and Tigray regions and in Addis Ababa and Dire Dawa.

Level of education is positively associated with knowledge of contraceptive methods. Knowledge of at least one modern method is universal among currently married women and men with secondary or higher education, and relatively lower among uneducated women and men (83 percent and 87 percent, respectively).

Table 5.3 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and men who know at least one contraceptive method and who know at least one modern method, by selected background characteristics, Ethiopia 2000

Background characteristic	Women			Men		
	Knows any method	Knows any modern method[1]	Number	Knows any method	Knows any modern method[1]	Number
Age						
15-19	80.5	80.0	862	71.4	71.4	7
20-24	85.4	84.1	1,807	91.4	88.4	76
25-29	87.9	87.0	2,051	92.0	91.4	222
30-34	89.0	88.2	1,572	91.7	89.8	228
35-39	89.5	89.2	1,441	94.9	94.2	284
40-44	85.5	84.3	1,096	91.1	90.0	171
45-49	80.0	79.3	961	89.6	88.3	192
50-54	NA	NA	NA	91.7	86.0	139
55-59	NA	NA	NA	88.8	84.4	142
Residence						
Urban	98.1	98.1	1,193	98.4	98.4	183
Rural	84.5	83.5	8,596	90.7	88.4	1,277
Region						
Tigray	94.0	93.8	627	96.6	95.7	75
Affar	59.9	59.6	125	62.7	60.8	21
Amhara	87.7	87.6	2,587	90.1	90.1	393
Oromiya	88.6	87.7	3,769	93.2	89.4	567
Somali	58.9	58.9	112	82.4	79.3	22
Benishangul-Gumuz	68.5	68.2	111	78.5	77.6	18
SNNP	80.3	77.9	2,133	92.3	90.7	316
Gambela	66.8	66.8	30	87.5	86.7	4
Harari	92.0	92.0	22	98.0	98.0	3
Addis Ababa	99.2	99.2	236	96.0	96.0	34
Dire Dawa	94.7	94.7	38	96.6	95.8	6
Education						
No education	84.1	83.1	8,121	89.0	86.5	895
Primary	94.9	94.7	1,161	94.5	92.9	397
Secondary and higher	99.9	99.6	507	98.6	98.6	169
Total	86.2	85.3	9,789	91.6	89.7	1,460

NA = Not applicable
[1] Pill, IUD, injectables, diaphragm/foam/jelly, condom, female sterilization, male sterilization, implants

5.2
EVER USE OF CONTRACEPTION

Respondents who reported that they had heard of a method of family planning were further asked whether they had ever used a method to avoid or delay pregnancy. Table 5.4 shows the percentage of all women, currently married women, and sexually active unmarried women who have ever used specific methods of contraception. Only 13 percent of all women and 17 percent of currently married women age 15-49 reported ever using a contraceptive method, in contrast to nearly one in two sexually active unmarried women. The corresponding numbers for modern methods are 11 percent, 14 percent, and 44 percent, respectively. Ever use of traditional methods is relatively low, with 5 percent of all women, 6 percent of currently married women, and 17 percent of sexually active unmarried women having ever used them.

Table 5.4 Ever use of contraception

Percentage of all women and men, of currently married women and men, and of sexually active unmarried women and men who have ever used a contraceptive method, by specific method and for women, by age, Ethiopia 2000

			Modern method								Traditional method			
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Diaphragm/ Foam/ Jelly	Condom	Female sterili-zation	Im-plant	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Number
ALL WOMEN (MEN)														
15-19	3.7	2.6	2.0	0.0	0.8	0.0	0.5	0.0	0.0	1.4	1.2	0.4	0.0	3,710
20-24	14.4	11.5	9.0	0.0	3.8	0.0	1.5	0.0	0.0	5.9	4.8	1.6	0.2	2,860
25-29	20.0	16.0	12.3	0.3	7.1	0.0	2.0	0.1	0.1	7.6	6.8	1.9	0.2	2,585
30-34	17.8	15.7	12.4	0.7	5.7	0.2	1.3	0.3	0.1	5.6	4.5	2.4	0.4	1,841
35-39	19.8	17.1	14.3	1.3	5.9	0.0	1.5	0.4	0.1	5.6	4.8	1.3	0.1	1,716
40-44	15.6	13.3	10.6	0.5	4.7	0.1	0.4	0.9	0.0	4.3	3.6	0.8	0.6	1,392
45-49	8.6	6.2	4.4	0.6	2.5	0.0	0.1	0.3	0.0	2.8	2.6	0.7	0.0	1,264
All ages: women	13.4	11.0	8.6	0.4	4.1	0.0	1.1	0.2	0.0	4.6	3.9	1.3	0.2	15,367
All ages: men	17.3	11.7	7.5	0.2	4.2	0.0	4.7	0.1	0.0	10.8	9.7	3.8	0.3	2,607
CURRENTLY MARRIED WOMEN (MEN)														
15-19	11.3	7.2	5.5	0.0	2.9	0.0	0.7	0.0	0.0	4.9	4.0	1.4	0.0	862
20-24	17.1	13.4	11.0	0.0	4.6	0.0	0.9	0.0	0.0	6.6	5.3	1.8	0.2	1,807
25-29	19.6	16.1	12.2	0.3	7.9	0.0	1.5	0.1	0.0	7.0	6.1	2.1	0.2	2,051
30-34	18.0	15.9	12.1	0.8	6.0	0.2	1.3	0.4	0.1	5.7	4.6	2.3	0.5	1,572
35-39	19.3	16.7	13.9	1.1	6.1	0.0	1.4	0.5	0.2	5.5	4.9	1.2	0.2	1,441
40-44	15.8	13.7	10.6	0.5	5.3	0.1	0.2	1.1	0.1	4.1	3.3	0.9	0.7	1,096
45-49	8.8	6.5	4.6	0.4	2.9	0.0	0.1	0.4	0.0	2.6	2.4	0.6	0.0	961
All ages: women	16.6	13.7	10.7	0.5	5.5	0.1	1.0	0.3	0.1	5.6	4.6	1.6	0.3	9,789
All ages: men	24.9	15.4	11.3	0.2	7.0	0.0	3.4	0.1	0.0	16.4	15.0	5.2	0.4	1,460
SEXUALLY ACTIVE UNMARRIED WOMEN (MEN)[1]														
15-19	(47.3)	(46.3)	(34.3)	(0.0)	(4.8)	(0.0)	(19.9)	(0.0)	(0.0)	(7.6)	(7.2)	(1.9)	(0.0)	43
20-24	63.3	52.1	26.9	0.0	9.7	0.0	22.7	0.0	0.0	33.4	32.6	5.0	0.0	45
25+	42.7	38.3	29.9	0.4	10.6	0.0	15.5	0.0	0.0	13.5	13.5	3.6	0.3	92
All ages: women	48.9	43.6	30.2	0.2	9.0	0.0	18.3	0.0	0.0	17.0	16.7	3.6	0.2	179
All ages: men	24.9	15.4	11.3	0.2	7.0	0.0	3.4	0.1	0.0	16.4	15.0	5.2	0.4	1,460

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Sexually active unmarried women (men) are those who have had sexual intercourse in the one month preceding the survey.

There is no significant difference in ever use of modern methods between married men and women, with 15 percent of currently married men age 15-59 having ever used a modern method. However, ever use of traditional methods is nearly three times higher among married men (16 percent) than among married women (6 percent). The difference in ever use of traditional methods is due to higher reporting of periodic abstinence by married men than women (15 percent versus 5 percent).

The most common ever-used modern method among currently married women and men is the pill (11 percent each), followed by injectables (6 percent and 7 percent, respectively). The most common ever-used traditional method among both currently married women and men is periodic abstinence.

Ever use of any method among currently married women rises from 11 percent among the youngest cohort to about 19 percent among women age 25-39 and falls thereafter to 16 percent among women age 40-44 and 9 percent among women age 45-49. The pill is the most commonly used method among women regardless of age group. Traditional methods fall in popularity at older ages.

5.3 Current Use of Contraceptive Methods

This section focuses on the levels, differentials, and trends in the current use of family planning methods. The contraceptive prevalence rate (CPR) for currently married women who are currently using a method of family planning is 8 percent for Ethiopia (Table 5.5). The CPR for modern methods is 6 percent, while only 2 percent of currently married women are using traditional methods (Figure 5.1).

There is a marked discrepancy between ever use and current use of family planning. Whereas 17 percent of married women have used a method of family planning at some time, only 8 percent are currently using a method. The difference between ever use and current use is highest for the pill, implying a high discontinuation among pill users. The level of current use of any method among currently married men is nearly twice (15 percent) that among women. The corresponding numbers for modern and traditional methods are 9 percent and 7 percent, respectively.

The most widely used modern methods among currently married women and men are injectables and pill (3 percent each among women and 4 percent each among men). Condom use was negligible (less than 1 percent) among both currently married women and men. Periodic abstinence is the most commonly practiced traditional method used by 2 percent and 6 percent of currently married women and men, respectively. Much of the male-female difference in current use is due to higher reporting of the use of traditional methods, especially periodic abstinence, by men (Figure 5.1).

Table 5.5 shows that current use is relatively high among sexually active unmarried women. Four in ten sexually active unmarried women reported that they are using a method, and more than one-third of them are using a modern method. The pill and condom are the most widely used modern methods among sexually active unmarried women and men, with 18 percent of women and 6 percent of men using the pill and 11 percent of women and 20 percent of men using the condom.

Current use varies by women's age and is lowest among currently married women age 15-19 and highest among women age 35-39. Use of modern methods is 8 percent among women age 25-39. The pill is the most popular method among women age 15-19 and 30-34, while injectables are most popular among women at all other age groups. Traditional methods, especially periodic abstinence, are most used by women age 35-39.

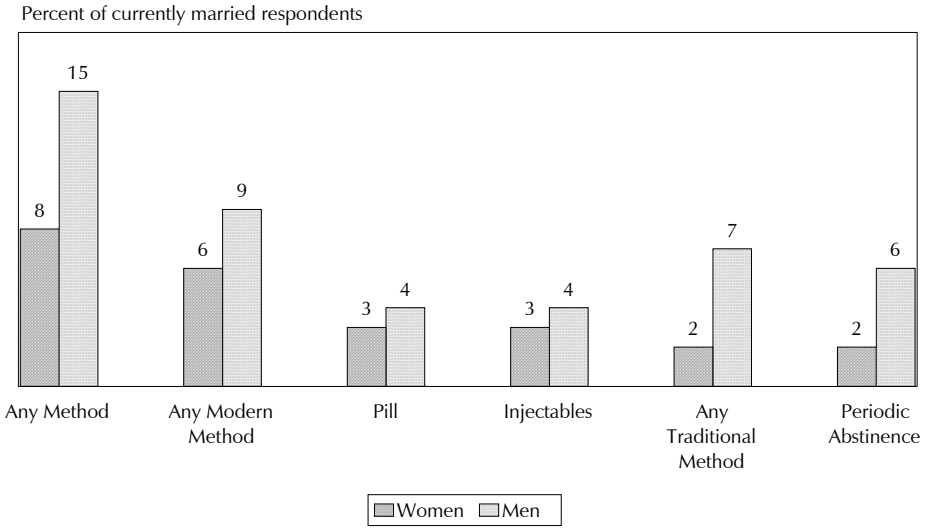
Table 5.5 Current use of contraception

Percentage of all women and men, currently married women and men, and sexually active unmarried women and men who are currently using a contraceptive method, by specific method and for women, by age, Ethiopia 2000

		Modern method							Traditional method						
Age	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-zation	Im-plant	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Not currently using	Total	Number
ALL WOMEN (MEN)															
15-19	1.5	1.3	0.7	0.0	0.3	0.3	0.0	0.0	0.2	0.2	0.0	0.0	98.5	100.0	3,710
20-24	6.0	4.3	1.7	0.0	1.9	0.7	0.0	0.0	1.7	1.4	0.2	0.1	94.0	100.0	2,860
25-29	9.0	7.4	2.8	0.1	3.8	0.7	0.1	0.0	1.6	1.2	0.2	0.1	91.0	100.0	2,585
30-34	8.1	7.3	3.7	0.3	2.7	0.3	0.3	0.0	0.9	0.7	0.1	0.0	91.9	100.0	1,841
35-39	9.7	7.1	2.7	0.1	3.3	0.4	0.4	0.1	2.6	2.4	0.1	0.1	90.3	100.0	1,716
40-44	6.4	5.3	1.7	0.1	2.4	0.1	0.9	0.0	1.2	0.9	0.2	0.0	93.6	100.0	1,392
45-49	3.5	2.3	0.4	0.0	1.4	0.1	0.3	0.0	1.2	1.0	0.2	0.0	96.5	100.0	1,264
All ages: women	5.9	4.7	1.9	0.1	2.1	0.4	0.2	0.0	1.2	1.0	0.1	0.1	94.1	100.0	15,367
All ages: men	10.8	6.9	2.7	0.1	2.3	1.7	0.1	0.0	3.8	3.4	0.3	0.1	89.2	100.0	2,607
CURRENTLY MARRIED WOMEN (MEN)															
15-19	3.9	3.0	1.8	0.0	1.2	0.0	0.0	0.0	0.8	0.8	0.0	0.0	96.1	100.0	862
20-24	7.5	5.4	2.3	0.0	2.6	0.5	0.0	0.0	2.0	1.7	0.3	0.1	92.5	100.0	1,807
25-29	9.6	7.8	2.7	0.1	4.4	0.4	0.1	0.0	1.8	1.4	0.3	0.2	90.4	100.0	2,051
30-34	9.0	8.0	4.1	0.3	3.1	0.1	0.4	0.0	1.0	0.8	0.1	0.1	91.0	100.0	1,572
35-39	10.9	7.8	2.9	0.2	3.6	0.4	0.5	0.1	3.1	2.8	0.1	0.2	89.1	100.0	1,441
40-44	7.9	6.6	2.2	0.1	3.1	0.1	1.1	0.0	1.3	1.1	0.3	0.0	92.1	100.0	1,096
45-49	4.1	2.5	0.4	0.0	1.6	0.0	0.4	0.0	1.6	1.3	0.3	0.0	95.9	100.0	961
All ages: women	8.1	6.3	2.5	0.1	3.1	0.3	0.3	0.0	1.7	1.5	0.2	0.1	91.9	100.0	9,789
All ages: men	15.3	8.8	4.0	0.1	4.1	0.5	0.1	0.0	6.5	5.8	0.6	0.1	84.7	100.0	1,460
SEXUALLY ACTIVE UNMARRIED WOMEN (MEN)[1]															
15-19	45.7	44.5	21.0	0.0	4.4	19.1	0.0	0.0	1.2	1.2	0.0	0.0	54.3	100.0	43
20-24	45.6	32.6	12.3	0.0	5.1	15.2	0.0	0.0	13.0	13.0	0.0	0.0	54.4	100.0	45
25+	36.3	33.2	19.2	0.0	8.0	6.0	0.0	0.0	3.1	2.5	0.3	0.3	63.7	100.0	92
All ages: women	40.8	35.7	17.9	0.0	6.4	11.4	0.0	0.0	5.1	4.8	0.2	0.2	59.2	100.0	180
All ages: men	28.0	27.1	6.4	0.0	0.9	19.8	0.0	0.0	1.0	1.0	0.0	0.0	72.0	100.0	79

Note: If more than one method is used, only the most effective method is considered in this table.
[1] Sexually active unmarried women (men) are those who have had sexual intercourse in the one month preceding the interview.

Figure 5.1 Current Use of Contraception by Sex



Ethiopia DHS 2000

There are marked differences in current use of contraception by background characteristics among currently married women (Table 5.6.1 and Figure 5.2). Currently married women in urban areas are nine times more likely to use a modern method and seven times more likely to use a traditional method than their rural counterparts. Use of modern methods is the highest among women in Addis Ababa (34 percent) and the lowest among women in the Somali Region (2 percent). Other urbanized areas, like Dire Dawa and Harari also have higher levels of current use of modern methods (24 percent and 19 percent, respectively).

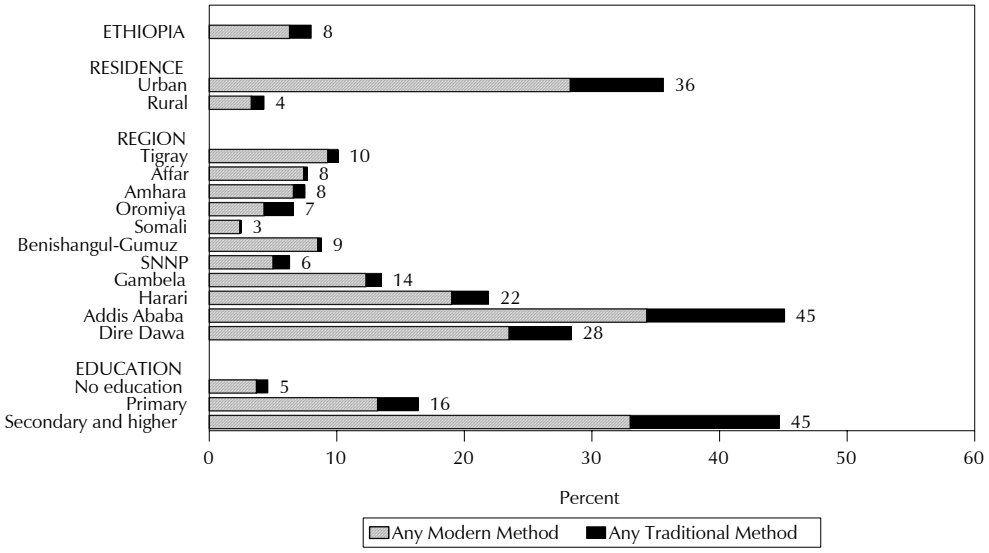
Table 5.6.1 Current use of contraception by background characteristics: women

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Ethiopia 2000

			Modern method						Traditional method						
Background characteristic	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-zation	Im-plant	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Not currently using	Total	Number
Residence															
Urban	35.6	28.3	9.6	1.0	14.1	2.0	1.4	0.2	7.3	6.3	0.6	0.4	64.4	100.0	1,193
Rural	4.3	3.3	1.5	0.0	1.5	0.0	0.2	0.0	1.0	0.8	0.1	0.0	95.7	100.0	8,596
Region															
Tigray	10.2	9.3	2.1	0.0	6.5	0.7	0.1	0.0	0.8	0.7	0.1	0.0	89.8	100.0	627
Affar	7.7	7.4	4.3	0.0	2.4	0.0	0.7	0.0	0.3	0.3	0.0	0.0	92.3	100.0	125
Amhara	7.5	6.6	3.0	0.0	3.4	0.0	0.2	0.1	0.8	0.7	0.0	0.2	92.5	100.0	2,587
Oromiya	6.6	4.3	1.9	0.1	1.6	0.4	0.3	0.0	2.3	2.0	0.3	0.0	93.4	100.0	3,769
Somali	2.6	2.4	1.3	0.1	0.4	0.5	0.3	0.0	0.1	0.1	0.0	0.0	97.4	100.0	112
Benishangul-Gumuz	8.7	8.5	2.2	0.0	5.7	0.0	0.6	0.0	0.3	0.0	0.1	0.1	91.3	100.0	111
SNNP	6.4	5.0	1.8	0.0	3.0	0.1	0.2	0.0	1.3	1.0	0.2	0.1	93.6	100.0	2,133
Gambela	13.5	12.3	7.7	0.0	4.2	0.0	0.4	0.0	1.2	1.2	0.0	0.0	86.5	100.0	30
Harari	22.0	19.0	8.1	0.7	7.3	1.7	0.2	1.0	2.9	1.9	0.5	0.6	78.0	100.0	22
Addis Ababa	45.2	34.3	12.7	3.5	12.7	1.5	3.1	0.8	10.8	8.3	1.5	1.0	54.8	100.0	236
Dire Dawa	28.4	23.5	8.7	2.1	10.3	1.2	0.2	1.0	4.9	4.4	0.4	0.2	71.6	100.0	38
Education															
No education	4.6	3.7	1.5	0.0	1.9	0.0	0.2	0.0	0.9	0.8	0.1	0.1	95.4	100.0	8,121
Primary	16.4	13.2	5.3	0.3	6.1	0.8	0.7	0.0	3.2	2.6	0.3	0.2	83.6	100.0	1,161
Secondary and higher	44.8	33.0	12.7	1.4	14.7	2.8	1.1	0.3	11.7	10.3	1.2	0.2	55.2	100.0	507
No. of living children															
0	4.4	3.1	1.9	0.0	0.6	0.6	0.0	0.0	1.3	1.2	0.0	0.0	95.6	100.0	1,092
1	6.5	5.5	2.4	0.1	2.2	0.4	0.4	0.1	1.0	0.9	0.1	0.0	93.5	100.0	1,572
2	8.3	6.2	2.6	0.2	3.1	0.1	0.2	0.0	2.0	1.7	0.2	0.1	91.7	100.0	1,593
3	10.4	8.6	3.9	0.1	4.3	0.1	0.2	0.0	1.8	1.3	0.4	0.0	89.6	100.0	1,413
4+	8.8	6.7	2.2	0.1	3.6	0.3	0.5	0.1	2.0	1.7	0.2	0.1	91.2	100.0	4,119
Total	8.1	6.3	2.5	0.1	3.1	0.3	0.3	0.0	1.7	1.5	0.2	0.1	91.9	100.0	9,789

Note: If more than one method is used, only the most effective method is considered in this table.

Figure 5.2 **Current Use of Contraceptives Among Currently Married Women Age 15-49**



Ethiopia DHS 2000

Education has a positive influence on women's contraceptive use, with use of modern methods increasing markedly with an increase in the level of education. The lowest level of use (4 percent) was observed among uneducated women and the highest among women with some secondary education (33 percent). In general, modern contraceptive use increases with an increase in the number of living children from 3 percent among women with no children to 9 percent among women with three children.

A similar pattern of contraceptive use by background characteristics was observed among currently married men (Table 5.6.2).

Table 5.6.2 Current use of contraception by background characteristics: men

Percent distribution of currently married men by contraceptive method currently used, according to background characteristics, Ethiopia 2000

			Modern method							Traditional method					
Background characteristic	Any method	Any modern method	Pill	IUD	Inject-ables	Condom	Female sterili-zation	Im-plant	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Not currently using	Total	Number
Residence															
Urban	47.2	35.5	14.6	0.9	16.3	3.7	0.0	0.0	11.7	9.5	2.0	0.2	52.8	100.0	183
Rural	10.7	5.0	2.5	0.0	2.3	0.0	0.2	0.0	5.7	5.2	0.4	0.1	89.3	100.0	1,277
Region															
Tigray	14.8	10.3	2.3	0.0	7.0	0.9	0.0	0.0	4.5	2.6	2.0	0.0	85.2	100.0	75
Affar	9.3	4.8	2.0	0.0	2.8	0.0	0.0	0.0	4.5	1.9	2.7	0.0	90.7	100.0	21
Amhara	8.4	7.6	2.9	0.0	4.6	0.0	0.0	0.0	0.8	0.4	0.0	0.4	91.6	100.0	393
Oromiya	19.8	8.8	4.3	0.0	3.3	0.9	0.4	0.0	10.9	10.2	0.7	0.0	80.2	100.0	567
Somali	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.0	0.0	98.4	100.0	22
Benishangul-Gumuz	9.5	7.9	1.6	0.0	6.3	0.0	0.0	0.0	1.6	0.9	0.0	0.7	90.5	100.0	18
SNNP	13.4	7.8	4.4	0.0	3.4	0.0	0.0	0.0	5.6	4.9	0.6	0.0	86.6	100.0	316
Gambela	18.7	15.9	6.3	0.0	8.2	1.3	0.0	0.0	2.8	2.5	0.0	0.3	81.3	100.0	4
Harari	26.2	24.6	7.9	0.0	7.9	5.9	0.0	2.9	1.6	1.6	0.0	0.0	73.8	100.0	3
Addis Ababa	50.4	31.6	14.2	4.8	10.9	1.8	0.0	0.0	18.8	17.0	1.0	0.8	49.6	100.0	34
Dire Dawa	37.5	31.2	15.6	0.0	11.8	3.8	0.0	0.0	6.2	5.4	0.0	0.8	62.5	100.0	6
Education															
No education	7.5	3.8	1.7	0.0	1.9	0.0	0.2	0.0	3.7	3.4	0.3	0.0	92.5	100.0	895
Primary	17.6	10.3	5.1	0.1	4.8	0.3	0.0	0.0	7.3	6.8	0.0	0.5	82.4	100.0	397
Secondary and higher	51.3	32.0	13.6	0.7	14.2	3.5	0.0	0.0	19.3	15.8	3.4	0.0	48.7	100.0	169
No. of living children															
0	6.9	6.6	3.8	0.0	2.5	0.3	0.0	0.0	0.4	0.4	0.0	0.0	93.1	100.0	111
1	19.8	10.6	5.3	0.0	5.0	0.4	0.0	0.0	9.1	8.0	1.0	0.1	80.2	100.0	194
2	18.2	12.6	4.5	0.3	5.5	2.3	0.0	0.0	5.5	4.4	0.5	0.7	81.8	100.0	224
3	16.2	8.7	3.6	0.3	4.8	0.0	0.0	0.0	7.5	6.6	0.9	0.0	83.8	100.0	219
4+	14.2	7.5	3.6	0.1	3.4	0.1	0.3	0.0	6.7	6.2	0.5	0.0	85.8	100.0	712
Total	15.3	8.8	4.0	0.1	4.1	0.5	0.1	0.0	6.5	5.8	0.6	0.1	84.7	100.0	1,460

Note: If more than one method is used, only the most effective method is considered in this table.

5.4 KNOWLEDGE OF FERTILE PERIOD

A basic knowledge of the physiology of reproduction is especially useful for the successful practice of coitus-related methods such as periodic abstinence. All women in the Ethiopia DHS were asked about their knowledge of a woman's fertile period. The results are presented in Table 5.7 for users and nonusers of periodic abstinence. More than one in two users of periodic abstinence correctly stated that a woman is most likely to become pregnant halfway between two periods. However, a sizable proportion (37 percent) also state that a woman is most vulnerable to pregnancy right after her period has ended. It is also disconcerting to note that nearly a third of women did not know when a woman is most susceptible to becoming pregnant, indicating that there is still much scope for educating women on their physiology.

Table 5.7 Knowledge of fertile period

Percent distribution of women who use periodic abstinence, of women who do not use periodic abstinence, and of all women, by knowledge of the fertile period during the ovulatory cycle, Ethiopia 2000

Perceived fertile period	Users of periodic abstinence	Nonusers of periodic abstinence	All women
During her period	3.2	1.2	1.2
Right after her period has ended	37.2	29.6	29.7
Halfway between two periods	53.3	12.2	12.6
Just before her period begins	1.3	3.0	3.0
No specific time	2.9	23.4	23.2
Don't know	2.2	30.6	30.3
Total	100.0	100.0	100.0
Number	160	15,207	15,367

5.5 TRENDS IN CONTRACEPTIVE USE

The contraceptive prevalence rate among currently married women in Ethiopia has increased over the last decade from 5 percent in 1990 (NFFS, 1993) to 8 percent in 2000 (Table 5.8). The use of modern contraceptive methods doubled from 3 percent in 1990 to 6 percent in 2000. There was also an increase in the use of periodic abstinence in the last ten years from less than 1 percent to nearly 2 percent.

Much of the increase in the use of modern methods over the last decade is attributable to the increase in the use of injectables from virtually nil in 1990 to 3 percent in 2000. The changes in the other methods, however, are negligible.

Table 5.8 Trends in current use of contraception

Percentage of currently married women who are currently using a contraceptive method, Ethiopia 1990-2000

Contraceptive method	1990 NFFS[1]	2000 Ethiopia DHS
Any method	4.8	8.1
Any modern method	2.9	6.3
Pill	2.2	2.5
IUD	0.3	0.1
Injectables	0.0	3.1
Condom	0.1	0.3
Female sterilization	0.3	0.3
Any traditional method	1.9	1.7
Periodic abstinence	0.5	1.5
Withdrawal	0.1	0.2
Sexual abstinence[2]	1.2	NA
Number	5,048	9,789

NA = Not applicable
[1] CSA, 1993
[2] Sexual abstinence was included as a method of contraception in the 1990 NFFS.

5.6 USE OF SOCIAL MARKETING BRANDS

In the Ethiopia DHS, current users of the pill and condom were asked for the brand of pills and condoms they last used. This information is useful in monitoring the success of social marketing programs that promote a specific brand. In Ethiopia, "Prudence" and "Choice" are the two brands of the pill and "Hiwot" the brand of condom, which are socially marketed.

"Prudence" is used by 13 percent of pill users, while "Choice" is used by only 2 percent of women (Table 5.9). The most popular brand, however, is "Microgynon," a brand that is not socially marketed, which is used by more than two in five pill users.

Condom use is very low in Ethiopia; nevertheless, the majority of men who use condoms (56 percent) used "Hiwot," indicating that social marketing is playing an important role in encouraging condom use in the country (Table 5.10). Another 15 percent of men used "Sensation," a brand that is no longer being promoted through the social marketing program.

Table 5.9 Pill brands

Percentage of respondents currently using the pill by brand used, Ethiopia 2000

Pill brand	Pill users
Microgynon	42.6
Lo-Feminol	15.2
Excluton	2.2
Neogynon	8.0
Nordette	2.3
Prudence	13.3
Choice	1.8
Other	4.7
Don't know/missing	9.9
Total	100.0
Number	289

Table 5.10 Condom brands

Percentage of men currently using condoms by brand used, Ethiopia 2000

Pill brand	Condom users
Hiwot	56.3
Sensation	15.3
Durex	1.5
Rose	0.6
Other	5.0
Don't know	21.2
Total	100.0
Number	45

5.7 Decision on Use of Contraceptives

The Ethiopia DHS asked women who were currently using a method about the primary decisionmaker in their use of contraception. This could shed some light on the degree of autonomy women exercise over their reproductive behavior. Less than one in four women stated that using contraception was mainly their decision alone, two-thirds stated that using contraception was mainly a joint decision with their husband or partner, and one in ten mentioned the husband or partner as the principal decisionmaker (Table 5.11).

The table also shows that the majority of women in both urban and rural areas state that both they and their husband or partner jointly made the decision to use a contraceptive method. Surprisingly, rural women are more likely than urban women to make an independent decision on current use (29 percent versus 19 percent). Two in five women residing in the Gambela Region mentioned that their current use of contraception was mainly their own decision. On the other hand, four in five women in the more urbanized areas of Addis Ababa, Dire Dawa, and the Harari Region make contraceptive-use decisions jointly with their husband or partner. Women with some education are more likely than women with no education to make a joint decision with their husband or partner about current contraceptive use. In contrast, women with no education are more likely to make an independent decision on contraceptive use when compared with women who have some education.

Table 5.11 Decision on use of contraceptives

Percent distribution of women currently using a contraceptive by person who mainly decided on contraceptive use, according to background characteristics, Ethiopia 2000

Background characteristic	Main decisionmaker on current use of contraceptive method: Respondent	Husband/ partner	Jointly	Missing	Total	Number
Age						
15-19	20.3	19.2	60.5	0.0	100.0	34
20-24	23.9	3.8	72.2	0.0	100.0	135
25-29	28.1	7.0	63.7	1.3	100.0	198
30-34	23.7	13.5	62.8	0.0	100.0	141
35-39	18.5	10.4	68.6	2.6	100.0	157
40-44	17.5	15.5	67.0	0.0	100.0	87
45-49	(36.6)	(7.4)	(56.0)	(0.0)	100.0	40
Residence						
Urban	19.4	8.8	71.2	0.7	100.0	425
Rural	28.5	10.9	59.5	1.1	100.0	366
Region						
Tigray	28.4	7.2	63.3	1.1	100.0	64
Affar	(28.1)	(17.7)	(54.2)	(0.0)	100.0	10
Amhara	23.2	7.7	67.0	2.1	100.0	194
Oromiya	25.9	15.8	58.3	0.0	100.0	250
Somali	*	*	*	*	100.0	3
Benishangul-Gumuz	24.2	16.4	59.4	0.0	100.0	10
SNNP	23.1	9.3	66.4	1.2	100.0	136
Gambela	42.8	10.6	45.0	1.6	100.0	4
Harari	12.6	4.9	82.5	0.0	100.0	5
Addis Ababa	16.7	1.3	82.0	0.0	100.0	106
Dire Dawa	15.4	2.8	81.8	0.0	100.0	11
Education						
No education	26.5	11.8	60.8	0.9	100.0	373
Primary	20.7	6.8	72.1	0.4	100.0	191
Secondary and higher	21.3	8.8	68.6	1.2	100.0	227
Total	23.6	9.8	65.8	0.8	100.0	791

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.

5.8 Number of Children at First Use of Family Planning

Family planning methods may be used for either spacing or limiting births to avoid mistimed or unwanted pregnancies. The 2000 Ethiopia DHS included questions on the number of living children a woman had when she first used contraception. Table 5.12 shows the percent distribution of women who have ever used contraception by age group and the number of living children at first use of contraception.

Younger women report first use of contraception at lower parities than older women. Contraceptive use among women with no living children, for instance, is more than seven times for those age 20-24 than among those age 35-39 years, suggesting a shift toward the early use of contraception and the desire to delay childbearing among Ethiopian women. From another perspective, the oldest cohorts (age 40-49) of ever-married women report first use after they had a median of 4.3 to 4.9 living children, compared with less than 1 living child among the younger cohorts (under age 30).

Table 5.12 Number of children at first use of contraception

Percent distribution of women who have ever used contraception by number of living children at the time of first use of contraception and median number of children at first use, according to current age, Ethiopia 2000

Current age	Number of living children at time of first use of contraception						Total	Number	Median number of children at first use of contra-ception
	0	1	2	3	4+	Missing			
15-19	73.1	23.3	3.5	0.0	0.0	0.0	100.0	137	0.0
20-24	42.0	38.0	17.5	2.4	0.0	0.0	100.0	410	0.2
25-29	29.8	26.8	19.9	13.5	8.6	1.5	100.0	518	0.7
30-34	12.6	20.2	18.7	18.0	30.5	0.0	100.0	327	1.9
35-39	5.9	14.7	20.7	16.2	42.5	0.0	100.0	340	2.5
40-44	5.5	8.9	10.3	11.4	64.0	0.0	100.0	216	4.3
45-49	2.9	4.6	11.4	14.2	65.3	1.5	100.0	108	4.9
Total	24.5	22.7	16.8	11.4	24.2	0.5	100.0	2,056	1.2

5.9 SOURCE OF FAMILY PLANNING METHODS

Information on sources of modern contraceptives is useful for family planning managers and implementers. Women who reported using a modern method of contraception at the time of the survey were asked where they obtained the method the last time. To ensure accuracy in reporting, supervisors and editors were asked to verify the source from the written response.

Table 5.13 shows that more than three-fourths of current users (78 percent) obtain methods from the public sector, 16 percent from the private medical sector, and 6 percent from other private sources. The most important source of contraceptives in the public sector is the government health center, providing methods to 36 percent of women. The public sector is the leading source of injectables and the pill, distributed mainly through government health centers (50 percent and 32 percent, respectively). Rural health centers also play a major role in distributing contraceptives, used by more than one in four users of modern methods. Female sterilization is mainly performed in government hospitals (85 percent), while two in five condom users get their supply from other private sources, predominantly shops (23 percent).

Women who were currently using a method were also asked to estimate the time taken to reach the place they last obtained contraceptives. Table 5.14 shows the time taken to source by users of the pill, injectables, and condoms,[1] by place of residence and region. On average, condom users take the least time to access their source (10 minutes), while pill and injectable users take about half an hour. As expected, urban users are generally closer to their source of contraceptives than rural users, with rural users taking twice as long as urban users to reach their source. Injectables are least accessible in rural areas with users taking nearly one and a half hours to their source. Women residing in the Amhara Region take the longest time to reach their source. On average, it takes about half an hour to reach a source of contraceptives among women living in Addis Ababa and Dire Dawa, where the population is more urbanized.

[1] A statistically meaningful breakdown could not be obtained for the IUD, vaginal methods, and male and female sterilization due to the small numbers of users.

Table 5.13 Source of contraception

Percent distribution of women currently using modern contraceptive methods by most recent source, according to specific methods, Ethiopia 2000

Source of supply	Pill	IUD	Inject-ables	Condom	Female sterili-zation	Total[1]
Public sector	71.8	(44.7)	91.9	32.0	85.8	77.5
Government hospital	5.9	(36.6)	10.4	0.9	84.9	11.8
Government health centre	32.3	(7.7)	49.5	4.2	1.0	35.6
Rural health centre	26.1	(0.0)	31.4	18.0	0.0	26.0
Other public[2]	7.5	(0.4)	0.6	8.9	0.0	4.1
Private medical sector	21.5	(55.3)	8.0	18.0	14.2	15.5
Private doctor/clinic/hospital	2.7	(15.1)	0.5	3.3	1.9	1.9
Pharmacy	11.9	(0.0)	1.6	14.2	0.0	6.7
NGO	6.8	(40.2)	6.0	0.5	12.3	6.9
Other private	5.6	(0.0)	0.1	41.3	0.0	5.8
Drug vendor	0.8	(0.0)	0.0	0.1	0.0	0.3
Shop	1.7	(0.0)	0.0	22.9	0.0	2.6
Friends/relatives	1.6	(0.0)	0.0	7.3	0.0	1.3
Other	1.5	(0.0)	0.1	10.9	0.0	1.6
Did not consult	0.1	(0.0)	0.0	2.3	0.0	0.3
Don't know/Missing	1.0	(0.0)	0.0	6.4	0.0	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	289	12	321	61	33	720

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes 4 users of implants who are not shown separately
[2] Includes health post and community-based outlets

Table 5.14 Time taken to reach source of contraception

Median time (minutes) taken by women to reach source of modern contraceptive methods, by background characteristics, Ethiopia 2000

Background characteristic	Time (minutes) to method source			
	Pill	Inject-ables	Condom	Total
Residence				
Urban	29.1	29.4	10.0	29.2
Rural	59.3	89.6	9.8	59.9
Region				
Tigray	39.1	44.5	9.4	39.5
Affar	29.6	44.1	19.2	29.6
Amhara	29.8	59.6	*	59.1
Oromiya	29.5	29.7	14.2	29.5
Somali	14.6	30.0	14.0	14.6
Benishangul-Gumuz	19.6	29.8	5.0	29.3
SNNP	29.8	29.7	19.8	29.7
Gambela	29.5	39.6	4.5	29.6
Harari	14.7	30.0	14.4	29.1
Addis Ababa	29.2	29.5	9.3	29.3
Dire Dawa	29.3	29.3	5.0	29.2
Total	29.6	39.0	10.0	29.7

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

5.10 INTENTION TO USE FAMILY PLANNING AMONG NONUSERS

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception plan to use family planning in the future. Currently married respondents, who were not using contraception at the time of the survey were asked whether they intend to use family planning methods in the future. The results are presented in Table 5.15.

Nearly half (46 percent) of currently married women who were not using any contraception at the time of the survey said that they intend to use family planning methods at some time in the future. More than half of them (53 percent) say they do not intend to use, while 2 percent are unsure of their intentions to use. Men are slightly more likely than women to indicate intention to use in the future (48 percent versus 46 percent). Women with less than four children are more likely than men to say they do not intend to use in the future; however, the reverse is true at parity four and above.

Table 5.15 Future use of contraception

Percent distribution of currently married women and men who are not using a contraceptive method by intention to use in the future, according to number of living children, Ethiopia 2000

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
			WOMEN			
Intends to use	36.6	49.5	45.8	47.3	45.4	45.7
Does not intend to use	60.9	48.9	53.2	51.8	52.8	52.8
Unsure	2.4	1.6	0.9	0.9	1.7	1.5
Missing	0.0	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	754	1,469	1,525	1,283	3,967	8,998
			MEN			
Intends to use	47.0	52.1	54.8	53.1	44.3	48.3
Does not intend to use	53.0	46.3	45.2	43.8	55.1	50.7
Unsure	0.0	0.0	0.0	3.1	0.6	0.8
Missing	0.0	1.6	0.0	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	85	126	186	196	643	1,237

[1] Includes current pregnancy

5.11 REASONS FOR NONUSE

An understanding of the reasons that people do not like to use family planning methods is critical in designing programs that could improve the quality of services. Table 5.16 presents the main reasons for not intending to use family planning as given by currently married nonusers who do not intend to use a contraceptive method in the future. Desire for more children was the most common reason for not intending to use contraception in the future for both men and women, cited by 42 percent of women and 65 percent of men.

Table 5.16 Reason for not intending to use contraception

Percent distribution of currently married women and men who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Ethiopia 2000

	Women			Men		
	Age			Age		
Reason	15-29	30-49	All ages	15-29	30-49	All ages
Wants children	50.7	35.4	41.8	86.7	60.6	64.7
Side effects	2.4	2.5	2.5	1.7	1.2	1.3
Health concerns	7.5	8.8	8.3	2.5	2.0	2.1
Lack of knowledge	10.7	5.9	7.9	0.4	2.8	2.4
Access/availability	2.6	1.6	2.0	0.0	0.7	0.6
Cost	0.1	0.2	0.1	0.0	0.0	0.0
Religious prohibition	8.4	6.9	7.6	2.4	6.4	5.7
Opposed to family planning	8.3	6.4	7.2	2.4	1.0	1.2
Husband opposed	3.9	2.6	3.2	0.0	0.0	0.0
Others opposed	0.0	0.0	0.0	0.0	0.3	0.2
Infrequent sex/no sex	0.6	2.2	1.5	0.0	0.4	0.4
Difficult to get pregnant	0.7	11.0	6.7	0.0	11.2	9.4
Menopausal/hysterectomy	0.0	12.8	7.4	0.0	7.2	6.1
Inconvenient	0.1	0.2	0.2	0.0	0.0	0.0
Other reasons	3.0	2.4	2.6	1.7	5.0	4.5
Don't know	0.9	1.0	0.9	2.1	1.3	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,995	2,753	4,748	98	530	628

A sizable proportion of women cited opposition to contraceptive use (by self or partner) and health concerns as the main reason for not intending to use (10 percent and 8 percent, respectively). Religious prohibition was cited by 8 percent of female and 6 percent of male nonusers as a reason for not intending to use in the future.

The reported reasons for nonuse differ somewhat by age of respondents. Younger women under age 30 are more likely to cite lack of knowledge of methods than older women age 30-49 (11 percent versus 6 percent). They are also more likely to say that desire for another child is why they do not intend to use. On the other hand, almost one-fourth of women age 30-49 cited reasons that are related to infecundity and menopause. Nearly one in five men age 30 and above also cited infecundity or wife's menopause as the main reason for not intending to use in the future.

Table 5.17 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, Ethiopia 2000

Preferred method	Intend to use later
Pill	37.9
IUD	0.1
Injectables	45.9
Condom	0.1
Female steriliation	0.3
Implants	5.1
Periodic abstinence	1.1
Withdrawal	0.0
Other	1.5
Don't know/Missing	8.0
Total	100.0
Number	4,112

5.12 Preferred Methods of Contraception for Future Use

Future demand for specific methods of family planning can be assessed by asking nonusers who intend to use in the future which methods they prefer to use. Table 5.17 presents information on method preference among currently married women who are not using a contraceptive method but who say they intend to use in the future.

The majority (46 percent) of women who intend to use in the future preferred injectables, followed by the pill (38 percent). Surprisingly, implants, which are not widely known among Ethiopian women (see Table 5.1), were cited by 5 percent of the women as the preferred method. This may reflect a preference of Ethiopian women for long-lasting and effective methods.

5.13 Exposure to Family Planning Messages

The electronic media, such as radio and television, are vehicles for the communication of ideas related to the advantages of family planning. Information on the level of exposure to such media is important for programmers and planners to effectively target population subgroups for information, education, and communication campaigns. In the Ethiopia DHS, both female and male respondents were asked whether they had heard any family planning messages on the radio or seen them on television in the few months preceding the interview.

Tables 5.18.1 and 5.18.2 show that the level of exposure to family planning messages through the electronic media is very low in Ethiopia. This is because access to mass media is generally very low in Ethiopia, with only 21 percent of all households owning a radio and 2 percent owning a television (see Table 2.7).

Table 5.18.1 Exposure to family planning messages on radio and television: women

Percent distribution of women by whether or not they have heard a radio or television message about family planning in the last few months prior to the interview, according to background characteristics, Ethiopia 2000

Background characteristic	Heard family planning message on radio/television					Total	Number
	Both	Radio only	Tele-vision only	Neither	Missing		
Age							
15-19	4.5	12.8	0.7	82.0	0.0	100.0	3,710
20-24	4.2	14.3	0.4	81.1	0.0	100.0	2,860
25-29	4.6	14.5	0.6	80.3	0.1	100.0	2,585
30-34	3.2	11.5	0.2	84.9	0.2	100.0	1,841
35-39	3.0	13.3	0.4	83.3	0.0	100.0	1,716
40-44	2.7	9.0	0.5	87.9	0.0	100.0	1,392
45-49	1.3	9.6	0.4	88.8	0.0	100.0	1,264
Residence							
Urban	18.3	29.6	2.1	49.9	0.1	100.0	2,791
Rural	0.5	8.9	0.1	90.5	0.0	100.0	12,576
Region							
Tigray	4.5	20.0	0.8	74.7	0.0	100.0	969
Affar	4.7	12.8	0.4	81.9	0.1	100.0	178
Amhara	2.1	9.0	0.2	88.6	0.0	100.0	3,820
Oromiya	2.5	12.5	0.3	84.7	0.0	100.0	5,937
Somali	5.2	18.7	0.0	76.1	0.0	100.0	175
Benishangul-Gumuz	1.4	13.1	0.0	85.4	0.0	100.0	160
SNNP	1.7	11.4	0.2	86.6	0.1	100.0	3,285
Gambela	5.5	11.7	0.2	82.5	0.0	100.0	40
Harari	18.0	19.0	1.8	61.2	0.1	100.0	41
Addis Ababa	27.8	27.7	4.0	40.4	0.0	100.0	684
Dire Dawa	25.2	15.9	3.8	55.1	0.0	100.0	79
Education							
No education	0.7	8.0	0.2	91.0	0.1	100.0	11,551
Primary	4.6	21.1	0.6	73.7	0.0	100.0	2,425
Secondary and higher	27.1	36.8	2.1	34.0	0.0	100.0	1,391
Total	3.7	12.6	0.5	83.1	0.0	100.0	15,367

Table 5.18.2 Exposure to family planning messages on radio and television: men

Percent distribution of men by whether or not they have heard a radio or television message about family planning in the last few months prior to the interview, according to background characteristics, Ethiopia 2000

Background characteristic	Heard family planning message on radio/television					Total	Number
	Both	Radio only	Tele-vision only	Neither	Missing		
Age							
15-19	8.5	16.3	0.8	74.4	0.0	100.0	600
20-24	7.5	18.7	0.2	73.7	0.0	100.0	408
25-29	8.6	28.0	0.3	62.1	1.0	100.0	343
30-34	10.0	25.6	0.9	62.8	0.7	100.0	276
35-39	7.9	27.0	0.1	64.9	0.0	100.0	304
40-44	6.2	26.6	0.4	66.8	0.0	100.0	182
45-49	1.2	19.4	1.2	78.2	0.0	100.0	207
50-54	4.7	18.9	0.0	76.4	0.0	100.0	142
55-59	8.1	9.8	0.0	82.1	0.0	100.0	146
Residence							
Urban	34.5	33.2	2.0	30.2	0.0	100.0	379
Rural	2.9	19.1	0.2	77.5	0.2	100.0	2,228
Region							
Tigray	14.1	31.9	0.8	53.2	0.0	100.0	136
Affar	12.4	18.0	0.0	69.6	0.0	100.0	34
Amhara	5.8	9.8	0.3	84.1	0.0	100.0	630
Oromiya	6.0	25.6	0.2	67.8	0.4	100.0	1,054
Somali	15.5	10.0	0.4	74.2	0.0	100.0	36
Benishangul-Gumuz	3.5	20.0	0.0	76.5	0.0	100.0	31
SNNP	3.3	23.6	0.2	72.6	0.3	100.0	566
Gambela	12.8	24.0	1.9	61.3	0.0	100.0	7
Harari	26.6	16.2	3.8	53.3	0.0	100.0	7
Addis Ababa	40.8	24.6	5.0	29.6	0.0	100.0	95
Dire Dawa	40.8	18.2	3.8	37.2	0.0	100.0	12
Education							
No education	1.8	12.7	0.3	85.1	0.1	100.0	1,358
Primary	6.2	26.7	0.4	66.3	0.4	100.0	860
Secondary and higher	30.4	38.5	1.4	29.8	0.0	100.0	388
Total	7.5	21.2	0.5	70.6	0.2	100.0	2,607

Only 17 percent of women and 29 percent of men reported that they had heard or seen a family planning message on the radio or television or both during the few months prior to the interview. Radio is by far the more important of the two media, with only 4 percent of women and 8 percent of men having seen a family planning message on television.

A sharp contrast in access to family planning messages is observed between urban and rural residents. More than 90 percent of rural women and three-fourths of rural men have not heard a family planning message through the electronic media in the few months prior to the survey, compared with half of urban women and 30 percent of urban men.

The proportion of respondents who have been exposed to family planning messages on the radio or television varies across regions. Exposure to the electronic media is higher in Addis Ababa, where 60 percent of women and 70 percent of men had heard or seen family planning messages on either the radio or television; whereas in the Amhara Region, the corresponding numbers were only 11 and 16 percent, respectively. In fact, the level of exposure to family planning messages is very low in most of the regions where more than eight out of ten women have not heard any messages on either the radio or television.

Education of respondents is closely correlated with media exposure. Ninety-one percent of women and 85 percent of men with no formal education had neither heard nor seen family planning messages on the radio or television. Conversely, among women and men with some secondary education, only 34 percent of the women and 30 percent of the men were not exposed to family planning messages on radio or television.

5.14 Exposure to Family Planning Messages through the Print Media

The survey also collected information on respondents' exposure to family planning messages through the print media. Female respondents were asked whether they had been exposed to family planning messages through newspaper or magazine articles, posters, or leaflets during the few months prior to the interview. The results are presented in Table 5.19.

Only 6 percent of women reported that they had been exposed to family planning messages through the print media. Exposure was relatively higher (8 percent) among the youngest cohort of women and declines consistently with age to 2 percent among the oldest cohort of women. There is also a marked difference in exposure to the print media by place of residence. Women residing in urban areas were about ten times more likely to have been exposed than their rural counterparts.

As expected, women living in Addis Ababa and Dire Dawa are more likely to have seen family planning messages in the print media than women in the other regions. It is also worth mentioning that women living in the Tigray Region have an exceptionally high level of exposure (19 percent). In most of the regions, however, the level of exposure to such media ranges from just 3 to 6 percent.

Table 5.19 Exposure to family planning messages in print media

Percent distribution of women by whether they saw a message about family planning in the print media (newspaper or magazine) in the last few months prior to the interview, according to background characteristics, Ethiopia 2000

Background characteristic	Saw family planning message in print media		Total	Number
	Yes	No		
Age				
15-19	7.6	92.4	100.0	3,710
20-24	6.7	93.3	100.0	2,860
25-29	6.5	93.5	100.0	2,585
30-34	5.2	94.8	100.0	1,841
35-39	4.3	95.7	100.0	1,716
40-44	3.0	97.0	100.0	1,392
45-49	1.7	98.3	100.0	1,264
Residence				
Urban	22.6	77.4	100.0	2,791
Rural	1.9	98.1	100.0	12,576
Region				
Tigray	18.9	81.1	100.0	969
Affar	4.0	96.0	100.0	178
Amhara	3.4	96.6	100.0	3,820
Oromiya	3.2	96.8	100.0	5,937
Somali	6.4	93.6	100.0	175
Benishangul-Gumuz	3.9	96.1	100.0	160
SNNP	3.9	96.1	100.0	3,285
Gambela	10.8	89.2	100.0	40
Harari	13.1	86.9	100.0	41
Addis Ababa	28.6	71.4	100.0	684
Dire Dawa	19.1	80.9	100.0	79
Education				
No education	1.1	98.9	100.0	11,551
Primary	8.1	91.9	100.0	2,425
Secondary and higher	39.8	60.2	100.0	1,391
Total	5.7	94.3	100.0	15,367

Unlike the electronic media, exposure to print media requires a threshold of education, and hence, education has a strong relationship with exposure to the print media. Exposure to family planning messages through the print media increases from a low of 1 percent among women with no formal education to 40 percent among women with some secondary education.

5.15 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

Family planning fieldworkers usually are expected to visit households to contact nonusers and discuss the options and, if encouraged, motivate them to adopt a method of family planning. To assess the extent of coverage of such visits, women were asked whether they had been visited by a family planning fieldworker during the 12 months preceding the survey and whether the fieldworker had discussed family planning methods. Table 5.20 shows that a fieldworker visited and discussed family planning with less than 1 percent of nonusers during the 12 months preceding the survey.

Table 5.20 Contact of nonusers with family planning providers

Percentage of women who are not using contraception who were visited by a fieldworker who discussed family planning, who visited a health facility and discussed family planning, and who visited a health facility but did not discuss family planning, in the 12 months preceding the survey, by background characteristics, Ethiopia 2000

Background characteristic	Women who were visited by a fieldworker who discussed family planning	Women who visited a health facility and discussed family planning	Women who visited a health facility and did not discuss family planning	Neither visited by a field-worker nor discussed family planning at health facility	Number
Age					
15-19	0.0	2.4	16.9	97.1	3,655
20-24	0.1	7.7	29.8	91.4	2,688
25-29	0.6	10.5	33.1	88.3	2,352
30-34	1.1	10.1	30.5	88.1	1,691
35-39	0.2	11.0	29.8	87.4	1,550
40-44	0.6	9.0	28.2	89.6	1,302
45-49	0.7	7.6	25.1	91.5	1,220
Residence					
Urban	0.7	10.9	32.8	87.5	2,281
Rural	0.4	6.9	25.5	92.1	12,176
Region					
Tigray	1.0	26.1	16.8	73.1	903
Affar	0.1	1.4	32.0	97.7	166
Amhara	0.5	6.1	20.5	92.1	3,591
Oromiya	0.3	6.4	29.6	93.1	5,672
Somali	0.1	2.5	28.1	96.6	169
Benishangul-Gumuz	0.5	9.2	37.8	90.4	149
SNNP	0.4	6.3	29.6	92.7	3,132
Gambela	1.2	6.2	43.3	91.6	35
Harari	0.6	10.3	30.0	87.6	35
Addis Ababa	0.5	8.3	29.2	89.0	541
Dire Dawa	0.7	10.2	28.8	87.9	65
Education					
No education	0.4	7.0	25.5	91.9	11,133
Primary	0.4	7.5	29.4	91.3	2,209
Secondary and higher	0.6	13.2	32.6	85.7	1,115
Total	0.4	7.6	26.6	91.4	14,457

To get an insight into the level of "missed opportunities," that is, contacts between nonusers and health workers that were not utilized to motivate nonusers to adopt family planning, nonusers were asked whether they had visited a health facility in the 12 months preceding the survey. Those who had visited a health facility were further asked whether anyone at the facility had discussed family planning with them during the visit.

Eight percent of women who visited a health facility in the past 12 months reported that someone at the facility had spoken to them about family planning. This contrasts with 27 percent who said that no one discussed family planning methods with them during their visit. By region, the level of "missed opportunities" was lowest in the Tigray Region. Women with secondary education or higher are more likely to have visited a health facility and discussed family planning with a provider than women with less education.

5.16 Discussion of Family Planning between Spouses

Spousal communication is an important intermediate step toward eventual adoption and use of contraceptive methods. It is also an indication of the acceptability of family planning. Table 5.21 indicates that two-thirds of currently married women who know of a contraceptive method did not discuss family planning with their husband in the 12 months prior to the interview.

Nearly one in five women had discussed family planning once or twice, while 15 percent said they had talked more often. Women in their twenties and thirties are relatively more likely to discuss family planning with their husband than women in their teens and in their forties. The aforementioned results could probably reflect some reticence among Ethiopian couples in discussing such matters openly, or lack of personal interest, or even hostility to the subject.

Table 5.21 Discussion of family planning with husband

Percent distribution of currently married women who know a contraceptive method by the number of times family planning was discussed with their husband in the past year, according to current age, Ethiopia 2000

	Number of times family planning was discussed with husband					
Age	Never	Once or twice	Three or more times	Missing	Total	Number
15-19	69.9	16.9	13.3	0.0	100.0	694
20-24	64.0	22.0	13.9	0.1	100.0	1,542
25-29	61.9	18.8	19.2	0.2	100.0	1,803
30-34	63.0	20.9	16.2	0.0	100.0	1,399
35-39	64.3	18.2	17.6	0.0	100.0	1,290
40-44	70.0	17.1	12.9	0.0	100.0	937
45-49	78.8	11.5	9.7	0.0	100.0	769
Total	65.9	18.6	15.4	0.1	100.0	8,434

5.17 ATTITUDES TOWARD FAMILY PLANNING

Use of effective contraceptive methods is facilitated when couples have a positive attitude toward family planning. Attitudinal data were collected by asking women whether they approve of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is useful in the formulation of family planning policies, since it indicates the extent to which further education and publicity are needed to increase acceptance of family planning. Widespread disapproval of contraception can be a barrier to the adoption of methods.

Table 5.22 shows the percent distribution of currently married women who know of a contraceptive method by wife's attitude toward family planning and her perception about her husband's approval. The majority of women (69 percent) approve of the use of family planning, and 38 percent believe that their husband approves too. One-third of women reported that they did not know about their husband's attitude, and another 8 percent were unsure of their stand.

Table 5.22 Women's approval of family planning

Percent distribution of currently married women who know of a method of family planning (FP) by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics, Ethiopia 2000

		Respondent approves of family planning		Respondent disapproves of family planning					
Background characteristic	Both approve	Husband dis-approves	Husband's attitude unknown	Husband approves	Husband's attitude unknown	Both disap-prove	Respon-dent unsure	Total	Number
Age									
15-19	34.6	14.2	23.9	1.1	5.8	11.4	9.0	100.0	694
20-24	38.6	15.7	19.8	1.9	8.2	9.2	6.7	100.0	1,542
25-29	37.9	13.7	19.0	1.5	6.3	13.3	8.2	100.0	1,803
30-34	38.7	13.9	17.5	0.8	8.5	13.9	6.6	100.0	1,399
35-39	40.0	9.3	16.7	0.7	9.6	14.5	9.2	100.0	1,290
40-44	32.1	12.5	22.0	1.2	9.3	15.6	7.3	100.0	937
45-49	26.7	10.2	18.6	2.3	14.3	15.3	12.7	100.0	769
Residence									
Urban	62.5	9.3	12.7	2.8	4.1	6.3	2.1	100.0	1,171
Rural	32.3	13.6	20.3	1.1	9.2	14.2	9.2	100.0	7,264
Region									
Tigray	46.8	7.9	30.5	0.5	3.3	2.6	8.4	100.0	589
Affar	17.2	10.7	4.2	2.3	7.0	50.7	8.0	100.0	75
Amhara	38.3	7.6	18.0	1.6	9.4	12.1	13.0	100.0	2,268
Oromiya	34.0	15.6	20.0	1.5	9.4	13.2	6.2	100.0	3,339
Somali	7.9	8.3	2.8	1.0	10.7	66.9	1.6	100.0	66
Benishangul-Gumuz	38.8	10.5	15.2	2.7	6.2	16.5	10.2	100.0	76
SNNP	31.6	18.2	18.9	0.8	8.5	15.5	6.5	100.0	1,711
Gambela	42.7	18.5	6.6	2.7	6.3	20.6	2.6	100.0	20
Harari	51.4	10.3	13.1	0.9	3.9	9.9	10.2	100.0	20
Addis Ababa	74.2	7.7	8.5	1.0	2.1	2.8	3.4	100.0	234
Dire Dawa	55.7	10.1	12.6	1.1	6.6	9.3	4.7	100.0	36
Education									
No education	31.3	13.1	20.6	1.1	9.9	14.6	9.5	100.0	6,826
Primary	48.9	15.9	16.5	1.9	3.4	9.8	3.6	100.0	1,102
Secondary and higher	80.5	6.4	6.5	3.4	1.6	0.6	0.9	100.0	506
Total	36.5	13.0	19.3	1.3	13.1	8.5	8.2	100.0	8,434

Note: Total includes women with information on perception of husband's attitude toward planning missing, which is not shown separately.

When there is a perceived disagreement between spouses, it is more common for the wife to report that her husband disapproves of family planning and she approves (13 percent) than that the husband approves and she disapproves (1 percent).

Urban women are more likely to approve of family planning than their rural counterparts. There is also a discernible variation in attitude between regions. Widespread disapproval of use of family planning was observed among women living in the Somali and Affar regions. On the other hand, approval of family planning was higher among women living in Addis Ababa and the Tigray Region, where more than eight out of ten women approve of the use of family planning.

Women's education varies positively with their attitude toward family planning. Women with no formal education were the least likely to approve of family planning. In addition, the higher the wife's level of education, the more likely that she and her husband both approve of family planning.

The fact that both men and women in the same household were interviewed provided an opportunity to link responses obtained from currently married women with those obtained from their husband. A total of 1,355 couples were linked in this way. Table 5.23 shows the percent distribution of these couples by attitude toward family planning, according to age and educational differences between spouses.

Table 5.23 Couple's approval of family planning

Percent distribution of couples by approval of family planning, according to age difference between spouses and level of education, Ethiopia 2000

Differential characteristic	Approval of family planning: Both approve	Both dis-approve	Wife approves, husband disapproves	Husband approves, wife dis-approves	Missing	Total	Percent of couples in agreement	Number
Age								
Husband younger	(44.2)	(22.3)	(8.0)	(20.9)	(4.7)	100.0	(66.5)	26
Husband 0-4 years older	52.8	12.6	8.7	14.0	11.9	100.0	65.4	297
Husband 5-9 years older	49.8	11.0	12.8	12.0	14.4	100.0	60.8	579
Husband 10-14 years older	47.6	10.8	10.8	15.8	15.0	100.0	58.4	297
Husband 15 years + older	39.0	18.1	10.2	12.0	20.7	100.0	57.2	154
Education								
Husband and wife no education	39.5	16.0	11.7	13.2	19.6	100.0	55.5	768
Wife educated, husband not	(55.5)	(6.8)	(3.4)	(17.1)	(17.2)	100.0	(62.3)	40
Husband educated, wife not	50.9	10.6	13.3	16.2	8.9	100.0	61.6	336
Husband and wife educated	77.0	2.8	6.7	9.3	4.2	100.0	79.7	212
Total	48.6	12.4	11.1	13.4	14.5	100.0	61.0	1,355

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

Among half of the couples (49 percent), both the spouses report that they approve of family planning, while among 12 percent of the couples, both disapprove. When only one spouse disapproves, it is just as likely to be the wife as the husband (13 percent versus 11 percent). There is a very slight decline in the level of joint approval when the age difference between the husband and the wife increases. Couples are more likely to approve of family planning when both spouses are educated.

In the Ethiopia DHS, women were asked whether they approved of family planning and, if married, whether they thought their husband approved of family planning. Table 5.24 shows the percent distribution of couples by husband's actual attitude toward family planning, according to the wife's perception of his attitude.

The data indicate that when wives report that their husband approves of family planning, they are generally accurate. For instance, in 85 percent of cases in which the wife reported that her husband approved of family planning, the husband also said he approved. However, when the wife reported that her husband disapproved of family planning, in more than half of the cases (56 percent), the opposite was true; that is, the husband approved.

Table 5.24 Wife's perception of husband's attitude toward family planning

Percent distribution of couples by husband's actual attitude towards family planning, according to the wife's perception of his attitude, Ethiopia 2000

	Husband's attitude				
Perception	Approves	Disap-approves	Unsure	Total	Number
Wife's perception of husband's attitude					
Approves	84.6	12.1	3.3	100.0	504
Disapproves	56.4	39.7	3.8	100.0	393
Don't know	58.7	32.7	8.6	100.0	459
Total	67.7	27.1	5.2	100.0	1,355

OTHER PROXIMATE DETERMINANTS OF FERTILITY

6

This chapter examines the principal factors, other than contraception, that affect a woman's chances of becoming pregnant. These factors include marriage (including consensual unions), postpartum amenorrhea, abstinence from sexual relations, and termination of exposure to pregnancy. Marriage and sexual relations relate to childbearing, postpartum amenorrhea and abstinence affect the intervals between births, and menopause marks the end of childbearing. More specifically, in this chapter, an in-depth look will be taken at more-direct measures of the timing and level of exposure to the risk of pregnancy, that is, the age at first sexual intercourse and the frequency of intercourse. Marriage is a primary indicator and in most societies, marks the beginning of regular exposure of women to the risk of pregnancy. Populations in which the age at first marriage is low also tend to experience early childbearing and high fertility. Furthermore, measures of the onset of menopause are important since the probability of becoming pregnant decreases as women approach the end of their reproductive years and increasing proportions become infecund. Collectively, the above-mentioned factors determine the duration and pace of reproductive activity and hence are important in understanding fertility.

6.1 MARITAL STATUS

Table 6.1 shows the distribution of all women age 15-49 and all men age 15-59 by current marital status. The data indicate that 24 percent of Ethiopian women in the reproductive ages have never been married; about two-thirds (63 percent) are currently married, that is, in a legal (formal) union; and a very small proportion (1 percent) are living together in an informal union. The term "currently married" or "currently in union" used throughout this report includes both women who are in a formal as well as in an informal union. The divorced, separated, and widowed, constitute 3 percent, 6 percent, and 4 percent, respectively.

There has been an increase in the percentage of women never married over the last ten years, from 18 percent in the 1990 National Family and Fertility Survey (CSA, 1993) to 24 percent in the 2000 Ethiopia DHS, an increase of 6 percentage points. On the other hand, there has been a marked decline in the percentage of women currently married over the last ten years, from 72 percent in the 1990 NFFS (CSA, 1993) to 64 percent in the 2000 Ethiopia DHS, a decline of 8 percentage points. This decline in nuptiality is observed for all age groups of women.

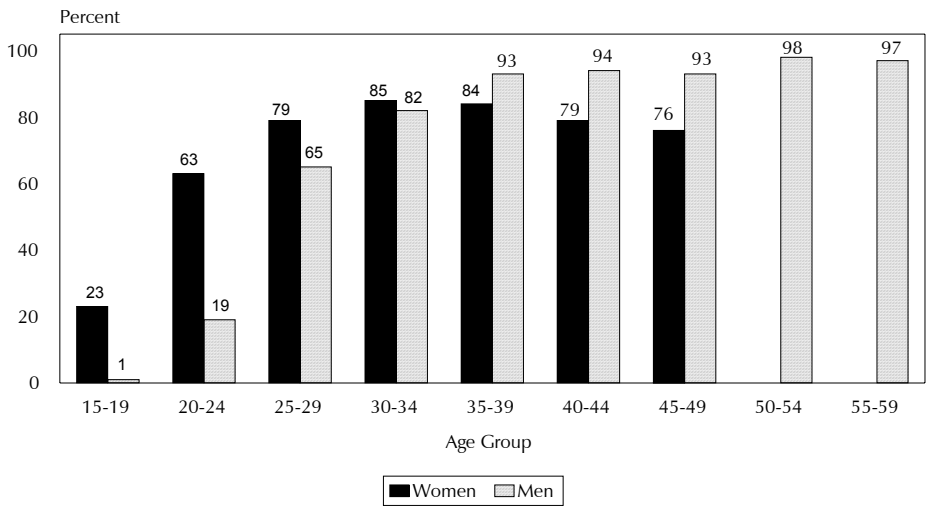
Table 6.1 also shows that the proportion of women who have never married decreases substantially with increasing age, from 70 percent in the age group 15-19 to 27 percent in the age group 20-24 and then to less than 1 percent for those age 40 and over. The proportion of currently married women (including women living together) increases with age up to age 30-34 (85 percent) and declines thereafter due to increasing levels of widowhood with age (Figure 6.1). The proportion widowed increases from less than 1 percent among women under age 25 to 14 percent among women age 45-49. A higher proportion of men (40 percent) than women (24 percent) have never been married. On the other hand, a relatively higher proportion of women than men are currently married (a difference of about 7 percentage points).

Table 6.1 Current marital status

Percent distribution of women and men by current marital status, according to age, Ethiopia 2000

Age	Marital status: Never married	Married	Living together	Divorced	Separated	Widowed	Total	Number
				WOMEN				
15-19	70.0	22.9	0.3	1.4	5.1	0.2	100.0	3,710
20-24	26.9	62.0	1.1	2.8	6.4	0.7	100.0	2,860
25-29	9.6	78.3	1.1	3.1	6.3	1.6	100.0	2,585
30-34	2.5	84.1	1.3	2.4	5.9	3.8	100.0	1,841
35-39	1.2	83.1	0.9	3.1	6.3	5.5	100.0	1,716
40-44	0.4	77.7	1.1	3.5	7.9	9.5	100.0	1,392
45-49	0.1	75.2	0.9	2.5	7.2	14.3	100.0	1,264
All ages	24.0	62.8	0.9	2.5	6.2	3.6	100.0	15,367
				MEN				
15-19	96.6	1.1	0.0	0.6	1.6	0.0	100.0	600
20-24	76.3	17.9	0.8	2.6	2.5	0.0	100.0	408
25-29	29.2	64.4	0.4	1.0	5.0	0.0	100.0	343
30-34	13.6	82.0	0.4	0.5	2.6	0.8	100.0	276
35-39	1.6	92.6	0.8	1.0	2.9	1.2	100.0	304
40-44	1.0	93.5	0.1	1.2	3.0	1.2	100.0	182
45-49	1.3	93.1	0.0	0.0	3.8	1.8	100.0	207
50-54	0.0	98.4	0.0	0.0	0.1	1.5	100.0	142
55-59	1.5	96.8	0.2	1.2	0.2	0.1	100.0	146
All ages	39.9	55.7	0.3	1.0	2.6	0.5	100.0	2,607

Figure 6.1 Marital Union by Age and Sex



Ethiopia DHS 2000

6.2 POLYGYNY

The extent of polygyny in Ethiopia was measured by asking currently married women whether their husband or partner had other wives and if so, how many. Married men were also asked about the number of wives they had. Table 6.2 shows the percentage of currently married women by the number of co-wives and the percentage of married men by the number of wives, according to selected background characteristics.

Overall, 14 percent of currently married women in Ethiopia are in a polygynous union, that is, married to a man who has more than one wife. Older women are more likely to be in a polygynous union than younger women, presumably because husbands are more likely to marry again when their wives get older. Polygyny is also higher among rural than among urban women (15 percent and 7 percent, respectively). There are substantial regional variations in the extent of polygyny. Polygyny is widely practiced in the Gambela (29 percent), Affar (24 percent), and SNNP (22 percent) regions. On the other hand, in the Amhara Region and in Addis Ababa, only 2 percent of currently married women are in a polygynous union.

Table 6.2 Number of co-wives and wives

Percent distribution of currently married women by number of co-wives and percent distribution of currently married men by number of wives, according to background characteristics, Ethiopia 2000

	WOMEN						MEN				
	Number of co-wives						Number of wives				
Background characteristic	0	1	2+	Don't know/ missing	Total	Number	1	2	3+	Total	Number
Age											
15-19	95.5	4.2	0.3	0.0	100.0	862	100.0	0.0	0.0	100.0	7
20-24	92.0	6.7	1.1	0.1	100.0	1,807	99.7	0.3	0.0	100.0	76
25-29	89.9	8.1	1.8	0.2	100.0	2,051	95.0	4.0	1.0	100.0	222
30-34	81.4	15.4	3.1	0.1	100.0	1,572	95.1	3.5	1.4	100.0	228
35-39	82.6	15.4	1.8	0.2	100.0	1,441	94.1	5.1	0.8	100.0	284
40-44	78.7	16.5	4.8	0.0	100.0	1,096	85.1	11.7	3.2	100.0	171
45-49	82.7	12.7	4.6	0.0	100.0	961	83.6	14.3	2.1	100.0	192
50-54	NA	NA	NA	NA	NA	NA	84.3	15.3	0.4	100.0	139
55-59	NA	NA	NA	NA	NA	NA	92.0	6.9	1.1	100.0	142
Residence											
Urban	93.1	5.8	1.0	0.2	100.0	1,193	97.5	2.3	0.3	100.0	183
Rural	85.5	11.9	2.6	0.1	100.0	8,596	90.2	8.3	1.5	100.0	1,277
Region											
Tigray	95.3	2.9	1.6	0.1	100.0	627	100.0	0.0	0.0	100.0	75
Affar	75.6	18.1	6.3	0.0	100.0	125	70.8	23.2	6.0	100.0	21
Amhara	97.8	1.6	0.5	0.2	100.0	2,587	99.6	0.4	0.0	100.0	393
Oromiya	81.7	15.6	2.5	0.1	100.0	3,769	88.5	9.7	1.8	100.0	567
Somali	81.6	13.8	4.6	0.0	100.0	112	92.2	3.6	4.2	100.0	22
Benishangul-Gumuz	81.0	15.5	3.4	0.1	100.0	111	87.6	10.4	2.0	100.0	18
SNNP	78.1	17.5	4.4	0.0	100.0	2,133	84.1	14.1	1.9	100.0	316
Gambela	71.1	21.4	7.5	0.0	100.0	30	87.1	11.3	1.6	100.0	4
Harari	92.8	6.1	0.8	0.2	100.0	22	92.4	4.6	3.1	100.0	3
Addis Ababa	97.6	2.0	0.4	0.0	100.0	236	98.4	0.8	0.8	100.0	34
Dire Dawa	92.9	6.4	0.7	0.0	100.0	38	91.0	9.0	0.0	100.0	6
Education											
No education	85.4	11.9	2.6	0.1	100.0	8,121	89.6	8.7	1.7	100.0	895
Primary	89.9	8.5	1.6	0.0	100.0	1,161	91.1	7.8	1.1	100.0	397
Secondary and higher	94.9	5.1	0.0	0.0	100.0	507	99.2	0.8	0.0	100.0	169
Total	86.4	11.2	2.4	0.1	100.0	9,789	91.1	7.5	1.3	100.0	1,460

NA = Not applicable

There is an inverse relationship between female education and polygyny. The proportion of currently married women in a polygynous union decreases from 15 percent among women with no education to 10 percent among women with primary education, and to 5 percent among women with secondary or higher education. Furthermore, the proportion of married women with two or more co-wives is 3 percent among women with no education, compared with 2 percent among women with primary education and almost nonexistent among women with secondary or higher education.

A comparison of the 2000 Ethiopia DHS data with data collected from the 1990 NFFS shows little change in the level of polygyny in Ethiopia over the decade (about 14 percent in both surveys).

Data on polygynous unions among currently married men is also shown in Table 6.2. About one in every 11 married men (9 percent) is in a polygynous union, and this varies widely with region, urban-rural residence, and level of education. Whereas less than 6 percent of married men under age 40 are in polygynous unions, the corresponding proportion for the age groups 40-44, 45-54, and 55-59 are 15 percent, 16 percent, and 8 percent, respectively. Differentials by age, urban-rural residence, region, and level of education for married men are similar to those observed for women.

6.3 Age at First Marriage

In many societies, age at first marriage marks the point in a woman's life when childbearing becomes socially acceptable. Women who marry early will on average have a longer exposure to the risk of pregnancy; therefore, early age at first marriage would imply early age at childbearing and a higher level of fertility for the society. Information on age at first marriage was obtained by asking all ever-married respondents the month and year they started living together with their first spouse or if they could not remember the month and year, the age at which they started living with their first spouse. This information is presented in Table 6.3.

The median age at first marriage among women in Ethiopia has risen slowly over the last two decades, from about 16 years for women age 30-49 to 17.2 years for women age 25-29 and to 18.1 years for the youngest cohort (age 20-24) for whom a median could be computed. Further evidence has shown that there has been a sharp decline in the proportion of women married in their early teens; the percentage of women married by age 15 has declined from 35 percent among women age 35-39 to 14 percent among those currently age 15-19. The majority of Ethiopian women age 25-49 were married by age 18 (70 percent), and 94 percent were married by age 25.

Table 6.3 also shows that men generally tend to marry much later than women, and this cuts across all age groups. For example the median age at first marriage for men age 25-29 is 23.2 years, compared with 17.2 years for women in the same age group. Only about one in five men were married by age 20, as compared with four in five women. Most Ethiopian men age 25-59 were married by age 25 (61 percent).

Table 6.3 Age at first marriage

Percentage of women and men who were first married by specified exact ages and median age at first marriage, according to current age, Ethiopia 2000

WOMEN

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage who had never married	Number	Median age at first marriage
15-19	14.4	NA	NA	NA	NA	70.0	3,710	a
20-24	19.1	49.1	64.7	NA	NA	26.9	2,860	18.1
25-29	24.5	56.7	71.2	81.1	88.3	9.6	2,585	17.2
30-34	30.6	74.0	85.2	90.5	94.9	2.5	1,841	15.8
35-39	35.1	73.4	84.6	92.8	96.0	1.2	1,716	15.8
40-44	33.4	79.4	91.4	96.7	98.6	0.4	1,392	15.7
45-49	34.2	77.7	88.9	95.9	98.8	0.1	1,264	15.7
Women 20-49	27.8	65.0	78.1	NA	NA	9.4	11,657	16.4
Women 25-49	30.6	70.2	82.5	89.9	94.3	3.7	8,797	16.0

MEN

Current age	Percentage who were first married by exact age: 20	22	25	28	30	Percentage who had never married	Number	Median age at first marriage
25-29	17.1	34.6	62.1	NA	NA	29.2	343	23.2
30-34	20.1	35.9	53.9	75.6	81.5	13.6	276	24.3
35-39	29.3	42.3	63.7	83.3	89.1	1.6	304	22.9
40-44	24.7	43.7	56.4	80.9	85.2	1.0	182	23.7
45-49	28.4	51.1	70.2	78.9	87.9	1.3	207	21.8
50-54	19.3	32.8	60.4	84.9	88.5	0.0	142	24.0
55-59	16.6	38.2	56.9	72.9	80.3	1.5	146	23.8
Men 25-59	22.4	39.6	60.8	NA	NA	9.3	1,599	23.3

NA = Not applicable
[a] Omitted when less than 50 percent of respondents in the age group *x* to *x+5* have married by age *x*

Table 6.4 shows the median age at first marriage for women age 20-49 by current age and selected background characteristics; summary data are also given for men age 25-59. It can be seen that urban women in the age group 25-39 marry later than their rural counterparts, but women in the age group 40-49 marry a bit earlier than their rural counterparts. When the overall difference in the median age at marriage at age 20-49 is observed, urban women marry one and a half years later than rural women. The median age at first marriage among women age 25-49 varies significantly by region, ranging from 14.3 years in the Amhara Region to 19.4 years in Dire Dawa; that is, women in Dire Dawa marry more than 5 years later than women residing in the Amhara Region.

There is a strong relationship between education and age at marriage. Women with at least some secondary education tend to marry nearly five years later than women with no education. The median age at first marriage for all women age 25-49 is 16.0, compared with 23.3 for all men age 25-59. This generally indicates that men marry more than seven years later than women in Ethiopia.

Table 6.4 Median age at first marriage

Median age at first marriage among women age 20-49 years and men age 25-59, by current age and background characteristics, Ethiopia 2000

Background characteristic	Current age						Women age 20-49	Women age 25-49	Men age 25-59
	20-24	25-29	30-34	35-39	40-44	45-49			
Residence									
Urban	a	19.6	16.3	16.0	15.4	15.5	17.8	16.9	a
Rural	17.6	16.7	15.8	15.8	15.7	15.8	16.2	15.9	23.0
Region									
Tigray	16.4	15.9	15.4	15.4	15.5	15.7	15.7	15.6	a
Affar	16.2	15.8	15.5	15.4	15.4	15.2	15.6	15.5	24.4
Amhara	15.0	14.7	14.4	14.2	14.1	14.0	14.5	14.3	20.8
Oromiya	18.7	17.9	15.9	16.1	16.0	16.2	16.9	16.4	23.6
Somali	18.7	18.5	16.9	17.3	15.9	17.3	17.0	17.3	24.2
Benishangul-Gumuz	16.8	16.2	15.1	15.8	15.6	15.5	15.8	15.6	21.7
SNNP	19.9	19.1	17.1	17.6	16.4	17.2	18.2	17.7	24.5
Gambela	17.2	16.6	15.8	16.0	16.0	16.5	16.4	16.2	23.8
Harari	20.0	18.6	18.2	15.6	15.6	16.4	17.6	16.8	21.9
Addis Ababa	a	24.3	20.8	16.9	16.0	15.7	a	19.3	a
Dire Dawa	a	20.9	19.4	18.9	18.2	17.3	a	19.4	a
Education									
No education	17.4	16.4	15.7	15.7	15.6	15.7	16.0	15.8	22.7
Primary	18.9	18.2	16.2	17.3	17.3	16.0	17.8	17.3	23.3
Secondary and higher	a	21.9	20.0	18.9	19.9	20.2	a	21.2	a
All women	18.1	17.2	15.8	15.8	15.7	15.7	16.4	16.0	a
All men	a	23.2	24.3	22.9	23.7	21.8	NA	NA	23.3

NA = Not applicable
[a] Omitted when less than 50 percent of respondents have married for the first time by age 20

6.4 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is usually used as a proxy for the onset of women's exposure to sexual intercourse and risk to pregnancy. However, since some women are sexually active before marriage, it is also important to measure the impact of age at first sexual intercourse on fertility. The 2000 Ethiopia DHS collected data on the age at which women and men first engaged in sexual intercourse, and the result is presented in Table 6.5.

Twenty-seven percent of women age 20-49 years have had sexual intercourse by age 15, 64 percent by age 18, and 88 percent by age 25. The median age at first intercourse for women age 20-49 is 16.4 years and is identical to the median age at first marriage (Table 6.3). This suggests that Ethiopian women generally begin sexual intercourse at the time of their first marriage. There is an increase in the median age at first intercourse over the 20 years preceding the survey, from 15.8 years for women age 45-49 to 18.1 years for women age 20-24. More than two-thirds (69 percent) of women age 15-19 have never had sex. The proportion declines to 25 percent for women age 20-24 and by age 30-34 almost all women have become sexually active.

The median age at first sex for men age 25-59 is 20.3 years, which is about four years later than for women. This indicates that women become sexually active at an earlier age than men. However, unlike women, men become sexually active long before marriage—the median age at first intercourse among men (20.3 years) is three years lower than their median age at first marriage (23.3 years).

Table 6.5 Age at first sexual intercourse

Percentage of women and men who had first sexual intercourse by specified exact ages and median age at first intercourse, according to current age, Ethiopia 2000

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage never having intercourse	Number	Median age at first intercourse
				WOMEN				
15-19	13.5	NA	NA	NA	NA	69.3	3,710	a
20-24	19.4	49.5	65.6	NA	NA	24.6	2,860	18.1
25-29	24.5	57.1	72.3	81.9	88.1	7.4	2,585	17.0
30-34	29.3	73.4	83.7	88.7	92.4	1.6	1,841	15.8
35-39	34.5	70.9	82.7	90.2	93.0	0.4	1,716	15.8
40-44	32.0	76.9	88.5	93.3	94.8	0.3	1,392	15.7
45-49	32.3	75.2	86.1	92.4	95.0	0.0	1,264	15.8
20-49	27.2	64.2	77.4	84.2	87.6	8.0	11,657	16.4
25-49	29.8	68.9	81.3	88.3	92.0	2.6	8,797	16.0
				MEN				
15-19	5.1	NA	NA	NA	NA	84.6	600	a
20-24	3.2	22.3	39.7	NA	NA	46.8	408	a
25-29	5.3	22.0	38.8	54.3	77.8	14.9	343	21.3
30-34	2.6	26.1	52.5	65.9	77.8	3.4	276	19.7
35-39	4.8	29.6	55.3	73.0	85.6	0.0	304	19.1
40-44	3.4	24.1	47.9	65.1	76.2	0.4	182	20.2
45-49	2.9	23.6	46.1	62.8	80.8	1.2	207	20.4
50-54	1.6	20.8	37.5	60.6	75.0	0.0	142	20.7
55-59	4.1	23.7	45.2	61.1	73.4	0.1	146	20.4
25-59	3.8	24.6	46.7	63.4	78.8	4.0	1,599	20.3

NA = Not applicable
[a] Omitted when less than 50 percent of respondents in the age group *x* to *x* + 5 have had intercourse by age *x*

Table 6.6 shows differentials in the median age at first sexual intercourse by background characteristics for women and men. The median age at first intercourse is lower among women in rural areas than in urban areas, while the reverse holds true among men. This is because rural women in general marry at a younger age than urban women, and given that the median age at first sexual intercourse and age at first marriage among women is identical, rural women initiate sexual intercourse at an earlier age than urban women. On the other hand, men are sexually active before marriage, and urban men are more likely to initiate sexual activity at an earlier age than rural men. The variation by region for women age 25-49 ranges from 14.4 years in the Amhara Region to 18.7 years in Dire Dawa. For males, it varies from 18.3 years in the Gambela Region to 23.0 years in the Somali Region. The age at first sexual intercourse increases with women's education but decreases with men's education. For example, women with at least some secondary education initiate sex four years later than women with no education; however, men with at least secondary education initiate sex two years earlier than men with no education.

Table 6.6 Median age at first sexual intercourse

Median age at first sexual intercourse among women age 20-49 years, by current age (women) and selected background characteristics, Ethiopia 2000

Background characteristic	Current age						Women age 20-49	Women age 25-49	Men age 25-59
	20-24[a]	25-29	30-34	35-39	40-44	45-49			
Residence									
Urban	19.5	18.7	16.1	15.9	15.6	15.5	17.5	16.7	18.8
Rural	17.7	16.6	15.8	15.8	15.7	15.8	16.2	15.9	20.5
Region									
Tigray	16.0	15.7	15.3	15.2	15.4	15.5	15.6	15.5	22.3
Affar	16.3	15.8	15.5	15.5	15.4	15.3	15.6	15.5	18.6
Amhara	14.9	14.7	14.4	14.3	14.2	14.4	14.5	14.4	19.7
Oromiya	18.7	17.9	16.0	16.3	16.0	16.3	17.0	16.5	18.9
Somali	18.5	18.6	16.9	17.5	16.1	17.2	17.7	17.4	23.0
Benishangul-Gumuz	16.6	16.0	15.0	16.0	15.6	15.5	15.8	15.6	20.1
SNNP	19.7	19.0	17.3	17.7	16.4	17.4	18.2	17.7	22.2
Gambela	16.8	16.3	15.5	15.8	16.2	16.9	16.2	16.0	18.3
Harari	18.8	17.9	17.0	15.4	15.5	15.8	17.0	16.4	18.9
Addis Ababa	a	20.8	18.6	16.4	16.2	15.7	a	18.2	19.6
Dire Dawa	a	19.6	18.4	18.7	18.1	17.2	a	18.7	20.9
Education									
No education	17.4	16.3	15.7	15.7	15.6	15.8	16.0	15.8	20.6
Primary	18.8	18.2	16.0	16.5	17.2	16.0	17.7	17.0	20.2
Secondary and higher	a	20.0	18.4	18.5	19.0	18.9	a	19.5	18.8
All women	18.1	17.0	15.8	15.8	15.7	15.8	16.4	16.0	a
All men	a	21.3	19.7	19.1	20.2	20.4	NA	NA	20.3

NA = Not applicable
[a] Omitted when less than 50 percent of respondents have had intercourse for the first time by age 20

6.5 RECENT SEXUAL ACTIVITY

In addition to age at first sexual intercourse, in the absence of effective contraception, exposure to pregnancy depends on the pattern of sexual activity. The most important factors are frequency of intercourse, postpartum abstinence, and abstinence for reasons other than being postpartum. Information on recent sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Tables 6.7 and 6.8 show the pattern of sexual activity in the four weeks preceding the survey by background characteristics for women and men, respectively.

About one-half (51 percent) of all women were sexually active during the four weeks preceding the survey, 7 percent were postpartum abstaining, and 19 percent were abstaining for other reasons. The remaining 23 percent had never had sexual intercourse. The proportion of women who were sexually active in the four weeks prior to the survey increases with age up to age 30-34 and declines thereafter. In general, about two-thirds of women who have been married for 29 years or less have been sexually active during the four weeks before the survey, but this percentage declines to one in two women married for 30 years or longer. Higher proportions of rural women (55 percent) were sexually active than urban women (33 percent). This could be because higher proportions of urban women age 15-49 are unmarried than rural women. Recent sexual activity is inversely related with education. The proportion falls from 56 percent among women with no education to 28 percent among women with

Table 6.7 Recent sexual activity: women

Percent distribution of women by sexual activity in the four weeks preceding the survey, and among those not sexually active, the duration of abstinence and whether postpartum or not postpartum abstaining, according to background characteristics, Ethiopia 2000

Background characteristic/ contraceptive method	Sexually active in last 4 weeks	Not sexually active in last four weeks: Postpartum abstaining 0-1 years	Postpartum abstaining 2+ years	Not postpartum abstaining 0-1 years	Not postpartum abstaining 2+ years	Missing	Never had sexual inter-course	Total	Number
Current age									
15-19	20.6	2.0	0.3	5.4	2.4	0.0	69.3	100.0	3,710
20-24	52.4	7.2	1.8	11.8	2.2	0.0	24.6	100.0	2,860
25-29	63.2	8.9	2.6	13.9	3.9	0.0	7.4	100.0	2,585
30-34	68.9	8.4	2.0	13.7	5.4	0.0	1.6	100.0	1,841
35-39	65.9	6.5	2.7	16.5	8.0	0.0	0.4	100.0	1,716
40-44	61.5	3.6	1.8	17.3	15.4	0.0	0.3	100.0	1,392
45-49	51.5	0.9	2.1	24.0	21.4	0.0	0.0	100.0	1,264
Marriage duration (years)									
Never married	1.5	0.7	0.5	2.0	0.9	0.0	94.2	100.0	3,688
0-4	69.3	9.6	0.8	16.0	3.5	0.0	0.8	100.0	1,988
5-9	68.5	8.6	3.0	13.9	5.4	0.0	0.5	100.0	2,232
10-14	72.2	8.4	2.1	13.7	3.3	0.0	0.3	100.0	1,811
15-19	67.0	8.7	2.0	16.1	6.2	0.0	0.0	100.0	1,743
20-24	66.0	5.1	2.7	17.0	9.1	0.0	0.0	100.0	1,410
25-29	62.0	3.2	2.5	18.1	14.3	0.0	0.0	100.0	1,489
30+	50.5	0.9	1.3	23.3	23.9	0.0	0.0	100.0	1,007
Residence									
Urban	32.6	4.6	2.3	15.6	10.1	0.0	34.7	100.0	2,791
Rural	54.8	5.7	1.6	12.2	5.5	0.0	20.2	100.0	12,576
Region									
Tigray	44.5	5.4	3.2	20.9	9.3	0.1	16.6	100.0	969
Affar	45.6	8.0	1.7	22.6	9.4	0.2	12.4	100.0	178
Amhara	56.4	5.2	2.3	15.5	8.8	0.0	11.8	100.0	3,820
Oromiya	51.0	6.0	1.4	10.5	4.3	0.0	26.8	100.0	5,937
Somali	39.8	7.1	0.8	21.3	7.6	0.0	23.4	100.0	175
Benishangul-Gumuz	54.2	6.5	1.1	13.3	4.7	0.2	20.1	100.0	160
SNNP	52.3	5.0	1.2	9.8	4.6	0.0	27.1	100.0	3,285
Gambela	43.7	14.5	6.4	15.4	6.8	0.1	13.1	100.0	40
Harari	35.2	5.3	2.1	19.1	13.5	0.1	24.6	100.0	41
Addis Ababa	25.7	3.4	1.2	16.0	12.4	0.1	41.2	100.0	684
Dire Dawa	31.1	5.2	1.9	20.6	12.5	0.2	28.5	100.0	79
Education									
No education	56.0	5.6	1.8	13.6	7.0	0.0	15.9	100.0	11,551
Primary	38.7	5.0	0.8	8.9	3.8	0.0	42.7	100.0	2,425
Secondary and higher	28.1	5.0	2.5	13.2	5.2	0.0	46.0	100.0	1,391
Current contraceptive method									
No method	48.7	5.8	1.8	12.7	6.7	0.0	24.3	100.0	14,457
Pill	90.0	0.2	0.0	9.4	0.4	0.0	0.0	100.0	289
Injectables	82.3	0.9	0.4	16.3	0.0	0.0	0.0	100.0	321
Periodic abstinence	84.1	0.3	0.0	14.5	1.0	0.0	0.0	100.0	160
Other	71.8	0.2	0.9	24.4	2.6	0.0	0.0	100.0	139
Total	50.8	5.5	1.7	12.9	6.3	0.0	22.8	100.0	15,367

Table 6.8 Recent sexual activity: men

Percent distribution of men by sexual activity in the four weeks preceding the survey, according to background characteristics, Ethiopia 2000

Background characteristic	Sexually active in last 4 weeks	Not sexually active in last 4 weeks	Never had inter-course	Total	Number
Age					
15-19	4.2	11.2	84.6	100.0	600
20-24	23.6	29.6	46.8	100.0	408
25-29	59.2	25.8	14.9	100.0	343
30-34	75.5	21.0	3.4	100.0	276
35-39	71.6	28.4	0.0	100.0	304
40-44	69.8	29.8	0.4	100.0	182
45-49	69.4	29.4	1.2	100.0	207
50-54	75.9	24.1	0.0	100.0	142
55-59	66.5	33.4	0.1	100.0	146
Marital status					
Never married	6.6	20.8	72.6	100.0	1,040
In polygynous union	88.1	11.9	0.0	100.0	129
In monogamous union	77.8	22.1	0.1	100.0	1,331
Formerly married	8.0	86.7	5.2	100.0	107
Residence					
Urban	41.7	32.0	26.2	100.0	379
Rural	47.9	22.3	29.7	100.0	2,228
Education					
No education	52.4	25.1	22.6	100.0	1,358
Primary	42.6	19.4	38.0	100.0	860
Secondary and higher	38.2	28.6	33.2	100.0	388
Total	47.0	23.7	29.2	100.0	2,607

secondary education or higher. However, this variation may be attributed to the confounding association between education and age; younger women are more likely to be more educated than older women, and the more educated tend to be concentrated in urban areas. Recent sexual activity ranges from a low of 26 percent in Addis Ababa, the most urbanized area of the country, to a high of 56 percent in the Amhara Region. Not surprisingly, higher proportions of women using contraceptive methods were sexually active in the four weeks preceding the survey than those who were not using a method.

The proportion of women abstaining postpartum for 0 to 1 years rises to a high of 9 percent among women age 25-29 and then declines thereafter, declines with marital duration for the most part, is higher among rural than urban women, is lowest in Addis Ababa and highest in the Gambela Region, and declines with women's educational level. Postpartum abstinence, in general, is much lower among women who are using contraception than among women who are not. On the other hand, abstinence unrelated to childbirth, rises with age and marital duration, but is lower among rural than urban women, lowest in the SNNP Region and highest in Dire Dawa and the Harari Region, is highest among women with no education, and is generally higher among nonusers of contraception than among users.

Forty-seven percent of men interviewed were sexually active in the four weeks prior to the survey, 29 percent had never had sex, and the remaining 24 percent were not sexually active recently

but had had sex before (Table 6.8). Recent sexual activity is higher among men age 30 and over. Only 7 percent of never-married and 8 percent of formerly married men were sexually active in the four weeks preceding the survey. As expected, married men in a polygynous union have a higher level of recent sexual activity than married men in a monogamous union (88 percent and 78 percent, respectively). Since education of men is highly associated with age, without controlling for the confounding effect of age, it is difficult to interpret the relationship between education and sexual activity, but in general, recent sexual activity declines with men's level of education.

6.6 Postpartum Amenorrhea, Abstinence, and Insusceptibility

Postpartum amenorrhea refers to the interval between childbirth and the resumption of menstruation, a period during which a woman is temporarily infecund. The length and intensity of breastfeeding influences the duration of postpartum amenorrhea, as has been shown in various studies. Women are considered insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrheic or are abstaining from sexual intercourse after a birth. Table 6.9 shows the percentage of births in the three years prior to the survey after which mothers are amenorrheic, abstaining from sex, and insusceptible, by the number of months since birth.

Table 6.9 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median durations, Ethiopia 2000

Months since birth	Percentage of births for which the mother is: Amenorrhoeic	Abstaining	Insusceptible	Number
<2	96.1	85.2	99.3	354
2-3	89.5	38.4	92.6	405
4-5	85.3	22.8	87.3	403
6-7	83.1	18.7	88.5	424
8-9	81.3	10.9	82.2	353
10-11	76.0	8.0	77.9	424
12-13	66.9	9.5	67.7	438
14-15	63.0	9.6	65.5	423
16-17	55.7	10.3	60.6	368
18-19	55.1	8.0	56.6	381
20-21	45.5	5.7	46.9	380
22-23	32.3	4.4	34.4	376
24-25	21.7	3.3	24.3	439
26-27	18.5	5.2	20.9	403
28-29	11.0	6.2	15.8	421
30-31	11.5	4.7	15.7	369
32-33	9.8	4.2	12.4	391
34-35	9.7	3.0	12.5	339
Total	50.9	14.0	53.6	7,091
Median	19.0	2.4	19.6	-
Mean	18.5	5.5	19.5	-

Survey results indicate that in Ethiopia, the period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is the major determinant of postpartum insusceptibility to pregnancy. Ethiopian women are insusceptible for a median period of 20 months, amenorrheic for a median period of 19 months, and abstaining only for a median duration of 2 months. The proportion of women insusceptible to pregnancy falls from nearly 100 percent during the first 2 months after birth to 78 percent by 10 to 11 months and further reduces to 34 percent by 22 to 23 months after birth. Within the first two months after a birth, virtually all women are insusceptible to pregnancy due to both amenorrhea and abstinence. However, with the resumption of sexual relations the contribution of abstinence to insusceptibility is greatly reduced after the second month after birth. By 10 to 11 months after birth, more than three-quarters (78 percent) of women are still insusceptible, mainly due to postpartum amenorrhea (76 percent) rather than postpartum abstinence (only 8 percent).

Table 6.10 shows variations in the median duration of postpartum amenorrhea, abstinence, and insusceptibility by various background characteristics. Women younger than 30 years are insusceptible for a shorter duration than women 30 years and older, primarily due to a shorter period of amenorrhea.

Rural women remain amenorrheic and insusceptible about twice as long after birth as urban women. The difference may be associated with a shorter duration of breastfeeding in urban than in rural areas.

Women in the Amhara Region have the longest duration of amenorrhea (22 months), while women in Addis Ababa have the shortest duration (8 months). Postpartum abstinence ranges from 2 months in the Amhara Region to 11 months in the Gambela Region. Postpartum insusceptibility to pregnancy is shortest in Addis Ababa (9 months) and longest in the Gambela Region (24 months). The median duration of postpartum amenorrhea and insusceptibility falls as women's education increases.

Table 6.10 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by background characteristics, Ethiopia 2000

Background characteristic	Median duration of postpartum: Amenorrhea	Abstinence	Insusceptibility	Number
Age				
15-29	17.6	2.3	18.6	4,191
30-49	20.3	2.5	20.7	2,900
Residence				
Urban	8.4	3.8	10.5	717
Rural	19.8	2.3	20.1	6,374
Region				
Tigray	20.9	2.7	21.2	441
Affar	15.8	6.9	16.9	70
Amhara	22.4	2.0	22.6	1,819
Oromiya	17.4	2.5	18.6	2,952
Somali	8.3	3.0	9.8	79
Benishangul-Gumuz	18.0	2.4	18.1	70
SNNP	17.9	2.4	18.1	1,498
Gambela	14.6	10.5	23.8	17
Harari	13.8	2.9	14.5	15
Addis Ababa	7.5	3.7	9.4	107
Dire Dawa	11.0	3.3	11.8	24
Education				
No education	19.9	2.3	20.4	5,789
Primary	15.5	2.4	16.1	925
Secondary and higher	8.4	4.8	12.2	377
Total	19.0	2.4	19.6	7,091

Note: Medians are based on current status.

6.7 TERMINATION OF EXPOSURE TO PREGNANCY

The risk of childbearing declines as age increases. The term infecundity denotes a process rather than a well-defined event. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 6.11 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

A woman is considered menopausal if she is not pregnant, not postpartum amenorrheic, and did not have a menstrual period for at least six months before the survey. Twenty-four percent of Ethiopian women age 30-49 are menopausal. As expected, the proportion of women who reached menopause increases with age, particularly after age 40. It rises from 17 percent among women age 40-41 to 68 percent among women at the end of their reproductive years (age 48-49).

Table 6.11 Menopause

Percentage of women age 30-49 who are menopausal, Ethiopia 2000

Age	Percentage menopausal[1]	Number
30-34	5.2	875
35-39	9.5	965
40-41	16.5	463
42-43	22.9	400
44-45	23.4	522
46-47	45.3	371
48-49	67.5	451
30-49	23.5	4,047

[1] Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey (excludes other women who report that they are menopausal).

FERTILITY PREFERENCE 7

Due to various economic, social, and cultural reasons, prolific childbearing is generally encouraged in traditional Ethiopian society. However, couples have recently expressed a desire for a lower family size, and this may be due to economic considerations. The 2000 Ethiopia DHS collected information on fertility preferences to measure the overall attitudes of the society toward childbearing and the general course of future fertility. Data on fertility preferences are also useful for assessing the unmet need for family planning and the number of unwanted or mistimed births in the population. These, together with data on contraceptive prevalence, provide an estimation of the demand for family planning.

7.1 DESIRE FOR MORE CHILDREN

Currently married women and men in Ethiopia were asked whether they want to have another child, and if so, how soon. Table 7.1 presents fertility preferences among currently married women and men by number of living children. Sixty-two percent of currently married women state that they want

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women and men by desire for more children, according to number of living children, Ethiopia 2000

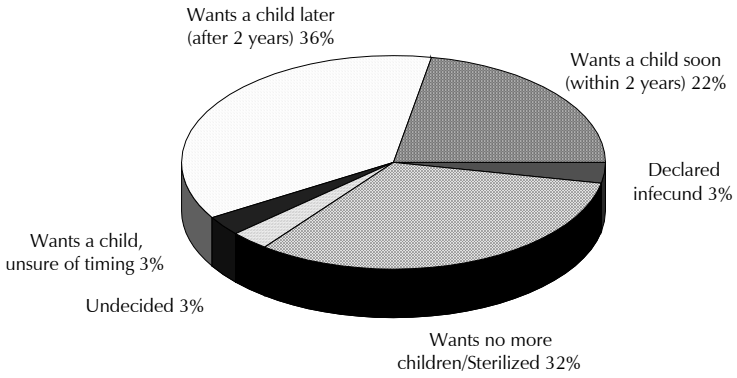
	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
				WOMEN				
Have another soon[2]	64.2	28.4	21.4	21.4	20.8	13.3	8.0	22.3
Have another later[3]	21.0	55.0	51.5	45.1	32.0	29.2	15.8	36.4
Have another, undecided when	4.1	3.7	3.7	2.4	2.8	2.1	2.3	2.9
Undecided	1.3	2.4	4.4	3.1	2.8	4.5	4.4	3.4
Want no more	5.4	9.0	17.6	25.4	38.6	46.6	64.3	31.7
Sterilized[4]	0.0	0.4	0.2	0.2	0.4	0.3	0.6	0.3
Declared infecund[5]	4.1	1.1	1.1	2.6	2.7	4.1	4.6	2.8
Missing	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	802	1,571	1,656	1,430	1,268	1,097	1,964	9,789
				MEN				
Have another soon	69.9	33.7	20.9	27.5	19.8	23.4	15.9	25.2
Have another later	21.4	53.0	67.8	46.3	48.8	35.8	28.8	43.1
Have another, undecided when	5.6	4.3	0.6	4.3	4.5	2.4	3.5	3.4
Undecided	0.0	0.2	1.3	3.2	2.8	3.2	1.6	1.9
Want no more	0.3	6.2	9.4	17.6	22.0	31.3	48.1	24.6
Sterilized[4]	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1
Declared infecund[5]	2.7	2.6	0.0	1.2	2.0	3.9	1.6	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	93	159	232	229	178	155	414	1,460

[1] Includes current pregnancy
[2] Wants next birth within two years
[3] Wants to delay next birth for two or more years
[4] Includes both male and female sterilization
[5] For women this refers to women's reporting themselves as being infecund. For men, this refers to men reporting they and/or their partners are infecund.

to have another child; however, only 22 percent want another child within two years. Thirty-six percent prefer to wait for two years or more to have another child, and 32 percent want no more children or have been sterilized (Figure 7.1). It is clear from the information presented in Table 7.1 that the majority of Ethiopian women (68 percent) prefer to space or limit the number of children and are potentially in need of family planning. Men's fertility preferences follow a pattern somewhat similar to women's. However, a higher percentage (72 percent) of men want to have another child.

The proportion of women who want no more children increased from 24 percent in 1990 (CSA, 1993) to 32 percent in 2000, an 8 percentage point increase. This provides a promising scope for the country's population policy to meet its objectives.

Figure 7.1 **Fertility Preferences of Currently Married Women Age 15-49**



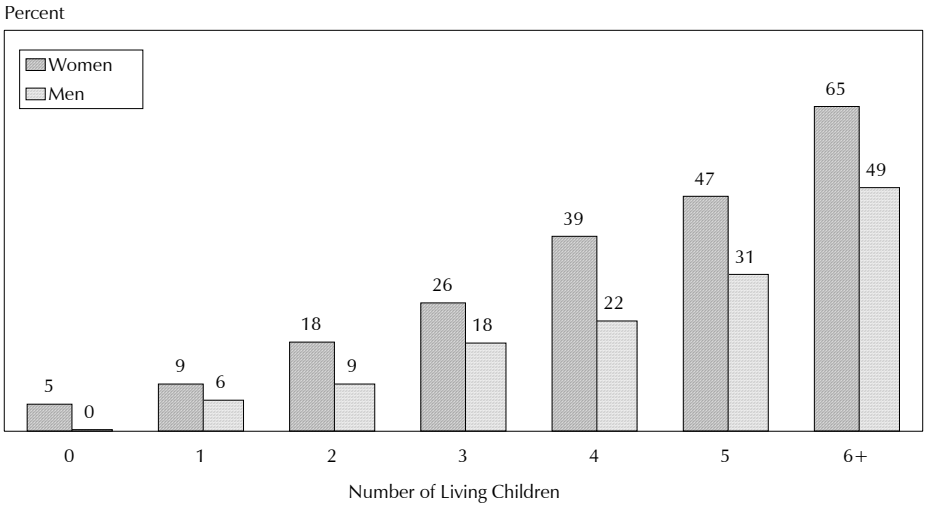
Note: Percentages add to less than 100 due to rounding.

Ethiopia DHS 2000

The percentage of currently married women who do not want any more children increases with increasing number of living children, from 5 percent among married women with no living children to 65 percent among women with six or more living children (Figure 7.2). A similar pattern is also observed for men, except that a relatively lower percentage of men want to limit childbearing.

Table 7.2 presents data on the fertility desires of 1,207 monogamous couples by number of living children and examines whether the fertility preferences of a woman and her spouse are similar or different. Seventy-one percent of couples agree on their desire either to have more children (54 percent) or to have no more children (17 percent). This shows a generally high level of agreement among couples on their desire for children. In cases in which spouses report the same number of children, the percentage of couples who agree on wanting no more children increases with the number of living children they have, while the percentage of couples who agree on wanting more children decreases with the number of living children. For example, only 6 percent of couples with one to three children want no more children, compared with 52 percent of couples with seven or more children. At the same time 87 percent of couples without any living children want more children, compared with only 8 percent of couples with seven or more living children. Overall, a higher percentage of husbands

Figure 7.2 Desire to Limit Childbearing Among Currently Married Women and Men, by Number of Living Children



Note: Desire to limit childbearing includes respondents who stated that they did not want any more children and those who have been sterilized.

Ethiopia DHS 2000

Table 7.2 Desire for more children among monogamous couples

Percent distribution of monogamous couples by desire for more children, according to number of living children reported, Ethiopia 2000

Number of living children reported	Both want more	Husband more/ wife no more	Wife more/ husband no more	Both want no more	Husband/ wife infecund	One or both undecided/ missing	Total	Number
Same number								
0	87.3	6.3	0.8	0.0	2.6	3.0	100.0	80
1-3	73.6	10.0	4.7	5.5	1.8	4.4	100.0	445
4-6	39.6	20.1	7.9	24.2	3.7	4.5	100.0	237
7+	8.4	18.3	9.1	52.0	4.2	8.1	100.0	87
Different number								
Husband > wife	45.2	14.3	11.9	21.1	4.1	3.5	100.0	263
Wife > husband	38.6	23.0	6.7	19.4	6.0	6.2	100.0	94
Total	54.2	14.3	7.1	16.7	3.2	4.5	100.0	1,207

want more children than wives; for example, the proportion of couples in which the husband wants more and the wife does not is greater than the proportion in which the wife wants more and the husband doesn't.

Table 7.3 presents the fertility preferences of currently married women and men by age. The desire for no more children increases steadily with age. Among women in the early reproductive ages (15-19 years) only 9 percent want no more children, compared with 59 percent of women in the oldest age group (45-49 years). It can be concluded that the potential need for family planning is positively related to the current age of women when the desire is to limit childbearing. On the other hand, the desire to space births declines from 57 percent among the youngest age groups to 3 percent among the oldest. The overall pattern of male fertility preferences by age is similar to that of females.

Table 7.3 Fertility preferences by age

Percent distribution of currently married women by desire for more children, according to age, Ethiopia 2000

Desire for children	Current age									Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	
WOMEN										
Have another soon[1]	28.5	23.8	22.3	22.6	23.8	20.7	13.5	NA	NA	22.3
Have another later[2]	56.6	56.5	48.8	37.7	22.2	10.5	3.2	NA	NA	36.4
Have another/undecided when	2.8	4.5	2.9	2.6	2.4	2.2	2.4	NA	NA	2.9
Undecided	2.7	3.1	4.1	2.4	3.2	5.3	3.3	NA	NA	3.4
Want no more	9.0	12.2	21.5	34.3	45.8	55.0	58.6	NA	NA	31.7
Sterilized[3]	0.0	0.0	0.1	0.4	0.5	1.1	0.4	NA	NA	0.3
Declared infecund[4]	0.4	0.0	0.2	0.0	2.1	5.3	18.7	NA	NA	2.8
Missing	0.0	0.0	0.1	0.0	0.0	0.0	0.0	NA	NA	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	NA	NA	100.0
Number	862	1,807	2,051	1,572	1,441	1,096	961	NA	NA	9,789
MEN										
Have another soon[1]	*	45.6	26.5	24.9	20.4	23.1	25.9	26.6	22.2	25.2
Have another later[2]	*	52.3	64.7	59.2	52.6	38.3	25.1	21.8	9.8	43.1
Have another/undecided when	*	0.4	0.9	3.3	3.5	3.4	4.9	6.4	3.0	3.4
Undecided	*	0.7	1.0	1.1	2.7	3.1	3.8	1.2	0.0	1.9
Want no more	*	1.1	6.9	9.6	20.7	30.6	39.9	38.8	56.3	24.6
Sterilized[3]	*	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.1
Declared infecund[4]	*	0.0	0.0	1.7	0.1	1.6	0.4	3.7	8.8	1.7
Total	*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	7	76	222	228	284	171	192	139	142	1,460

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
NA = Not applicable
[1] Wants next birth within two years
[2] Wants to delay next birth for two or more years
[3] Includes both male and female sterilization
[4] For women this refers to women's reporting themselves as being infecund. For men, this refers to men reporting they and/or their partners are infecund.

Table 7.4 portrays the percentage of currently married women and men who want no more children by number of living children and background characteristics. A higher percentage of women in urban areas prefer not to have any more children than those in rural areas, and the difference is slightly more pronounced among women than among men. The proportion of respondents in Addis Ababa who desire no more children (49 percent of women and 56 percent of men) is higher than in all other regions. The desire to limit childbearing is the lowest in the Somali Region for both female and male respondents. As expected, the desire to limit childbearing is the highest among women and men who attended at least some secondary education, and the lowest among respondents who attended only primary education.

Table 7.4 Desire to limit childbearing by background characteristics

Percentage of currently married women and men who want no more children by number of living children and background characteristics, Ethiopia 2000

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN								
Residence								
Urban	2.3	16.9	26.9	48.9	59.9	67.9	77.5	40.3
Rural	6.0	8.1	16.3	22.2	36.5	45.0	63.5	30.9
Region								
Tigray	0.0	3.0	8.1	16.1	25.3	44.7	75.9	26.1
Affar	7.7	19.2	15.2	15.4	19.5	15.1	19.6	15.8
Amhara	10.8	16.3	29.9	31.8	51.1	55.9	77.0	41.8
Oromiya	3.9	6.9	14.6	24.7	37.4	47.4	59.6	29.9
Somali	1.3	15.7	12.8	9.0	7.3	7.6	13.1	10.9
Benishangul-Gumuz	4.8	13.3	15.2	36.9	43.7	52.8	66.3	33.1
SNNP	1.2	4.6	9.7	20.0	31.2	34.9	59.4	25.7
Gambela	7.0	15.7	30.2	40.8	38.5	59.9	53.3	28.7
Harari	10.7	19.6	38.3	34.5	54.1	56.5	81.7	40.6
Addis Ababa	9.8	11.8	44.5	57.3	73.1	81.7	83.6	48.8
Dire Dawa	0.0	18.1	34.2	47.5	40.6	51.4	55.9	34.7
Education								
No education	5.0	8.6	16.9	23.0	36.0	46.5	64.1	32.0
Primary	9.3	10.0	14.6	30.5	51.8	42.5	67.9	29.8
Secondary and higher	2.1	16.6	33.0	52.0	64.9	71.4	94.7	37.3
Total	5.4	9.4	17.8	25.6	38.9	46.9	64.8	32.0
MEN								
Residence								
Urban	1.7	6.3	18.5	35.5	27.0	59.1	58.4	30.5
Rural	0.0	6.2	7.7	14.7	21.6	29.7	47.4	23.9
Region								
Tigray	0.0	0.0	0.0	0.0	0.0	0.0	48.2	12.8
Affar	0.0	5.3	18.0	13.2	6.0	29.7	11.7	11.5
Amhara	0.0	13.2	15.6	26.0	42.2	45.3	67.0	36.3
Oromiya	0.0	0.0	3.4	12.4	16.0	28.0	51.1	22.5
Somali	0.0	17.3	0.0	0.0	0.0	0.0	8.1	4.1
Benishangul-Gumuz	0.0	0.0	13.0	0.0	0.0	29.7	43.1	16.6
SNNP	0.0	4.0	9.4	15.7	11.0	25.8	27.4	16.7
Gambela	0.0	0.0	9.5	5.2	20.3	16.1	23.0	9.5
Harari	0.0	0.0	0.0	23.1	81.9	56.7	63.4	33.8
Addis Ababa	10.0	21.5	67.2	68.5	90.9	56.0	74.2	55.8
Dire Dawa	0.0	7.2	35.6	29.7	36.8	33.7	89.0	34.5
Education								
No education	0.0	3.7	7.8	16.7	23.4	34.5	48.7	27.8
Primary	0.0	0.7	6.7	6.5	18.4	17.3	43.7	15.1
Secondary and higher	1.7	22.3	20.3	41.4	23.2	58.6	63.7	31.3
Total	0.3	6.2	9.4	17.6	22.0	31.3	48.6	24.8

Note: Women and men who have been sterilized are considered to want no more children.
[1] Includes current pregnancy

7.2 NEED FOR FAMILY PLANNING SERVICES

Women who are currently married and who say either they want no more children or want to wait at least two years before having another child, but are not using contraception, are considered to have an *unmet need* for family planning.[1] Women who are currently using family planning methods are said to have a *met need* for family planning. The sum of women with unmet need and met need constitutes the *total demand* for family planning.

Table 7.5 presents the demand for family planning services by background characteristics. Thirty-six percent of currently married women have an unmet need for family planning, with 22 percent having an unmet need for spacing and 14 percent having an unmet need for limiting. Only 8 percent of women have a met need for family planning. If all currently married women who say that they want to space or limit their children were to use family planning methods, the contraceptive prevalence rate would increase from 8 percent to 44 percent (the sum of the met and unmet need or total demand). Currently, only 18 percent of the family planning needs of currently married women are being met.

The level of unmet need for spacing decreases with age, while the opposite is true for unmet need for limiting when older women have a greater unmet need than younger women do. The total unmet need for family planning varies little by age group among women younger than 45 years but falls markedly for women age 45-49.

Unmet need is higher among rural than urban among women (37 percent and 25 percent, respectively). The difference is more pronounced for unmet need for spacing than for limiting. The overall unmet need for family planning is the highest in the Amhara Region (41 percent) and the lowest in the Affar Region (12 percent). While the unmet need for limiting decreases as the level of education increases, the unmet need for spacing is the highest among women with primary education.

7.3 IDEAL FAMILY SIZE

Information on the ideal family size was collected in two ways. Respondents who had no living children were asked how many children they would like to have if they could choose the number of children to have. Respondents with children were asked how many children they would like to have if they could go back to the time when they did not have any children and could choose exactly the number of children to have. Even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, while among older and high parity women, these data provide a measure of the level of unwanted fertility.

Table 7.6 shows that the majority of respondents were able to provide a numeric response to these questions. Nevertheless, 18 percent of women and 11 percent of men gave non-numeric responses such as “it is up to God,” “any number,” or “do not know.” Two in three women favored an ideal family size of four or more children. Only 17 percent of women favor less than four children, with 4 percent not wanting any children at all. The average ideal family size among all women who gave numeric responses is 5.3 children, while it is 5.8 children among currently married women.

[1] For an exact description of the calculation, see footnote 1, Table 7.5.

Table 7.5 Need for family planning

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Ethiopia 2000

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	35.8	4.6	40.4	3.3	0.6	3.9	39.0	5.2	44.3	8.8	862
20-24	31.7	6.2	37.8	6.1	1.3	7.5	37.8	7.5	45.3	16.5	1,807
25-29	28.4	8.7	37.2	5.7	3.9	9.6	34.1	12.7	46.8	20.6	2,051
30-34	21.1	17.7	38.8	4.4	4.6	9.0	25.5	22.2	47.7	18.8	1,572
35-39	13.9	21.9	35.8	2.4	8.5	10.9	16.2	30.4	46.7	23.3	1,441
40-44	9.8	27.3	37.2	0.4	7.6	7.9	10.2	34.9	45.1	17.6	1,096
45-49	3.4	14.7	18.1	0.2	3.9	4.1	3.7	18.6	22.3	18.6	961
Residence											
Urban	13.8	11.2	25.0	17.4	18.2	35.6	31.2	29.4	60.6	58.8	1,193
Rural	22.9	14.3	37.3	1.8	2.4	4.3	24.8	16.8	41.5	10.3	8,596
Region											
Tigray	18.8	9.1	28.0	6.1	4.1	10.2	24.9	13.2	38.1	26.7	627
Affar	7.7	4.6	12.3	3.6	4.1	7.7	11.2	8.8	20.0	38.6	125
Amhara	21.2	19.7	40.9	3.1	4.4	7.5	24.3	24.1	48.3	15.5	2,587
Oromiya	23.1	13.3	36.4	3.2	3.4	6.6	26.3	16.7	43.0	15.4	3,769
Somali	10.9	3.4	14.3	1.5	1.1	2.6	12.4	4.5	16.9	15.3	112
Benishangul-Gumuz	19.5	12.4	31.9	4.9	3.9	8.7	24.4	16.3	40.7	21.5	111
SNNP	24.3	11.2	35.5	2.7	3.7	6.4	27.0	14.9	41.9	15.2	2,133
Gambela	23.0	11.4	34.4	6.6	6.9	13.5	29.6	18.4	47.9	28.2	30
Harari	14.6	15.5	30.1	12.2	9.7	22.0	26.8	25.3	52.1	42.2	22
Addis Ababa	8.1	11.1	19.2	21.3	23.9	45.2	29.4	34.9	64.3	70.2	236
Dire Dawa	15.4	9.1	24.5	14.6	13.8	28.4	30.1	22.9	53.0	53.7	38
Education											
No education	21.0	14.3	35.3	1.6	3.0	4.6	22.6	17.3	39.9	11.5	8,121
Primary	28.0	13.6	41.6	9.0	7.4	16.4	37.0	21.0	58.0	28.3	1,161
Secondary and higher	20.2	8.9	29.1	25.7	19.1	44.8	45.9	27.9	73.8	60.6	507
Total	21.8	13.9	35.8	3.7	4.3	8.1	25.6	18.3	43.8	18.4	9,789

[1] Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children.

[2] Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note

Table 7.6 Ideal and actual number of children

Percent distribution of all women and men by mean ideal number of children and mean ideal number of children for all women and men and for currently married women and men, according to number of living children, Ethiopia 2000

Ideal number of children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN								
0	5.6	3.2	2.5	3.9	1.2	1.6	2.6	3.5
1	1.0	0.8	0.5	0.2	0.1	0.4	0.3	0.6
2	15.7	7.0	5.6	3.1	2.9	2.6	1.6	7.7
3	8.7	8.1	3.4	2.9	1.7	3.7	2.2	5.3
4	26.4	29.1	28.3	22.0	19.5	15.2	15.7	23.5
5	9.9	10.9	10.7	10.3	8.9	5.9	6.5	9.3
6	9.2	12.6	14.5	17.3	17.1	12.8	11.8	12.6
7	2.1	3.4	3.5	4.5	5.1	5.0	4.1	3.5
8+	7.3	10.9	14.6	17.6	23.9	27.5	28.4	16.0
Non-numeric response	13.9	14.1	16.4	18.1	19.5	25.2	26.8	18.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,886	1,985	1,961	1,657	1,458	1,279	2,139	15,367
Mean ideal number for:[2]								
All women	4.1	4.9	5.3	5.7	6.2	6.5	6.8	5.3
Number	4,205	1,705	1,639	1,358	1,174	957	1,566	12,604
Currently married women	4.9	5.0	5.5	5.7	6.2	6.5	6.7	5.8
Number	683	1,362	1,386	1,174	1,016	840	1,434	7,895
MEN								
0	0.7	0.3	1.6	0.2	1.3	0.3	0.1	0.6
1	1.0	0.3	0.0	1.1	0.0	0.0	0.0	0.6
2	11.7	6.8	4.0	4.3	0.9	0.3	1.3	6.9
3	13.0	17.0	2.5	3.1	0.0	3.8	1.0	8.0
4	27.3	22.6	27.1	14.9	12.1	7.3	9.2	20.7
5	15.3	15.3	9.4	16.1	9.7	11.7	5.6	12.7
6	10.5	10.7	19.3	19.9	26.3	13.6	7.4	13.0
7	2.6	5.6	5.1	3.1	10.4	6.6	4.0	4.1
8+	9.9	16.7	26.9	26.5	23.4	40.8	50.5	22.8
Non-numeric response	8.0	4.6	4.1	10.6	16.0	15.6	20.9	10.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,188	176	250	238	180	159	417	2,607
Mean ideal number for:[2]								
All men	4.8	5.5	6.2	6.6	7.2	8.3	11.1	6.4
Number	1,093	168	239	213	151	134	330	2,328
Mean ideal number for:								
Currently married men	5.1	5.5	6.2	6.6	7.2	7.8	11.1	7.7
Number	82	151	222	204	150	131	329	1,269
Monogamous men	5.0	5.5	6.1	6.5	6.9	7.5	9.0	6.9
Number	74	145	214	197	140	121	261	1,153
Polygynous men	6.3	7.0	8.5	8.7	10.9	11.0	19.0	14.9
Number	8	6	8	7	10	10	69	117

Note: The means exclude women and men who gave non-numeric responses.
[1] Includes current pregnancy
[2] Means are calculated excluding the women and men giving non-numeric responses.

Table 7.6 also shows that the ideal number of children among men is one child higher than among women. Seventy-three percent of male respondents consider four or more children ideal. The mean ideal number among all men is 6.4 children, while currently married men preferred a mean of 7.7 children. The mean ideal number of children among polygynous men is more than twice that of monogamous men and may contribute to the difference in the ideal number of children between women and men.

The mean ideal family size shows a positive association with the number of living children for both women and men (Table 7.6). It increases from 4.1 children among childless women to 6.8 children among women with 6 or more children, while it increases from 4.8 children to 11.1 children in the case of men. The observed positive association between the ideal family size and the number of living children may arise from two possible reasons. First, women and men may tend to rationalize their mean family size by reporting their actual number of children as their ideal number, or second, they may have achieved their preferred number of children.

The mean ideal number of children for all women and all men by five-year age groups and background variables is shown in Table 7.7. The mean ideal number of children increases with increasing age for both women and men. It increases from 4.2 children for women age 15-19 to 6.7 children for women age 45-49 and from 4.5 children among men age 15-19 to 9.7 children among men age 45-49. The mean ideal number of children among rural women and men is much higher than among their urban counterparts. Women and men in the nomadic regions of Affar and Somali have much larger mean ideal numbers than in the other areas of the country. The mean ideal family size varies negatively with education. Women and men with no education have almost twice the mean ideal number of children as women and men with at least secondary education.

Table 7.7 Mean ideal number of children by background characteristics

Mean ideal number of children for all women, by age and background characteristics, Ethiopia 2000

Background characteristic	Current age							Total women	Total men
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Residence									
Urban	3.3	3.9	4.0	4.8	4.7	5.2	6.0	4.1	4.3
Rural	4.4	5.2	5.6	6.2	6.2	6.5	6.9	5.6	6.8
Region									
Tigray	4.3	5.1	5.3	6.0	6.3	6.0	7.0	5.4	6.0
Affar	6.4	7.6	8.5	9.8	10.5	9.9	13.1	9.0	13.3
Amhara	3.4	3.9	4.6	5.2	5.0	5.4	5.2	4.4	5.1
Oromiya	4.3	5.2	5.4	6.1	6.1	6.4	7.1	5.4	6.8
Somali	8.7	9.6	10.1	10.7	11.2	11.4	11.4	10.1	12.6
Benishangul-Gumuz	3.7	4.5	5.3	5.7	5.8	7.0	5.8	4.9	6.0
SNNP	4.8	5.3	5.6	6.3	6.3	6.9	7.5	5.8	6.7
Gambela	3.7	4.2	5.0	5.7	5.9	7.1	6.1	4.9	6.1
Harari	4.4	5.1	5.2	6.2	7.1	6.3	7.6	5.6	5.6
Addis Ababa	2.9	3.4	3.5	4.0	4.4	4.2	4.4	3.5	3.4
Dire Dawa	4.2	4.9	5.2	6.0	6.4	6.9	6.8	5.4	5.4
Education									
No education	4.7	5.3	5.6	6.3	6.1	6.4	6.8	5.7	7.5
Primary	3.6	4.4	5.0	5.2	5.2	5.6	7.0	4.4	5.8
Secondary and higher	3.1	3.5	3.7	4.4	3.9	5.2	4.6	3.5	3.9
All women	4.2	4.9	5.2	6.0	5.9	6.3	6.7	5.3	NA
All men	4.5	5.0	6.3	6.2	6.9	8.4	9.7	NA	6.4

NA = Not applicable

7.4 FERTILITY PLANNING

The Ethiopia DHS provides an opportunity to estimate levels of unwanted fertility. Unwanted fertility can be estimated in one of two ways. Women were asked a series of questions about each of their children born in the five years preceding the survey, as well as any current pregnancy to determine whether the pregnancy was wanted *then* (planned), wanted *later* (mistimed), or *not* wanted (unplanned) at the time of conception. This information may in fact underestimate unplanned childbearing since women may rationalize unplanned births and declare them as planned once they occur. Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size.

Table 7.8 shows that 17 percent of births were not wanted, while 20 percent of births were mistimed (wanted later). In general, the proportion of unwanted births rises with birth order. The percentage of unwanted births increases from 10 percent among first and second order births to 24 percent among fourth and higher order births. With the exception of births to very young mothers (under age 20), the percentage of unwanted births rises with mother's age.

Table 7.8 Fertility planning status

Percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Ethiopia 2000

Birth order and mother's age at birth	Planning status of birth					
	Wanted then	Wanted later	Not wanted	Missing	Total	Number
Birth order						
1	71.1	18.6	10.3	0.0	100.0	2,580
2	66.0	24.3	9.6	0.1	100.0	2,259
3	63.8	23.2	12.8	0.1	100.0	1,872
4+	58.8	17.6	23.5	0.1	100.0	6,999
Age at birth						
<15	45.5	21.2	33.3	0.0	100.0	30
15-19	63.7	25.4	10.8	0.1	100.0	1,901
20-24	67.4	22.9	9.6	0.1	100.0	3,733
25-29	63.8	21.9	14.3	0.0	100.0	3,273
30-34	63.0	16.7	20.2	0.1	100.0	2,340
35-39	56.5	11.3	32.1	0.0	100.0	1,563
40-44	51.0	7.8	41.0	0.2	100.0	767
45-49	53.8	7.3	38.9	0.0	100.0	101
Total	63.0	19.6	17.3	0.1	100.0	13,709

Table 7.9 shows *wanted fertility rates* calculated using the second approach to measuring unwanted fertility. The wanted fertility is computed in the same way as the total fertility rate, except that unwanted births are excluded from the numerator. In this case, unwanted births are those that exceed the number mentioned as ideal by the respondent. This rate represents the level of fertility that would have prevailed in the five years preceding the survey if all unwanted births had been prevented.

The overall total wanted fertility rate is 4.9 children and is a child lower than the actual total fertility rate of 5.9 children in the country. The gap between wanted and observed fertility rates is greater among women living in rural areas than in urban areas. The difference between the two rates is lowest among women with secondary and higher education and highest among women with no education. The gap between wanted and actual fertility is also the widest in the Oromiya Region and the narrowest in the Somali Region.

Table 7.9 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the five years preceding the survey, by background characteristics, Ethiopia 2000

Background characteristic	Total wanted fertility rates	Total fertility rates
Residence		
Urban	2.7	3.3
Rural	5.4	6.4
Region		
Tigray	5.3	5.8
Affar	4.6	4.9
Amhara	4.9	5.9
Oromiya	5.2	6.4
Somali	5.6	5.7
Benishangul-Gumuz	4.6	5.4
SNNP	5.1	5.9
Gambela	4.0	4.5
Harari	4.0	4.4
Addis Ababa	1.6	1.9
Dire Dawa	3.2	3.6
Mother's education		
No education	5.3	6.2
Primary	4.2	5.1
Secondary and higher	2.5	3.1
Total	4.9	5.9

Note: Rates are calculated based on births to women age 15-49 in the period 1-60 months preceding the survey. The total fertility rates are those presented in Table 4.2.

INFANT AND CHILD MORTALITY 8

This chapter presents levels, trends, and differentials in neonatal, postneonatal, infant, and child mortality in Ethiopia. High-risk fertility behavior of women covered in the survey is also discussed. Information on infant and child mortality rates not only enriches the understanding of a country's socioeconomic situation but also sheds light on the quality of life of the population under study. Studies of mortality indicators have shown the existence of differentials by socioeconomic and demographic characteristics. To have a better understanding, the data in this report are therefore disaggregated by these groupings.

Disaggregation of mortality indicators by different economic, social, and demographic categories helps to identify populations that are at high risk. Preparation, implementation, monitoring, and evaluation of population, health, and other socioeconomic programs and policies depend to a large extent on a target population. Results from the 2000 Ethiopia DHS are also timely in evaluating the impact of some of the major national policies like the National Population Policy, the National Policy on Ethiopian Women, and the National Health Policy.

The mortality rates presented in this chapter are computed from information in the birth history section of the Women's Questionnaire. Each woman age 15-49 was asked whether she had ever given birth, and if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple; the sex of the child; the date of birth (month and year); survival status; age of the child on the date of interview if alive; and if not alive, the age at death of each live birth. The rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one. Childhood mortality rates are defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality (${}_1q_0$): the probability of dying between birth and the first birthday
- Child mortality (${}_4q_1$): the probability of dying between exact ages one and five
- Under-five mortality (${}_5q_0$): the probability of dying between birth and the fifth birthday.

In addition to questions on live births, women were asked about pregnancies that did not end in a live birth and about children who died within seven days. This information was collected for the five years preceding the survey to minimize recall errors and is used to estimate perinatal mortality, which is the number of stillbirths and early neonatal deaths per 1,000 stillbirths and live births.

8.1. Assessment of Data Quality

The reliability of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling variability and sampling errors are discussed in detail in Appendix A. Nonsampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded and the completeness with which child deaths are reported. Omission of births

and deaths affects mortality estimates, displacement of dates impacts mortality trends, and misreporting of age at death may distort the age pattern of mortality. Typically, the most serious source of nonsampling errors in a survey that collects retrospective information on births and deaths arises from an underreporting of both births and deaths of children who are not alive at the time of the survey. It may be that mothers are generally reluctant to talk about their dead children because of the sorrow associated with any death, or they may live in a culture that discourages discussing the dead. Underreporting of births and deaths is generally more severe the further back in time an event occurred.

An unusual pattern in the distribution of births by calendar years is an indication of omission of children or age displacement. Table C.4 (refer to Appendix C) shows that the percentage of births for which a month and year of birth was reported decreases as one moves further back in time, from 100 percent for births in calendar year 2000 to 92 percent for births in calendar year 1991. This decline is more severe among dead than among living children. For example, complete information is available for 99 percent of living children, but for only 89 percent of dead children, in calendar year 1997. There is also some indication of omission of deaths in the most recent period. For example the proportion of deaths to births declines from 21 percent in the period 1991-1995 to 12 percent during the period 1996-2000. Some of this decline may be due to a real decrease in mortality in the most recent period, and some may be due to the fact that younger children have a shorter period of exposure to the risk of mortality. Nevertheless, such a sharp decline in the proportion of deaths since 1995 suggests some underreporting in the most recent period.

Age displacement is common in many surveys that include both demographic and health information for children below a specified age. In the Ethiopia DHS, the cutoff date for asking health questions was Meskerem 1987 in the Ethiopian calendar (which roughly corresponds to September 1994 in the Gregorian calendar). Table C.4 shows that there is some age displacement across this boundary and it is more obvious for living than dead children. The distribution of living children and total number of children shows a deficit in 1994 and an excess in 1993 as denoted by the calendar year ratios. This pattern could be attributed to the transference of births by interviewers out of the period for which health data were collected. However, since transference is not proportionally higher for dead children than living children, mortality rates are unlikely to be affected by such displacement. The overall sex ratio of 109 is also higher than expected, indicating that there may be some underreporting of female births, especially of female children who are no longer alive. The sex ratio for dead children is 123 compared with 105 for living children.

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. Table C.5 shows data on age at death for early infant deaths. Selective underreporting of early neonatal deaths would result in an abnormally low ratio of deaths within the first seven days of life to all neonatal deaths. Early infant deaths have *not* been severely underreported in the Ethiopia DHS as suggested by the high ratio of deaths in the first seven days of life to all neonatal deaths.[1]

Heaping of the age at death on certain digits is another problem that is inherent in most retrospective surveys. Misreporting of age at death biases age pattern estimates of mortality if the net result is the transference of deaths between age segments for which the rates are calculated; for example, child mortality may be overestimated relative to infant mortality if children who died in the first year of life are reported as having died at age one or older. In an effort to minimize misreporting of age at

[1] There are no model mortality patterns for the neonatal period. However, one review of data from several developing countries concluded that at levels of neonatal mortality of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first seven days of life (Boerma, 1988).

death, interviewers were instructed to record deaths under one month in days and under two years in months. In addition, they were trained to probe for deaths reported at exactly 1 year or 12 months to ensure that they had actually occurred at 12 months. The distribution of deaths under 2 years during the 20 years prior to the survey by month of death shows that there is definite heaping at 6, 12, and 18 months of age with corresponding deficits in adjacent months (refer to Table C.6 in Appendix C). However, heaping is less pronounced for deaths in the five years preceding the survey, for which the most recent mortality rates are calculated.

8.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

Table 8.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for the three recent five-year periods before the survey. Neonatal mortality in the most recent period is 49 per 1,000 live births. This rate is similar to postneonatal deaths (48 per 1,000 live births) during the same period; that is, the risk of dying for any Ethiopian child who survived the first month of life is the same in the next 11 months. Thus, almost one in every ten babies born in Ethiopia (97 per 1,000) does not survive to celebrate the first birthday. Under-five mortality in Ethiopia is also high (166 per 1,000 live births), with one in every six children dying before the fifth birthday.

Data from the Ethiopia DHS show that mortality has declined in Ethiopia over the past 15 years and that this decline is more pronounced over the last 10 years (Table 8.1). Under-five mortality is 21 percent lower now than it was five to nine years ago, with the pace of decline in infant mortality (25 percent) somewhat faster than for child mortality (18 percent). The corresponding decline in neonatal and postneonatal mortality over the same period is 29 percent and 21 percent, respectively.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality for five-year periods preceding the survey, Ethiopia 2000

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	**Infant mortality ($_1q_0$)**	Child mortality ($_4q_1$)	**Under-five mortality ($_5q_0$)**
0-4	48.7	48.3	97.0	76.7	166.2
5-9	68.3	61.5	129.8	93.7	211.4
10-14	63.4	69.7	133.0	96.3	216.5

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

8.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

From Table 8.2, it is apparent that infant and child survival is influenced by the socioeconomic characteristics of mothers.[2] Mortality in urban areas is consistently lower than in rural areas. For example, infant mortality in urban areas is 97 deaths per 1,000 live births, compared with 115 deaths per 1,000 live births in rural areas. The urban-rural difference is especially pronounced in the case of child mortality. It is 34 percent lower in urban areas than in rural areas. Differentials in mortality by region are also pronounced. In general mortality is lower in Addis Ababa and Dire Dawa, the most

Table 8.2 Early childhood mortality by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by socioeconomic characteristics, Ethiopia 2000

Socioeconomic characteristic	Neonatal mortality (NN)	Post-neonatal mortality[1] (PNN)	**Infant mortality ($_1q_0$)**	Child mortality ($_4q_1$)	**Under-five mortality ($_5q_0$)**
Residence					
Urban	46.3	50.2	96.5	57.6	148.6
Rural	59.5	55.3	114.7	87.8	192.5
Region					
Tigray	68.1	35.5	103.6	73.0	169.0
Affar	45.5	83.7	129.2	114.9	229.3
Amhara	59.7	52.7	112.4	80.0	183.4
Oromiya	61.1	55.1	116.2	87.9	193.8
Somali	60.3	39.1	99.4	94.2	184.2
Benishangul-Gumuz	64.5	33.1	97.6	111.0	197.7
SNNP	49.4	64.0	113.4	88.2	191.5
Gambela	57.1	65.6	122.6	126.0	233.2
Harari	54.0	64.3	118.3	82.4	191.0
Addis Ababa	42.6	38.4	81.0	35.4	113.5
Dire Dawa	41.8	63.8	105.6	78.4	175.7
Mother's education					
No education	61.4	57.7	119.1	89.0	197.4
Primary	46.0	39.0	85.0	67.9	147.1
Secondary and higher	24.8	38.7	63.5	27.4	89.2
Number of reasons to justify wife beating					
0	49.2	40.7	89.9	70.2	153.8
1-3	58.7	54.4	113.1	89.0	192.0
4-5	59.8	58.3	118.1	84.8	193.0
Medical maternity care[2]					
No antenatal or delivery care	53.0	48.2	101.2	NA	NA
Either antenatal or delivery care	35.6	52.1	87.7	NA	NA
Both antenatal and delivery care	4.3	32.6	36.9	NA	NA
Total	58.1	54.8	112.9	84.5	187.8

NA = Not applicable
[1] Computed as the difference between the infant and the neonatal mortality rates
[2] Rates for the five-year period before the survey. Medical care is that given by a health professional.

[2] To have a sufficient number of cases to ensure statistically reliable mortality estimates, rates presented in Tables 8.2 and 8.3 are calculated for a ten-year period.

urbanized areas of the country. Nevertheless, even in Addis Ababa, one in nine children dies before the fifth birthday. The corresponding rates are about one in four in the Affar and Gambela regions.

As expected, mortality declines markedly as mother's education increases. Children born to mothers with no education suffered the highest mortality. According to the survey results, educating mothers through secondary and higher levels reduces neonatal mortality by 60 percent, infant mortality by 47 percent, and under-five mortality by 55 percent, compared with mothers who had no education. Children of women who believe that men are not justified in beating their wives for any reason are less likely to die in childhood than children of mothers who believe that men are justified in beating their wives for at least one reason. This is presumably because these women enjoy or perceive themselves to enjoy a higher status than other women and hence are able to exercise greater autonomy in matters pertaining to children's health.

Survival of infants and children is also highly influenced by access to maternal health care. This is clearly evident from the data in Table 8.2 and especially in the case of neonatal death rates, which are 33 percent lower when either antenatal or delivery care is utilized and 92 percent lower when both antenatal and delivery care are utilized than when neither service is utilized.

8.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality is also influenced to a considerable extent by demographic characteristics of mothers and children. Table 8.3 and Figure 8.1 show the relationship between infant and child mortality and different demographic variables. With the exception of child mortality, male children in general experience higher mortality than female children. The gender difference is especially pronounced for infant mortality, in which case one in eight boys dies before his first birthday, compared with one in ten girls. The excess mortality among boys is a universal phenomenon presumably due to a higher biological risk of death during the first months of life. Since male mortality is typically higher than female mortality during childhood, the slight excess in female child mortality (4 percent) may reflect some differences in child rearing practices in Ethiopia, presumably in feeding practices and utilization of health care services, that favor boys over girls.

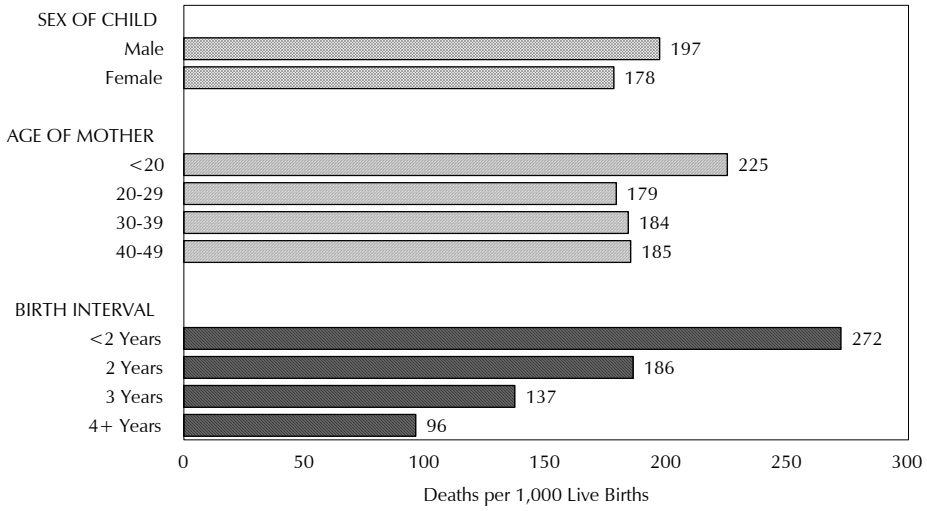
Table 8.3 Early childhood mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality for the ten-year period preceding the survey, by demographic characteristics, Ethiopia 2000

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality[1] (PNN)	**Infant mortality ($_1q_0$)**	Child mortality ($_4q_1$)	**Under-five mortality ($_5q_0$)**
Sex of child					
Male	67.1	57.4	124.4	83.0	197.0
Female	48.6	52.0	100.6	86.1	178.0
Mother's age at birth					
< 20	85.3	63.1	148.5	90.4	225.4
20-29	51.0	53.0	104.0	83.2	178.6
30-39	56.6	52.4	109.0	83.7	183.6
40-49	52.8	61.1	113.9	80.1	184.9
Birth order					
1	84.9	58.7	143.6	72.5	205.6
2-3	49.1	49.6	98.7	87.4	177.4
4-6	46.4	53.9	100.4	90.4	181.7
7+	66.1	60.3	126.4	79.8	196.1
Previous birth interval					
< 2 years	91.8	85.9	177.7	114.6	271.9
2 years	47.7	51.3	99.0	96.7	186.1
3 years	32.8	36.7	69.5	72.9	137.4
4 or more years	24.5	32.8	57.2	41.3	96.2
Birth size[2]					
Small or very small	46.1	43.4	89.4	NA	NA
Average	43.8	40.8	84.5	NA	NA
Large or very large	54.7	61.7	116.3	NA	NA
Total	58.1	54.8	112.9	84.5	187.8

NA = Not applicable
[1] Computed as the difference between the infant and the neonatal mortality rates.
[2] Rates for the five-year period before the survey.

Figure 8.1 **Under-Five Mortality by Selected Demographic Characteristics**



Note: Rates are for the 10-year period preceding the survey. Ethiopia DHS 2000

As expected, the relationship between maternal age at birth and childhood mortality is generally a U-shaped curve, being relatively higher among children born to mothers under age 20 and over age 40 than among mothers in the middle age groups. This pattern is especially obvious in the case of infant and under-five mortality. In general, first births and births of order seven and higher also suffer significantly higher rates of mortality than births of orders 2 through 6. For example, one in seven first births did not survive to the first year, compared with one in ten second and third order births. Short birth intervals also significantly reduce a child's chances of survival. For example, children born within two years of a preceding birth are more than twice as likely to die within the first month of life as children born after a two-year interval.

Studies have shown that a child's weight at birth is an important determinant of its survival chances. Since most births in Ethiopia occur at home, children's actual birth weights were unavailable for most children. Instead, mothers in the Ethiopia DHS were asked whether their child was very large, larger than average, average, smaller than average, or small at birth since this has been found to be a good proxy for the child's weight. Surprisingly, large or very large children experience the greatest mortality, followed by small or very small children.

8.5 PERINATAL MORTALITY

Perinatal mortality reflects an adverse outcome for pregnancies of at least seven months' gestation. The perinatal mortality rate is obtained by summing all stillbirths and deaths to children within the first week of life (early neonatal deaths) and dividing by the sum of all stillbirths and live births. The perinatal mortality rate captures stillbirths and neonatal deaths, two seemingly different outcomes that result from similar conditions.

The Ethiopia DHS asked women to report on pregnancy losses and their duration if they occurred

at any time during the five years before the survey. This time cutoff was used to minimize recall errors associated with reporting on pregnancy losses. These events are also highly susceptible to omission and/or misreporting. Nevertheless, retrospective surveys provide more representative and complete enumeration of perinatal deaths than do most vital registration systems and hospital-based studies in developing countries.

The perinatal mortality rate for the five years preceding the survey is 52 deaths per 1,000 stillbirths and live births (Table 8.4). Perinatal mortality is significantly higher among women under age 20 than among older women. Pregnancies that occur at less than a 15-month interval are at more than three times the mortality risk of pregnancies that occur after longer intervals. Rural women are more likely to experience pregnancy losses than urban women, as are women who reside in the Benishangul-Gumuz Region. Educated mothers are less likely to experience pregnancy losses than uneducated mothers.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Ethiopia 2000

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7 or more months duration
Mother's age at birth				
<20	53	82	74.3	1,823
20-29	109	198	48.3	6,357
30-39	53	124	49.6	3,576
40-49	19	17	48.0	738
Previous pregnancy interval				
No previous pregnancy	68	106	76.0	2,283
<15 months	44	53	129.3	748
15-26 months	28	84	42.3	2,641
27-38 months	42	99	38.6	3,647
39+ months	52	80	41.6	3,175
Residence				
Urban	19	41	46.3	1,296
Rural	215	380	53.1	11,198
Region				
Tigray	17	25	52.8	805
Affar	1	3	33.9	127
Amhara	67	95	49.6	3,269
Oromiya	100	196	58.0	5,099
Somali	2	3	33.6	144
Benishangul-Gumuz	5	7	91.3	129
SNNP	37	84	45.8	2,639
Gambela	0	1	39.2	29
Harari	0	1	37.7	26
Addis Ababa	4	4	47.5	187
Dire Dawa	1	1	47.0	41
Mother's education				
No education	202	359	54.7	10,265
Primary	27	50	47.7	1,624
Secondary and higher	4	12	26.5	605
Total	234	421	52.4	12,494

[1] Stillbirths are fetal deaths to pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths among live-born children age 0 to 6 days.
[3] Perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months duration.

8.6 HIGH-RISK FERTILITY BEHAVIOR

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

Table 8.5 shows the percent distribution of children born in the five years before the survey and of currently married women by these risk factors. Only 22 percent of births were in a "risk-free" category. Fourteen percent were first births—considered an unavoidable risk category—while 39 percent of births were in a single high-risk category, and 24 percent were in a multiple high-risk category. The most common single high-risk category was births of order 3 and above (27 percent), while the most common multiple high-risk category was births to mothers older than 34 years and of birth order 3 and above (15 percent).

The risk ratios displayed in the second column of Table 8.5 denote the relationship between risk factors and mortality. In general, risk ratios are higher for children in a multiple high-risk category than in a single high-risk category. Most vulnerable are children born to women under age 18 at the time of birth and less than 24 months after a preceding birth; they are nearly four times as likely to die as children not in any high-risk category. Fortunately, less than 1 percent of births fall into this category. At the same time, 7 percent of births occurred at a birth interval of less than 24 months to mothers who have 3 or more children. These children are nearly twice as likely to die as children not in any high-risk category.

Four in five married women have the potential to give birth to a child with an elevated risk of mortality, as shown in the final column of Table 8.5. Twenty-eight percent of these women are or would be relatively old and have or would have too many children.

Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying 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, Ethiopia 2000

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	22.4	1.00	14.5[a]
Unavoidable risk category			
First-order births between age 18 and 34	14.1	1.54	6.5
Single high-risk category			
Mother's age <18	5.4	1.80	2.0
Mother's age >34	0.4	1.34	2.9
Birth interval <24 months	6.2	1.82	9.8
Birth order >3	27.0	1.04	17.7
Subtotal	39.0	1.27	32.3
Multiple high-risk category			
Age <18 & birth interval <24 months[2]	0.6	3.81	0.3
Age >34 & birth order >3	14.7	1.22	28.0
Age >34 & birth interval <24 months and birth order >3	2.2	2.42	6.3
Birth interval <24 months and birth order >3	6.9	1.83	12.0
Subtotal	24.4	1.56	46.7
In any avoidable high-risk category	63.4	1.39	79.0
Total	100.0	NA	100.0
Number of births	12,260	NA	9,789

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*.
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 combined categories *age <18* and *birth order >3*.
[a] Includes sterilized women

ADULT AND MATERNAL MORTALITY 9

Since the launch of the Safe Motherhood Initiative in 1987, attention to reproductive health has increased worldwide and so has the need to provide reliable countrywide estimates of maternal deaths. In response to this increased interest, DHS surveys began collecting maternal mortality data through a series of questions designed to gather information and obtain a direct measure of maternal mortality. These questions were included in the 2000 Ethiopia DHS.

Maternal mortality estimates need a comprehensive and accurate reporting of maternal deaths. Such estimates can be obtained through vital registration, longitudinal studies of pregnant women, or repeated household surveys. However, there is no vital registration system in Ethiopia nor has there been any national household survey carried out for the purpose of estimating maternal mortality. The Ethiopia DHS is the first population-based national survey to incorporate questions on maternal mortality. Therefore, the estimates presented in this chapter will play a vital role in filling the vacuum for a reliable national estimate of maternal mortality. Nevertheless, it is important for users of this information to understand the inherent problems associated with measuring maternal mortality in order to avoid serious misinterpretation of the results of the survey.

Direct estimates of maternal mortality use data on the age of surviving sisters of survey respondents, the age at death of sisters who have died, and the number of years since the death of sisters. Interviewers in the Ethiopia DHS were asked to list all the brothers and sisters born to the natural mother of female respondents in chronological order starting with the first. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or over, the respondent was asked additional questions to determine whether the death was maternity related; that is, whether the sister was pregnant when she died, and if so, whether the sister died during childbirth, and if not, whether the sister died within two months of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth is believed to result in better reporting of events than would be the case if only information on sisters were sought. Moreover, the information collected also allows the direct estimates of adult male and female mortality.

9.1 DATA QUALITY ISSUES

A brief discussion of data quality is warranted here. One measure of the quality of the data collected is the completeness of information on siblings. Overall, the data on siblings is nearly complete with less than half of 1 percent of siblings with missing information on age at death and years since death, with little difference between brothers and sisters (Appendix Table C.7). Rather than exclude

siblings with missing information from the analysis, the information on the birth order of siblings in conjunction with other information is used to impute the missing data.[1]

The distribution of year of birth of respondents in relation to their siblings is another crude measure of the quality of data. If there is no bias in reporting, the year of birth of siblings should be roughly equivalent to the year of birth of respondents overall. The distribution of respondents and their siblings by year of birth is close, with the median year of birth of respondents just one year more than that of siblings (1960 versus 1959), indicating that there is no serious underreporting of siblings (Appendix Table C.8).

Yet another crude measure of data quality is the mean number of siblings, or the mean sibship size (Appendix Table C.9). Sibship size is expected to decline as fertility declines over time. The absence of a monotonic decline in sibship size, even though fertility has declined in Ethiopia, is an indication that there may be some omission in the reporting of older siblings. This is also confirmed by the sex ratios that are larger than the internationally accepted sex ratio of 103-105, especially further back in time, indicating that either sisters are underreported or brothers are overreported. However, since adult mortality rates are reported here for the seven years preceding the survey, this omission is unlikely to affect the calculation of mortality rates. Moreover, if the omission occurred mostly among sisters who did not survive to adulthood (which is most likely the case), it may not even bias the estimation of maternal mortality. Nevertheless, it should be borne in mind that any information that relies on recall of events will suffer from some degree of misreporting, especially if it pertains to deceased persons and occurred a long time before the survey.

9.2 ADULT MORTALITY

It is advisable to begin by estimating overall adult mortality. If the overall mortality estimates display a general, stable, and plausible pattern, it lends credence to the maternal mortality estimates derived thereafter. This is simply because maternal mortality is a subset of adult mortality.

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-months of exposure in that age group during a specified reference period. In total, female respondents to the Ethiopia DHS reported 91,804 siblings, of whom 43,933 were sisters and 47,872 were brothers (Appendix Table C.7). Direct estimates of age-specific mortality rates for males and females are shown in Table 9.1. To minimize the impact of possible heaping on years since death ending in zero and five, direct estimates are presented for the period 0-6 years before the survey, which roughly corresponds to 1993-1999. Although the number of sibling deaths during the period

[1] The imputation procedure is based on the assumption that the reported birth ordering of the siblings in the birth history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and for each dead sibling with complete information on both age at death and year of death, the birth date is calculated. For a sibling missing these data, a birth date is imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age is calculated from the imputed birth date. In the case of dead siblings, if either age at death or year of death is reported, that information is combined with the birth date to produce missing information. If both pieces of information are missing, the age at death is imputed. This imputation is based on the distribution of the ages at death for those whose year of death is unreported, but age at death is reported.

1994-2000 is relatively large, because of the large sampling variability, it is preferable to aggregate the data over the age range 15-49. There are more male than female deaths in the seven years preceding the survey (1,229 compared with 1,039). The male mortality rate is 8.0 deaths per 1,000 population and is 16 percent higher than the female mortality rate of 6.7 deaths per 1,000 population. There are no similarly collected data in Ethiopia for comparison purposes.

Table 9.1 Adult mortality rates

Direct estimates of female and male adult mortality for the period 0-6 years prior to the survey, Ethiopia 2000

Age	Deaths	Exposure years	Mortality rates[1]
FEMALE			
15-19	168	34,277	4.89
20-24	205	34,082	6.03
25-29	176	28,641	6.15
30-34	194	23,757	8.18
35-39	148	17,445	8.46
40-44	91	10,968	8.26
45-49	58	7,164	8.05
15-49	1,039	156,334	6.67[a]
MALE			
15-19	148	34,712	4.27
20-24	192	35,187	5.45
25-29	219	29,591	7.41
30-34	284	23,429	12.11
35-39	173	17,491	9.88
40-44	107	11,198	9.58
45-49	107	6,821	15.63
15-49	1,229	158,429	8.00[a]

[1] Mortality rates are expressed per 1,000 population.
[a] Age-adjusted rate

9.3 MATERNAL MORTALITY

Information on maternal mortality for the period 0-6 years before the survey is shown in Table 9.2. As previously mentioned, this period was chosen to reduce any possible heaping of reported years since death on five-year intervals. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the Ethiopia DHS is 49 years), the overall rate for women age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth or within two months after the birth or termination of a pregnancy.[2] Maternal mortality in Ethiopia is high relative to developed countries. However, for each age group, maternal deaths are a relatively rare occurrence. As such, the age-specific pattern should be interpreted with caution. There were 263 maternal deaths in the seven years preceding the survey. The maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, for the period 1994-2000 is 1.68. Maternal deaths accounted for 25 percent of all deaths to women age 15-49; in other words, one in four Ethiopian women who died in the seven years preceding the survey died from pregnancy or pregnancy-related causes.

The maternal mortality ratio, which is obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful measure of maternal mortality since it measures the obstetric risk associated with each live birth. Table 9.2 shows that the maternal mortality ratio for Ethiopia for the period 1994-2000 is 871 deaths per 100,000 live births (or alternatively 9 deaths per 1,000 live births).

[2] This time-specific definition includes all deaths that occurred during the specified period even if the death is due to nonpregnancy-related causes. However, this definition is unlikely to result in overreporting of maternal deaths because most deaths to women in the specified period are due to maternal causes, and maternal deaths in general are more likely to be underreported than overreported.

Table 9.2 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-6 years prior to the survey, Ethiopia 2000

Age	Maternal deaths	Exposure years	Mortality rates[1]	Proportion of maternal deaths to female deaths
15-19	32	34,277	0.919	18.8
20-24	63	34,082	1.843	30.6
25-29	56	28,641	1.957	31.8
30-34	61	23,757	2.585	31.6
35-39	34	17,445	1.940	22.9
40-44	12	10,968	1.102	13..3
	5	7,164	0.690	8.6
Total	263	156,334	1.680	25.3
General Fertility Rate (GFR)			0.190	
Maternal Mortality Ratio (MMR)[2]			871	

[1] Expressed per 1,000 woman-years of exposure
[2] Expressed per 100,000 live-births; calculated as the maternal mortality rate divided by the general fertility rate
[a] Age-adjusted rate

MATERNAL AND CHILD HEALTH 10

This chapter presents findings on four areas of importance to maternal and child health: antenatal, delivery, and postnatal care; characteristics of the newborn; vaccination coverage; and common childhood illnesses and their treatment. This information, in combination with data on mortality, is useful in formulating programs and policies to improve maternal and child health services.

10.1 ANTENATAL CARE

The health care that a mother receives during pregnancy and at the time of delivery is important for the survival and well-being of both the mother and the child. Antenatal care (ANC) coverage is described according to the type of provider, number of ANC visits, stage of pregnancy at the time of the first and last visits, and number of visits, as well as services and information provided during ANC, including whether tetanus toxoid vaccinations were received. Information on ANC coverage was obtained from women who had a birth in the five years preceding the survey. For women with two or more live births during the five-year period, data refer to the most recent birth only.

Table 10.1 and Figure 10.1 show the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy, according to selected characteristics. Women were asked to report on all persons seen for antenatal care for the last birth. However, for the purpose of presenting the results, only the provider with the highest qualification is considered if women had seen more than one provider. Twenty-seven percent of mothers received antenatal care from health professionals (doctor, nurse, midwife) for their most recent birth in the five years preceding the survey, and less than 1 percent of mothers received antenatal care from traditional birth attendants (trained and untrained). Nearly three-quarters (73 percent) of mothers received no antenatal care for births in the preceding five years.

Differences in antenatal care between age groups of women are negligible. Differences by birth order are more pronounced. Mothers are more likely to receive care from a health professional for first births (32 percent) than for births of order six and higher (21 percent).

There are large differences in the use of antenatal care services between urban and rural women. In urban areas, health professionals provided antenatal care for 67 percent of mothers, whereas they provided care for only 22 percent of mothers in rural areas. Additionally, in rural areas, more than three-quarters of mothers (78 percent) received no antenatal care at all, compared with 32 percent in urban areas.

Regional differences in the source of antenatal care are quite significant; 83 percent of mothers in Addis Ababa received antenatal care from a health professional, compared with less than one in five mothers in the Somali and Amhara regions. The percentage of mothers who received no antenatal care is the highest in the Somali and Amhara regions (84 and 81 percent, respectively) and the lowest in Addis Ababa (17 percent).

Table 10.1 Antenatal care

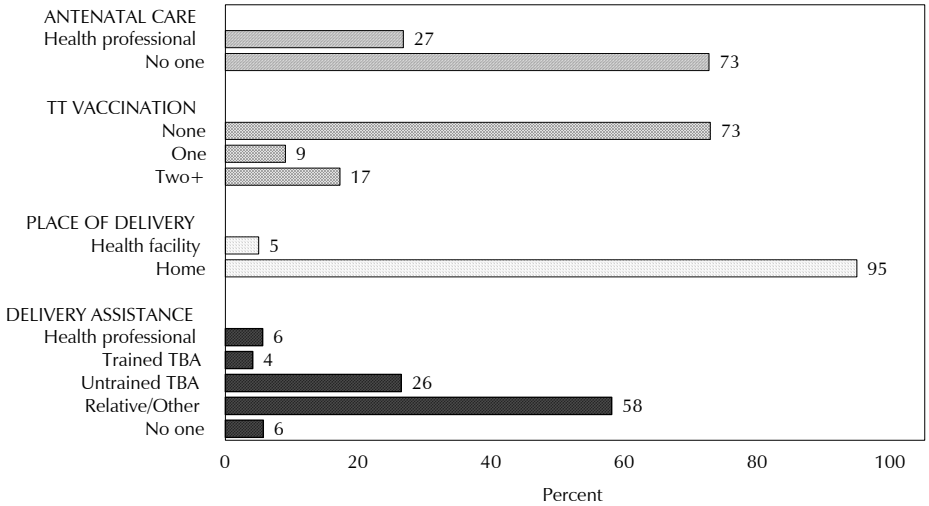
Percent distribution of women who had a live birth in the five years preceding the survey by source of antenatal care (ANC) during pregnancy, according to maternal and background characteristics, Ethiopia 2000

Background characteristic	Health profes-sional	Trained traditional birth attendant	Untrained traditional birth attendant/ other[1]	No one	Missing	Total	Number
Mother's age at birth							
<20	28.8	0.7	0.3	70.3	0.0	100.0	1,016
20-34	28.0	0.2	0.3	71.3	0.1	100.0	5,310
35-49	21.3	0.2	0.3	78.0	0.1	100.0	1,652
Birth order							
1	31.9	0.4	0.2	67.4	0.0	100.0	1,362
2-3	29.1	0.4	0.2	70.2	0.1	100.0	2,371
4-5	28.4	0.3	0.4	70.7	0.3	100.0	1,707
6+	20.7	0.1	0.3	78.8	0.1	100.0	2,538
Residence							
Urban	66.6	0.9	0.3	32.2	0.0	100.0	908
Rural	21.6	0.2	0.3	77.8	0.1	100.0	7,070
Region							
Tigray	36.4	0.5	0.1	63.0	0.0	100.0	536
Affar	26.1	0.2	0.5	71.9	1.2	100.0	85
Amhara	18.9	0.1	0.0	81.1	0.0	100.0	2,224
Oromiya	27.0	0.4	0.6	71.9	0.1	100.0	3,059
Somali	14.6	0.6	1.3	83.5	0.0	100.0	85
Benishangul-Gumuz	25.7	0.2	0.2	74.0	0.0	100.0	81
SNNP	28.4	0.3	0.1	70.9	0.3	100.0	1,695
Gambela	49.8	0.3	0.1	49.9	0.0	100.0	22
Harari	50.2	0.0	0.0	49.8	0.0	100.0	16
Addis Ababa	83.1	0.2	0.0	16.7	0.0	100.0	148
Dire Dawa	57.6	0.0	0.8	41.6	0.0	100.0	27
Eucation							
No education	21.0	0.2	0.3	78.3	0.1	100.0	6,550
Primary	45.0	0.7	0.2	54.1	0.0	100.0	1,003
Secondary and higher	71.7	0.5	0.0	27.8	0.0	100.0	425
Total	26.7	0.3	0.3	72.6	0.1	100.0	7,978

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. If more than one source of ANC care was mentioned, only the provider with the highest qualifications is considered in this tabulation. Total includes women with missing information on antenatal care, who are not shown separately.
[1] Includes "don't know"

The use of antenatal care services is highly associated with the mother's level of education. Women with a secondary education or higher are more likely to receive antenatal care from a health professional (72 percent) than less-educated women (45 percent) and women with no education (21 percent) are. Similarly, almost eight out of ten women with no education receive no antenatal care, whereas the proportion of women who receive no care decreases to 54 percent and 28 percent for women with primary and secondary education or higher, respectively.

Figure 10.1 Antenatal Care, Tetanus Toxoid (TT) Vaccinations, Place of Delivery, and Delivery Assistance



Note: Antenatal care was received by mothers from trained and untrained traditional birth attendants (TBA) in relation to 0.3 percent of births each.

Ethiopia DHS 2000

Antenatal care is more beneficial in preventing adverse pregnancy when it is sought early in the pregnancy and is continued throughout pregnancy. Health professionals recommend that the first antenatal visit should occur within the first three months of the pregnancy and continue on a monthly basis through the 28th week of pregnancy and fortnightly up to the 36th week (or until birth). If the first antenatal visit is made at the third month of pregnancy and as regularly as recommended, there will be a total of at least 12 to 13 antenatal visits. Table 10.2 shows that only one in ten women make four or more antenatal care visits during their entire pregnancy. The median number of antenatal care visits is 2.5, and this is about five times less than the recommended number of 12 or 13 visits. Only 6 percent of women make their first antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy for the first antenatal care visit is 5.5 months. This indicates that in Ethiopia women start antenatal care at a relatively late stage of their pregnancy.

Table 10.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Ethiopia 2000

Number and timing of ANC visits	Percentage of women[1]
Number of ANC visits	
None	72.6
1	6.0
2-3	10.4
4+	10.4
Don't know/missing	0.6
Total	100.0
Median number of visits (for those with ANC)	2.5
Number of months pregnant at time of first ANC visit	
No antenatal care	72.6
<4 months	6.2
4-5 months	9.7
6-7 months	7.9
8+ months	3.1
Don't know/missing	0.5
Total	100.0
Median months pregnant at first visit (for those with ANC)	5.5
Number of live births	7,978

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

10.2 Antenatal Care Content

Pregnancy complications are an important source of maternal and child morbidity and mortality, and thus teaching pregnant women about the danger signs associated with pregnancy and the appropriate action to be taken is an essential component of antenatal care. Table 10.3 presents information on the percentage of women who were informed about the signs of pregnancy complications and the percentage who received routine antenatal care during their last pregnancy in the five years

Table 10.3 Antenatal care content

Percentage of women who had a live birth in the five years preceding the survey who received antenatal care, by content of antenatal care and background characteristics, Ethiopia 2000

Background characteristic	Informed of signs of pregnancy compli-cations	Weight measured	Height measured	Blood pressure measured	Urine sample given	Blood sample given	Received anti-malarial	Number
Mother's age at birth								
<20	23.3	64.9	41.3	66.9	20.9	26.6	9.0	302
20-34	27.7	68.2	41.6	69.8	22.1	24.6	8.2	1,517
35-49	27.3	66.5	48.5	68.7	18.4	23.9	9.8	361
Birth order								
1	25.1	68.9	40.7	70.8	24.5	29.3	8.0	443
2-3	26.4	70.0	42.1	65.9	24.0	24.3	10.5	704
4-5	28.4	66.2	43.1	75.6	18.2	24.1	6.9	496
6+	28.3	64.1	44.6	66.4	18.0	22.2	8.0	536
Residence								
Urban	39.6	89.6	54.1	86.4	47.9	45.8	8.4	615
Rural	22.1	58.7	38.2	62.5	10.9	16.5	8.6	1,564
Region								
Tigray	46.9	67.1	42.6	70.6	25.1	26.6	12.6	199
Affar	16.0	45.2	19.4	64.2	24.1	34.3	21.4	23
Amhara	27.9	54.3	37.6	63.1	15.4	17.7	6.6	421
Oromiya	23.2	71.7	43.3	62.3	15.9	20.0	7.2	856
Somali	41.5	81.3	53.2	74.2	66.6	62.7	1.4	14
Benishangul-Gumuz	29.3	60.5	28.8	66.6	22.5	23.2	19.4	21
SNNP	21.7	64.1	41.3	78.5	13.4	18.7	12.1	488
Gambela	11.5	85.6	70.4	78.2	42.0	41.3	20.8	11
Harari	49.2	86.5	35.3	95.1	63.0	65.3	3.3	8
Addis Ababa	37.2	95.4	65.0	96.2	89.8	88.3	0.6	123
Dire Dawa	47.7	82.9	37.6	82.9	57.4	64.8	3.2	16
Eucation								
No education	22.3	59.1	37.5	62.3	13.0	18.2	7.9	1,412
Primary	27.7	76.2	47.2	74.5	23.0	27.1	9.7	461
Secondary and higher	47.8	92.8	59.4	93.2	57.3	51.6	9.9	307
Total	27.0	67.4	42.7	69.2	21.3	24.7	8.6	2,179

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

preceding the survey. Twenty-seven percent of mothers who received antenatal care reported that they were informed about pregnancy complications during their visits. Weight and height measurement was performed on 67 percent and 43 percent of mothers, respectively. Blood pressure measurement was part of antenatal care for 69 percent of mothers and urine and blood sampling for 21 and 25 percent, respectively, and 9 percent reported having received antimalarial medicine.

Urban women are nearly twice as likely (40 percent) as rural women (22 percent) to be informed about pregnancy complications. A similar trend in urban-rural difference is noticed for all other routine procedures. Regional variations in antenatal care content are marked. For example, the percentage of women who were informed about pregnancy complications ranges from 12 percent in the Gambela Region to 49 percent in the Harari Region. Antenatal care content is also greatly affected by the level of mother's education. Women with secondary or higher education were significantly more likely to be informed about pregnancy complications than less-educated women or women with no education. This is also true for all routine tests and procedures.

10.3 TETANUS TOXOID COVERAGE

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among infants. For full protection, a pregnant woman should receive at least two doses during each pregnancy. If a woman has been vaccinated during a previous pregnancy, however, she may only require one dose for the current pregnancy. Five doses are considered to provide lifetime protection. Table 10.4 and Figure 10.1 present data on tetanus toxoid coverage during pregnancy for women who had a birth in the five years preceding the survey. Nearly three in four women received no tetanus toxoid injection. This indicates that tetanus toxoid vaccination during pregnancy is not a widespread practice in Ethiopia. Only 9 percent of women received one dose of tetanus toxoid injection during pregnancy, and 17 percent received two or more doses.

Births to young mothers and lower order births are slightly more likely to be protected against tetanus than births to older mothers and higher order births. There are marked urban-rural and regional differences in tetanus toxoid vaccination coverage. Mothers living in urban areas are more likely to be protected against tetanus than mothers in rural areas. Fifty-eight percent of mothers in urban areas have received protection during pregnancy, compared with 22 percent of mothers in rural areas. Tetanus toxoid coverage is highest for mothers in Addis Ababa and lowest for mothers in the

Table 10.4 Tetanus toxoid injections

Percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections mother received during pregnancy, according to background characteristics, Ethiopia 2000

Background characteristic	No injection	One dose	Two doses or more	Don't know/ Missing	Total	Number
Mother's age at birth						
<20	72.6	8.6	18.2	0.6	100.0	1,016
20-34	71.3	9.7	17.9	1.2	100.0	5,310
35-49	77.7	7.2	14.4	0.6	100.0	1,652
Birth order						
1	69.2	9.0	21.2	0.6	100.0	1,362
2-3	70.4	10.6	17.8	1.2	100.0	2,371
4-5	71.6	9.7	18.0	0.7	100.0	1,707
6+	77.7	7.1	14.0	1.1	100.0	2,538
Residence						
Urban	39.4	17.1	41.2	2.3	100.0	908
Rural	77.1	8.0	14.1	0.8	100.0	7,070
Region						
Tigray	71.9	13.0	14.3	0.7	100.0	536
Affar	83.4	5.1	10.3	1.2	100.0	85
Amhara	74.3	8.5	16.0	1.2	100.0	2,224
Oromiya	75.4	7.5	16.2	0.9	100.0	3,059
Somali	74.4	8.4	16.9	0.4	100.0	85
Benishangul-Gumuz	78.9	6.9	13.8	0.4	100.0	81
SNNP	70.7	10.8	17.8	0.7	100.0	1,695
Gambela	61.6	12.6	25.3	0.5	100.0	22
Harari	50.6	11.8	35.2	2.4	100.0	16
Addis Ababa	21.6	15.4	58.9	4.0	100.0	148
Dire Dawa	46.2	9.5	43.0	1.3	100.0	27
Mother's education						
No education	77.8	7.7	13.6	0.9	100.0	6,550
Primary	55.2	15.0	28.7	1.1	100.0	1,003
Secondary and higher	36.3	15.1	46.0	2.6	100.0	425
Total	72.8	9.0	17.2	1.0	100.0	7,978

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

Affar Region. Education of the mothers is closely related to tetanus toxoid coverage. Women with no education were three times less likely to have received any protection against tetanus than women with secondary and higher levels of education. This large difference in tetanus toxoid coverage may be attributed to the fact that educated women have greater access to modern health care, have a better understanding of the benefits of tetanus toxoid vaccination, and are more willing to utilize health services.

10.4 ANTIMALARIAL MEDICINE

Malaria is mainly a problem in the lowland areas of Ethiopia. Pregnant women are advised to protect themselves and their unborn child from malaria through the intake of antimalarial medications during their pregnancy. Table 10.5 shows the percentage of mothers in the five years preceding the survey who received or bought antimalarial medication. Only 5 percent of mothers received or bought antimalarial medicines during their pregnancy. Chloroquine is the most widely used antimalarial medicine in Ethiopia, with 72 percent of mothers having received or bought this drug, compared with 19 percent of mothers who received or bought Fansidar (data not shown). There are no notable differences by mother's age and birth order in antimalarial-medication use. Women in urban areas are twice as likely (8 percent) to receive or buy an antimalarial medicine as women residing in rural areas (4 percent). Antimalarial medication varies somewhat by mother's education. Women with secondary education and higher are more likely (11 percent) to receive or buy antimalarial medicine during pregnancy than women with little (7 percent) or no education (4 percent).

Table 10.5 Antimalarial medication and eating taboos

Percentage of women who had a live birth in the five years preceding the survey where the mother received/bought antimalarial medication; and where mothers stopped eating specific foods for cultural reasons and among mothers who stopped eating specific foods during the pregnancy, the type of food stopped eating, by background characteristics, Ethiopia 2000

Background characteristic	Received/ bought anti-malarial medica-tion	Stopped eating specific foods	Number	Among mothers who stopped eating, type of food stopped eating						
				Milk	Cheese/ butter	Any kind of meat	Any kind of vegetable	Any kind of fruit	Other	Number
Mother's age at birth										
<20	5.2	11.0	1,016	21.0	28.3	17.0	26.5	14.7	43.4	112
20-34	4.8	9.1	5,310	28.2	38.9	14.4	27.7	12.5	40.2	481
35-49	4.5	6.4	1,652	25.7	31.7	17.9	37.7	6.5	44.8	106
Birth order										
1	5.3	12.4	1,362	18.8	30.4	23.4	19.3	17.1	46.9	169
2-3	5.4	8.7	2,371	26.1	29.0	7.7	28.8	14.3	40.7	207
4-5	4.4	8.1	1,707	27.5	48.5	9.0	36.4	9.9	34.6	138
6+	4.3	7.3	2,538	33.9	39.9	21.3	32.8	6.1	42.2	185
Residence										
Urban	8.2	10.2	908	37.2	32.0	17.6	33.0	23.7	34.1	93
Rural	4.4	8.6	7,070	25.1	36.7	15.0	28.4	10.1	42.5	606
Eucation										
No education	4.1	8.4	6,550	26.5	35.1	17.3	27.4	10.6	42.5	552
Primary	7.0	10.7	1,003	31.0	44.1	8.5	35.2	15.4	35.7	108
Secondary and higher	10.6	9.3	425	17.7	27.2	6.8	35.0	20.5	40.8	39
Total	4.8	8.8	7,978	26.7	36.1	15.4	29.0	11.9	41.4	699

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

10.5 Eating Taboos

Within a population, some groups may avoid eating certain types of food during pregnancy because of cultural taboos. This could have a detrimental effect on the health of the mother and her child. The Ethiopia DHS included a question to find out whether this was common among its population. Table 10.5 shows the percentage of women who gave birth in the five years preceding the survey who stopped eating specific foods for cultural reasons during their pregnancy, by background characteristics. Only 9 percent of women stopped eating specific foods during their pregnancy. The most common types of food avoided during pregnancy were cheese and butter (36 percent), vegetables (29 percent), and milk (27 percent). In addition, 15 percent and 12 percent of mothers avoided taking meat and fruit, respectively, during their pregnancy. Eating restrictions were more common among young women (under age 20) and mothers of lower order births.

10.6 Delivery Care

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

An overwhelming majority of births (95 percent) in the five years before the survey were delivered at home (Table 10.6 and Figure 10.1). Women are more likely to deliver their first births at a health facility than their second and higher order births. Children born in urban areas are fifteen times more likely to be delivered in a health facility than children born in rural areas. The proportions of births delivered in a health facility are generally low in all the regions (8 percent or less) with the exception of births occurring in the Gambela and Harari regions and in Addis Ababa and Dire Dawa. In these four areas, the proportion of births delivered in a health facility ranges from 23 percent in the Gambela Region to 67 percent in Addis Ababa. There is also a strong association between the level of education of mothers and the place of delivery. The proportion of births delivered in a health facility is only 2 percent for uneducated mothers, compared with 41 percent of births to mothers with secondary and higher education. Institutional deliveries are also more common among women who have made antenatal care visits. Only 2 percent of births to women who received no antenatal care were delivered in a health facility, compared with 7 percent of births to women who made one to three visits and 27 percent of births to women who made four or more visits.

Table 10.6 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Ethiopia 2000

Background characteristic	Health facility	At home	Other	Total	Number
Mother's age at birth					
<20	5.2	94.5	0.1	100.0	1,770
20-34	5.4	94.4	0.1	100.0	8,367
35-49	3.2	96.7	0.0	100.0	2,122
Birth order					
1	10.9	88.9	0.1	100.0	2,333
2-3	4.7	95.1	0.1	100.0	3,689
4-5	3.5	96.4	0.1	100.0	2,650
6+	2.5	97.2	0.1	100.0	3,587
Residence					
Urban	31.5	68.3	0.0	100.0	1,277
Rural	1.9	97.9	0.1	100.0	10,981
Region					
Tigray	3.7	96.0	0.2	100.0	788
Affar	4.1	95.6	0.0	100.0	126
Amhara	2.8	97.1	0.1	100.0	3,202
Oromiya	4.3	95.7	0.0	100.0	4,997
Somali	5.6	94.3	0.1	100.0	142
Benishangul-Gumuz	7.8	90.6	1.5	100.0	124
SNNP	4.3	95.5	0.1	100.0	2,602
Gambela	23.2	76.5	0.1	100.0	29
Harari	24.7	74.8	0.5	100.0	25
Addis Ababa	66.9	32.8	0.2	100.0	182
Dire Dawa	31.0	68.3	0.4	100.0	40
Mother's education					
No education	2.3	97.6	0.1	100.0	10,060
Primary	8.7	91.1	0.0	100.0	1,597
Secondary and higher	40.5	59.2	0.3	100.0	601
Antenatal care visits					
None	1.5	98.4	0.1	100.0	9,001
1-3 visits	7.4	92.4	0.2	100.0	2,018
4 or more visits	27.2	72.6	0.0	100.0	1,162
Don't know/missing	17.4	80.5	0.0	100.0	77
Total	5.0	94.8	0.1	100.0	12,258

Note: Total includes births with missing information on place of delivery, which are not shown separately.

10.7 ASSISTANCE AT DELIVERY

Obstetric care by a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Births delivered at home are usually more likely to be delivered without assistance from a health professional, whereas births delivered at a health facility are more likely to be delivered by a trained health professional. Table 10.7 and Figure 10.1 show the type of assistance during delivery by selected background characteristics. Only 6 percent of births are delivered with the assistance of a trained health professional, that is, a doctor, nurse, or midwife, and 4 percent are delivered by a trained traditional birth attendant (TBA). The majority of births are attended by either an untrained TBA (26 percent) or a relative or some other person (58 percent). Six percent of all births are delivered without any type of assistance at all.

Table 10.7 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to background characteristics, Ethiopia 2000

Background characteristic	Health professional	Trained traditional birth attendant	Untrained traditional birth attendant	Relative/ Other	No one	Total	Number
Mother's age at birth							
<20	6.0	4.8	25.6	60.4	3.1	100.0	1,770
20-34	6.1	4.1	26.5	57.6	5.6	100.0	8,367
35-49	3.7	3.7	26.2	58.0	8.3	100.0	2,122
Birth order							
1	12.1	4.0	26.1	55.3	2.4	100.0	2,333
2-3	5.2	5.3	26.9	57.2	5.2	100.0	3,689
4-5	4.0	3.7	26.3	59.4	6.6	100.0	2,650
6+	3.1	3.4	25.9	59.8	7.7	100.0	3,587
Residence							
Urban	34.5	9.9	27.3	23.2	4.8	100.0	1,277
Rural	2.3	3.5	26.2	62.1	5.8	100.0	10,981
Region							
Tigray	4.8	6.1	25.8	60.1	3.1	100.0	788
Affar	5.5	3.4	74.4	16.3	0.1	100.0	126
Amhara	3.1	3.1	25.8	65.6	2.3	100.0	3,202
Oromiya	4.9	4.3	30.8	54.2	5.8	100.0	4,997
Somali	7.2	9.6	80.0	2.8	0.3	100.0	142
Benishangul-Gumuz	9.1	4.0	13.6	55.8	17.3	100.0	124
SNNP	4.9	3.9	14.8	65.2	11.0	100.0	2,602
Gambela	23.8	3.5	9.8	59.5	3.3	100.0	29
Harari	26.0	10.7	55.4	7.5	0.4	100.0	25
Addis Ababa	69.1	6.2	8.6	13.7	2.1	100.0	182
Dire Dawa	33.5	11.5	49.3	4.4	0.9	100.0	40
Mother's education							
No education	2.5	3.5	27.0	60.8	6.1	100.0	10,060
Primary	10.4	6.7	25.0	53.4	4.3	100.0	1,597
Secondary and higher	45.0	8.5	19.1	23.9	3.5	100.0	601
Antenatal care visits							
None	1.7	3.3	26.6	62.2	6.1	100.0	9,001
1-3 visits	8.7	4.6	26.7	54.5	5.5	100.0	2,018
4 or more visits	30.2	9.9	22.7	34.5	2.6	100.0	1,162
Don't know/Missing	20.5	6.9	39.0	25.1	6.5	100.0	77
Total	5.6	4.1	26.4	58.1	5.7	100.0	12,258

Note: If the respondent mentioned more than one attendant, only the most qualified attendant is considered in this tabulation. Total includes births with missing information on assistance at delivery, which are not shown separately.

Births to young mothers (under 35 years) and first births are more likely to be assisted by a trained health professional. More than one in three births in urban areas have received care from a trained health professional, compared with only 2 percent of births in rural areas. Additionally, 62 percent of births to women in rural areas were delivered with the help of a relative or some other person, compared with 23 percent of births to women residing in urban areas. In most regions, the proportion of births assisted by a trained health professional is quite low (less than 10 percent). However, one in four births in the Gambela and Harari regions, one in three births in Dire Dawa, and seven in ten births in Addis Ababa are delivered by a trained health professional. As expected, mother's education has a positive impact on delivery care. Births to women with primary education are almost four times (10 percent) more likely and births to women with secondary or higher education are eighteen times (45 percent) more likely to receive delivery assistance from a health professional than

births to women with no education. Not surprisingly, contact with health professionals during pregnancy increases the likelihood of professional care during delivery. For example, less than 2 percent of births to women who have not made a single antenatal care visit are attended by a health professional, compared with 30 percent of births to women who have made four or more visits.

10.8 DELIVERY CHARACTERISTICS

Table 10.8 shows that, overall, less than 1 percent of all births in the five years preceding the survey were delivered by caesarean section. First births, urban births, births in Addis Ababa, and births to women with secondary or higher education are more likely to be delivered by caesarean section than other births.

Data on child's weight and size at birth is shown in Table 10.8. Most Ethiopian children are not weighed at birth. This is not surprising since institutional deliveries, where a baby's weight at birth is most likely to be measured, are not common. A negligible percentage of births weigh less than 2.5 kilograms, that is, classified as low birth weight and considered to have a higher-than-average risk of

Table 10.8 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by birth weight, and by mother's estimate of baby's size at birth, according to background characteristics, Ethiopia 2000

		Birth weight					Size of child at birth					
Background characteristic	Delivery by C-section	Not weighed	Less than 2.5 kg	2.5 kg or more	Don't know/ Missing	Total	Very small	Smaller than average	Average or larger	Don't know/ Missing	Total	Number
Mother's age at birth												
<20	1.0	95.0	0.4	1.8	2.7	100.0	7.1	28.5	64.0	0.5	100.0	1,770
20-34	0.8	94.9	0.1	2.9	2.1	100.0	5.4	27.1	67.4	0.1	100.0	8,367
35-49	0.1	97.1	0.2	1.1	1.6	100.0	6.8	28.0	64.8	0.4	100.0	2,122
Birth order												
1	2.8	90.5	0.3	5.0	4.2	100.0	6.2	30.0	63.4	0.4	100.0	2,333
2-3	0.5	95.1	0.2	2.8	1.9	100.0	6.0	26.7	67.2	0.1	100.0	3,689
4-5	0.1	96.7	0.1	2.0	1.2	100.0	5.6	25.7	68.7	0.0	100.0	2,650
6+	0.1	97.6	0.1	0.8	1.6	100.0	5.7	28.0	66.0	0.4	100.0	3,587
Residence												
Urban	5.1	66.9	1.7	19.5	11.9	100.0	4.9	19.8	75.0	0.3	100.0	1,277
Rural	0.2	98.6	0.0	0.5	1.0	100.0	6.0	28.4	65.5	0.2	100.0	10,981
Region												
Tigray	0.4	95.7	0.1	2.4	1.7	100.0	26.3	9.6	63.8	0.3	100.0	788
Affar	1.7	96.3	0.0	1.3	2.4	100.0	22.3	35.7	41.2	0.9	100.0	126
Amhara	0.1	97.9	0.1	1.1	0.9	100.0	4.8	35.3	59.4	0.5	100.0	3,202
Oromiya	0.8	95.8	0.2	1.6	2.4	100.0	4.6	26.7	68.7	0.0	100.0	4,997
Somali	1.4	92.6	0.8	6.1	0.6	100.0	5.0	26.6	68.3	0.0	100.0	142
Benishangul-Gumuz	2.2	95.2	0.1	3.6	1.2	100.0	3.9	28.2	67.8	0.1	100.0	124
SNNP	0.6	96.1	0.0	1.7	2.1	100.0	2.9	24.9	72.0	0.2	100.0	2,602
Gambela	1.9	77.6	0.4	19.4	2.7	100.0	4.1	22.4	73.2	0.3	100.0	29
Harari	3.2	74.2	0.2	20.1	5.5	100.0	1.9	22.4	75.0	0.7	100.0	25
Addis Ababa	7.9	34.0	4.8	45.2	16.0	100.0	3.6	21.1	74.7	0.5	100.0	182
Dire Dawa	2.4	68.7	2.6	25.0	3.7	100.0	3.9	27.1	68.6	0.4	100.0	40
Mother's education												
No education	0.1	97.9	0.1	0.7	1.3	100.0	6.0	28.7	65.1	0.2	100.0	10,060
Primary	1.2	92.0	0.3	3.3	4.4	100.0	5.5	24.0	70.3	0.2	100.0	1,597
Secondary and higher	8.9	59.4	1.6	29.0	10.0	100.0	3.9	16.8	79.2	0.0	100.0	601
Total	0.7	95.3	0.2	2.4	2.1	100.0	5.8	27.5	66.4	0.2	100.0	12,258

early childhood death. Two percent of births were reported to be 2.5 kilograms or more. In the absence of birth weight, a mother's assessment of the size of the baby at birth, even though subjective, may be a useful measure of the survival chances of a child. Six percent of births were reported to be very small, 28 percent smaller than average, and 66 percent average or larger than average. Rural births are more likely to be reported by mothers as small or smaller than average than urban births, as are births in the Affar Region than other regions. A relatively high percentage of births (26 percent) in the Tigray Region are also reported to be very small; however, this region also has the lowest number of births reported as smaller than average. Twenty-nine percent of births to uneducated mothers are reported to be smaller than average at birth, compared with 24 percent of births to mothers with primary education and 17 percent of births to mothers with at least secondary education.

10.9 Postnatal Care

A large proportion of maternal and neonatal deaths occurs during the 48 hours after delivery. Safe motherhood programs have recently increased their emphasis on the importance of postnatal care, recommending that all women receive a check on their health within two days of delivery. To assess the extent of postnatal care utilization, respondents were asked whether they had received a health check after the delivery of their last birth in the five years preceding the survey. Table 10.9 shows the timing of postnatal care for women who had a birth that occurred outside of a health facility only since it is assumed that postnatal care is part of routine care for institutional deliveries.

Postnatal care coverage is extremely low in Ethiopia. Nine in ten mothers received no postnatal care at all. Of those who received postnatal care, half (5 percent) are women who delivered in a health facility. Only 8 percent of mothers received postnatal care within the crucial first two days of delivery, and 1 percent received care three to seven days after delivery.

There are no marked variations in the utilization of postnatal care services within the first two days of birth, by mother's age. A relatively higher percentage of mothers who have delivered for the first time received postnatal care within the first two days than mothers with two or more children. There are significant differences in the receipt of postnatal care between urban and rural women. Thirty-eight percent of mothers in urban areas received postnatal care within two days of birth, compared with 4 percent of mothers in rural areas. The utilization of timely postnatal care ranges from a low of less than 4 percent of mothers in the Amhara Region to a high of 69 percent in Addis Ababa. Mother's education impacts the utilization of postnatal care. Four percent of mothers with no education received postnatal care, compared with 48 percent of mothers with at least primary education.

Table 10.9 Postnatal care by background characteristics

Percent distribution of women who had a live birth in the five years preceding the survey by timing of postnatal care, according to background characteristics, Ethiopia 2000

Background characteristic	Delivered in health facility	Timing of first postnatal checkup for mothers who delivered outside a health facility: Within 2 days of birth	3-7 days after birth	8-27 days after birth	4+ weeks after birth	Don't know/ Missing	Did not receive postnatal care	Total	Number
Mother's age at birth									
<20	7.2	2.8	0.6	0.5	1.0	0.3	87.6	100.0	1,016
20-34	5.7	2.3	1.4	0.5	0.7	0.2	89.2	100.0	5,310
35-49	3.5	2.5	0.8	1.1	0.6	0.0	91.6	100.0	1,652
Birth order									
1	12.4	2.5	0.7	0.6	0.9	0.1	82.8	100.0	1,362
2-3	5.5	2.3	1.7	0.3	0.6	0.3	89.3	100.0	2,371
4-5	4.2	2.3	1.4	0.5	0.9	0.0	90.7	100.0	1,707
6+	2.5	2.5	0.8	1.1	0.4	0.2	92.5	100.0	2,538
Residence									
Urban	33.3	4.8	2.3	0.6	2.1	0.0	56.8	100.0	908
Rural	1.8	2.1	1.0	0.6	0.5	0.2	93.7	100.0	7,070
Region									
Tigray	4.7	10.2	1.4	0.6	2.6	0.3	80.1	100.0	536
Affar	5.4	1.0	0.9	0.8	1.3	0.2	90.5	100.0	85
Amhara	3.6	0.5	0.5	0.7	0.5	0.2	94.1	100.0	2,224
Oromiya	4.0	2.4	1.3	0.4	0.5	0.2	91.3	100.0	3,059
Somali	6.6	10.2	1.2	2.0	0.5	0.0	79.4	100.0	85
Benishangul-Gumuz	9.2	0.6	0.8	0.3	0.6	0.2	88.3	100.0	81
SNNP	4.1	2.3	1.8	0.8	0.5	0.0	90.4	100.0	1,695
Gambela	23.2	1.7	3.0	1.3	1.1	0.0	69.7	100.0	22
Harari	30.5	9.1	3.7	1.3	1.0	0.0	54.4	100.0	16
Addis Ababa	67.6	1.8	1.3	1.1	2.7	0.0	25.5	100.0	148
Dire Dawa	33.8	2.8	0.6	0.3	3.8	0.0	58.8	100.0	27
Education									
No education	2.2	2.2	0.9	0.6	0.6	0.2	93.4	100.0	6,550
Primary	9.9	3.6	2.1	1.0	0.7	0.2	82.6	100.0	1,003
Secondary and higher	44.3	3.6	3.0	0.7	1.9	0.0	46.5	100.0	425
Total	5.4	2.4	1.2	0.6	0.7	0.2	89.5	100.0	7,978

Note: For women with two or more live births in the five-year period, data refer to the most recent birth. Mothers who delivered in a health facility are assumed to have received a postnatal checkup.

Table 10.10 presents information on the type of postnatal care providers for mothers who delivered outside of a health facility by background characteristics. Health professionals provided postnatal care for 3 percent of mothers. The rest of the mothers who delivered outside a health facility received postnatal care from trained and untrained traditional birth attendants. Health professionals are more likely to provide postnatal care to mothers in urban rather than rural areas, in Addis Ababa, to mothers with at least secondary education, and to mothers who have made at least four antenatal visits.

Table 10.10 Postnatal care providers

Percent distribution of women who had a live birth outside of a health facility in the five years preceding the survey by type of postnatal care provider, according to background characteristics, Ethiopia 2000

Background characteristic	Provider of postnatal care[1]					
	Health profes-sional	Trained tradit-tional birth attendant	Untrained traditional birth attendant	No postnatal care	Total	Number
Mother's age at birth						
<20	2.9	1.5	1.2	94.4	100.0	943
20-34	2.5	1.0	1.9	94.6	100.0	5,008
35-49	3.2	0.8	1.2	94.9	100.0	1,593
Birth order						
1	3.2	1.1	1.2	94.5	100.0	1,194
2-3	2.3	1.2	1.9	94.5	100.0	2,241
4-5	2.9	0.8	1.7	94.6	100.0	1,636
6+	2.7	0.9	1.6	94.9	100.0	2,473
Residence						
Urban	12.1	0.9	1.8	85.2	100.0	605
Rural	1.9	1.0	1.6	95.5	100.0	6,938
Region						
Tigray	5.1	5.1	5.6	84.1	100.0	511
Affar	3.7	0.5	0.2	95.6	100.0	80
Amhara	2.4	0.0	0.0	97.6	100.0	2,144
Oromiya	2.2	1.1	1.7	95.1	100.0	2,938
Somali	3.8	2.1	9.1	85.0	100.0	79
Benishangul-Gumuz	2.2	0.3	0.2	97.3	100.0	74
SNNP	2.7	0.9	2.2	94.3	100.0	1,624
Gambela	8.7	0.5	0.1	90.7	100.0	17
Harari	6.1	3.6	11.7	78.3	100.0	11
Addis Ababa	17.3	0.0	4.0	78.8	100.0	48
Dire Dawa	8.3	2.1	0.9	88.7	100.0	18
Education						
No education	2.0	1.0	1.5	95.5	100.0	6,403
Primary	4.4	1.2	2.8	91.6	100.0	904
Secondary and higher	14.4	0.9	1.3	83.4	100.0	237
Number of reasons to justify wife beating						
0	1.3	0.8	1.4	96.5	100.0	5,708
1-3	5.4	1.4	1.8	91.3	100.0	1,217
4-5	10.4	2.5	2.7	84.4	100.0	581
Don't know/missing	7.3	0.0	17.6	75.1	100.0	38
Total	2.7	1.0	1.6	94.7	100.0	7,544

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

[1] If the respondent mentioned more than one provider, only the most qualified is considered in this tabulation.

10.10 EXPOSURE TO SUNLIGHT

In some cultures, infants are kept indoors for a specific period due to certain beliefs. As a result of the lack of exposure to sunlight, they might suffer from deficiency of vitamin D, an essential component necessary for the absorption of calcium. It is important to expose a newborn child to sunlight 10 to 15 minutes three times a week for the body to produce a sufficient amount of vitamin D. In the Ethiopia DHS, women were asked how many days after birth they first started exposing their last-born child to sunlight.

Nearly one in two children (48 percent) was not exposed to sunlight for 29 days or more after birth (Table 10.11). Another one in two (46 percent) was not exposed for 7 to 28 days after birth. Two percent of children were exposed to sunlight within six days of birth, while 3 percent had not been exposed to sunlight.

Table 10.11 Exposure to sunlight

Percent distribution of last-born children under age five alive at the time of the survey, by exposure to sunlight, according to background characteristics, Ethiopia 2000

Background characteristic	Days after birth child was exposed to sunlight				Total	Number
	Not exposed	1-6 days	7-28 days	29+ days		
Mother's age at birth						
<20	2.2	1.6	49.6	46.5	100.0	913
20-34	3.6	2.0	46.2	48.2	100.0	4,939
35-49	3.2	1.9	44.9	50.0	100.0	1,492
Birth order						
1	3.1	2.3	49.8	44.9	100.0	1,206
2-3	2.9	1.7	46.6	48.8	100.0	2,206
4-5	2.9	1.8	48.6	46.7	100.0	1,607
6+	4.3	2.1	42.9	50.8	100.0	2,326
Residence						
Urban	2.5	3.7	59.2	34.7	100.0	830
Rural	3.5	1.7	44.8	50.1	100.0	6,514
Region						
Tigray	2.1	0.6	83.3	13.9	100.0	503
Affar	2.8	2.8	18.8	75.2	100.0	76
Amhara	2.0	1.3	66.0	30.8	100.0	2,051
Oromiya	3.9	1.8	39.1	55.2	100.0	2,809
Somali	3.6	4.7	50.0	41.6	100.0	79
Benishangul-Gumuz	1.9	10.9	61.0	26.3	100.0	75
SNNP	4.9	2.3	20.5	72.4	100.0	1,554
Gambela	2.4	37.5	37.7	22.4	100.0	20
Harari	2.9	5.8	41.6	49.7	100.0	15
Addis Ababa	1.1	2.3	66.9	29.6	100.0	139
Dire Dawa	1.9	7.1	50.4	40.2	100.0	24
Education						
No education	3.4	1.8	44.7	50.1	100.0	6,000
Primary	3.6	1.4	49.7	45.3	100.0	942
Secondary and higher	2.3	4.8	64.2	28.7	100.0	402
Total	3.4	1.9	46.4	48.3	100.0	7,344

Note: Total includes children with missing information on exposure to sunlight, who are not shown separately.

The data indicate no marked differences in the exposure of children to sunlight by mother's age and birth order. However, children in urban areas are more likely to be exposed to sunlight earlier than in rural areas. More than 70 percent of children living in the Affar and SNNP regions are not exposed to sunlight for 29 days or more after birth, whereas children living in the Gambela Region are most likely to be exposed to sunlight soon after birth (within one to six days). Children of mothers with secondary and higher education are also slightly more likely to be exposed to sunlight soon after birth than children of mothers with little or no education.

10.11 Perceived Problems in Accessing Women's Health Care

Many different factors can prevent women from getting medical advice or treatment for themselves when they are sick. In the Ethiopia DHS, women who did not seek medical care when they were sick the last time were asked for the reasons they did not do so. The results are shown in Table 10.12.

The most important reason for not seeking health care among women who were sick the last time was lack of money. Seven in ten women mentioned this reason. Older women, women with more than two children, women who have been formerly married, and rural women are more likely to cite this as a reason than their counterparts. Women residing in Dire Dawa and the Harari Region are also more likely than women residing in the other regions to mention this as a problem. Surprisingly, women who work for cash are more likely to cite this as a reason for not seeking medical care the last time they were sick than women who are not working or who do not work for cash. More than one in four women also stated that the lack of a health facility nearby was a reason for not seeking health care the last time they were sick. Rural women are more than four times as likely as urban women to mention this as a reason for not seeking health care. Three in four women residing in the Somali Region also mentioned this as a reason. Less than one in ten women mentioned that they did not seek medical care the last time they were sick because they did not get permission to go, while 7 percent of women mentioned that not having transport was a reason for not seeking medical care.

Table 10.12 Perceived problem in accessing women's health care by background characteristics

Percentage of women with a child living in the household who reported they did not seek medical treatment for themselves, by reason for not seeking medical treatment, according to background characteristics, Ethiopia 2000

Background characteristic	Did not know where to go	Did not get permission to go	No money for treatment	No health facility nearby	No transport	Did not want to go alone	Concern that there may not be a female health provider	Number
Age								
15-19	4.6	17.1	59.4	26.5	4.5	6.3	0.8	728
20-29	4.0	8.7	67.5	29.2	6.4	4.8	0.5	1,206
30-39	1.3	6.2	76.5	25.9	7.4	4.2	0.1	952
40-49	2.1	6.6	78.6	25.4	7.6	5.4	0.1	646
Number of living children								
0	4.8	16.6	63.4	25.3	4.3	5.3	0.9	1,029
1-2	3.4	8.5	69.9	25.0	7.1	5.7	0.3	914
3-4	1.3	3.8	75.8	28.2	6.9	4.5	0.1	781
5+	2.1	6.5	74.3	30.5	8.3	4.6	0.1	806
Marital status								
Never married	5.2	17.2	65.0	24.4	3.2	5.4	0.7	744
Married	2.5	7.6	70.1	29.4	7.6	4.9	0.3	2,333
Divorced, separated, widowed	2.3	5.8	79.9	19.5	6.5	5.2	0.5	455
Residence								
Urban	1.5	10.4	84.1	6.1	1.6	3.9	0.4	204
Rural	3.2	9.3	69.4	28.3	6.8	5.1	0.4	3,327
Region								
Tigray	1.3	9.3	68.5	22.2	7.4	5.5	1.9	262
Affar	4.6	5.3	60.1	54.3	18.3	10.7	1.7	51
Amhara	6.5	8.7	66.6	26.5	6.1	6.3	0.5	890
Oromiya	2.1	11.4	67.8	27.7	6.1	5.5	0.2	1,325
Somali	2.6	1.9	75.5	73.0	36.1	6.2	0.1	66
Benishangul-Gumuz	10.2	3.8	56.7	38.8	10.3	1.5	0.0	28
SNNP	1.3	8.1	78.5	23.1	4.4	2.7	0.1	871
Gambela	1.5	4.8	81.4	31.5	7.2	1.2	1.5	6
Harari	0.0	2.9	95.4	13.8	3.7	3.1	0.0	7
Addis Ababa	4.6	11.0	68.4	15.3	0.0	8.7	0.0	19
Dire Dawa	0.0	0.0	94.9	5.1	4.4	0.0	0.0	7
Eucation								
No education	3.3	8.8	70.4	27.5	7.0	5.2	0.3	3,121
Primary	1.2	13.5	69.0	22.2	3.2	5.1	0.7	339
Secondary and higher	0.0	16.0	70.0	29.0	2.8	0.4	1.8	71
Current employment								
Not employed	2.5	12.3	69.7	24.1	7.4	6.2	0.4	1,493
Works for cash	1.6	6.5	77.1	26.5	4.7	3.2	0.2	692
Does not work for cash	4.4	7.6	67.4	30.6	6.4	4.7	0.4	1,346
Total	3.1	9.4	70.3	27.0	6.5	5.1	0.4	3,531

10.12 VACCINATION COVERAGE

Universal immunization of children from six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial in reducing infant and child mortality. Differences in vaccination coverage among subgroups of the population are of great assistance for program planning. Additionally, information on immunization coverage is important for the monitoring and evaluation of the expanded programs on immunization (EPI).

The survey collected information on vaccination coverage for all living children born in the five years preceding the survey. According to the guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses each of the DPT and polio vaccines, and a measles vaccination by the age of 12 months. BCG should be given at birth or at first clinical contact, DPT and polio require three vaccinations at approximately 4, 8, and 12 weeks of age, and measles should be given at or soon after reaching 9 months of age.

Information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mothers' verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire. The respondent was asked to recall the vaccines given to her child when there was no vaccination card for the child or if a vaccine had not been recorded on the card as being given. Table 10.13 and Figure 10.2 show the percentage of children age 12-23 months who have received the various vaccinations by source of information, that is, from vaccination card or mother's report. This is the youngest cohort of children who have reached the age by which they should be fully vaccinated. Twelve percent of children are fully vaccinated by 12 months of age, 41 percent have received the BCG vaccination, and 21 percent have been vaccinated against measles. While the coverage for the first dose of DPT is relatively high (40 percent), only 18 percent of children age 12-23 months received the third dose of DPT by 12 months, a 55 percent decline. Even though DPT and polio vaccines are often administered at the same time, polio coverage is much higher

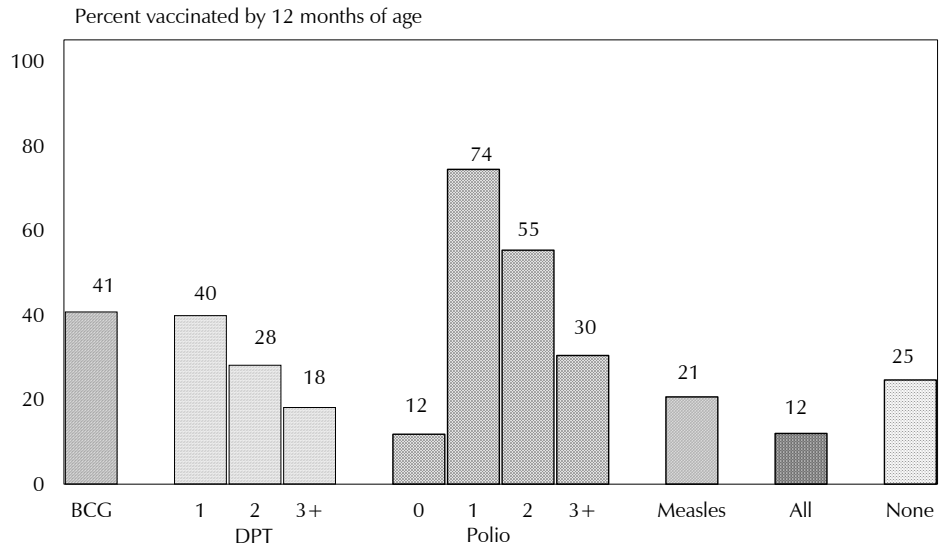
Table 10.13 Vaccinations by source of information

Percentage of children 12-23 months who had received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Ethiopia 2000

	Percentage of children who received:											
		DPT			Polio[1]							
Source of information	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All[2]	None	Number
Vaccinated at any time before the survey												
Vaccination card	23.9	26.5	21.2	16.5	10.4	26.5	23.2	18.0	17.1	11.9	0.0	579
Mother's report	21.7	17.9	10.6	4.2	1.8	56.2	40.0	16.5	9.5	2.4	16.6	1,564
Either source	45.6	44.4	31.7	20.7	12.1	82.7	63.2	34.6	26.6	14.3	16.6	2,143
Vaccinated by 12 months of age[3]	40.7	39.8	28.1	18.1	12.1	74.4	55.3	30.4	20.6	12.0	24.6	2,143

[1] Polio 0 is the polio vaccination given at birth.
[2] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).
[3] For children whose information was based on the mother's report, the proportion of vaccinations given in the first year of life was assumed to be the same as for children with a written record of vaccination.

Figure 10.2 Vaccination Coverage Among Children Age 12-23 Months



Note: Based on health card and mothers' report

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than DPT coverage. Three in four children age 12-23 months received the first dose of polio by 12 months of age, one in two received the second dose, and nearly one in three the third dose. This is primarily due to the success of the national immunization day campaigns during which polio vaccines are administered. Nevertheless, the dropout between the first and subsequent doses of polio is also marked—a 59 percent decline between the first and third dose.

Table 10.14 shows the vaccination coverage among children age 12-23 months, according to information from the vaccination card or mother's report, by background characteristics. This information may give some indication of the success of the immunization program in reaching out to all population subgroups. Birth order has a close relationship with vaccination coverage; as the birth order increases vaccination coverage decreases. Eighteen percent of children of birth order one were fully immunized, compared with 11 percent of children of birth order six and above. There are marked differences in vaccination coverage between urban and rural areas. For example, children residing in urban areas are about four times (42 percent) more likely to be fully immunized, compared with children in rural areas (11 percent). Similarly, there are substantial differences in the coverage between regions. The percentage of children fully immunized ranges from a low of 10 percent in the Oromiya Region to 74 percent in Addis Ababa. The percentage of children fully immunized in the Affar Region, however, is negligible. The percentage of children fully immunized increases with mother's educational level. Only one in ten children of mothers without education are fully immunized, compared with 45 percent of children born to mothers who had at least some secondary education.

Table 10.14 also shows that a vaccination card was seen for only 27 percent of children age 12-23 months. The actual percentage of children who have a vaccination card may be higher because in some areas vaccination cards are kept at the health center and not by mothers. Cards were more likely to have been shown for male children, first-order births, children living in urban areas, children in Addis Ababa, and children of mothers with at least some secondary education.

Table 10.14 Vaccinations by background characteristics

Among children age 12-23 months, the percentage who had received specific vaccines by the time of the survey (according to vaccination card or the mother's report), and the percentage with a vaccination card, by background characteristics, Ethiopia 2000

Background characteristic	Percentage of children who had received:											Percentage with a vaccination card	Number
		DPT			Polio[1]								
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All[2]	None		
Child's sex													
Male	48.2	46.7	33.5	22.4	10.4	83.5	65.2	35.9	27.5	14.7	15.6	28.0	1,106
Female	42.7	42.0	29.9	18.9	14.0	81.9	61.1	33.1	25.7	13.8	17.5	25.9	1,036
Birth order													
1	52.5	49.4	38.0	22.4	15.6	87.3	66.6	38.9	26.8	17.7	12.0	32.0	356
2-3	46.1	47.3	34.3	24.5	15.0	85.2	65.8	36.9	28.6	15.6	14.1	30.4	712
4-5	46.8	41.5	30.7	19.6	9.1	81.4	64.6	36.2	29.6	14.3	17.6	22.1	457
6+	40.0	40.3	26.0	16.3	9.1	78.2	57.2	28.2	22.1	10.8	21.2	23.8	618
Residence													
Urban	70.7	69.9	59.9	51.3	41.7	94.2	80.9	60.3	63.1	42.0	4.7	51.3	225
Rural	42.6	41.4	28.4	17.2	8.6	81.4	61.1	31.5	22.3	11.0	18.0	24.2	1,917
Region													
Tigray	79.5	84.5	71.6	56.3	19.1	95.1	85.8	63.5	66.6	43.5	4.4	49.8	121
Affar	16.1	17.2	8.2	1.1	6.1	81.7	38.6	10.3	10.9	0.0[a]	15.6	11.3	18
Amhara	45.9	43.3	29.7	20.3	12.6	88.1	72.7	42.6	27.1	14.4	11.2	27.5	564
Oromiya	41.6	39.6	28.5	16.2	9.8	84.1	61.4	28.7	19.6	9.8	14.9	25.1	903
Somali	43.5	46.4	33.0	24.4	26.9	69.5	52.9	35.1	39.3	22.2	30.5	30.6	24
Benishangul-Gumuz	40.5	36.6	19.8	15.9	7.8	77.9	69.7	43.1	19.3	12.2	20.7	12.9	19
SNNP	41.5	41.6	26.6	16.6	8.5	69.2	47.0	24.2	24.3	10.5	30.5	21.3	443
Gambela	40.1	36.1	21.2	12.7	26.3	72.8	60.6	37.3	20.0	10.8	27.2	27.8	5
Harari	83.4	82.0	65.2	50.7	37.2	97.5	91.1	62.9	58.6	35.9	2.5	43.3	5
Addis Ababa	90.2	93.0	88.1	80.5	71.7	97.8	94.0	84.2	88.3	73.8	2.2	72.1	33
Dire Dawa	69.1	73.9	65.8	52.4	43.9	92.9	82.9	72.1	52.5	35.3	2.5	47.0	7
Mother's education													
No education	41.1	40.3	27.4	15.8	8.8	81.1	60.2	30.4	22.1	10.2	18.2	23.6	1,704
Primary	56.5	56.2	45.2	35.0	19.8	86.7	68.9	45.5	37.7	24.8	13.3	37.6	320
Secondary and higher	80.7	71.7	57.8	53.8	39.3	95.8	91.8	64.0	61.7	45.0	2.2	47.6	118
Total	45.6	44.4	31.7	20.7	12.1	82.7	63.2	34.6	26.6	14.3	16.6	27.0	2,143

[1] Polio 0 is the polio vaccination given at birth.
[2] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).
[a] In the Affar region, the percent fully immunized is negligible.

10.13 Trends in Vaccination Coverage

One way of measuring trends in vaccination coverage is to compare coverage among children of different ages. Table 10.15 shows the percentage of children who have received vaccinations during the first year of life according to their current age. This type of data can provide evidence of any trends in the vaccination coverage over the past five years.

There is no notable change in the vaccination coverage over the past five years. However, the percentage of children who have received no vaccination at all has declined over the past five years from 31 percent among children age 48-59 months at the time of the survey to 25 percent among children age 12-23 months. Not surprisingly, vaccination cards were shown for one in four children age 12-23 months but only for 12 percent of children age 48-59 months. This could be because vaccination cards for older children may have been discarded.

Table 10.15 Vaccinations in first year of life

Among children age 12-59 months, the percentage who had received specific vaccines in the first year of life, and the percentage with a vaccination card, by current age of the child, Ethiopia 2000

Current age of child	Percentage of children vaccinated at 0-11 months[1]											Percentage with a vaccination card	Number
		DPT			Polio[2]								
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All[3]	No vaccinations		
12-23 months	40.7	39.8	28.1	18.1	11.8	74.4	55.3	30.4	20.6	12.0	24.6	27.0	2,143
24-35 months	43.0	40.9	31.2	21.4	12.4	71.8	61.0	39.7	21.7	11.6	28.2	21.1	2,084
36-47 months	42.9	38.7	31.0	21.9	8.9	71.0	62.2	42.8	19.8	12.2	28.6	14.4	2,260
48-59 months	40.3	36.2	29.2	18.7	10.3	67.3	59.4	39.2	24.8	12.7	30.9	12.3	2,080
Total	41.9	39.2	30.0	20.2	10.8	71.7	59.8	38.6	21.9	12.3	27.5	18.7	8,567

[1] Information was obtained from the vaccination card or, if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given in the first year of life was assumed to be the same as for children with a written record of vaccination.
[2] Polio 0 is the polio vaccination given at birth.
[3] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine given at birth).

Table 10.16 shows the percentage of children under age five who received at least one polio vaccine during a national immunization day (NID) campaign, according to mothers' report, by background characteristics. Thirty-seven percent of children under five received at least one polio vaccination during the NID campaign in 1997, 64 percent in 1998, and 68 percent in 1999. This shows a significant improvement in the coverage during the NIDs from 1997 to 1998 and a modest improvement from 1998 to 1999.

There was little difference in vaccination coverage during the NIDs by sex of the child; however, the difference in coverage was more pronounced between urban and rural areas, particularly in the 1997 coverage. Sixty-three percent of children in urban areas received at least one polio vaccination in 1997, compared with 34 percent of children in rural areas. However, the urban-rural difference in coverage narrowed over the following years. There are marked differences in the coverage between regions. In 1997, more than three in four children received polio vaccinations in the Tigray Region and in Addis Ababa, whereas in four regions (Affar, Somali, Benishangul-Gumuz, and SNNP), only about one in four children received vaccinations during the NID campaigns. Regional differences in the coverage have narrowed over the last two years.

Table 10.16 Immunization campaigns

Among children under five years of age, the percentage who had received at least one polio vaccination during the national immunization day campaigns, by background characteristics, Ethiopia 2000

Background characteristic	Immunized during: October/ November 1997		October/ November 1998		October/ November 1999	
	Percent	Number	Percent	Number	Percent	Number
Sex of child						
Male	36.5	2,648	63.4	3,740	68.5	4,859
Female	37.7	2,603	64.2	3,662	67.7	4,729
Residence						
Urban	63.2	581	80.8	821	83.1	1,024
Rural	33.9	4,671	61.7	6,581	66.3	8,564
Region						
Tigray	73.3	369	86.5	507	87.9	635
Affar	23.6	53	60.0	74	84.7	95
Amhara	35.9	1,410	69.7	1,978	77.3	2,484
Oromiya	37.3	2,033	67.2	2,950	68.8	3,893
Somali	23.2	58	30.4	88	60.7	113
Benishangul-Gumuz	24.2	51	54.1	72	58.5	94
SNNP	24.9	1,158	42.8	1,563	47.5	2,055
Gambela	35.7	11	62.5	16	69.7	22
Harari	65.2	11	85.0	16	88.8	20
Addis Ababa	82.7	80	89.3	113	92.6	146
Dire Dawa	58.4	17	76.9	25	87.1	31
Education						
No education	33.7	4,313	61.4	6,048	66.5	7,815
Primary	47.2	686	68.9	975	70.5	1,286
Secondary and higher	68.6	252	89.3	379	88.0	487
Total	37.1	5,251	63.8	7,402	68.1	9,588

10.14 Acute Respiratory Infection

Acute respiratory infection (ARI) is a leading cause of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the Ethiopia DHS, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on mother's perception of illness without validation by medical personnel and that the prevalence of ARI is subject to seasonality.

Table 10.17 shows that 24 percent of children under five years of age showed symptoms of ARI at some time in the two weeks preceding the survey. Prevalence of ARI varies by age of child. Children age 6-11 months have the highest chance of having ARI symptoms (33 percent), compared with all other age groups. There are no differences in the prevalence of ARI by sex of the child and birth order. Cough and rapid breathing were relatively more common among rural children (25 percent) than among children in urban areas (16 percent). There are no significant regional variations in the prevalence of children with ARI symptoms, with the exception of Addis Ababa that had the lowest ARI prevalence among children under five. Children of women with secondary and higher education are somewhat less likely than other children to suffer from symptoms of ARI.

Only 16 percent of all children under five with cough and rapid breathing were taken to a health facility or provider. There are differences in the proportion of children with ARI symptoms taken to a health facility by child's age; children age 6-11 months and 12-23 months are more likely to be taken to a health facility than other children. Male children are slightly more likely than female children to be taken to a health facility or provider. The proportion of children with cough and rapid breathing who were taken to a health facility is much larger (41 percent) in urban areas than in rural areas (14 percent). Forty-nine percent of children in the Somali Region and 58 percent of children in Addis Ababa with ARI symptoms were taken to a health facility, compared with 12 percent in the Amhara and Tigray regions. Children of women with secondary and higher education visit a health facility more frequently than other children when they have cough and rapid breathing.

10.15 FEVER

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and mortality. While 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. Since 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. Table 10.18 shows the percent distribution of children under five with fever during the two weeks preceding the survey by source of treatment and selected background characteristics.

Table 10.17 Prevalence and treatment of acute respiratory infection

Percentage of children under five years who were ill with a cough accompanied by short, rapid breathing (symptoms of ARI) in the two weeks preceding the survey, and percentage of children with symptoms of ARI taken to a health facility or provider, by background characteristics, Ethiopia 2000

Background characteristic	Percentage of children with symptoms of ARI	Percentage of children with symptoms of ARI taken to a health facility or provider[1]	Number
Child's age			
<6 months	23.3	16.3	1,079
6-11 months	33.0	20.3	1,107
12-23 months	28.8	19.1	2,143
24-35 months	25.5	15.8	2,084
36-47 months	20.6	11.4	2,260
48-59 months	18.9	11.3	2,080
Child's sex			
Male	24.7	17.3	5,460
Female	24.2	14.2	5,292
Birth order			
1	24.6	19.1	1,982
2-3	24.4	16.9	3,264
4-5	24.5	13.8	2,362
6+	24.3	14.1	3,144
Residence			
Urban	16.3	40.8	1,141
Rural	25.4	13.9	9,611
Region			
Tigray	29.2	12.3	709
Affar	21.9	21.9	107
Amhara	21.7	11.5	2,797
Oromiya	27.4	16.6	4,356
Somali	21.2	49.4	127
Benishangul-Gumuz	29.6	28.0	108
SNNP	22.1	15.4	2,297
Gambela	20.8	41.3	25
Harari	16.5	40.5	23
Addis Ababa	10.4	58.4	167
Dire Dawa	13.8	33.1	35
Mother's education			
No education	25.1	14.6	8,771
Primary	22.6	17.0	1,426
Secondary and higher	19.3	37.4	556
Total	24.4	15.8	10,753

ARI = Acute Respiratory Infections
[1] Excludes pharmacy, shop, and traditional practitioner

The prevalence of fever varies by age of child. Children age 6-11 and 12-23 months are more commonly sick with fever (40 and 35 percent, respectively) than other children. There are no significant variations in the prevalence of fever by sex of the child and birth order. Similarly, there exists no notable difference in the prevalence of fever between children in urban and rural areas. Regional variations, however, are significant, ranging from 21 percent in Addis Ababa to 44 percent in the Affar Region. The prevalence of fever among children under five is also relatively high in the Gambela Region; where along with the Affar Region, malaria is more common. Mother's education has little impact on the prevalence of fever among children under five years.

Table 10.18 Prevalence of fever and sources of treatment

Percentage of children under five years who were ill with a fever in the two weeks preceding the survey, and among those with fever, the percentage taken to specific sources of treatment, by background characteristics, Ethiopia 2000

		Among children with fever, percentage taken to:										
Background characteristic	Percentage of children with fever	Private doctor/ clinic	Hospital[1]	Government health center	Government health station	Other government	NGO	Pharmacy	Shop	Traditional practitioner	Other	Number
Child's age												
<6 months	25.7	2.9	2.2	6.9	5.2	0.0	0.1	2.8	1.4	0.7	0.4	1,079
6-11 months	39.5	3.6	1.8	4.1	14.0	0.1	0.2	4.9	0.0	2.3	2.0	1,107
12-23 months	35.4	3.6	2.4	4.3	9.5	0.4	0.7	5.8	1.2	1.5	1.2	2,143
24-35 months	29.4	4.1	0.7	4.6	9.5	0.7	0.5	4.5	0.6	0.2	1.1	2,084
36-47 months	24.1	4.5	1.3	3.0	4.6	0.4	0.8	4.9	1.0	0.8	2.4	2,260
48-59 months	20.2	1.5	1.5	2.6	4.4	1.0	1.8	2.6	0.0	1.5	1.4	2,080
Sex of child												
Male	29.0	4.2	1.7	3.5	9.3	0.4	0.9	4.5	1.0	0.9	1.2	5,460
Female	27.8	2.7	1.6	4.7	6.9	0.5	0.5	4.6	0.5	1.4	1.8	5,292
Birth order												
1	27.5	5.9	2.9	4.9	10.8	0.1	1.7	5.2	0.6	0.8	1.0	1,982
2-3	28.3	2.3	2.1	5.7	9.4	0.8	0.4	5.9	0.8	0.7	1.5	3,264
4-5	28.4	4.2	1.0	1.9	6.2	0.3	0.7	4.3	1.2	1.5	1.0	2,362
6+	29.0	2.8	0.8	3.6	6.8	0.5	0.4	3.0	0.4	1.6	2.1	3,144
Residence												
Urban	25.0	10.6	8.1	19.0	9.7	0.9	3.0	12.6	0.1	0.0	0.2	1,141
Rural	28.8	2.8	1.0	2.6	8.0	0.4	0.5	3.7	0.8	1.3	1.6	9,611
Region												
Tigray	36.6	1.6	0.8	3.0	8.1	0.3	0.0	2.0	0.0	0.0	0.5	709
Affar	43.5	2.1	1.2	4.0	14.1	0.7	0.5	4.9	0.0	0.0	0.4	107
Amhara	23.4	1.7	1.0	5.0	5.8	1.1	0.0	1.7	0.6	1.9	2.0	2,797
Oromiya	27.2	5.0	2.1	3.0	9.0	0.2	0.8	5.5	1.3	1.3	1.5	4,356
Somali	30.9	2.3	5.0	22.1	9.8	0.8	4.2	7.3	0.4	3.4	0.9	127
Benishangul-Gumuz	30.4	2.5	2.8	4.9	21.2	1.4	1.6	3.1	0.7	0.0	0.2	108
SNNP	33.8	2.7	1.0	3.8	7.7	0.2	0.9	6.2	0.4	0.8	1.6	2,297
Gambela	35.0	0.5	4.4	1.5	29.8	1.9	1.3	14.5	0.0	1.9	0.0	25
Harari	25.6	5.9	27.7	1.6	10.2	0.0	2.4	1.4	0.0	1.5	0.0	23
Addis Ababa	21.2	24.3	7.5	14.9	7.6	0.0	5.6	2.5	0.0	0.0	0.0	167
Dire Dawa	25.2	8.0	10.6	9.0	2.6	8.2	0.0	8.0	1.7	0.0	1.8	35
Education												
No education	28.3	2.2	1.3	3.3	7.9	0.4	0.7	3.3	0.9	0.9	1.4	8,771
Primary	28.1	6.4	1.0	4.4	7.5	0.1	0.5	6.7	0.4	3.2	2.5	1,426
Secondary and higher	29.8	15.4	8.3	15.0	13.1	1.5	1.1	18.4	0.0	0.0	0.3	556
Total	28.4	3.5	1.6	4.1	8.2	0.5	0.7	4.6	0.7	1.2	1.5	10,753

NGO = Non-Governmental Organization
[1] Includes both public and private facilities

Very few children with fever are taken to a health facility or provider for treatment. Eight percent of children are taken to a government health station for treatment, and about 4 percent of children each are taken to a private doctor or clinic, a government health center, or a pharmacy. The proportion of ill children taken to other sources is quite low. Differences by background characteristics in the use of sources for treatment of children with fever are negligible.

Table 10.19 presents information on the type and source of treatment for children under five who had fever during the two weeks preceding the survey. Seventy-eight percent of children with fever in the two weeks preceding the survey received no treatment at all. Overall, aspirin (8 percent), followed by antibiotics (6 percent) are the most commonly used medicines for the treatment of fever. Very few children with fever are treated with antimalarial medication (fansidar, chloroquine, or quinine). Antimalarial treatment for fever is predominantly provided by government health centers, government health stations, other government facilities, and pharmacies and shops.

Table 10.19 Treatment of fever

Percentage of children under five years who were ill with a fever in the two weeks preceding the survey, who were given specific treatments, by source of treatment, Ethiopia 2000

	Treatment received by children with fever									
Source of treatment	Fansidar	Chloro-quine	Quinine	Aspirin	Ibu-profen	Anti-biotics	Other	Don't know	No treat-ment	Number
Private physician	0.6	4.5	3.8	39.7	1.6	19.4	18.7	4.2	12.0	107
Hospital[1]	4.9	0.3	0.0	21.9	3.6	15.3	30.8	6.1	19.9	50
Government health centre	5.9	6.6	4.7	37.0	2.8	28.0	20.5	8.5	10.0	125
Government health station	2.9	11.0	3.0	37.2	5.1	28.0	20.3	8.6	4.6	249
Other government	5.2	1.2	0.8	14.0	0.0	47.4	11.5	14.2	17.2	14
NGO	0.0	1.2	0.0	25.8	0.0	38.0	25.7	7.4	6.8	21
Pharmacy and shop	3.6	5.9	2.2	34.6	1.7	28.5	21.5	8.7	10.9	162
Traditional practitioner	0.0	0.0	3.9	0.5	0.0	0.5	48.9	1.2	45.1	36
Other	0.0	10.9	0.0	14.4	3.9	25.6	11.7	0.8	40.2	45
No provider	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,291
Total	0.7	1.6	0.7	8.0	0.6	6.0	5.4	1.7	78.3	3,052

NGO = Non-governmental organization
[1] Includes both public and private facilities

10.16 Stool Disposal

If human feces are left uncontained, disease may spread by direct contact or animal contact with the feces. Table 10.20 presents information on the disposal of the stool of children under five, by background characteristics and type of toilet facility in the household. Seventy-seven percent of children's stool is left uncontained. Sixty-four percent of children's stool is either thrown outside the dwelling or in the yard. Less than 1 percent of children under five always use a toilet or latrine. Additionally, 8 percent of children's stool is disposed of in the toilet or latrine, and 13 percent is buried in the yard.

There are pronounced differences among rural and urban areas in the way children's stool is disposed of. In urban areas, 45 percent of children's stool is disposed of in the toilet or latrine, compared with only 4 percent in rural areas. This marked difference could be attributed to the fact that toilet facilities are more available in urban areas. The table also shows that 68 percent of children's stool in

Table 10.20 Disposal of children's stool

Percent distribution of children under five years of age by way in which child's fecal matter is disposed of, according to background characteristics and type of toilet facilities in households, Ethiopia 2000

	Stool contained			Stool uncontained						
Background characteristic	Child always uses toilet/ latrine	Thrown into toilet/ latrine	Buried in yard	Thrown outside dwelling	Thrown outside yard	Washed away	Not disposed of	Other/ Missing	Total	Number of children
Residence										
Urban	3.5	44.5	4.0	13.0	24.3	10.2	0.0	0.3	100.0	811
Rural	0.4	4.0	14.5	35.3	32.2	12.2	1.1	0.3	100.0	6,606
Region										
Tigray	0.7	7.5	2.7	9.8	72.2	6.2	0.9	0.0	100.0	505
Affar	0.8	1.5	4.4	29.2	44.5	17.2	1.7	0.6	100.0	74
Amhara	0.7	3.0	14.7	39.5	30.6	11.3	0.1	0.2	100.0	2,071
Oromiya	0.9	8.2	20.9	23.3	32.5	12.6	1.1	0.5	100.0	2,855
Somali	0.0	18.4	4.7	7.4	68.2	1.3	0.0	0.0	100.0	80
Benishangul-Gumuz	0.3	17.3	3.5	55.7	18.3	4.8	0.0	0.0	100.0	76
SNNP	0.5	10.5	4.0	52.2	17.0	13.8	2.1	0.1	100.0	1,567
Gambela	0.8	12.3	0.9	31.4	40.0	8.3	6.4	0.0	100.0	19
Harari	0.0	27.7	3.4	28.9	17.6	22.5	0.0	0.0	100.0	15
Addis Ababa	1.1	60.8	2.1	5.4	11.3	18.9	0.2	0.1	100.0	132
Dire Dawa	0.2	49.8	3.9	7.3	34.2	4.2	0.0	0.3	100.0	24
Mother's eucation										
No education	0.6	4.6	14.0	34.8	32.9	11.8	1.1	0.3	100.0	6,090
Primary	0.4	16.1	13.5	29.5	27.5	11.9	0.8	0.4	100.0	928
Secondary and higher	3.0	49.0	3.1	12.1	17.8	14.9	0.0	0.1	100.0	399
Toilet facilities										
None	0.3	0.3	14.6	36.8	34.6	11.9	1.1	0.3	100.0	6,336
Pit latrine	3.2	55.1	6.0	10.0	12.7	12.7	0.1	0.2	100.0	1,049
Improved latrine	0.3	88.4	0.0	1.1	3.5	6.8	0.0	0.0	100.0	17
Flush toilet	0.0	82.4	0.0	2.1	3.6	11.1	0.0	0.8	100.0	15
Total	0.7	8.4	13.3	32.9	31.4	12.0	1.0	0.3	100.0	7,417

rural areas is thrown outside the dwelling, or thrown in the yard, whereas this is true for 37 percent of the cases in urban areas. Regional variations in the way the child's feces are disposed of are large. For example, the percentage of children whose stool is disposed of into a toilet or latrine ranges from 2 percent in the Affar Region to 61 percent in Addis Ababa. Furthermore, 72 percent of children's stool is thrown outside in the yard in the Tigray Region, compared with 11 percent in Addis Ababa. Similarly, large differences are observed by mother's educational level. For more than half the children (55 percent) born to women with secondary and higher education, stool is disposed of in a correct way (child uses toilet, child's stool thrown in toilet or buried in yard), compared with 19 percent of children of mothers with no education.

The availability of toilet facilities impacts the way a household disposes of children's feces. Eighty-eight percent of children living in households with an improved latrine, have their stool thrown in the toilet, compared with less than 1 percent of children living in households with no toilet facility. Households with no toilet facility are much more likely than other households to dispose of their child's stool outside the dwelling or in the yard.

10.17 Prevalence of Diarrhea

Diarrhea has been singled out for investigation for two reasons. As mentioned above, dehydration from diarrhea is a major cause of death in infancy and childhood, and the condition can be easily treated by oral rehydration therapy (ORT). This makes diarrhea and its management a high priority for health programs. In interpreting the findings of the Ethiopia DHS, it should be borne in mind that the prevalence of diarrhea may be affected by recall bias of the mother as to when an episode of diarrhea actually occurred and that the number of diarrhea cases varies seasonally.

Table 10.21 Prevalence of diarrhea

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, Ethiopia 2000

Background characteristic	Diarrhea in preceding 2 weeks	Number
Child's age		
<6 months	15.4	1,079
6-11 months	38.5	1,107
12-23 months	37.1	2,143
24-35 months	26.2	2,084
36-47 months	16.1	2,260
48-59 months	11.8	2,080
Child's sex		
Male	24.2	5,460
Female	23.0	5,292
Residence		
Urban	16.7	1,141
Rural	24.5	9,611
Region		
Tigray	17.2	709
Affar	16.8	107
Amhara	19.3	2,797
Oromiya	25.0	4,356
Somali	21.5	127
Benishangul-Gumuz	26.3	108
SNNP	29.4	2,297
Gambela	27.4	25
Harari	23.0	23
Addis Ababa	12.2	167
Dire Dawa	20.9	35
Mother's education		
No education	24.4	8,771
Primary	21.4	1,426
Secondary and higher	17.1	556
Total	23.6	10,753

Table 10.21 shows the percentage of children under five with diarrhea in the two weeks preceding the survey according to selected background characteristics. Nationally, 24 percent of all children under five have experienced diarrhea at some time in the two weeks before the survey. The occurrence of diarrhea varies by age of the child. Young children age 6-23 months are more prone to diarrhea than children in the other age groups. There are no variations in diarrhea prevalence by child's sex. Episodes of diarrhea are more common among rural children (25 percent) than among urban children (17 percent). There are also some variations in the prevalence of diarrhea by regions. Children living in the SNNP Region are more susceptible to episodes of diarrhea (29 percent) than children living in the other regions. Children living in Addis Ababa have the lowest prevalence of diarrhea when compared with children in all the other regions (12 percent). Similarly, the prevalence of diarrhea among children of mothers with no education (24 percent) is much higher than among children of mothers with secondary or higher education (17 percent).

10.18 Knowledge of ORS Packets

Rehydration therapy may include the use of a solution prepared from packets of oral rehydration salts (ORS) or recommended home fluids (RHF) such as sugar-salt-water solution. In addition, it is recommended that food intake should not be decreased for children suffering from diarrhea. To ascertain how widespread knowledge of ORS is in Ethiopia, respondents were asked whether they know about ORS packets.

Table 10.22 shows that about two in three women (66 percent) who gave birth in the five years preceding the survey know about ORS packets. Young mothers less than 20 years of age are somewhat less likely to know about ORS packets than older mothers. There are significant differences in the knowledge of ORS packets between women residing in urban and rural areas. Knowledge is higher among urban (91 percent) than among rural women (63 percent). Knowledge of ORS also varies by

region. Nearly all mothers in Dire Dawa (98 percent) and the Harari Region (97 percent) know about ORS packets, compared with slightly more than one in two mothers in the Amhara Region. Surprisingly, knowledge of ORS packets is somewhat lower in Addis Ababa (90 percent). There are pronounced differences in the knowledge of ORS packets by educational level of mothers; 96 percent of mothers with secondary and higher education know about ORS packets, compared with 62 percent of mothers with no education.

Table 10.22 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhea, by background characteristics, Ethiopia 2000

Background characteristic	Percentage of mothers who know about ORS packets	Number
Age		
15-19	55.1	472
20-24	59.8	1,727
25-29	68.3	2,028
30-34	68.6	1,496
35-49	68.7	2,255
Residence		
Urban	90.9	908
Rural	62.6	7,070
Region		
Tigray	86.2	536
Affar	77.0	85
Amhara	54.2	2,224
Oromiya	68.2	3,059
Somali	82.8	85
Benishangul-Gumuz	57.3	81
SNNP	66.4	1,695
Gambela	81.9	22
Harari	96.5	16
Addis Ababa	90.2	148
Dire Dawa	98.4	27
Mother's education		
No education	61.5	6,550
Primary	81.5	1,003
Secondary and higher	96.4	425
Total	65.8	7,978

ORS = Oral rehydration salts

10.19 Diarrhea Treatment

Table 10.23 presents the percentage of children with diarrhea who received specific treatments according to background characteristics. Only 13 percent of children with diarrhea in the two weeks prior to the survey were taken to a health provider. There is little variation by age or sex of the child in the percentage of children with diarrhea taken to a health provider. First births are more likely to be taken to a health facility than children of higher birth order. Notable differences also exist by place of residence. The proportion of children taken to a health facility in urban areas (43 percent) is four times higher than in rural areas (11 percent). Similarly, children of mothers with secondary and higher education (31 percent) are about three times more likely to be taken to a health provider than children of mothers with no education (12 percent).

Forty-five percent of children with diarrhea were treated with some kind of oral rehydration therapy: 13 percent were treated with ORS prepared from an ORS packet, 9 percent were given recommended home fluids prepared at home, 19 percent received ORS or RHF, and 35 percent were given increased fluids. Twenty-six percent of children were given a pill or syrup, 9 percent were given other home remedies, and 1 percent were given an injection. However, a large proportion (39 percent) of children with diarrhea did not receive any type of treatment at all.

Diarrhea treatment does not vary significantly with age. Children of birth order one received ORS or RHF much more than children of higher birth order. Large variations also exist between urban and rural areas. Children in urban areas (59 percent) are four times more likely to receive ORS or RHF than children in rural areas, as are children who live in the Somali Region (63 percent) and Addis Ababa (61 percent), compared with children in the Amhara Region (13 percent). Children of educated mothers are also more likely to receive ORS or RHF than children of less-educated mothers.

Table 10.23 Diarrhea treatment

Among children under five years who had diarrhea in the two weeks preceding the survey, the percentage taken for treatment to a health provider, the percentage who received oral rehydration therapy (ORT) (solution prepared from ORS packets, recommended home fluids (RHF), or increased fluids), and the percentage given other treatments, according to background characteristics, Ethiopia 2000

		Oral rehydration therapy					Other treatments				
Background characteristic	Percentage taken to a health provider[1]	ORS	RHF at home	Either ORS or RHF	In-creased fluids	Given ORS, RHF, or increased fluids	Pill or syrup	Injec-tion	Home remedy/ other	No treat-ment	Number
Child's age											
<6 months	12.2	9.1	9.5	17.7	16.8	28.0	13.8	0.0	14.2	52.2	166
6-11 months	17.2	15.9	7.5	20.6	22.1	35.5	26.8	1.1	8.8	44.8	427
12-23 months	13.8	13.4	7.1	18.2	33.1	42.5	28.4	2.2	9.7	39.9	795
24-35 months	12.9	14.7	8.5	19.6	45.9	56.0	30.8	1.1	8.1	27.7	545
36-47 months	8.6	8.4	11.1	15.2	40.9	46.6	24.2	1.2	9.2	38.9	364
48-59 months	13.3	13.1	12.4	20.0	41.8	53.0	17.0	1.7	9.1	37.4	244
Child's sex											
Male	14.1	13.3	8.3	18.2	33.9	43.3	25.4	1.4	9.6	39.0	1,322
Female	12.4	12.8	9.2	19.1	36.0	46.6	26.6	1.4	9.1	38.0	1,218
Birth order											
1	19.6	16.7	10.2	24.0	32.0	46.9	23.6	2.3	13.8	37.5	438
2-3	11.9	14.6	7.7	18.3	37.1	45.4	25.7	1.4	6.3	40.6	804
4-5	12.1	11.6	10.4	18.3	32.6	43.5	25.0	0.7	9.3	39.4	572
6+	12.0	10.4	7.7	16.0	36.0	44.1	28.5	1.5	10.2	36.2	727
Residence											
Urban	43.4	47.3	28.8	58.5	42.2	68.6	35.8	1.4	7.9	22.6	190
Rural	10.9	10.3	7.1	15.4	34.3	43.0	25.2	1.4	9.5	39.8	2,350
Region											
Tigray	17.1	15.3	14.6	28.8	46.6	59.5	10.8	1.6	6.7	35.4	122
Affar	15.4	23.6	8.5	27.8	19.5	41.0	27.3	2.6	1.9	44.8	18
Amhara	10.8	9.0	6.2	12.9	26.2	33.9	23.5	1.4	10.6	45.9	541
Oromiya	12.5	12.9	9.1	18.6	35.3	45.9	24.9	1.7	8.8	38.3	1,089
Somali	42.3	50.5	37.5	62.7	49.3	76.9	26.3	1.5	18.9	15.1	27
Benishangul-Gumuz	25.2	13.4	9.9	22.3	31.4	46.0	23.5	4.2	7.1	39.0	28
SNNP	13.2	13.0	7.1	17.5	39.4	47.0	32.5	0.9	9.6	35.0	676
Gambela	31.4	32.6	4.3	34.7	16.7	46.1	30.4	2.1	6.9	34.0	7
Harari	29.9	26.2	14.2	33.7	67.4	84.3	30.4	1.8	10.6	10.0	5
Addis Ababa	31.1	40.1	33.7	60.8	23.8	67.3	22.6	1.7	9.7	25.9	20
Dire Dawa	25.9	27.9	9.5	30.6	33.8	57.6	28.6	0.0	24.1	25.7	7
Mother's education											
No education	11.6	10.9	7.5	15.7	35.0	43.5	25.0	1.3	8.9	40.4	2,141
Primary	19.3	19.2	11.9	27.9	33.6	50.1	31.3	2.7	10.1	29.9	304
Secondary and higher	31.4	42.9	25.4	53.9	36.6	60.1	31.9	0.4	16.9	24.6	95
Total	13.3	13.1	8.7	18.6	34.9	44.9	26.0	1.4	9.4	38.5	2,540

ORS = Oral rehydration salts
[1] Excludes pharmacy, shop, and traditional practitioner

10.20 Feeding Practices

Table 10.24 shows the percent distribution of children under five who had diarrhea in the past two weeks, by feeding practices. Seventeen percent of children who had diarrhea were given the same amount of liquid as usual, 35 percent were given more than the usual amount, and 48 percent were given less.

About nine in ten children with diarrhea (87 percent) were given less than the usual amount of food, 11 percent were given the same amount of food, and only 2 percent were given more food than usual.

Table 10.24 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquid offered and amount of food offered compared with normal practice, Ethiopia 2000

Feeding practice	Percent
Amount of liquid offered	
Same as usual	16.6
More	34.9
Less	47.8
Don't know	0.8
Amount of food offered	
Same as usual	10.9
More	2.2
Less	86.9
Total	100.0
Number	2,540

10.21 Women's Status and Children's Health Care

Status and self-respect can be major determinants of a mother's ability to obtain adequate health care for herself and her children. Table 10.25 presents the percentage of children age 12-23 months who were fully vaccinated and the percentage of children under five years who were ill with ARI, fever, or diarrhea who were taken to a health provider, by whether mothers believed that husbands are justified in beating their wives for any reason, an indicator of woman's status.

In general the percentage of children of mothers who believed that a husband is not justified in beating his wife for any reason at all were more likely to be fully vaccinated or taken to a provider for treatment when they were ill than children of women who believed that husbands are justified in beating their wives for any reason.

Table 10.25 Women's status and children's health care

Percentage of children age 12-23 months who were fully vaccinated, and among children under five years who were ill with ARI, fever, or diarrhea in the two weeks preceding the survey, the percentage taken to a health provider, by number of reasons to justify wife beating, Ethiopia 2000

Number of reasons to justify wife beating	Number of children 12-23 months fully vaccinated[1]	Percentage of ill children under five years who were taken to a health provider for treatment of:[2]		
		ARI	Fever	Diarrhea
0	23.5	16.7	25.8	18.2
1-3	14.9	14.7	16.5	13.4
4-5	11.4	16.4	17.2	12.3
Total	14.3	15.8	18.0	13.3

[1] Received BCG, measles, and three doses of DPT and polio.
[2] Excludes pharmacy, shop, and traditional practioner

INFANT FEEDING AND CHILDHOOD AND MATERNAL NUTRITION

11

The Ethiopia DHS included questions about the nutritional status of children and their mothers, including infant feeding practices, breastfeeding duration and intensity, types of complementary foods given, and whether or not a bottle with a nipple was used. To assess the current nutritional status of all children under age five and women age 15-49, anthropometric (height and weight) data were also collected.

Maternal nutritional status has important implications for the health of mothers and children. Women in poor nutritional health face a greater risk of an adverse pregnancy and are more likely to give birth to children who are not healthy.

Infant feeding practices are important determinants of children's nutritional status, and many studies have shown that breastfeeding has beneficial effects on the nutritional status of children and lowers morbidity and mortality among young children. Breastfeeding is also associated with longer periods of postpartum amenorrhea, which could extend birth intervals and lower fertility. A longer birth interval also provides mothers with the opportunity to fully recover before the next pregnancy and avert maternal depletion.

11.1 INITIATION OF BREASTFEEDING

Table 11.1 shows the percentage of children born in the five years before the survey by breastfeeding status and the timing of initial breastfeeding, by background characteristics. Breastfeeding is nearly universal in Ethiopia, with 96 percent of children born in the five years preceding the survey having been breastfed at some time. There are no substantial variations by background characteristics in the percentage of children ever breastfed.

The early initiation of breastfeeding is important for a number of reasons. Early suckling benefits mothers because it stimulates breast milk production and releases a hormone that helps the uterus to contract and reduce postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding fosters bonding between mother and child. One in two children are breastfed within one hour of birth, and nearly three in four within one day of birth. Fifty-eight percent of children are not given the first milk.

There is little difference in the timing of initial breastfeeding by gender of the child. However, rural children are more likely than urban children to start breastfeeding within one hour of birth, as are children born in the Harari Region compared with the other regions. Nine in ten children living in the SNNP Region start breastfeeding within one day of birth, in contrast to one in two children from the Amhara Region. Mothers with little or no education are more likely than highly educated mothers to put their newborn to the breast within the first hour of birth. Early initiation of breastfeeding is also more common among children who received no assistance at delivery and children born at home.

Table 11.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed the percentage who started breastfeeding within one hour and within one day of birth, and who did not receive the first milk, by background characteristics, Ethiopia 2000

Background characteristic	Percentage ever breastfed	Number of all children	Percentage who started breastfeeding: Within 1 hour of birth	Percentage who started breastfeeding: Within 1 day of birth[1]	Percentage who did not receive the first milk	Number of children ever breastfed
Sex						
Male	95.9	6,288	51.9	75.5	58.6	6,029
Female	96.8	5,970	51.7	75.3	56.4	5,778
Residence						
Urban	95.9	1,277	47.1	69.2	64.4	1,224
Rural	96.4	10,981	52.3	76.1	56.7	10,583
Region						
Tigray	96.3	788	31.4	57.6	42.3	759
Affar	96.0	126	32.7	77.8	45.6	121
Amhara	96.7	3,202	32.0	50.8	58.2	3,096
Oromiya	95.9	4,997	62.9	84.1	58.4	4,791
Somali	95.1	142	55.2	71.3	28.7	135
Benishangul-Gumuz	96.1	124	53.2	70.0	65.5	119
SNNP	96.8	2,602	61.5	94.2	61.0	2,518
Gambela	96.9	29	48.9	66.4	53.4	28
Harari	97.6	25	65.0	85.8	30.2	25
Addis Ababa	96.5	182	54.5	82.5	70.3	176
Dire Dawa	97.5	40	47.9	84.9	45.8	39
Mother's education						
No education	96.4	10,060	52.2	75.1	55.5	9,697
Primary	95.9	1,597	51.3	78.3	65.2	1,531
Secondary and higher	96.3	601	45.4	72.5	71.8	579
Assistance at delivery						
Health professional	96.1	693	42.5	71.1	63.2	666
Trained traditional birth attendant	97.6	508	51.8	81.0	62.1	496
Untrained traditional birth attendant	96.1	3,230	46.5	71.3	50.8	3,105
Other	96.4	7,117	54.5	76.4	59.9	6,862
No one	95.5	700	57.9	84.6	56.3	668
Place of delivery						
Health facility	96.0	615	43.8	71.8	62.2	590
Home	96.3	11,625	52.3	75.6	57.3	11,199
Total	96.3	12,258	51.8	75.4	57.5	11,807

Note: Total includes 10 children for whom information on assistance at delivery is missing and 4 children for whom information on place of delivery is missing.
[1] Includes children who started breastfeeding within one hour of birth.

11.2 Breastfeeding Status by Age

Children who received only breast milk in the 24 hours before the survey are defined as being *exclusively breastfed*, and children who are *fully breastfed* received only plain water in addition to breast milk. Exclusive breastfeeding is recommended for the first four to six months of a child's life 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. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially diarrheal disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

Information on supplementation was obtained by asking mothers about the current breastfeeding status of all children under five years of age and food (liquids or solids) given to the child the day before the survey. Even though information on breastfeeding was collected for all children born in the five years preceding the survey, the tables on breastfeeding are restricted to children born in the three years before the survey because most children are weaned by age three.

Table 11.2 shows the percent distribution of living children in the three years before the survey by breastfeeding status. Contrary to the World Health Organization's recommendation of exclusive breastfeeding for up to the first 6 months of life, only 38 percent of Ethiopian children age 4-5 months are exclusively breastfed. The table also shows that three in four children under 2 months of age are exclusively breastfed, 10 percent are fully breastfed, 2 percent consumed breast milk and other water-based liquids, and 8 percent consumed other milk. Complementary food is generally not given to these children. At 4-5 months of age, 2 out of 5 children continue to be exclusively breastfed, 18 percent had plain water in addition to breast milk, 11 percent consumed other water-based liquids, 21 percent consumed other milk and 10 percent consumed complementary food. The proportion of exclusively breastfed children drops off to 1 out of 6 by the age of 6-7 months, and continues to decline thereafter.

Table 11.2 Breastfeeding status by child's age

Percent distribution of living children under three years of age by breastfeeding status, according to child's age in months, Ethiopia 2000

			Breastfeeding and:						
Child's age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Water-based liquids, juice	Other milk	Comple-mentary foods	Total	Using a bottle with a nipple	Number of children
<2	1.2	78.4	10.4	1.6	8.3	0.1	100.0	5.8	331
2-3	0.5	48.5	16.7	10.3	20.4	3.7	100.0	19.0	385
4-5	1.7	38.1	17.9	11.3	20.9	10.2	100.0	20.9	362
6-7	1.4	15.8	16.3	7.8	24.3	34.3	100.0	16.8	412
8-9	1.0	7.7	12.1	8.2	16.8	54.1	100.0	11.1	324
10-11	2.2	4.4	8.0	2.8	7.8	74.9	100.0	11.9	372
12-13	3.7	1.9	6.0	1.8	4.9	81.7	100.0	8.8	391
14-15	8.2	2.0	5.5	1.2	1.7	81.5	100.0	7.9	389
16-17	7.4	1.5	3.8	1.4	2.2	83.7	100.0	5.4	328
18-19	9.4	1.2	2.7	0.7	1.6	84.3	100.0	3.0	340
20-21	18.8	0.0	0.4	0.2	2.7	77.9	100.0	7.6	352
22-23	28.1	0.0	0.4	0.2	0.4	70.8	100.0	4.5	342
24-25	37.7	0.8	1.1	0.0	0.0	60.5	100.0	1.5	382
26-27	48.9	0.0	1.2	0.0	0.0	49.9	100.0	2.8	348
28-29	59.2	0.5	0.0	0.7	0.1	39.6	100.0	1.6	404
30-31	63.8	0.0	0.5	0.0	0.8	35.0	100.0	3.0	327
32-33	64.1	0.0	0.1	0.0	0.0	35.8	100.0	0.1	335
34-35	68.7	0.7	0.1	0.0	0.0	30.6	100.0	0.6	288
<4	0.9	62.3	13.7	6.2	14.8	2.0	100.0	12.9	716
4-5	1.7	38.1	17.9	11.3	20.9	10.2	100.0	20.9	362
6-9	1.3	12.3	14.5	8.0	21.0	43.0	100.0	14.3	736

Note: Breastfeeding status refers to last 24 hours. Children classified as *breastfeeding and plain water only* receive no supplements.

Bottle-feeding is discouraged among very young children. It is usually associated with increased risk of illness, especially diarrheal disease, because of the difficulty in sterilizing the nipples properly. Bottle-feeding also shortens the period of postpartum amenorrhea and increases the risk of pregnancy. The practice of bottle-feeding with a nipple is not common in Ethiopia. However, the proportion of children who are bottle fed rises from 13 percent among children age less than 4 months to 21 percent among children age 4-5 months, after which it declines gradually to less than 1 percent among children 34-35 months of age.

11.3 Duration and Frequency of Breastfeeding

The median duration of breastfeeding by selected background characteristics is shown in Table 11.3. The estimates of mean and median duration of breastfeeding are based on current status data, that is, the proportion of children under three years who were being breastfed at the time of the survey.

Table 11.3 Median duration and frequency of breastfeeding

Median durations of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, and the percentage of breastfeeding children under six months who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Ethiopia 2000

Background characteristic	Median duration (months) of breastfeeding				Breastfeeding children under six months[3]			
	Any breast-feeding	Exclusive breast-feeding	Pre-dominant breast-feeding[1]	Number of children[2]	Percentage breastfed 6+ times in last 24 hours	Mean number of feeds		Number of children
						Day	Night	
Sex of child								
Male	25.8	2.4	4.5	3,641	96.9	7.9	6.3	560
Female	25.2	2.7	3.9	3,524	94.5	7.9	6.1	518
Residence								
Urban	23.3	1.8	3.4	724	92.4	7.0	5.3	104
Rural	25.7	2.6	4.3	6,441	96.2	8.0	6.3	974
Region								
Tigray	27.3	3.2	5.0	444	92.8	8.2	5.6	69
Affar	20.5	0.6	0.6	71	96.4	8.8	6.4	10
Amhara	30.4	4.6	7.3	1,835	97.9	7.8	6.8	281
Oromiya	23.9	2.4	3.6	2,981	94.4	8.0	6.1	421
Somali	13.5	0.4	0.6	80	80.1	12.9	10.8	14
Benishangul-Gumuz	25.3	2.0	3.9	71	96.1	6.7	5.4	14
SNNP	24.1	1.6	2.6	1,518	97.8	7.6	5.8	241
Gambela	33.9	0.5	0.6	18	93.0	9.7	7.4	3
Harari	21.0	0.7	3.5	15	97.1	9.3	6.5	2
Addis Ababa	18.2	0.6	1.9	109	91.0	6.0	4.6	20
Dire Dawa	17.4	0.5	1.2	24	97.9	11.9	7.2	4
Mother's education								
No education	25.6	2.7	4.6	5,841	95.5	8.1	6.5	882
Primary	25.6	2.0	3.0	941	97.9	7.0	5.3	138
Secondary and higher	19.9	1.9	2.9	383	94.6	6.5	4.8	58
All children	25.5	2.5	4.2	7,165	95.8	7.9	6.2	1,079
Mean for all children	24.9	4.2	5.8	96.4	NA	NA	NA	NA

NA = Not applicable
[1] Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice.
[2] Based on children whether living or dead at the time of interview
[3] Excludes children who do not have a valid answer on number of times breastfed

The median and mean duration of breastfeeding are very similar: 25.5 months and 24.9 months, respectively (Table 11.3). There is little difference in the duration of breastfeeding by sex of the child. Rural children are breastfed for a slightly longer duration, as are children living in the Gambela Region compared with all other regions. Highly educated mothers breastfeed their children for a shorter duration than mothers with little or no education.

Both duration and frequency of breastfeeding can affect the length of postpartum amenorrhea. Table 11.3 shows that the majority of children under 6 months of age were breastfed 6 or more times in the 24 hours preceding the survey. Breastfeeding is slightly more frequent in the daytime than at night, with the mean number of feeds in the daytime being 7.9 compared with 6.2 at night. Breastfeeding is more frequent among children residing in rural areas, children from Dire Dawa and the Amhara and SNNP regions, and children of mothers with primary education.

11.4 Types of Supplemental Food

Information on the types of food given to children under three years in the 24 hours preceding the survey, according to their breastfeeding status, is shown in Table 11.4. In Ethiopia, the introduction of other liquids such as water, juice, and formula takes place earlier than the recommended age of about 6 months. Even among the youngest breastfeeding children (<2 months), 2 percent consumed other liquids, and 9 percent drank milk other than breast milk. Use of other liquids increases with age, and by 24-35 months, one in two children (54 percent) receive liquid supplements. Breastfeeding children also consume other milk supplements early in life, with 16 percent of infants under 4 months of age receiving milk supplements.

WHO recommends the introduction of solid food to infants around the age of 6 months because by that age breast milk by itself is no longer sufficient to maintain a child's optimal growth. About one in three children consumes some type of solid or semisolid food by 6-7 months of age. The percentage receiving solid or semisolid food increases gradually; by age two most children are fed solid or semisolid foods. Nevertheless, it is disconcerting to note that even at 6-9 months of age, only 44 percent of children are consuming solid or semisolid food. The majority of children consumed foods made from grains (59 percent). Only 28 percent of children under three years consumed vitamin A rich foods in the 24 hours preceding the survey. Meat, fish, poultry, and eggs have bodybuilding substances essential to good health and also contain nutrients that are important for balanced physical and mental development. The introduction of these foods in the diet is late, and very few children consume these foods.

As expected, the percentage of nonbreastfeeding children who consumed supplements at an earlier age is higher than the percentage of breastfeeding children.

Table 11.4 Foods consumed by children in preceding 24 hours

Percentage of children under three years of age who consumed specific foods in the 24 hours preceding the interview, by breastfeeding status and child's age, Ethiopia 2000

	Percentage of children who received specific foods in preceding 24 hours[1]										
Child's age in months	Other milk	Other liquids[2]	Foods made from grains	Any other fruits and vegetables	Food made from roots or tubers	Food made from legumes	Meat/ Poultry/ Fish/ Eggs/ Cheese/ Yogurt	Any solid or semisolid food	Food made with oil/fat or butter	Vitamin A rich foods	Number of children
BREASTFEEDING CHILDREN											
<2	8.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	327
2-3	21.4	13.1	3.7	0.1	0.0	0.0	0.0	3.7	0.0	0.1	383
4-5	26.4	16.6	7.3	3.2	0.7	1.5	0.8	10.5	1.7	1.8	356
6-7	37.7	18.9	27.1	4.9	6.3	7.9	4.0	34.6	6.9	10.9	406
8-9	34.5	24.5	47.5	6.1	7.1	18.8	6.3	54.8	7.7	16.6	320
10-11	38.3	28.8	69.2	15.2	7.5	25.4	10.8	77.4	17.3	31.3	363
12-13	29.0	29.3	77.2	20.2	13.6	44.0	14.5	85.0	23.2	34.0	376
14-15	23.6	37.0	84.1	19.9	10.3	54.9	10.1	89.4	17.8	43.7	358
16-19	29.1	39.5	79.4	21.0	23.5	53.1	13.0	91.5	23.4	38.4	612
20-23	29.1	48.8	89.9	22.8	20.5	55.1	14.2	97.2	24.2	43.2	531
24-35	22.4	54.4	91.1	21.7	23.2	63.2	14.9	97.8	27.7	46.5	910
<4	15.5	7.8	2.0	0.1	0.0	0.0	0.0	2.0	0.0	0.1	710
4-5	26.4	16.6	7.3	3.2	0.7	1.5	0.8	10.5	1.7	1.8	356
6-9	36.3	21.4	36.1	5.4	6.7	12.7	5.0	43.5	7.3	13.4	726
Total	27.1	32.6	59.4	14.2	12.7	35.3	9.3	65.8	16.1	28.1	4,943
NONBREASTFEEDING CHILDREN											
16-19	52.0	57.0	84.6	24.5	26.5	26.2	6.1	94.6	21.9	45.3	57
20-23	52.7	52.9	84.7	28.8	35.0	46.1	22.5	96.0	38.4	55.1	163
24-35	28.5	54.1	83.7	23.4	23.7	51.7	18.3	92.7	30.1	49.0	1,174
Total	33.3	53.3	82.8	23.6	24.4	49.0	18.0	92.0	30.0	49.2	1,469

Note: Breastfeeding status refers to last 24 hours. Percentages may sum to more than 100 percent because child may have received more than one type of supplement. Vitamin A rich foods include pumpkin, squash, red or yellow yams, carrots, red potatoes, green leafy vegetables, mangoes, payayas, locally grown vitamin A rich foods. The category of tubers and roots also includes plantains and unripe bananas.

[1] Refers to the day and night preceding the interview

11.5 FREQUENCY OF FOOD SUPPLEMENTATION

The nutritional requirements of young children are more likely to be met if they are fed a variety of foods. In the Ethiopia DHS, interviewers read a list of specific foods and asked the mother to report the number of times during the last seven days a child had consumed each food. For any food consumed at least once in the last seven days, the mother was also asked for the number of times the child had consumed the food in the 24 hours preceding the survey. Tables 11.5 and 11.6 show the mean number of times and the mean number of days children under age three consumed specific foods in the 24 hours before the survey and in the 7 days before the survey, respectively, by age and breastfeeding status.

Foods rich in vitamin A were hardly given at all in the 24 hours preceding the survey; children under 4 months of age did not consume much solid or semisolid food; and solid or semisolid food was given twice to children age 6-9 months (Table 11.5). As seen in Table 11.6, children under three years of age consumed foods made from grains most often during the 7 days before the survey (4 times a week), followed by foods made from legumes and liquid supplements (more than twice a week). As expected, older children consumed supplements more frequently than younger children.

Table 11.5 Frequency of foods consumed by children in preceding 24 hours

Mean number of times specific foods were consumed by children under three years of age in the 24 hours preceding the survey, by breastfeeding status and child's age, Ethiopia 2000

	Percentage of children who received specific foods in preceding 24 hours[1]										
Child's age in months	Other milk	Other liquids[2]	Foods made from grains	Any other fruits and vegetables	Food made from roots or tubers	Food made from legumes	Meat/ Poultry/ Fish/ Eggs/ Cheese/ Yogurt	Any solid or semisolid food	Food made with oil/fat or butter	Vitamin A rich foods	Number of children
BREASTFEEDING CHILDREN											
<2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	327
2-3	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	383
4-5	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.4	0.0	0.0	356
6-7	1.2	0.4	0.7	0.1	0.1	0.2	0.1	1.6	0.1	0.2	406
8-9	0.9	0.5	1.1	0.1	0.1	0.4	0.1	2.9	0.2	0.3	320
10-11	0.8	0.5	1.5	0.2	0.1	0.5	0.2	4.2	0.3	0.6	363
12-13	0.7	0.6	1.9	0.3	0.2	1.0	0.2	6.0	0.4	0.8	376
14-15	0.6	0.6	2.2	0.3	0.2	1.2	0.2	6.4	0.3	1.0	358
16-19	0.7	0.7	2.0	0.4	0.5	1.2	0.2	6.8	0.4	0.8	612
20-23	0.6	0.8	2.5	0.4	0.5	1.3	0.2	7.8	0.4	1.0	531
24-35	0.5	0.9	2.7	0.4	0.5	1.6	0.3	8.6	0.5	1.1	910
<4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	710
4-5	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.4	0.0	0.0	356
6-9	1.1	0.4	0.9	0.1	0.1	0.3	0.1	2.2	0.1	0.3	726
Total	0.7	0.6	1.6	0.3	0.3	0.8	0.2	4.8	0.3	0.6	4,943
NONBREASTFEEDING CHILDREN											
16-19	1.3	1.2	2.7	0.4	0.6	0.6	0.1	7.5	0.4	1.2	57
20-23	1.1	1.0	2.7	0.6	0.7	0.9	0.3	8.3	0.7	1.0	163
24-35	0.6	1.1	2.8	0.5	0.5	1.3	0.3	8.7	0.6	1.2	1,174
Total	0.8	1.0	2.7	0.5	0.5	1.2	0.3	8.5	0.6	1.2	1,469

Note: Breastfeeding status refers to last 24 hours.
[1] Refers to the day and night preceding the interview
[2] Does not include plain water

Table 11.6 Frequency of foods consumed by children in preceding 7 days

Mean number of days specific foods were consumed by children under three years of age in the 7 days preceding the interview, by breastfeeding status and child's age, Ethiopia 2000

	Mean number of days specific foods were consumed by children in the preceding 7 days										
Child's age in months	Other milk	Fruit juice	Other liquids[1]	Foods made from grains	Any other fruits and vegetables	Food made from roots or tubers	Food made from legumes	Meat/ Poultry/ Fish/ Eggs/ Cheese/ Yogurt	Food made with oil/fat or butter	Vitamin A rich food	Number of children
BREASTFEEDING CHILDREN											
<2	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	327
2-3	1.4	0.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	383
4-5	1.9	0.1	1.1	0.5	0.2	0.0	0.1	0.0	0.1	0.0	356
6-7	2.6	0.1	1.4	1.8	0.2	0.4	0.5	0.3	0.6	0.2	406
8-9	2.4	0.1	1.6	3.1	0.2	0.4	1.3	0.4	1.1	0.3	320
10-11	2.6	0.1	1.8	4.4	0.5	0.6	1.8	0.7	2.0	0.4	363
12-13	2.1	0.1	1.7	5.0	0.6	1.0	2.9	0.8	2.3	0.4	376
14-15	1.6	0.1	2.4	5.6	0.6	0.6	3.3	0.7	2.7	0.7	358
16-19	1.9	0.1	2.7	5.4	0.7	1.5	3.4	0.7	2.4	0.7	612
20-23	2.1	0.1	3.1	6.0	0.7	1.3	3.6	0.9	2.7	0.7	531
24-35	1.4	0.2	3.3	6.2	0.7	1.4	4.3	1.0	3.0	0.8	910
<4	1.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	710
4-5	1.9	0.1	1.1	0.5	0.2	0.0	0.1	0.0	0.1	0.0	356
6-9	2.5	0.1	1.5	2.4	0.2	0.4	0.9	0.3	0.8	0.2	726
Total	1.8	0.1	2.1	4.0	0.5	0.8	2.3	0.6	1.8	0.5	4,943
NONBREASTFEEDING CHILDREN											
16-19	3.5	0.2	3.0	5.5	0.9	1.6	2.0	0.7	2.2	1.1	57
20-23	3.7	0.1	3.9	5.8	0.7	2.0	3.1	1.3	3.4	1.1	163
24-35	2.0	0.1	3.7	5.7	0.8	1.5	3.5	1.0	3.1	0.9	1,174
Total	2.3	0.1	3.6	5.6	0.8	1.5	3.3	1.0	3.1	0.9	1,469

[1] Does not include plain water

11.6 IODINE INTAKE

Insufficient iodine in the diet can lead to serious health deficiencies. Cooking salt in households was tested for the presence of iodine in the Ethiopia DHS, using salt testing kits supplied by UNICEF. Salt that contains at least 15 parts per million (ppm) of iodine is considered to be adequately iodized. The color coding in the salt testing kits used in Ethiopia ranged from 0 ppm to 100 ppm at intervals of 25 ppm. Of the 98 percent of households in which an iodine test was carried out, 28 percent had salt that contained 25 ppm or more (Table 11.7). There is little difference in iodine fortification by background characteristics, with the exception of residence and region. Children living in rural households are much less likely to be exposed to fortified salt, as are children residing in the Tigray, Somali, and SNNP regions.

Table 11.7 Iodized salt

Percent distribution of households by whether salt was tested for iodine content and by level of iodine content of salt, according to background characteristics, Ethiopia 2000

Background characteristic	Among all households		Among those tested, percentage with:		Total	Number of all households
	Percentage not tested	Percentage tested	0 ppm	25 ppm or more		
Residence						
Urban	5.0	95.0	59.5	40.5	100.0	2,280
Rural	1.2	98.8	73.8	26.2	100.0	11,792
Region						
Tigray	1.3	98.7	87.8	12.2	100.0	993
Affar	3.3	96.7	73.5	26.5	100.0	163
Amhara	1.1	98.9	72.0	28.0	100.0	3,930
Oromiya	1.4	98.6	63.2	36.8	100.0	5,078
Somali	5.7	94.3	83.7	16.3	100.0	171
Benishangul-Gumuz	3.0	97.0	55.9	44.1	100.0	151
SNNP	3.1	96.9	81.8	18.2	100.0	2,985
Gambela	8.3	91.7	51.3	48.7	100.0	38
Harari	5.9	94.1	72.4	27.6	100.0	38
Addis Ababa	3.7	96.3	62.4	37.6	100.0	461
Dire Dawa	4.9	95.1	66.7	33.3	100.0	66
Total	1.8	98.2	71.6	28.4	100.0	14,072

Note: Salt that contains at least 15 ppm is considered to be adequately iodized. Color coding in the salt-testing kits used in Ethiopia ranged from 0 ppm to 100 ppm at a 25 ppm interval.
ppm = Parts per million

11.7 MICRONUTRIENT INTAKE

A serious contributor to childhood morbidity and mortality is micronutrient deficiency. Children can receive micronutrients from foods, food fortification, and direct supplementation. In addition to the types of food given to children, mothers in the Ethiopia DHS were asked whether their young children had received a vitamin A capsule in the six months before the survey. Table 11.8 shows that 38 percent of Ethiopian children under five years of age consumed vitamin A through food in the seven days preceding the survey. Furthermore, more than one in two children (56 percent) received vitamin A capsules in the six months before the survey.[1] Twenty-eight percent of children also live in households using adequately iodized salt. Older children are much more likely to receive vitamin A supplements than younger children. There is no difference in vitamin A supplementation by gender and no clear pattern by birth order. Vitamin A supplementation is also low among breastfeeding children. The urban-rural difference in vitamin A intake is marked, with rural children much less likely to receive vitamin A capsules or foods rich in vitamin A. Children residing in the Affar Region are also least exposed to vitamin A supplements. Mother's education impacts micronutrient intake positively, with 76 percent of children of highly educated mothers, for example, having received vitamin A capsules in the six months before the survey, compared with slightly more than one in two children of mothers with no education.

[1] Vitamin A is generally not given to children under six months of age, since most children in this age group are breastfed and would receive vitamin A through breast milk. However, some programs do not make this distinction to ensure coverage among nonbreastfeeding children.

Table 11.8 Micronutrient intake among children

Percentage of living children under five who consumed vitamin A rich foods in the seven days preceding the survey and vitamin A supplements in the six months preceding the survey, and live in households using adequately iodized salt, by background characteristics, Ethiopia 2000

Background characteristic	Consumed vitamin A rich foods	Consumed vitamin A supplements	Living in household using adequately iodized salt[3]	Number
Child's age in months				
<6	0.8	NA[2]	27.7	1,079
6-11	19.2	55.8	26.7	1,107
12-23	41.1	62.4	29.6	2,143
24-35	47.2	61.1	30.5	2,084
36-47	48.3	60.0	27.9	2,260
48-59	44.9	58.0	26.0	2,080
6-9	13.5	53.4	27.9	736
12-15	39.0	62.6	28.0	780
20-23	45.4	64.2	29.6	694
Sex of child				
Male	37.7	55.8	28.1	5,460
Female	38.8	55.8	28.3	5,292
Birth order				
1	40.7	55.8	30.1	1,982
2-3	39.8	58.7	27.6	3,264
4-5	37.6	54.4	26.9	2,362
6+	35.6	53.9	28.6	3,144
Breastfeeding status				
Breastfeeding	35.0	55.3	29.7	8,173
Not breastfeeding	48.5	57.3	23.6	2,580
Residence				
Urban	50.3	72.3	41.2	1,141
Rural	36.8	53.8	26.7	9,611
Region				
Tigray	31.6	67.2	9.7	709
Affar	24.4	26.3	25.5	107
Amhara	28.3	65.7	30.7	2,797
Oromiya	41.8	54.2	34.5	4,356
Somali	30.8	46.5	17.3	127
Benishangul-Gumuz	47.5	48.9	46.3	108
SNNP	44.6	43.0	18.3	2,297
Gambela	65.7	56.7	45.5	25
Harari	48.2	77.9	28.2	23
Addis Ababa	56.7	81.8	34.6	167
Dire Dawa	42.6	83.2	26.7	35
Mother's education				
No education	34.8	53.7	27.2	8,771
Primary	48.7	60.6	27.5	1,426
Secondary or higher	66.7	75.8	46.1	556
Mother's age at birth				
<20	36.7	57.3	29.4	1,502
20-24	42.5	57.6	29.2	2,974
25-29	37.4	55.0	25.1	2,527
30-34	35.5	56.7	29.0	1,896
35-49	36.6	51.9	29.0	1,852
Total	38.2	55.8	28.2	10,753

Note: Breastfeeding status refers to last 24 hours. Information on vitamin A supplements is based on mother's recall.

[1] Foods made from pumpkins, carrots, red sweet potatoes, green leafy vegetables, mango, papaya, and meat, poultry, fish, and eggs (this latter category also includes children who were given cheese or yogurt).

[2] Most programs do not target children under 6 months of age, because most of them are still breastfeeding, and they receive vitamin A through breast milk.

[3] Salt that contains at least 15 ppm (parts per million) is considered to be adequately iodized. Color coding in the salt-testing kits used in Ethiopia ranged from 0 ppm to 100 ppm at a 25 ppm interval. Adequately iodized salt in this case refers to 25+ ppm.

A mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. Night blindness is an indicator of severe vitamin A deficiency, and pregnant women are especially prone to suffer from it. Table 11.9 shows the intake of micronutrients and the occurrence of night blindness among mothers who had a birth in the five years preceding the survey. Twelve percent of mothers received vitamin A after a pregnancy and 18 percent of mothers suffered night blindness during pregnancy. Since some mothers who report vision difficulties in the daytime as well as night blindness may not actually be suffering from night blindness related to Vitamin A deficiency during pregnancy, this percentage can be adjusted to exclude these women, to provide a more reasonable estimate of night blindness. The adjusted percentage of women with night blindness is 5 percent. In addition, 29 percent of mothers who had a birth in the five years preceding the survey live in households that use salt fortified with at least 25 ppm of iodine. Mothers residing in the Affar, Oromiya, and SNNP regions are less likely to have received vitamin A during the postpartum period, and mothers residing in the Tigray Region are most likely to report night blindness.

Table 11.9 Micronutrient intake and night blindness among mothers

Percentage of women who gave birth in the five years preceding the survey, who received vitamin A in the first two months after delivery, who suffered from night blindness during the pregnancy, and who live in households using adequately iodized salt, by background characteristics, Ethiopia 2000

Background characteristic	Received vitamin A postpartum	Suffered night blindness during pregnancy		Living in household using adequately iodized salt[2]	Number
		Reported	Adjusted[1]		
Mother's age at birth					
<20	13.1	13.9	5.3	31.6	1,016
20-34	12.3	16.7	4.8	29.1	5,310
35-49	9.5	22.2	4.3	28.5	1,652
Birth order					
1	11.3	12.7	3.8	32.5	1,362
2-3	12.2	15.5	5.3	28.4	2,371
4-5	12.3	18.3	4.7	28.7	1,707
6+	11.5	21.4	4.9	28.7	2,538
Residence					
Urban	20.8	10.9	3.0	42.1	908
Rural	10.7	18.3	5.0	27.6	7,070
Region					
Tigray	19.2	31.2	16.5	10.7	536
Affar	4.9	20.8	1.3	26.4	85
Amhara	15.7	21.5	6.4	31.0	2,224
Oromiya	9.2	16.0	3.2	36.9	3,059
Somali	21.0	18.0	6.2	18.5	85
Benishangul-Gumuz	16.1	25.8	3.1	44.1	81
SNNP	8.0	11.3	2.3	18.2	1,695
Gambela	22.2	6.9	1.4	48.7	22
Harari	20.5	15.0	9.4	26.6	16
Addis Ababa	17.1	3.5	0.8	36.4	148
Dire Dawa	20.1	16.9	9.3	30.0	27
Mother's education					
No education	10.3	19.0	5.3	28.1	6,550
Primary	16.0	12.0	3.1	29.7	1,003
Secondary or higher	25.9	7.4	1.3	46.5	425
Total	11.8	17.5	4.8	29.3	7,978

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.
[1] Excludes women who reported difficulty with vision during the day and also reported night blindness
[2] Salt that contains at least 15 ppm (parts per million) is considered to be adequately iodized. Color coding in the salt-testing kits used in Ethiopia ranged from 0 ppm to 100 ppm at a 25 ppm interval. Adequately iodized salt in this case refers to 25+ ppm.

11.8 EARLY TERMINATION OF BREASTFEEDING

To gain a better understanding of why mothers stop breastfeeding their children early, mothers who had stopped breastfeeding their last child born in the five years before the survey were asked why they stopped breastfeeding before the child reached 12 months of age. Table 11.10 shows the percentage of last-born living children under age five who stopped breastfeeding early, by background characteristics. Less than 3 percent of children between 1 and 5 years of age stopped breastfeeding by 12 months of age. A higher proportion of children age 48-59 months, children of birth order one, urban children, children residing in Addis Ababa, and children of highly educated mothers stopped breastfeeding by 12 months of age. Pregnancy was the most common reason for stopping, mother's illness or weakness was the next most common reason, followed by child's refusal, and lack of milk (data not shown).

Table 11.10 Children who stopped breastfeeding early

Percentage of last-born living children age 1-59 months who were ever breast-fed who stopped breastfeeding by 12 months of age, by background characteristics, Ethiopia 2000

Background characteristic	Stopped breastfeeding by 12 months of age
Child's age in months	
12-23	2.9
24-35	2.4
36-47	2.5
48-59	5.2
Sex of child	
Male	2.7
Female	3.1
Birth order	
1	4.5
2-3	3.4
4-5	2.4
6+	2.0
Residence	
Urban	9.0
Rural	2.0
Region	
Tigray	1.1
Affar	9.1
Amhara	0.9
Oromiya	3.6
Somali	10.9
Benishangul-Gumuz	3.8
SNNP	2.1
Gambela	3.0
Harari	8.0
Addis Ababa	23.4
Dire Dawa	15.5
Education	
No education	2.3
Primary	3.1
Secondary or higher	11.6
Mother's age at birth	
<20	3.2
20-24	3.5
25-29	3.2
30-34	1.9
35-49	2.6
Total	2.9

11.9 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of young children is a comprehensive index that reflects the level and pace of household, community, and national development. Malnutrition (inadequate nutrition) is a direct result of insufficient food intake or repeated infectious diseases or a combination of both. It can result in increased risk to illness and death and can also result in a lower level of cognitive development.

In the Ethiopia DHS, anthropometric data on height and weight were collected from all children under 5 years of age to evaluate their nutritional status. Their standing height (for children age 24 months and older) or recumbent length (for children under age 24 months) was measured using the Shorr height board. Electronic Seca scales supplied by UNICEF were used to measure the weight of children. Based on these measurements, three internationally accepted indices were constructed and are used to reflect the nutritional status of children. These are:

- height-for-age
- weight-for-height
- weight-for-age.

The assessment of nutritional status is based on the concept that in a well-nourished population, the distribution of children's height and weight at a given age will approximately follow a normal distribution. Since all populations have similar genetic potential for growth (Habicht et al., 1974), for comparative purposes, the nutritional status has been determined using the International Reference Population defined by the U.S. National Center for Health Statistics (NCHS), as recommended by WHO and the U.S. Centers for Disease Control and Prevention (CDC). Children who fall below minus two standard deviations from the reference median are considered malnourished, and children who fall below minus three standard deviations from the reference median are considered severely malnourished. Since children's height and weight change with age, it is suggested that height and weight

be related to age and that weight be related to height, taking the sex of the child into consideration. Each of the three indices provides and measures different aspects of children's nutritional status.

The height-for-age index measures linear growth retardation and cumulative growth deficit. Children who are below minus two standard deviations (-2SD) from the median of the reference population are considered short for their age, or *stunted*. Children who are below minus three standard deviations (-3SD) from the reference population median are *severely stunted*. Stunting of a child's growth may be the result of failure to receive adequate nutrition over a long period, or of sustained improper feeding practices, or of the effects of repeated episodes of illness. Height-for-age therefore represents a measure of the outcome of undernutrition in a population over a long period and does not vary appreciably with the season of data collection.

The weight-for-height index measures body mass in relation to body length, which shows current nutritional status. Children whose weight-for-height is below minus two standard deviations (-2SD) from the median of the reference population are too thin for their height, or *wasted,* while those who measure below minus three standard deviations (-3SD) from the reference population median are *severely wasted.* Wasting represents the failure to receive adequate nutrition during the period immediately before the survey and usually shows marked seasonal patterns associated with changes in food availability or disease prevalence. It may be the result of recent episodes of illness, particularly diarrhea; improper feeding practices; or acute food shortage.

Weight-for-age is a composite index of height-for-age and weight-for-height. Children whose weight-for-age measures below minus two standard deviations (-2SD) from the median of the reference population are *underweight* for their age, while those whose measurements are below minus three standard deviations (-3SD) from the reference population median are *severely underweight.* Being underweight for one's age therefore could mean that a child is stunted or wasted or both stunted and wasted.

In the past, anthropometric data from DHS surveys were restricted to children born to eligible women interviewed in the Women's Questionnaire. However, these data do not represent all children since they excluded children whose mothers were not in the household (either because they did not live there or because they had died), children of mothers who were not eligible for the individual survey, and children of mothers who did not complete an individual interview. To overcome any biases in the measurement of children's nutritional status, the Ethiopia DHS measured and weighed all children born in the five years prior to the survey who were listed in the Household Questionnaire. Table 11.11 shows the percentage of children under five years classified as malnourished according to the three indices of nutritional status, by background characteristics. The table also shows the nutritional status of children of noninterviewed mothers by whether or not the mother lives in the household. A total of 11,145 children under age five were weighed and measured. Two percent of these children had missing information on height or weight, 3 percent had implausibly high or low values for the height and weight measurements, and 1 percent had incomplete age information. The following analysis focuses on the 10,449 children under age five for whom complete and plausible anthropometric data were collected.

Table 11.11 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected characteristics, and percentage of children of non-interviewed mothers, and all children classified as malnourished, Ethiopia 2000

	Height-for-age			Weight-for-height			Weight-for-age			
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Number of children
Child's age in months										
<6	2.1	10.6	-0.4	1.3	4.1	0.0	2.0	6.6	-0.2	877
6-11	11.6	28.7	-1.4	1.5	13.9	-0.7	13.2	37.4	-1.6	1,051
12-23	29.6	57.2	-2.2	3.1	19.5	-1.1	21.6	56.1	-2.1	2,074
24-35	28.6	56.1	-2.3	1.1	9.3	-0.9	19.6	54.8	-2.1	2,073
36-47	33.1	60.7	-2.4	1.0	6.4	-0.7	15.8	49.6	-1.9	2,291
48-59	31.0	60.1	-2.4	0.5	8.4	-0.8	15.1	50.1	-2.0	2,082
6-9 months	9.2	24.9	-1.2	1.5	13.5	-0.5	9.6	32.0	-1.4	697
12-15 months	23.6	48.5	-2.0	3.0	19.4	-1.1	21.5	60.5	-2.2	749
20-23 months	35.4	64.2	-2.4	4.0	21.1	-1.1	20.8	54.4	-2.1	681
Sex of child										
Male	27.1	52.2	-2.1	1.7	11.4	-0.8	16.4	48.1	-1.9	5,255
Female	25.6	50.8	-2.0	1.1	9.6	-0.7	15.9	46.2	-1.8	5,193
Birth order[2]										
1	19.5	46.9	-1.9	1.1	7.5	-0.7	11.1	39.6	-1.7	1,736
2-3	25.7	50.7	-2.0	1.4	10.3	-0.7	14.4	45.0	-1.8	2,969
4-5	29.6	54.2	-2.1	1.4	12.2	-0.8	18.1	51.8	-1.9	2,154
6+	27.4	52.5	-2.1	1.5	12.3	-0.9	19.1	50.7	-1.9	2,915
Birth interval in months[2]										
First birth	19.5	46.9	-1.9	1.1	7.5	-0.7	11.1	39.6	-1.7	1,736
<24 months	32.8	57.9	-2.3	2.1	9.8	-0.8	21.3	51.4	-2.0	1,483
24-47 months	26.9	52.9	-2.1	1.3	12.0	-0.8	16.8	49.0	-1.9	4,998
48+ months	23.6	45.1	-1.9	1.3	11.5	-0.8	14.3	46.1	-1.8	1,557
Residence										
Urban	18.9	42.3	-1.7	0.7	5.5	-0.5	7.9	33.7	-1.4	1,067
Rural	27.2	52.6	-2.1	1.5	11.1	-0.8	17.1	48.7	-1.9	9,382
Region										
Tigray	26.5	55.3	-2.1	0.9	11.1	-0.8	16.1	47.9	-1.9	689
Affar	26.5	47.6	-1.9	1.7	12.6	-0.9	17.8	50.5	-1.9	94
Amhara	29.0	57.0	-2.3	1.1	9.5	-0.8	16.5	51.8	-2.0	2,712
Oromiya	22.1	47.2	-1.9	1.6	10.4	-0.7	13.6	42.4	-1.7	4,288
Somali	25.9	46.4	-1.7	2.5	15.8	-0.8	16.2	44.3	-1.6	83
Benishangul-Gumuz	19.7	41.3	-1.7	2.2	14.2	-0.9	12.2	42.3	-1.7	101
SNNP	33.2	55.4	-2.3	1.5	11.8	-0.8	22.0	53.7	-2.0	2,237
Gambela	20.1	37.0	-1.3	3.1	18.1	-1.0	11.7	39.0	-1.6	23
Harari	14.8	37.3	-1.5	1.0	6.3	-0.5	8.2	27.1	-1.4	21
Addis Ababa	8.1	26.8	-1.1	0.5	4.2	-0.3	2.6	14.1	-0.9	165
Dire Dawa	9.5	30.5	-1.1	1.4	11.1	-0.8	7.3	30.8	-1.3	36
Mother's education[2]										
No education	27.5	52.9	-2.1	1.6	11.4	-0.8	17.3	49.6	-1.9	7,968
Primary	22.4	49.1	-1.9	0.8	8.8	-0.7	13.4	40.4	-1.7	1,286
Secondary and higher	11.0	32.9	-1.4	0.5	6.7	-0.4	3.7	27.7	-1.2	520
Children of interviewed mothers	26.0	51.3	-2.1	1.4	10.8	-0.8	16.1	47.2	-1.8	9,774
Children of non-interviewed mothers										
Mother living in household	21.8	49.5	-2.0	2.1	6.5	-0.8	15.0	36.8	-1.8	91
Mother not living in household	33.3	55.2	-2.2	1.1	6.6	-0.7	17.5	47.7	-1.9	584
Total	26.3	51.5	-2.1	1.4	10.5	-0.8	16.1	47.2	-1.8	10,449

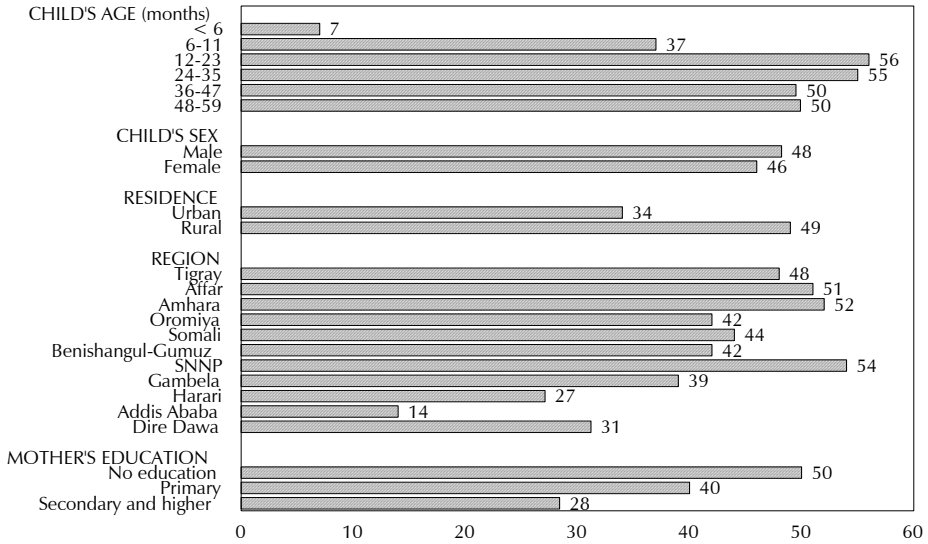
Note: This table refers to de facto children.
[1] Includes children who are below -3 standard deviations from the International Reference Population median
[2] Excludes children whose mothers were not interviewed

Chronic malnutrition among Ethiopian children is very high, with more than one in two children (52 percent) stunted and more than one in four children (26 percent) severely stunted (Table 11.11). The level of stunting increases rapidly with age from 11 percent among children under six months of age to about 60 percent among children age three years and older. There is little difference in the level of stunting by sex. First order births are least likely to be stunted, and children of birth order 4-5 are most likely. The length of birth interval is inversely related to stunting. As expected, rural children are more likely to be stunted than urban children, and children residing in the most urbanized parts of the country (Addis Ababa and Dire Dawa) are much less likely to be stunted. Mother's education impacts children's nutritional status positively, with 33 percent of children of highly educated mothers stunted, compared with 53 percent of children of mothers with no education.

Eleven percent of children under five years of age are wasted (thin for their height), and 1 percent are severely wasted. The proportion of wasted children is highest in the 12-23 month age group, which could indicate inadequate food supplementation during the weaning period and exposure to diseases. Wasting increases with birth order, as more children are likely to compete for a limited quantity of food, especially in poor households. Rural children are more than two times as likely to be wasted than urban children. Regional variation in the level of wasting is substantial. The level of wasting is highest in the Gambela Region (18 percent) and lowest in Addis Ababa. Mother's education has a positive impact on lowering wasting.

Forty-seven percent of children are underweight (low weight-for-age) and 16 percent are severely underweight. Differentials by background characteristics are shown in Figure 11.1 and are very similar to those discussed for wasting.

Figure 11.1 **Weight-for-Age Among Children Under Age 5 by Selected Characteristics**



Note: Weight-for-age is a composite index of height-for-age and weight-for-height.

Ethiopia DHS 2000

Children who live in households where the mother is not present may not receive the same quality of care and nurture than if they lived with their natural mothers. Comparing these two groups of children may therefore be of interest. Children of noninterviewed mothers who are not living in the household are more likely to be stunted but less likely to be underweight than children of interviewed mothers (a difference of 4 percentage points). There is little difference in weight-for-age between these two groups of children.

11.10 Nutritional Status of Women

The Ethiopia DHS also collected anthropometric data from all women age 15-49. Women's nutritional status is important both as an indicator of overall health and as a predictor of pregnancy outcome for both mother and child. Two indices of women's nutritional status are presented in Table 11.12: height and body mass index (BMI). Maternal height is a measure of past nutritional status and reflects in part the cumulative effect of social and economic outcomes on access to nutritional foods during childhood and adolescence. It can be used to predict the risks associated with difficult deliveries, since small stature is often associated with small pelvis size and a greater likelihood of obstructed labor. Short stature is also correlated with low birth weight in infants, high risk of still births, and high rates of miscarriage. The height below which a woman is considered to be at nutritional risk is in the range

Table 11.12 Nutritional status of women by background characteristics

Among women age 15-49, mean height and percentage of women under 145 centimetres, mean body mass index (BMI), and percentage of women whose BMI (kg/m^2) is below 18.5, by selected background characteristics, Ethiopia 2000

	Height			BMI (kg/m^2)		
Background characteristic	Mean	Percentage <145 cm	Number of women	Mean	Percentage <18.5	Number of women[1]
Age						
15-19	154.6	7.0	3,671	19.2	38.4	3,456
20-24	156.2	2.2	2,828	20.2	23.4	2,389
25-29	156.5	2.8	2,563	20.1	24.1	2,083
30-34	156.2	2.2	1,832	20.1	23.7	1,531
35-49	156.4	2.5	4,336	19.8	32.7	3,988
Residence						
Urban	156.6	2.5	2,763	20.8	23.2	2,559
Rural	155.8	3.8	12,466	19.5	31.8	10,888
Region						
Tigray	155.0	4.8	965	19.4	34.9	861
Affar	155.2	4.3	175	19.4	42.0	157
Amhara	154.9	4.1	3,772	19.6	31.4	3,388
Oromiya	156.8	3.0	5,891	19.8	28.7	5,121
Somali	161.2	1.5	168	19.1	48.3	141
Benishangul-Gumuz	156.6	2.7	158	19.2	38.1	138
SNNP	155.5	3.9	3,265	19.8	30.7	2,847
Gambela	160.6	3.9	40	19.3	38.7	36
Harari	157.9	2.4	40	20.7	25.2	36
Addis Ababa	156.2	2.9	678	21.6	17.9	650
Dire Dawa	157.5	1.4	78	21.0	27.2	72
Education						
No education	155.8	3.7	11,439	19.6	30.9	9,956
Primary	155.7	4.4	2,412	19.8	30.5	2,199
Secondary and higher	157.7	0.7	1,379	20.9	23.8	1,292
Total	155.9	3.6	15,230	19.8	30.1	13,447

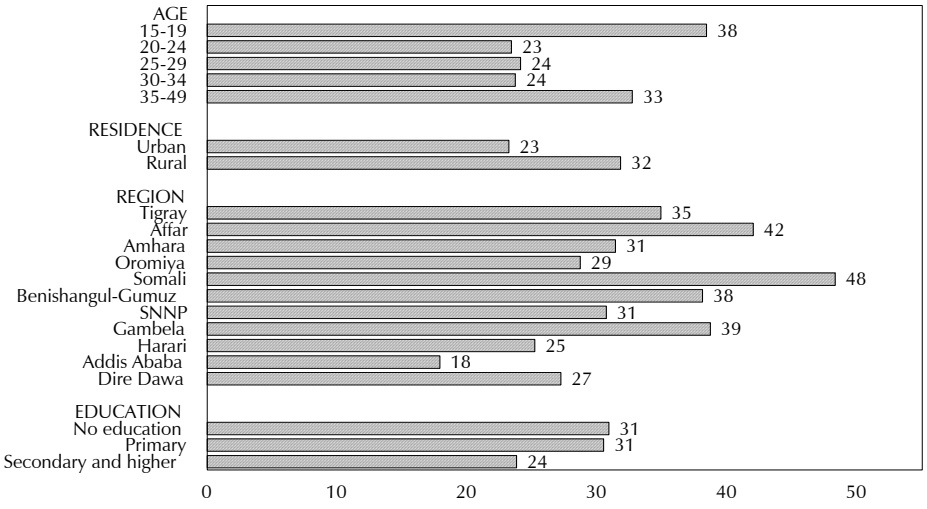
[1] Excludes pregnant women and women who had a birth in the preceding two months.

of 140 to 150 centimeters. The BMI, which utilizes both height and weight and provides a better measure of thinness than weight alone, is defined as weight in kilograms divided by the square of the height in meters (kg/m^2). For the BMI, a cutoff of 18.5 has been recommended for indicating chronic energy deficiency among nonpregnant women. To avoid bias in the measurement of women's nutritional status, pregnant women and women who had given birth in the two months preceding the survey were excluded from the calculation of weight and body mass measures.

The mean height of Ethiopian women is 156 centimeters. About 4 percent of women are shorter than 145 centimeters. Rural women are shorter than average than their urban counterparts. The percentage of women whose height was below 145 centimeters is highest in the Tigray Region and lowest in Dire Dawa. Women who have attended at least secondary school are much less likely to be of short stature than women with little or no education.

Three in ten women fall below the cutoff of 18.5 indicating that the level of chronic energy deficiency is relatively high in Ethiopia. In general, very young women (15-19), rural women, women residing in the Somali Region, and women with little or no education are more likely than other women to suffer from chronic energy deficiency (Figure 11.2).

Figure 11.2 **Percentage of Women Age 15-49 with a Low Body Mass Index (BMI) by Background Characteristics**



Note: BMI = kg/m^2. Low BMI is defined as <18.5.

Ethiopia DHS 2000

HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

12

Acquired Immune Deficiency Syndrome (AIDS) is caused by a human immunodeficiency virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other diseases.

The HIV/AIDS epidemic has become a serious health and development problem in many countries around the world. The Joint United Nations Programme on HIV/AIDS estimated the number of HIV infections worldwide at about 34 million at the end of 1999, of which 25 million are found in sub-Saharan Africa (UNAIDS, 2000). Another 19 million people infected with HIV have died from the disease since the beginning of the epidemic—4 million of them were children. Most of these deaths occurred in Africa.

AIDS probably started to spread in Ethiopia in the early 1980s. The first evidence of HIV infection was found in 1984, and the first AIDS case was reported in 1986. Although HIV prevalence was very low in Ethiopia during the early 1980s, it has been increasing rapidly in the past few years. At the end of 2000, there were an estimated 2.6 million Ethiopians living with HIV/AIDS, of whom 250,000 were children below age 5 (MOH, 2000). The cumulative number of AIDS-related deaths from the beginning of the epidemic was estimated at about 1.2 million in 2000, and is expected to increase to 1.7 million by 2002 (MOH, 2000).

The government of Ethiopia has developed a national policy on HIV/AIDS. The policy is designed to guide the implementation of successful programs to prevent the spread of HIV and AIDS. Prevention and control measures include discouraging multiple sexual relationships, promoting the use of condoms among high-risk groups, maintaining a safe blood supply, ensuring safe use of needles, and disseminating information through public campaigns to change social attitudes and behavior.

The Ethiopia DHS included a series of questions on HIV/AIDS. Female and male respondents were asked whether they had heard of AIDS and if so, the source of information on AIDS. Several questions were also asked to assess respondents' level of awareness about the disease, their knowledge of the modes of transmission, whether they thought it was possible to prevent AIDS (and if so, how), whether they had used condoms for the prevention of HIV/AIDS, and their attitude toward the disease. Respondents were also asked whether they had discussed the disease with their spouse.

12.1 AIDS Awareness

Table 12.1 shows the percentage of women and men who have heard of AIDS by background characteristics. Knowledge of AIDS is very high among Ethiopians, with women somewhat less likely to have heard of the infection than men (85 percent and 96 percent, respectively). In addition, three in four women and nine in ten men believe there is a way to avoid getting AIDS. Overall, there are small differences by background characteristics in the awareness of AIDS. Residents of rural areas, women residing in the Somali Region, and men residing in the Gambela Region are less likely than residents of urban areas and other regions to have heard of AIDS. Not surprisingly, education improves respondents' knowledge of AIDS.

Table 12.1 Knowledge of AIDS

Percentage of women and men who have heard of AIDS, and percentage who believe there is a way to avoid getting AIDS, by background characteristics, Ethiopia 2000

Background characteristic	Women			Men		
	Has heard of HIV/AIDS	Believes there is a way to avoid getting AIDS	Number	Has heard of HIV/AIDS	Believes there is a way to avoid getting AIDS	Number
Age						
15-19	78.9	66.6	3,710	87.8	79.8	600
20-24	85.4	73.8	2,860	97.3	89.3	408
25-29	88.4	77.4	2,585	97.7	94.8	343
30-39	86.9	74.3	3,557	97.9	94.3	580
40-49	85.2	70.6	2,655	98.1	94.4	389
50-59	NA	NA	NA	97.7	87.6	287
Current marital status						
Never married	80.6	69.1	3,688	91.3	83.5	1,040
Ever had sex	95.7	93.3	207	99.1	91.8	278
Never had sex	79.7	67.6	3,481	88.4	80.5	762
Married or living together	85.9	72.6	9,789	98.5	94.0	1,460
Divorced, separated, widowed	86.1	76.2	1,890	95.3	86.8	107
Residence						
Urban	97.2	93.6	2,791	98.8	97.6	379
Rural	81.9	67.5	12,576	94.9	88.1	2,228
Region						
Tigray	91.3	87.2	969	95.3	94.4	136
Affar	67.0	45.5	178	89.7	61.9	34
Amhara	87.1	81.2	3,820	96.4	93.4	630
Oromiya	84.9	68.9	5,937	96.0	88.2	1,054
Somali	62.2	41.5	175	89.1	70.8	36
Benishangul-Gumuz	69.7	62.4	160	91.8	86.5	31
SNNP	79.2	62.0	3,285	94.2	88.3	566
Gambela	70.1	58.0	40	79.7	74.9	7
Harari	91.9	74.9	41	96.7	93.0	7
Addis Ababa	99.0	96.5	684	97.9	96.3	95
Dire Dawa	95.1	79.3	79	98.1	94.6	12
Education						
No education	80.5	65.6	11,551	92.9	83.5	1,358
Primary	95.7	88.1	2,425	97.6	94.7	860
Secondary and higher	99.7	99.2	1,391	99.9	99.1	388
Total	84.7	72.2	15,367	95.5	89.5	2,607

NA = Not applicable

Community meetings are the most important source of information on AIDS as stated by both women and men (80 percent and 71 percent, respectively) who have heard of AIDS (Tables 12.2.1 and 12.2.2). Men are much more likely than women to have heard of AIDS on the radio and television. Friends and relatives are an important source of information on AIDS for both men and women, as are health workers. Exposure to AIDS information on the radio is nearly four times as high among urban than rural women and twice as high among urban than rural men.

Young respondents are more likely to mention school as a source of information on AIDS, while community meetings are more important for older respondents. Never-married women and men who have ever had sex are more likely to receive information on AIDS from the media than other women and men. In contrast, community meetings are an important source of information on AIDS among currently married and formerly married women and men. Urban residents (women and men) are more likely to have heard of AIDS from the media than rural women and men. For rural residents, community meetings are the single most important source of information on AIDS.

Table 12.2.1 Source of information on AIDS: women

Percentage of women who have heard of AIDS by source of information on AIDS, according to background characteristics, Ethiopia 2000

Background characteristic	Radio	TV	News-papers/ magazines	Pamphlets/ posters	Health workers	Mosques/ churches	Schools/ teachers	Com-munity meetings	Friends/ rela-tives	Work-place	Other source	Number	Mean number of sources
Age													
15-19	35.0	10.1	8.0	1.9	9.1	5.1	29.0	67.8	22.9	0.8	1.4	2,927	1.9
20-24	34.0	10.0	6.6	2.1	12.0	6.2	10.1	78.5	24.7	1.0	1.2	2,443	1.9
25-29	33.0	9.4	6.4	2.2	15.3	8.4	4.2	81.8	20.0	1.4	1.1	2,286	1.8
30-39	25.0	5.6	2.9	1.6	16.7	7.5	1.3	85.2	18.9	1.4	0.8	3,091	1.7
40-49	21.0	3.2	1.3	0.8	13.0	8.4	1.1	86.8	18.4	0.8	0.5	2,263	1.5
Marital status													
Never married	42.0	17.9	13.0	3.6	10.4	7.4	33.9	64.7	22.3	1.7	2.4	2,971	2.2
Ever had sex	75.0	47.2	27.3	11.9	23.6	7.3	15.9	61.4	20.7	7.5	3.7	198	3.0
Never had sex	39.0	15.8	12.0	3.0	9.4	7.4	35.2	64.9	22.5	1.3	2.3	2,774	2.1
Married or living together	26.0	4.1	2.6	1.1	13.7	7.3	2.3	84.2	20.8	0.9	0.6	8,412	1.6
Divorced, separated, widowed	30.0	7.6	3.4	1.4	16.1	5.2	3.4	83.8	19.5	1.5	0.6	1,627	1.7
Residence													
Urban	71.0	33.3	19.5	5.7	22.1	5.4	22.2	64.6	20.2	2.6	3.0	2,713	2.7
Rural	19.0	1.0	1.3	0.7	10.9	7.5	6.4	83.7	21.2	0.7	0.5	10,297	1.5
Region													
Tigray	28.0	7.2	7.6	2.5	34.5	6.7	13.5	77.7	28.2	3.5	1.4	885	2.1
Affar	51.0	11.1	5.5	3.0	7.3	1.0	8.1	79.8	13.2	0.6	1.9	119	1.8
Amhara	16.0	3.6	2.8	1.2	12.2	7.8	6.7	86.0	21.2	0.2	1.1	3,328	1.6
Oromiya	32.0	4.8	3.2	0.9	10.7	5.3	9.6	77.4	20.3	0.7	0.8	5,039	1.7
Somali	59.0	10.8	6.3	5.4	3.2	7.3	4.3	76.2	26.0	7.8	2.0	109	2.1
Benishangul-Gumuz	31.0	1.8	4.9	1.2	23.7	5.7	13.6	74.7	14.7	1.1	0.2	111	1.7
SNNP	25.0	4.0	3.9	2.4	10.9	10.8	10.4	83.2	24.2	1.9	0.8	2,601	1.8
Gambela	41.0	10.0	4.3	3.4	27.7	14.0	17.8	73.8	18.9	3.1	1.4	28	2.2
Harari	77.0	38.5	13.7	3.4	26.3	2.1	12.7	64.3	14.2	4.2	2.7	37	2.6
Addis Ababa	88.0	57.3	29.1	5.8	17.0	3.6	16.6	60.4	4.7	1.6	2.3	677	2.9
Dire Dawa	74.0	53.1	21.5	4.9	18.7	3.1	12.4	51.4	24.0	3.4	1.8	75	2.7
Education													
No education	18.0	1.5	0.1	0.2	10.2	6.6	0.7	85.5	21.0	0.8	0.4	9,303	1.5
Primary	43.0	8.8	4.9	2.2	14.6	7.6	27.9	72.0	22.2	0.5	1.2	2,320	2.0
Secondary and higher	86.0	47.0	38.4	11.0	31.4	8.7	39.3	53.9	18.9	4.2	4.7	1,387	3.4
Total	30.0	7.7	5.1	1.7	13.2	7.0	9.7	79.7	21.0	1.1	1.0	13,010	1.8

Table 12.2.2 Source of information on AIDS: men

Percentage of men who have heard of AIDS by source of information on AIDS, according to background characteristics, Ethiopia 2000

Background characteristic	Radio	TV	News-papers/ magazines	Pamphlets/ posters	Health workers	Mosques/ churches	Schools/ teachers	Com-munity meetings	Friends/ rela-tives	Work-place	Other source	Number	Mean number of sources
Age													
15-19	51.6	15.8	15.1	7.2	6.6	3.8	40.4	62.5	24.8	3.6	1.9	527	2.3
20-24	64.0	17.0	13.3	8.4	13.7	6.6	23.9	64.4	26.9	1.8	1.1	397	2.4
25-29	58.7	13.5	18.7	11.9	20.8	11.7	8.7	73.8	28.8	4.6	2.6	335	2.5
30-39	58.0	14.0	18.2	10.8	26.8	12.0	5.4	71.8	26.0	6.8	2.4	568	2.5
40-49	46.7	7.4	10.2	3.2	27.5	7.8	2.3	79.6	25.3	3.7	3.1	382	2.1
50-59	40.0	5.4	5.6	4.8	14.0	6.1	2.1	83.3	24.5	3.5	3.4	281	1.9
Marital status													
Never married	58.3	18.7	16.8	9.5	10.8	5.0	33.8	63.6	24.4	3.8	2.0	949	2.5
Ever had sex	73.8	27.2	25.0	12.4	13.6	3.7	24.3	62.0	19.0	5.2	1.7	275	2.7
Never had sex	51.9	15.3	13.5	8.4	9.7	5.5	37.7	64.2	26.5	3.3	2.1	674	2.4
Married or living together	52.4	8.9	12.6	6.6	23.2	10.0	3.7	76.6	26.6	4.5	2.5	1,438	2.3
Divorced, separated, widowed	35.7	12.5	12.3	12.6	19.9	8.5	7.2	71.4	32.1	2.8	3.0	102	2.2
Residence													
Urban	89.7	58.2	52.2	24.2	36.9	12.0	27.1	47.0	31.0	10.8	7.1	374	4.0
Rural	47.6	4.8	7.4	5.1	15.0	7.4	13.3	75.7	25.1	3.0	1.5	2,115	2.0
Region													
Tigray	62.8	24.1	37.1	20.7	33.9	13.8	22.3	65.9	34.1	0.6	5.4	129	3.2
Affar	81.5	21.8	23.1	7.3	11.9	1.6	1.3	12.0	46.3	0.0	3.1	31	2.1
Amhara	23.5	7.2	9.3	5.5	15.9	5.0	8.0	79.1	34.4	3.9	2.6	607	1.9
Oromiya	66.9	10.4	10.0	5.0	13.3	6.7	14.3	68.2	17.6	4.7	1.0	1,011	2.2
Somali	81.6	14.2	7.8	6.0	10.7	0.0	2.1	40.2	28.1	4.3	0.0	32	1.9
Benishangul-Gumuz	51.6	4.9	11.9	7.0	30.6	5.0	29.7	57.0	39.7	0.0	0.0	28	2.4
SNNP	50.2	7.4	11.5	9.5	26.5	13.5	23.3	84.9	26.5	3.6	2.6	534	2.6
Gambela	81.9	30.9	32.3	22.5	46.8	17.6	24.1	38.4	43.7	11.1	4.4	5	3.5
Harari	91.4	43.7	36.0	19.3	38.2	4.4	21.5	52.9	65.6	6.6	13.6	7	3.8
Addis Ababa	93.6	79.1	67.2	26.4	17.9	9.5	23.2	29.8	31.4	10.9	8.3	93	4.0
Dire Dawa	94.8	67.7	52.7	24.9	14.8	4.0	13.4	30.8	32.9	5.5	9.9	12	3.5
Education													
No education	37.3	2.7	1.4	2.1	13.3	4.6	1.2	80.0	27.4	3.4	1.5	1,262	1.7
Primary	62.8	8.7	11.3	6.0	15.5	9.9	25.8	68.3	24.0	2.1	1.0	839	2.3
Secondary and higher	89.0	54.5	61.9	31.1	40.7	15.1	38.6	50.4	25.8	11.1	7.8	388	4.2
Total	53.9	12.8	14.2	7.9	18.3	8.1	15.4	71.4	26.0	4.2	2.3	2,489	2.3

Regions vary by source of information on AIDS. Eighty-eight percent of women in Addis Ababa and 95 percent of men in Dire Dawa mentioned radio as a source. On the other hand, 86 percent of women in the Amhara Region and 85 percent of men in the SNNP Region heard of AIDS at community meetings. Educated women and men are more likely to get information on AIDS from the media than respondents with no education. Community meetings were the main source of information for respondents who have no education.

12.2 KNOWLEDGE OF HIV/AIDS PREVENTION

To ascertain the depth of knowledge about HIV/AIDS, respondents who had heard of the infection were asked whether there is anything a person can do to avoid getting infected with the virus that causes AIDS and if so, what. Table 12.3 shows the percentage of all women and men who spontaneously mentioned specific ways to avoid contracting the disease. Three times as many women (23 percent) as men (8 percent) have not heard of AIDS or do not know whether it can be avoided. Five percent of women and 3 percent of men stated that there is no way to avoid getting AIDS, and 29 percent of women and 6 percent of men do not know a specific way to avoid contracting AIDS.

Table 12.3 Knowledge of ways to avoid HIV/AIDS

Percentage of women and men who spontaneously mention ways to avoid HIV/AIDS, Ethiopia 2000

Ways to avoid HIV/AIDS	Women	Men
Does not know AIDS or if it can be avoided	22.5	7.5
Believes no way to avoid	5.3	2.9
Does not know specific way	28.8	6.2
Abstain from sex	10.8	17.1
Use condoms	17.1	35.6
Limit sex to one partner/stay faithful to one partner	52.6	69.6
Limit number of sexual partners	6.3	7.3
Avoid sex with prostitutes	10.2	18.4
Avoid sex with persons who have many partners	2.3	1.6
Avoid sex with homosexuals	0.1	0.1
Avoid blood transfusions	2.4	4.2
Avoid injections with unclean needles	12.4	15.1
Avoid kissing	2.1	1.0
Avoid mosquito bites	0.1	0.2
Seek protection from traditional healer	0.4	0.3
Avoid sharing razors/blades	26.0	30.7
Other ways	9.1	4.8
Total	15,367	2,607

Most respondents (53 percent of women and 70 percent of men) believe that having sex with only one partner is the single most effective way to avoid contracting HIV. Men were also twice as likely as women to mention using condoms (36 percent and 17 percent, respectively). A sizable percentage of women and men also mentioned avoiding sharing razors/blades (26 percent and 31 percent, respectively). More men than women state that abstaining from sex and avoiding sex with prostitutes can help prevent the risk of getting AIDS.

Abstaining from sex, using condoms, and limiting the number of sexual partners have been identified as programmatically important ways to avoid the spread of HIV/AIDS. The extent of respondents' knowledge about these ways can be ascertained from Tables 12.4.1 and 12.4.2. Women are much less knowledgeable about programmatically important ways to avoid contracting HIV/AIDS than men. Women are four times more likely than men to have not heard of AIDS or not know of a programmatically important way to avoid HIV/AIDS. Thirty-two percent of women and 29 percent of men know of one way, and 37 percent of women and 63 percent of men know of two or three ways to avoid HIV/AIDS. One in three women and three in five men mentioned the use of condoms as a specific way to avoid HIV/AIDS, while two in three women and nine in ten men mentioned limiting the number of partners as a specific way to avoid HIV/AIDS. Residence and education are the two most influential background characteristics on respondents' knowledge of programmatically important ways to avoid contracting HIV/AIDS. Not surprisingly, women and men residing in urban areas are much

Table 12.4.1 Knowledge of programmatically important ways to avoid HIV/AIDS: women

Percent distribution of women by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of women who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Ethiopia 2000

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS			Total	Specific ways to avoid HIV/AIDS		Number
	None[1]	One way	Two or three ways		Use condoms	Limit number of sexual partners[2]	
Age							
15-19	37.8	22.6	39.5	100.0	37.1	59.0	3,710
20-24	29.9	31.4	38.8	100.0	36.3	66.9	2,860
25-29	26.3	32.6	41.2	100.0	37.6	70.9	2,585
30-39	28.9	36.7	34.4	100.0	31.6	67.9	3,557
40-49	33.1	37.3	29.6	100.0	23.8	64.2	2,655
Marital status							
Never married	35.1	19.1	45.8	100.0	43.3	61.8	3,688
Ever had sex	6.8	15.6	77.6	100.0	75.4	91.3	207
Never had sex	36.8	19.3	43.9	100.0	41.3	60.1	3,481
Married or living together	30.9	37.1	32.0	100.0	28.9	66.4	9,789
Divorced, separated, widowed	27.8	28.5	43.6	100.0	37.9	67.6	1,890
Residence							
Urban	7.5	15.8	76.7	100.0	75.4	89.4	2,791
Rural	36.9	35.3	27.9	100.0	24.1	60.1	12,576
Region							
Tigray	14.9	38.7	46.4	100.0	43.2	84.3	969
Affar	57.6	12.9	29.6	100.0	25.9	39.2	178
Amhara	23.2	38.0	38.8	100.0	29.8	70.7	3,820
Oromiya	34.1	30.8	35.2	100.0	34.3	64.6	5,937
Somali	59.2	19.8	21.0	100.0	20.5	39.3	175
Benishangul-Gumuz	39.4	21.7	38.9	100.0	38.3	58.6	160
SNNP	43.8	30.2	26.0	100.0	23.8	52.8	3,285
Gambela	44.4	13.4	42.2	100.0	37.9	52.4	40
Harari	29.2	19.2	51.7	100.0	52.3	68.7	41
Addis Ababa	4.9	15.9	79.2	100.0	78.7	91.2	684
Dire Dawa	21.8	20.2	58.1	100.0	58.6	76.1	79
Education							
No education	38.9	35.4	25.7	100.0	21.6	58.3	11,551
Primary	14.1	28.1	57.8	100.0	56.1	81.8	2,425
Secondary and higher	0.8	7.6	91.6	100.0	92.2	96.2	1,391
Total	31.5	31.7	36.8	100.0	33.5	65.4	15,367

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses.

[1] Those who have not heard of AIDS or who do not know of any programmatically important ways to avoid HIV/AIDS

[2] Refers to limiting number of sexual partners, and limiting sex to one partner/staying faithful to one partner

Table 12.4.2 Knowledge of programmatically important ways to avoid HIV/AIDS: men

Percent distribution of men by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of men who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Ethiopia 2000

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS			Total	Specific ways to avoid HIV/AIDS		Number
	None[1]	One way	Two or three ways		Use condoms	Limit number of sexual partners[2]	
Age							
15-19	16.9	23.2	59.9	100.0	57.9	76.8	600
20-24	7.8	19.9	72.2	100.0	69.7	86.5	408
25-29	4.5	28.5	67.0	100.0	64.4	92.6	343
30-39	4.6	26.2	69.2	100.0	65.3	92.6	580
40-49	5.4	35.0	59.7	100.0	54.0	93.4	389
50-59	5.6	48.4	46.0	100.0	43.3	91.4	287
Marital status							
Never married	13.5	19.9	66.7	100.0	63.9	80.7	1,040
Ever had sex	3.3	12.4	84.3	100.0	84.0	91.2	278
Never had sex	17.1	22.6	60.3	100.0	56.5	76.8	762
Married or living together	4.5	34.4	61.1	100.0	57.2	93.6	1,460
Divorced, separated, widowed	6.7	33.2	60.1	100.0	60.8	83.4	107
Residence							
Urban	2.0	7.7	90.3	100.0	87.5	95.8	379
Rural	9.2	32.1	58.7	100.0	55.4	86.7	2,228
Region							
Tigray	5.2	26.1	68.7	100.0	67.8	94.3	136
Affar	21.3	24.1	54.6	100.0	56.1	76.8	34
Amhara	6.8	31.0	62.1	100.0	52.2	87.6	630
Oromiya	7.6	32.1	60.3	100.0	59.0	89.9	1,054
Somali	24.3	44.0	31.7	100.0	33.0	73.1	36
Benishangul-Gumuz	13.1	23.4	63.5	100.0	62.7	75.0	31
SNNP	10.1	23.7	66.2	100.0	64.9	85.2	566
Gambela	21.9	15.3	62.8	100.0	65.5	72.6	7
Harari	4.7	13.0	82.3	100.0	84.1	91.1	7
Addis Ababa	2.4	7.9	89.7	100.0	89.7	92.2	95
Dire Dawa	8.1	10.5	81.4	100.0	78.7	89.4	12
Education							
No education	13.2	39.5	47.3	100.0	41.8	82.8	1,358
Primary	3.7	22.1	74.1	100.0	73.0	92.0	860
Secondary and higher	0.1	4.8	95.1	100.0	95.0	97.5	388
Total	8.1	28.6	63.3	100.0	60.0	88.0	2,607

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses.
[1] Those who have not heard of AIDS or who do not know of any programmatically important ways to avoid HIV/AIDS
[2] Refers to limiting number of sexual partners, and limiting sex to one partner/staying faithful to one partner

more likely to know of at least two valid ways, as are residents of the more urbanized areas of the country. Knowledge of valid ways is also comparatively higher among respondents with at least secondary education.

12.3 KNOWLEDGE OF HIV/AIDS-RELATED ISSUES

Respondents who have heard of HIV/AIDS were asked a number of questions on their knowledge of HIV/AIDS-related issues. The information is presented in Table 12.5. Thirty-seven

Table 12.5 Knowledge of HIV/AIDS-related issues

Percentage of women and men by responses to questions on various HIV/AIDS-related issues, according to background characteristics, Ethiopia 2000

	Women							Men						
		Percentage who say that HIV/AIDS can be transmitted from mother to child							Percentage who say that HIV/AIDS can be transmitted from mother to child					
Background characteristic	Percentage who say that a healthy-looking person can have the AIDS virus	Yes	During pregnancy	During delivery	By breast-feeding	Percentage who say they know someone personally who has AIDS or died of AIDS	Number	Percentage who say that a healthy-looking person can have the AIDS virus	Yes	During pregnancy	During delivery	By breast-feeding	Percentage who say they know someone personally who has AIDS or died of AIDS	Number
Age														
15-19	39.1	55.1	26.4	9.5	36.7	23.9	3,710	49.1	65.4	32.8	11.5	43.2	21.6	600
20-24	38.5	59.1	26.3	8.9	42.6	24.8	2,860	60.7	72.8	38.3	12.1	47.5	22.9	408
25-29	40.3	61.8	28.7	8.7	45.7	27.4	2,585	53.1	78.4	35.4	15.5	46.3	23.1	343
30-39	35.7	60.7	23.6	8.7	46.7	26.6	3,557	61.9	76.7	38.5	11.8	58.0	41.4	580
40-49	32.2	54.5	19.0	7.1	42.3	23.4	2,655	52.5	72.3	32.8	9.9	50.0	42.2	389
50-59	NA	NA	NA	NA	NA	NA	NA	48.2	67.7	19.2	10.5	52.5	39.2	287
Marital status														
Never married	44.5	60.1	32.4	11.7	38.6	27.1	3,688	53.7	68.6	35.4	11.9	44.6	23.2	1,040
Never had sex	72.5	84.0	59.3	15.5	46.2	38.7	207	75.5	79.3	40.7	13.2	49.1	27.1	278
Ever had sex	42.8	58.6	30.8	11.5	38.2	26.4	3,481	45.8	64.8	33.5	11.5	42.9	21.8	762
Married or living together	34.1	56.9	21.7	7.7	43.5	24.4	9,789	55.3	74.9	32.6	11.5	54.6	37.3	1,460
Divorced, separated, widowed	39.2	61.0	26.6	7.4	45.7	26.1	1,890	56.3	66.6	33.6	15.7	31.7	30.8	107
Residence														
Urban	69.8	86.6	61.1	16.4	53.3	45.2	2,791	81.8	91.1	73.0	19.4	52.5	53.6	379
Rural	29.9	51.9	16.8	6.9	40.2	20.8	12,576	50.1	68.8	27.1	10.5	49.1	27.7	2,228
Region														
Tigray	38.5	74.0	26.8	11.2	55.1	26.0	969	48.9	83.1	44.4	10.7	49.3	16.7	136
Affar	29.3	45.3	31.7	7.0	34.8	17.8	178	55.4	47.9	30.1	18.2	14.8	25.0	34
Amhara	39.0	57.7	22.3	7.4	43.2	26.0	3,820	58.0	72.6	34.4	11.0	47.1	35.4	630
Oromiya	37.6	58.1	23.3	8.1	46.1	23.0	5,937	56.0	70.2	27.0	14.4	55.2	25.3	1,054
Somali	16.8	37.3	24.2	12.7	17.7	18.3	175	38.2	49.7	33.9	11.0	17.9	24.0	36
Benishangul-Gumuz	40.3	52.9	22.7	12.7	41.1	22.6	160	57.3	58.4	37.6	8.1	33.5	26.0	31
SNNP	25.3	49.2	19.8	8.0	34.9	25.5	3,285	45.6	72.7	36.5	6.5	48.8	39.9	566
Gambela	40.6	48.1	30.9	6.0	36.1	20.2	40	65.8	68.7	39.2	3.4	43.9	30.7	7
Harari	47.9	71.3	42.5	17.7	36.4	35.9	41	86.0	84.6	70.8	22.0	56.3	42.4	7
Addis Ababa	81.8	90.2	68.2	18.0	37.2	40.4	684	79.5	88.6	67.1	20.7	41.2	49.5	95
Dire Dawa	61.5	74.7	54.9	6.7	42.0	36.1	79	77.6	83.2	60.8	15.6	34.7	37.4	12
Education														
No education	27.6	49.8	15.2	5.8	38.2	19.2	11,551	42.9	60.9	19.4	6.4	44.8	25.3	1,358
Primary	56.1	76.7	38.9	15.7	55.3	36.5	2,425	58.6	78.4	36.4	13.8	53.5	28.5	860
Secondary and higher	83.6	95.8	80.6	20.0	57.3	55.3	1,391	87.3	97.0	78.1	26.7	57.9	59.6	388
Total	37.2	58.2	24.9	8.7	42.6	25.2	15,367	54.7	72.1	33.8	11.8	49.6	31.4	2,607

NA = Not applicable

percent of women and 55 percent of men believe that a healthy-looking person can have the AIDS virus. Fifty-eight percent of women and 72 percent of men also recognize that the infection can be transmitted from a mother to her child. One in four women and one in three men are aware that HIV/AIDS transmission can occur during pregnancy, about one in ten women and men are aware that this transmission can occur during delivery, and two in five women and one in two men are aware of transmission through breastfeeding.

Awareness of HIV/AIDS and knowledge of ways to avoid AIDS may be enhanced by a respondent's exposure to individuals who have the AIDS virus or who have died from AIDS. When asked whether respondents knew someone personally who has HIV/AIDS, about one in four women and one in three men acknowledge that they know someone who has HIV/AIDS or someone who has died from AIDS.

12.4 Social Aspects of HIV/AIDS Prevention and Mitigation

Respondents who have heard of HIV/AIDS were also asked a number of questions on the social aspects of HIV/AIDS prevention and mitigation in order to assess their attitude toward people with the AIDS virus. Table 12.6 shows that one in four women and one in two men currently married or living with a partner have discussed the prevention of HIV/AIDS with their spouse or partner. Women age 20-39 and men age 25-49 are more likely to have discussed HIV/AIDS prevention with their spouse

Table 12.6 Discussion of HIV/AIDS with partner

Percent distribution of women and men who are currently married or living with a partner who has discussed the prevention of HIV/AIDS with their husband/partner, according to background characteristics, Ethiopia 2000

	Women					Men				
Background characteristic	Yes	No/ unsure	Has not heard of AIDS	Total	Number	Yes	No/ unsure	Has not heard of AIDS	Total	Number
Age										
15-19	20.7	62.5	16.8	100.0	862	1.0	98.7	0.3	100.0	7
20-24	27.0	58.0	15.0	100.0	1,807	41.0	58.5	0.4	100.0	76
25-29	30.1	57.8	12.0	100.0	2,051	47.5	49.8	2.7	100.0	222
30-39	28.1	58.7	13.2	100.0	3,013	56.6	42.1	1.3	100.0	511
40-49	17.6	67.2	15.2	100.0	2,057	47.3	51.8	0.9	100.0	363
50-59	NA	NA	NA	NA	NA	38.6	59.1	2.3	100.0	281
Residence										
Urban	50.3	48.4	1.3	100.0	1,193	70.5	29.0	0.5	100.0	183
Rural	22.0	62.2	15.8	100.0	8,596	45.2	53.1	1.7	100.0	1,277
Region										
Tigray	30.4	62.2	7.4	100.0	627	40.2	59.8	0.0	100.0	75
Affar	9.9	55.1	35.0	100.0	125	28.9	64.1	6.9	100.0	21
Amhara	23.5	65.1	11.3	100.0	2,587	45.1	53.8	1.1	100.0	393
Oromiya	27.7	59.8	12.5	100.0	3,769	57.4	41.5	1.1	100.0	567
Somali	8.9	55.9	35.1	100.0	112	11.7	82.0	6.4	100.0	22
Benishangul-Gumuz	24.4	45.7	29.9	100.0	111	36.7	54.6	8.8	100.0	18
SNNP	20.9	58.9	20.3	100.0	2,133	40.3	57.8	1.9	100.0	316
Gambela	16.2	54.3	29.5	100.0	30	44.2	38.9	16.9	100.0	4
Harari	31.6	60.3	8.1	100.0	22	35.9	62.7	1.4	100.0	3
Addis Ababa	54.6	44.7	0.8	100.0	236	73.5	24.5	2.0	100.0	34
Dire Dawa	33.2	62.4	4.4	100.0	38	51.9	47.1	1.0	100.0	6
Education										
No education	20.3	63.2	16.5	100.0	8,121	38.1	59.6	2.2	100.0	895
Primary	41.7	55.6	2.6	100.0	1,161	57.3	42.1	0.6	100.0	397
Secondary and higher	71.3	28.1	0.6	100.0	507	81.7	18.2	0.0	100.0	169
Total	25.5	60.5	14.0	100.0	9,789	48.4	50.1	1.5	100.0	1,460

NA = Not applicable

or partner than others. Discussion about HIV/AIDS prevention is also more common among highly educated respondents than others. Twice as many urban than rural women and one and half times as many urban than rural men have discussed HIV/AIDS prevention with their spouse or partner. Residents of Addis Ababa are most likely to have discussed HIV/AIDS prevention with their spouse or partner.

Respondents were also asked for their opinion on whether a person who knows she/he has the AIDS virus should be allowed to keep this information a secret or should make it available to the community. This could shed some light on the extent of stigma associated with HIV/AIDS and discrimination against people who have HIV/AIDS. Nearly twice as many women as men who have heard of AIDS believed that a person who knows that she/he has the AIDS virus should be allowed to keep this information a secret (Table 12.7). Younger women (15-24), those who have never married,

Table 12.7 Social aspects of HIV/AIDS

Percentage of women and men who have heard of AIDS by responses to questions on various social aspects of HIV/AIDS, according to background characteristics, Ethiopia 2000

	Women			Men		
Background characteristic	Percentage who believe that the HIV positive status of a family member should remain a secret	Percentage who are willing to care for a relative sick with AIDS	Number	Percentage who believe that the HIV positive status of a family member should remain a secret	Percentage who are willing to care for a relative sick with AIDS	Number
Age						
15-19	18.6	48.5	2,927	14.4	53.8	527
20-24	17.5	45.6	2,443	8.3	46.5	397
25-29	14.5	46.7	2,286	8.8	48.6	335
30-39	15.3	43.3	3,091	8.5	50.4	568
40-49	15.2	42.0	2,263	4.6	50.6	382
50-59	NA	NA	NA	7.7	48.8	281
Current marital status						
Never married	18.9	53.9	2,971	12.2	55.6	949
Ever had sex	18.5	76.1	198	13.6	63.9	275
Never had sex	19.0	52.3	2,774	11.6	52.2	674
Married or living together	15.7	40.6	8,412	7.0	46.7	1,438
Divorced, separated, widowed	14.6	53.8	1,627	9.9	47.3	102
Residence						
Urban	13.2	70.5	2,713	11.3	80.8	374
Rural	17.1	38.7	10,297	8.7	44.7	2,115
Region						
Tigray	7.2	61.7	885	17.8	54.2	129
Affar	13.9	78.1	119	5.5	50.5	31
Amhara	19.2	49.9	3,328	10.2	65.7	607
Oromiya	14.3	36.8	5,039	8.9	37.2	1,011
Somali	14.4	47.5	109	7.9	55.8	32
Benishangul-Gumuz	32.3	42.6	111	16.1	55.5	28
SNNP	20.1	38.3	2,601	5.6	47.2	534
Gambela	31.4	63.9	28	22.1	56.9	5
Harari	6.6	55.6	37	1.3	68.8	7
Addis Ababa	12.7	82.3	677	11.1	91.2	93
Dire Dawa	10.1	67.9	75	4.6	72.9	12
Education						
No education	16.6	39.5	9,303	8.2	46.3	1,262
Primary	16.8	47.7	2,320	9.7	42.4	839
Secondary and higher	13.1	80.1	1,387	10.5	79.0	388
Total	16.3	45.3	13,010	9.1	50.1	2,489

NA = Not applicable

rural women, women residing in the Benishangul-Gumuz and Gambela regions, and those with little or no education are more likely than others to believe that this information should be kept a secret. Similar patterns are observed for men by age and marital status, but in contrast to women, urban men and men with at least secondary education are more likely than their counterparts to oppose making this information public.

About one in two women and men who have heard of AIDS (45 percent and 50 percent, respectively) are willing to care for relatives who are infected with the AIDS virus in their house (Table 12.7). Young respondents age 15-19, never-married respondents, urban residents, those living in Addis Ababa, and respondents with at least secondary education are more willing than others to care for relatives with HIV/AIDS in their house.

Table 12.8 Testing for AIDS

Percentage of men who have heard of AIDS by whether they have been tested for AIDS and whether they would like to be tested for AIDS, according to background characteristics, Ethiopia 2000

Background characteristic	Percent tested for AIDS	Percent who want to be tested for AIDS	Number
Age			
15-19	1.0	65.6	527
20-24	2.4	70.5	397
25-29	3.5	68.0	335
30-39	2.2	64.5	568
40-49	2.6	59.2	382
50-59	2.2	59.8	281
Current marital status			
Never married	2.0	68.0	949
Ever had sex	4.5	77.9	275
Never had sex	1.0	63.9	674
Married or living together	2.2	63.1	1,438
Divorced, separated, widowed	4.4	58.2	102
Residence			
Urban	9.3	69.4	374
Rural	1.0	64.0	2,115
Region			
Tigray	0.6	74.1	129
Affar	6.4	45.7	31
Amhara	1.0	50.8	607
Oromiya	2.0	82.9	1,011
Somali	1.6	50.3	32
Benishangul-Gumuz	2.8	64.2	28
SNNP	1.4	47.1	534
Gambela	3.2	69.2	5
Harari	6.5	81.0	7
Addis Ababa	16.5	58.4	93
Dire Dawa	6.4	59.1	12
Education			
No education	0.5	60.0	1,262
Primary	1.9	68.8	839
Secondary and higher	8.4	71.8	388
Total	2.2	64.8	2,489

Two additional questions on AIDS were asked of men who have heard of AIDS but not women. Men were asked whether they have ever been tested for AIDS, and if not, whether they would like to be tested. Overall, a very small percentage of men (2 percent) said that they have been tested for AIDS (Table 12.8). However, a much higher percentage of men living in Addis Ababa (17 percent) have been tested for AIDS, as have urban men (9 percent) and men with at least secondary education (8 percent), than their counterparts. Nearly two in three men who have not been tested for AIDS want to be tested. Younger (less than 40 years) rather than older men (40 years and above), never-married men, urban rather than rural men, men residing in the Oromiya and Harari regions rather than other regions, and highly educated men rather than men with little or no education are more likely to want to be tested for AIDS.

12.5 Knowledge of Signs and Symptoms of Sexually Transmitted Infections

Sexually transmitted infections (STIs) are important predisposing factors of HIV/AIDS transmission. As such, the presence of STIs in a population increases the likelihood of the occurrence of HIV. AIDS prevention programs should therefore also address the prevention and treatment of STIs. Additional questions were included in the Ethiopia DHS to assess the level of awareness of STIs among women and men and their knowledge of the signs and symptoms of STIs among both men and women.

Tables 12.9.1 and 12.9.2 show the knowledge among women and men of signs and symptoms of STIs in a man or a woman. Thirty-seven percent of women and 19 percent of men in Ethiopia have no knowledge of STIs. One in four women and 14 percent of men did not know of any STI symptoms in a man, 16 percent of women and men mentioned just one symptom, and 22 percent of women and 52 percent of men mentioned at least two symptoms. A similar pattern is seen for knowledge of signs and symptoms of STIs in a woman. Twenty-seven percent of women and 41 percent of men do not know of any signs or symptoms, 14 percent of women and 12 percent of men know of one, and 23 percent of women and 28 percent of men know of two or more. Lack of knowledge of STIs is especially high among the very young (15-19), those who have never married and never had sex, and rural residents.

Table 12.9.1 Knowledge of signs and symptoms of STIs: women

Percentage of women with knowledge of signs and symptoms associated with sexually transmitted infections (STIs) in a man or a woman, by background characteristics, Ethiopia 2000

Background characteristic	No knowledge of STIs	Knowledge of signs or symptoms of STIs in a man: No symptoms mentioned	Knowledge of signs or symptoms of STIs in a man: Mentioned one symptom	Knowledge of signs or symptoms of STIs in a man: Mentioned two or more symptoms	Knowledge of signs or symptoms of STIs in a woman: No symptoms mentioned	Knowledge of signs or symptoms of STIs in a woman: Mentioned one symptom	Knowledge of signs or symptoms of STIs in a woman: Mentioned two or more symptoms	Number
Age								
15-19	54.3	21.8	12.3	11.6	22.7	10.5	12.5	3,710
20-24	43.2	24.4	15.2	17.2	26.6	12.5	17.7	2,860
25-29	33.2	27.1	17.8	21.8	29.6	15.4	21.9	2,585
30-39	27.7	26.1	17.2	29.0	28.2	15.2	28.9	3,557
40-49	22.0	24.2	20.6	33.2	26.5	17.6	33.9	2,655
Marital status								
Never married	50.5	23.8	12.9	12.8	24.4	10.8	14.3	3,688
Ever had sex	19.7	25.6	28.0	26.7	29.3	24.7	26.3	207
Never had sex	52.3	23.7	12.0	12.0	24.1	10.0	13.6	3,481
Married or living together	33.0	25.2	17.5	24.3	27.7	15.0	24.2	9,789
Divorced, separated, widowed	31.0	23.3	16.8	28.9	24.2	15.1	29.7	1,890
Residence								
Urban	19.0	29.5	18.5	32.9	30.7	16.5	33.7	2,791
Rural	40.9	23.5	15.8	19.7	25.6	13.5	20.0	12,576
Region								
Tigray	31.1	15.7	21.0	32.1	15.6	19.2	34.1	969
Affar	61.1	10.7	6.1	22.2	11.7	5.4	21.8	178
Amhara	34.1	24.5	18.4	23.1	24.3	17.4	24.2	3,820
Oromiya	34.5	22.7	18.3	24.6	26.7	14.1	24.8	5,937
Somali	35.6	27.3	7.1	30.0	31.1	6.1	27.2	175
Benishangul-Gumuz	47.4	19.3	11.9	21.5	18.5	11.4	22.8	160
SNNP	49.7	26.3	9.6	14.4	27.5	8.5	14.3	3,285
Gambela	60.4	14.7	5.6	19.3	15.3	4.9	19.4	40
Harari	40.2	26.3	12.3	21.2	32.8	10.2	16.8	41
Addis Ababa	14.1	48.7	20.1	17.2	49.1	19.5	17.4	684
Dire Dawa	16.7	46.7	19.6	17.0	57.9	12.5	12.9	79
Education								
No education	41.3	23.1	15.6	20.0	25.2	13.3	20.1	11,551
Primary	33.4	26.1	16.5	24.0	27.6	14.4	24.6	2,425
Secondary and higher	6.7	34.6	22.4	36.3	35.0	19.3	38.9	1,391
Total	37.0	24.6	16.3	22.1	26.5	14.0	22.5	15,367

Table 12.9.2 Knowledge of signs and symptoms of STIs: men

Percentage of men with knowledge of signs and symptoms associated with sexually transmitted infections (STIs) in a man or a a woman, by background characteristics, Ethiopia 2000

Background characteristic	No knowledge of STIs	Knowledge of signs or symptoms of STIs in a man: No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Knowledge of signs or symptoms of STIs in a woman: No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Number
Age								
15-19	43.5	15.8	10.9	29.9	34.0	6.9	15.7	600
20-24	24.9	17.6	21.7	35.9	50.6	9.3	15.2	408
25-29	15.2	13.9	16.7	54.2	43.5	9.8	31.5	343
30-39	6.8	10.1	17.2	65.8	46.8	14.4	31.9	580
40-49	5.0	11.9	15.5	67.6	39.6	14.4	40.9	389
50-59	3.8	12.5	11.6	72.1	31.4	18.6	46.2	287
Marital status								
Never married	33.6	15.4	14.2	36.9	40.0	8.2	18.2	1,040
Ever had sex	12.0	15.1	19.4	53.6	55.9	9.4	22.7	278
Never had sex	41.4	15.5	12.3	30.8	34.2	7.8	16.5	762
Married or living together	7.3	12.6	16.2	63.9	42.1	14.8	35.8	1,460
Divorced, separated, widowed	26.6	10.9	19.1	43.4	40.7	4.4	28.3	107
Residence								
Urban	5.3	12.4	12.7	69.5	45.5	13.6	35.6	379
Rural	20.8	13.8	16.0	49.4	40.5	11.4	27.2	2,228
Region								
Tigray	17.1	13.8	15.3	53.9	32.1	11.4	39.4	136
Affar	16.9	11.9	7.1	64.1	49.3	7.2	26.6	34
Amhara	18.8	17.3	20.4	43.5	30.6	17.4	33.2	630
Oromiya	16.0	10.0	13.4	60.5	46.1	9.1	28.8	1,054
Somali	17.8	13.7	14.3	54.2	46.7	7.5	27.9	36
Benishangul-Gumuz	29.1	14.3	8.0	48.7	31.9	6.8	32.2	31
SNNP	25.3	15.0	14.8	44.9	42.2	11.0	21.4	566
Gambela	25.6	11.1	7.7	55.6	41.2	7.0	26.1	7
Harari	23.0	8.8	11.7	56.5	52.2	12.0	12.8	7
Addis Ababa	6.0	21.7	17.3	55.1	59.5	13.3	21.3	95
Dire Dawa	5.8	8.0	19.1	67.1	63.4	14.4	16.4	12
Education								
No education	21.6	15.1	15.4	47.9	37.9	13.3	27.2	1,358
Primary	21.5	13.5	16.7	48.3	43.2	9.8	25.6	860
Secondary and higher	1.6	8.5	13.2	76.7	48.4	10.8	39.2	388
Total	18.6	13.6	15.5	52.3	41.2	11.8	28.4	2,607

12.6 Prevalence and Treatment of STIs

Male respondents were asked whether they had experienced symptoms of a sexually transmitted infection in the 12 months preceding the survey. Table 12.10 shows that among men who have ever had sex, about 3 percent self-reported that they had had an STI or had experienced a genital discharge or sore/ulcer in the 12 months preceding the survey. However, this is likely to be an underestimate of the true prevalence of STIs for a number of reasons. If symptoms are not obvious or prolonged, they may not be recognized as an STI. Health care may not be sought for STIs because of the embarrassment or the presumed stigma associated with such infections and may thus go undiagnosed. More importantly, there may be a reluctance to report the incidence of an STI. Young men age 15-19 are more likely to have reported an STI or associated symptoms than other men.

Table 12.10 Self-reporting of sexually transmitted infection and STI syptoms

Percentage of men who ever had sex by self-reporting of STI and/or associated symptoms in the 12 months preceding the survey, according to age, Ethiopia 2000

Age	Percentage with STI	Percentage with genital discharge	Percentage with sore or ulcer	Percentage with STI, or discharge or sore/ulcer	Number
Age					
15-19	1.7	2.3	4.7	4.7	91
20-24	0.4	0.8	1.1	1.6	217
25-29	3.1	1.8	3.1	4.1	282
30-39	1.3	1.9	2.0	3.5	563
40-49	0.5	1.1	1.5	2.6	381
50-59	1.9	0.7	2.2	2.4	278
Total	1.4	1.4	2.1	3.0	1,813

One in two men with an STI or associated symptoms did not seek medical advice or treatment, one in three sought advice or treatment from a government medical facility, and 15 percent sought advice or treatment from a private medical facility (data not shown). Survey results also show that 54 percent of men with an STI or associated symptoms did not inform their partner, and 58 percent took no action to protect their partner (data not shown).

12.7 Sexual Behavior

An important component of AIDS prevention programs is the promotion of safe sex, including encouraging monogamous relationships, discouraging multiple sexual partners, and promoting the use of condoms. Information on the sexual behavior of individuals is important in designing and monitoring intervention programs to control the spread of the disease since heterosexual contact promotes the transmission of HIV/AIDS. The Ethiopia DHS included a series of questions to determine the proportion of currently married and unmarried women and men who had sexual intercourse with one or more nonmarital or noncohabiting partners in the last 12 months. Table 12.11 shows the percent distribution of currently married women and men by the number of persons with whom they had sexual intercourse (excluding their spouse) in the 12 months preceding the survey by background characteristics.

The majority of currently married women and men reported sexual intercourse only with their spouse in the 12 months preceding the survey. The data also show that men reported having more sexual partners than women (7 percent and 1 percent, respectively). Sexual intercourse with multiple partners is higher among women age 15-19 and men age 40-49, urban women and rural men, female residents of the Benishangul-Gumuz Region, and male residents of the Gambela Region. There is little difference in sexual activity by educational level of women; however, men with little or no education are more likely to have sexual intercourse with multiple partners than men with at least secondary education.

Table 12.11 Number of sexual partners of married women and men

Percent distribution of currently married women and men by number of persons with whom they had sexual intercourse in the past 12 months, excluding spouse or cohabiting partner, by background characteristics, Ethiopia 2000

Background characteristic	WOMEN: Number of sexual partners excluding spouse or cohabiting partner					MEN: Number of sexual partners excluding spouse or cohabiting partner				
	0	1	2+	Total	Number	0	1	2+	Total	Number
Age										
15-19	97.6	2.3	0.0	100.0	862	*	*	*	*	7
20-24	98.1	1.7	0.0	100.0	1,807	94.0	5.9	0.0	100.0	76
25-29	98.2	1.5	0.1	100.0	2,051	93.5	3.0	3.6	100.0	222
30-39	98.9	1.1	0.0	100.0	3,013	92.1	6.4	1.5	100.0	511
40-49	98.9	1.1	0.0	100.0	2,057	90.0	9.8	0.2	100.0	363
50-59	NA	NA	NA	NA	NA	95.9	2.6	1.4	100.0	281
Residence										
Urban	97.8	1.9	0.0	100.0	1,193	94.9	4.7	0.5	100.0	183
Rural	98.6	1.3	0.0	100.0	8,596	92.3	6.2	1.5	100.0	1,277
Region										
Tigray	96.8	3.0	0.1	100.0	627	98.8	1.2	0.0	100.0	75
Affar	98.0	1.4	0.2	100.0	125	87.0	11.1	1.9	100.0	21
Amhara	98.8	1.1	0.1	100.0	2,587	95.6	3.5	0.9	100.0	393
Oromiya	97.8	2.1	0.0	100.0	3,769	89.2	8.5	2.3	100.0	567
Somali	99.6	0.4	0.0	100.0	112	98.3	1.7	0.0	100.0	22
Benishangul-Gumuz	95.9	3.4	0.3	100.0	111	93.5	4.9	1.5	100.0	18
SNNP	99.8	0.2	0.0	100.0	2,133	93.0	6.2	0.8	100.0	316
Gambela	97.3	2.6	0.0	100.0	30	83.8	11.7	4.5	100.0	4
Harari	98.6	1.3	0.0	100.0	22	93.9	3.8	2.3	100.0	3
Addis Ababa	99.3	0.7	0.0	100.0	236	97.4	0.8	1.7	100.0	34
Dire Dawa	99.4	0.0	0.2	100.0	38	99.3	0.7	0.0	100.0	6
Education										
No education	98.5	1.4	0.0	100.0	8,121	92.3	6.2	1.5	100.0	895
Primary	98.3	1.6	0.0	100.0	1,161	92.4	5.9	1.7	100.0	397
Secondary and higher	98.5	1.4	0.1	100.0	507	94.8	4.9	0.3	100.0	169
Total	98.5	1.4	0.0	100.0	9,789	92.6	6.0	1.4	100.0	1,460

NA = Not applicable
Note: Total includes women with missing information on number of sexual partners, who are not shown separately.
An asterisk indicates that a number is based on fewer than 25 unweighted cases and has been suppressed.

Table 12.12 shows sexual activity among currently unmarried women and men. Twelve percent of women and 17 percent of men have had sexual intercourse with one partner in the 12 months before the survey and 1 percent of women and 5 percent of men have had sexual intercourse with more than one partner during the same period. Multiple partners among unmarried persons are relatively more common among women age 20 and above than among women age 15-19, urban women, those residing in the Amhara and Affar regions, and women with little or no education. Among men, sexual intercourse with multiple partners is more common in the age group 20-49, in urban areas, among those residing in the Affar Region, and among men with secondary education or higher.

Table 12.12 Number of sexual partners of unmarried women and men

Percent distribution of unmarried women and men by number of persons with whom they had sexual intercourse in the past 12 months, by background characteristics, Ethiopia 2000

Background characteristic	WOMEN					MEN				
	Number of sexual partners					Number of sexual partners				
	0	1	2+	Total	Number	0	1	2+	Total	Number
Age										
15-19	95.5	4.0	0.4	100.0	2,848	90.2	7.8	2.0	100.0	593
20-24	81.3	16.5	2.2	100.0	1,053	70.5	20.8	8.8	100.0	332
25-29	73.3	25.3	1.4	100.0	534	58.1	31.3	10.6	100.0	121
30-39	71.7	26.7	1.6	100.0	544	42.1	48.5	9.4	100.0	69
40-49	83.3	14.6	2.1	100.0	599	(66.8)	(24.9)	(8.4)	(100.0)	26
50-59	NA	NA	NA	NA	NA	*	*	*	*	7
Marital status										
Never married	96.7	2.9	0.4	100.0	3,688	80.3	14.4	5.2	100.0	1,040
Ever had sex	42.2	50.1	7.6	100.0	207	27.5	52.9	19.6	100.0	278
Never had sex	99.9	0.1	0.0	100.0	3,481	99.6	0.4	0.0	100.0	762
Separated, divorced, widowed	68.4	29.1	2.5	100.0	1,890	52.4	40.0	7.6	100.0	107
Residence										
Urban	84.5	13.8	1.7	100.0	1,599	65.7	23.1	11.2	100.0	196
Rural	88.1	11.0	0.9	100.0	3,979	80.2	15.5	4.3	100.0	951
Region										
Tigray	82.6	16.2	1.2	100.0	343	75.7	15.5	8.9	100.0	61
Affar	78.9	18.7	2.4	100.0	53	49.7	30.6	19.7	100.0	13
Amhara	78.2	19.9	2.0	100.0	1,233	79.9	19.3	0.8	100.0	236
Oromiya	90.5	9.1	0.4	100.0	2,168	73.3	18.4	8.3	100.0	486
Somali	88.9	10.3	0.8	100.0	62	75.8	24.2	0.0	100.0	14
Benishangul-Gumuz	84.2	13.9	1.8	100.0	49	86.9	11.0	2.1	100.0	13
SNNP	93.1	5.4	1.5	100.0	1,152	89.5	8.9	1.6	100.0	250
Gambela	79.1	17.3	1.9	100.0	10	46.7	40.9	12.4	100.0	2
Harari	89.1	10.6	0.3	100.0	19	65.8	25.1	9.1	100.0	4
Addis Ababa	84.3	14.3	1.3	100.0	449	66.1	22.4	11.4	100.0	61
Dire Dawa	84.6	13.5	1.9	100.0	41	61.2	31.9	7.0	100.0	6
Education										
No education	85.4	13.2	1.3	100.0	3,430	79.2	15.7	5.1	100.0	464
Primary	91.3	7.6	1.1	100.0	1,264	78.9	16.6	4.4	100.0	464
Secondary and higher	87.5	12.0	0.5	100.0	884	72.2	19.5	8.3	100.0	219
Total	87.1	11.8	1.1	100.0	5,578	77.7	16.8	5.4	100.0	1,147

NA = Not applicable

Note: Total includes women with missing information on number of sexual partners, who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25-49 unweighted cases and has been suppressed.

12.8 KNOWLEDGE OF CONDOMS

Condom knowledge and use play an important role in preventing the transmission of HIV/AIDS. Table 12.13 gives a breakdown of female and male respondents by their knowledge of condoms. Knowledge of condoms is not as widespread among women as among men in Ethiopia. Thirty-five percent of women compared with 68 percent of men know about condoms. Knowledge of condoms varies widely by background characteristics. Respondents age 25-39, never-married respondents who have ever had sex, urban respondents, and respondents with at least secondary education are more likely than their counterparts to know about condoms. Twelve percent of women also know a source for condoms, and 11 percent of women could get condoms themselves if they wanted to. Comparable data for men is not available.

Table 12.13 Knowledge of condoms

Percentage of women and men who know about condoms, and percentage of women who know a source for condoms and who could get condoms themselves, according to background characteristics, Ethiopia 2000

	Women				Men	
Background characteristic	Knows about condoms	Knows a source for condoms	Could get condoms herself	Total	Knows about condoms	Total
Age						
15-19	35.0	4.7	4.3	3,710	59.1	600
20-24	37.3	12.8	11.6	2,860	74.0	408
25-29	39.6	17.7	16.1	2,585	76.0	343
30-39	36.0	16.6	15.7	3,557	75.6	580
40-49	25.7	10.1	9.2	2,655	66.7	389
50-59	NA	NA	NA	NA	53.1	287
Current marital status						
Never married	41.7	3.7	3.3	3,688	66.0	1,040
Ever had sex	82.7	65.1	59.3	207	84.9	278
Never had sex	39.3	0.0	0.0	3,481	59.1	762
Married or living together	30.7	13.5	12.5	9,789	69.1	1,460
Divorced, separated, widowed	43.0	21.0	19.2	1,890	67.1	107
Residence						
Urban	86.0	36.6	34.2	2,791	97.1	379
Rural	23.5	6.6	6.0	12,576	62.8	2,228
Region						
Tigray	53.4	25.3	23.9	969	82.9	136
Affar	30.1	10.3	9.0	178	57.1	34
Amhara	33.6	12.7	11.9	3,820	61.0	630
Oromiya	30.6	9.6	8.4	5,937	66.8	1,054
Somali	27.3	10.7	10.0	175	65.3	36
Benishangul-Gumuz	32.1	9.5	9.0	160	63.8	31
SNNP	25.3	5.6	4.9	3,285	68.9	566
Gambela	45.1	16.0	15.3	40	75.3	7
Harari	64.5	29.0	28.6	41	78.5	7
Addis Ababa	94.2	39.6	38.2	684	97.0	95
Dire Dawa	74.8	41.3	40.7	79	92.6	12
Education						
No education	22.6	6.9	6.3	11,551	53.7	1,358
Primary	57.4	19.9	18.4	2,425	76.0	860
Secondary and higher	97.5	41.3	38.2	1,391	98.9	388
Total	34.8	12.1	11.1	15,367	67.8	2,607

NA = Not applicable

12.9 USE OF CONDOMS BY COHABITING AND NONCOHABITING PARTNERS

Sexual intercourse with noncohabiting partners carries a higher risk of HIV/AIDS transmission because such relationships are usually more temporary and are often associated with exposure to multiple sex partners. AIDS prevention programs therefore often emphasize the practice of safe sex, especially among noncohabiting partners. Tables 12.14.1 and 12.14.2 present the percentage of women and men who had sexual intercourse in the 12 months before the survey and who used a condom during their last sexual intercourse by type of partner and background characteristics. The use of condoms during last sexual intercourse with a spouse or cohabiting partner is negligible among both women and men. On the other hand, condom use with a noncohabiting partner is much more common. Thirteen percent of women and 30 percent of men reported condom use with a noncohabiting partner at last sexual intercourse.

Condom use with a noncohabiting partner is much more common among younger women (below 30 years of age), men age 30-39, never-married women and men, urban women and men, and women and men with at least secondary education.

Table 12.14.1 Use of condoms: women

Percentage of women who have had sexual intercourse in the 12 months preceding the survey who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, according to background characteristics, Ethiopia 2000

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percent	Number	Percent	Number	Percent	Number
Age						
15-19	0.0	887	22.3	74	1.7	954
20-24	0.5	1,847	14.0	124	1.4	1,940
25-29	0.5	2,019	22.9	89	1.4	2,088
30-39	0.6	2,961	6.7	109	0.8	3,050
40-49	0.1	1,932	(0.6)	66	0.2	1,975
Current marital status						
Never married	NA	NA	24.0	118[a]	23.9	118[a]
Ever had sex	NA	NA	24.3	115	24.3	115
Married or living together	0.4	9,300	4.6	131	0.5	9,349
Divorced, separated, widowed	0.1	346	13.0	212	5.1	539
Residence						
Urban	2.8	1,179	25.5	186	6.0	1,352
Rural	0.1	8,468	5.2	275	0.2	8,655
Region						
Tigray	1.0	602	(9.9)	38	1.5	638
Affar	0.5	119	(24.2)	6	1.6	124
Amhara	0.1	2,631	7.3	129	0.4	2,742
Oromiya	0.6	3,697	6.9	161	0.8	3,794
Somali	0.8	105	*	5	2.7	109
Benishangul-Gumuz	0.0	108	(12.0)	7	0.8	112
SNNP	0.0	2,083	(21.8)	46	0.5	2,118
Gambela	0.5	23	(22.9)	2	2.0	25
Harari	2.4	21	(49.0)	2	5.9	22
Addis Ababa	3.1	222	32.6	61	9.5	282
Dire Dawa	2.5	36	37.1	5	6.6	41
Education						
No education	0.1	8,007	7.6	294	0.3	8,211
Primary	1.0	1,138	17.0	77	2.1	1,204
Secondary and higher	4.1	501	29.1	91	7.9	591
Total	0.4	9,646	13.4	461	1.0	10,007

NA = Not applicable
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.
[a] Includes three never-married women who never had sex.

Table 12.14.2 Use of condoms: men

Percentage of men who have had sexual intercourse in the 12 months preceding the survey who used a condom during last sexual intercourse with spouse or cohabiting partner, with noncohabiting partner, and with any partner, according to background characteristics, Ethiopia 2000

Background characteristic	Spouse or cohabiting partner		Noncohabiting partner		Any partner	
	Percent	Number	Percent	Number	Percent	Number
Age						
15-19	*	7	28.3	57	24.8	64
20-24	0.0	79	31.8	95	17.6	171
25-29	0.0	227	18.6	54	3.8	270
30-39	0.1	512	46.4	59	4.1	546
40-49	0.1	363	*	18	0.3	368
50-59	0.0	261	*	4	0.0	263
Current marital status						
Never married	NA	NA	31.7	200[a]	31.7	200[a]
Ever had sex	NA	NA	32.1	197	32.1	197
Married or living together	0.1	1,423	21.6	62	0.4	1,431
Divorced, separated, widowed	*	26	(40.8)	(25)	20.0	50
Residence						
Urban	0.5	180	69.7	71	19.1	244
Rural	0.0	1,269	17.4	216	2.3	1,437
Region						
Tigray	0.0	76	*	13	5.6	89
Affar	0.0	20	(30.5)	8	6.5	27
Amhara	0.0	406	*	43	1.2	434
Oromiya	0.0	550	26.4	170	5.4	686
Somali	0.0	21	*	3	7.5	24
Benishangul-Gumuz	0.0	17	*	2	1.9	19
SNNP	0.0	312	*	25	3.6	335
Gambela	0.0	4	(19.7)	2	6.1	5
Harari	2.9	3	(61.4)	1	19.4	4
Addis Ababa	1.8	33	72.8	18	26.8	50
Dire Dawa	2.6	6	*	2	15.7	8
Education						
No education	0.0	882	6.0	106	0.4	964
Primary	0.1	396	27.4	120	6.7	493
Secondary and higher	0.3	170	78.8	61	18.9	224
Total	0.1	1,448	30.3	287	4.7	1,682

NA = Not applicable

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.

[a] Includes three never-married men who never had sex.

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SAMPLE DESIGN APPENDIX A

A.1 INTRODUCTION

The 2000 Ethiopia Demographic and Health Survey (DHS) is the first comprehensive nationally representative population and health survey conducted in Ethiopia as part of the worldwide Demographic and Health Surveys (DHS) project. It was carried out under the aegis of the Ministry of Health, and implemented by the Central Statistical Authority (CSA). ORC Macro provided technical assistance through its MEASURE *DHS+* project. The survey was funded primarily by the Essential Services for Health in Ethiopia (ESHE) project through a bilateral agreement between the U.S. Agency for International Development (USAID) and the Federal Democratic Republic of Ethiopia. Funding was also provided by the United Nations Population Fund (UNFPA).

A.2 SURVEY OBJECTIVES

The principal objective of the Ethiopia DHS is to provide current and reliable data on fertility and family planning behavior, child mortality, children's nutritional status, the utilization of maternal and child health services, and knowledge of HIV/AIDS. This information is essential for informed policy decisions, planning, monitoring, and evaluation of programs on health in general and reproductive health in particular at both the national and regional levels.

A long-term objective of the survey is to strengthen the technical capacity of the Central Statistical Authority to plan, conduct, process, and analyze data from complex national population and health surveys. Moreover, the 2000 Ethiopia DHS is the first survey of its kind in the country to provide national and regional estimates on population and health, comparable to similar surveys conducted in other developing countries. The Ethiopia DHS also adds to the vast and growing international database on demographic and health variables.

A.3 SAMPLE DOMAINS

The Ethiopia DHS collected demographic and health information from a nationally representative sample of women and men in the reproductive age groups 15-49 and 15-59, respectively. The primary focus of the 2000 Ethiopia DHS was to provide estimates of key population and health indicators, including fertility and mortality rates, for the country as a whole and for urban and rural areas separately. In addition, the sample was designed to provide estimates of key variables for the nine regions,[1] namely, Tigray, Affar, Amhara, Oromiya, Somali, Benishangul-Gumuz, Southern Nations, Nationalities and Peoples (SNNP), Gambela, and Harari, and the two Administrative Council Areas of Addis Ababa, and Dire Dawa.

[1] In the Affar Region only three of the five zones (Zones 1, 3 and 5) were covered, and in the Somali Region only three of the nine zones (Jijiga, Shinile and Liben) were covered. The population in these two regions relative to the country as a whole is small and as such the way the sample is drawn from these two regions is unlikely to affect the reliability of the national and urban-rural estimates. Nevertheless, there may be some bias in the representativeness of the regional estimates for these two regions primarily because the sample excluded the nomadic population.

A.4 SAMPLING FRAME

The Ethiopia DHS used the sampling frame provided by the list of census enumeration areas (EAs) with population and household information from the 1994 Population and Housing Census. A proportional sample allocation was discarded because this procedure yielded a distribution in which 80 percent of the sample came from three regions, 16 percent from four regions and 4 percent from five regions. To avoid such an uneven sample allocation among regions, it was decided that the sample should be allocated by region in proportion to the square root of the region's population size. Additional adjustments were made to ensure that the sample size for each region included at least 700 households, in order to yield estimates with reasonable statistical precision.

A.5 SAMPLE SELECTION

The sample for the survey is based on a two-stage, stratified, nationally representative sample of households. At the first stage of sampling, 540[2] EAs, 139 in the urban areas and 401 in the rural areas, were selected using systematic sampling with probability proportional to size.

A complete household listing operation was carried out in all the selected EAs to provide a sampling frame for the second-stage selection of households. Global Positioning System (GPS) readings were taken at each EA to enable the linkage of DHS data with other data collected in the same localities. Sketch maps were constructed to identify the relative position of housing units in an EA to help interviewers locate selected households during fieldwork. At the second stage of sampling, a systematic sample of 27 households per EA was selected in all the regions to provide statistically reliable estimates of key demographic and health variables.

The survey was designed to obtain completed interviews of 14,000 women age 15-49. In addition, all males age 15-59 in every fifth household were interviewed, to obtain a target of 2,700 men. In order to take nonresponse into account, a total of 14,642 households nationwide were selected.

A.6 SAMPLING PROBABILITIES

For each urban or rural area in a region, the first stage of selection of EAs was done systematically with probability proportional to size. This can be mathematically expressed as:

$$P_{1i} = (a * MOS_i) / (\Sigma_i MOS_i)$$

where

a	is the number of allocated EAs for selection in the urban or rural area of the region,
MOS_i	is the number of households in the ith EA according to the 1994 Census, and,
$\Sigma_i MOS_i$	is the total number of households in all the urban or rural areas of the region.

[2] During fieldwork, an entire EA in Dire Dawa was demolished, reducing the total number of EAs covered to 539, and reducing the number of urban EAs to 138.

A complete household listing operation was carried out in each selected EA, and a sample take of 27 households was chosen in each selected EA. The formula for the second stage is given as:

$$P_{2ij} = 27 / L_i$$

where

27	is the sample take of households in each selected EA
L_i	is the total number of households in EA i^{th} listed in 1999.

The overall household selection probability, $f_{ij,}$ is given as the product of the previous two probabilities, that is,

$$f_{ij} = P_{1i} * P_{2ij}$$

A.7 QUESTIONNAIRES

The Ethiopia DHS used three questionnaires: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire, which were based on model survey instruments developed for the international MEASURE *DHS+* project. The questionnaires were specifically geared toward obtaining the kind of information needed by health and family planning program managers and policymakers. The model questionnaires were then adapted to local conditions and a number of additional questions specific to on-going health and family planning programs in Ethiopia were added. These questionnaires were developed in the English language and translated into the five principal languages in use in the country: Amarigna, Oromigna, Tigrigna, Somaligna, and Afarigna. They were then independently translated back to English and appropriate changes were made in the translation of questions in which the back-translated version did not compare well with the original English version. A pretest of all three questionnaires was conducted in the five local languages in November 1999.

All usual members in a selected household and visitors who stayed there the previous night were enumerated using the Household Questionnaire. Specifically, the Household Questionnaire obtained information on the relationship to the head of the household, residence, sex, age, marital status, parental survivorship, and education of each usual resident or visitor. This information was used to identify women and men who were eligible for the individual interview. Women age 15-49 in all selected households and all men age 15-59 in every fifth selected household, whether usual residents or visitors, were deemed eligible, and were interviewed. The Household Questionnaire also obtained information on some basic socioeconomic indicators such as the number of rooms, the flooring material, the source of water, the type of toilet facilities, and the ownership of a variety of durable items. Information was also obtained on the use of impregnated bednets, and the salt used in each household was tested for its iodine content. All eligible women and all children born since Meskerem 1987 in the Ethiopian Calendar, which roughly corresponds to September 1994 in the Gregorian Calendar, were weighed and measured.

The Women's Questionnaire collected information on female respondent's background characteristics, reproductive history, contraceptive knowledge and use, antenatal, delivery and postnatal care, infant feeding practices, child immunization and health, marriage, fertility preferences, and attitudes about family planning, husband's background characteristics and women's work, knowledge of HIV/AIDS and other sexually transmitted infections (STIs).

The Men's Questionnaire collected information on the male respondent's background characteristics, reproduction, contraceptive knowledge and use, marriage, fertility preferences and attitudes about family planning, and knowledge of HIV/AIDS and STIs.

A.8 DATA COLLECTION AND PROCESSING

A management committee was established and chaired by the CSA to oversee the performance and activities of the Ethiopia DHS. The committee was made up of representatives from the Ministry of Health, the National Office of Population, USAID, UNFPA, UNICEF and ORC Macro.

Training for the main survey was conducted in January 2000 in Addis Ababa. A total of 312 interviewers participated in the training. They were recruited for their language skills, academic qualifications, and previous survey work experience. Due to the large number of candidates needed for fieldwork, interviewers were split up into six groups and were trained simultaneously by senior staff of the CSA. The four-week training consisted of instruction in general interviewing techniques and field procedures for the survey, a detailed review of the questionnaires, practice in weighing and measuring children, mock interviews between participants in the classroom, and practice interviews in the field. In addition, special lectures were given on family planning and the various methods used in Ethiopia, and on HIV/AIDS. A final selection of interviewers, editors, and supervisors was made based on their performance during the training. A total of 38 teams were constituted, each made up of four female interviewers, one male interviewer, one female editor and a male team supervisor.

In order to maintain uniform survey procedures, four manuals relating to different aspects of the survey were prepared. The Interviewer's Manual discussed the objectives of the Ethiopia DHS, interviewing techniques, field procedures, general procedures for completing the questionnaires, and included a detailed discussion of the Household and Individual Questionnaires. The manual also contained information on how to weigh and measure women and children. The Supervisor's and Editor's Manual contained instructions on organizing and supervising fieldwork, maintaining and monitoring control sheets, and general rules for editing completed questionnaires and maintaining data quality. Trainers were given the Training Guidelines for DHS Surveys Manual, which described the administrative and logistical aspects of training and data quality checks. The Household Listing Manual described the mapping and household listing procedures used in DHS surveys.

The main fieldwork started in early February 2000 and lasted until the end of May 2000. All callbacks and reinterviews were completed by mid-June 2000. Throughout the survey, senior staff of CSA, both from the central office and regional offices, and consultants from ORC Macro, maintained constant contact with the teams through direct communication and spot checking. To ensure high data quality, teams were closely supervised through field visits, observation of interviews, and checking of completed questionnaires. Data quality was also ensured by providing feedback to individual teams on the results of the field check tables. These tables were computer generated at regular intervals from data obtained in the completed questionnaires. These results were discussed with the teams to improve their performance.

The completed questionnaires were returned to the Central Statistical Authority head office in Addis Ababa for data processing. The office editing staff first checked that questionnaires for all selected households and eligible respondents had been received from the field. In addition, the few questions that had not been precoded (e.g., occupation, ethnicity, contraceptive brand) were coded at this time. The data were then entered and edited using microcomputers and the Integrated System for Survey Analysis (ISSA) program developed for DHS surveys. Office editing and data processing activities were initiated soon after the beginning of fieldwork and were completed by the end of June 2000.

A.9 RESPONSE RATE

Information on the household and individual interviews is presented in Tables A.1.1 and A.1.2. A total of 14,642 households were selected for the Ethiopia DHS, of which 14,167 were found to be occupied. Household interviews were completed for 99 percent of the occupied households. A total of 15,716 eligible women from these households and 2,771 eligible men from every fifth household were identified for the individual interviews. The response rate for eligible women is slightly higher than for eligible men (98 percent compared with 94 percent, respectively). Interviews were successfully completed for 15,367 women and 2,607 men.

There is no difference by urban-rural residence in the overall response rate for eligible women; however, rural men are slightly more likely than urban men to have completed an interview (94 percent and 92 percent, respectively). The overall response rate among women by region is relatively high and ranges from 93 percent in the Affar Region to 99 percent in the Oromiya Region. The response rate among men ranges from 83 percent in the Affar Region to 98 percent in the Tigray and Benishangul-Gumuz regions.

Table A.1.1 Sample implementation: women

Percent distribution of households and eligible women in the Ethiopia DHS sample by results of the household and individual interviews and household, eligible women, and overall response rates, according to region and urban-rural residence, Ethiopia 2000

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oro-miya	Somali	Ben-Gumz.	SNNP	Gam-bela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	95.7	96.3	98.2	89.4	96.9	97.3	96.4	95.3	97.5	92.8	95.4	96.7	95.5	96.1
Household present but no competent respondent at home (HP)	0.7	0.4	0.1	1.3	0.2	0.3	0.0	0.1	0.3	1.9	1.0	0.4	0.6	0.5
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Refused (R)	0.2	0.1	0.1	0.2	0.0	0.0	0.3	0.0	0.1	0.0	0.1	0.1	0.3	0.1
Dwelling not found (DNF)	0.1	0.1	0.0	0.4	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Household absent (HA)	0.8	1.3	0.2	5.3	1.2	0.7	1.9	1.1	0.5	2.1	0.8	0.4	0.6	1.1
Dwelling vacant/address not a dwelling (DV)	2.2	1.5	1.2	2.3	1.2	1.4	1.1	2.9	1.2	2.5	2.3	2.1	1.8	1.7
Dwelling destroyed (DD)	0.3	0.4	0.1	0.5	0.4	0.2	0.2	0.5	0.4	0.5	0.3	0.1	1.0	0.4
Other (O)	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	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
Number of households	3,793	10,849	1,367	911	2,059	2,282	890	1,027	1,895	945	918	1,405	943	14,642
Household response rate (HRR)[1]	99.0	99.4	99.8	97.8	99.7	99.7	99.7	99.8	99.6	98.0	98.8	99.3	98.9	99.3
Eligible women														
Completed (EWC)	98.0	97.7	98.5	94.6	98.1	98.8	96.7	98.4	98.2	95.9	96.2	98.3	97.9	97.8
Not at home (EWNH)	1.0	1.3	0.8	3.4	1.1	0.6	1.8	0.6	1.1	2.7	1.3	0.6	1.6	1.2
Postponed (EWP)	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.2	0.2	0.0	0.9	0.0	0.0	0.2	0.2	0.0	0.1	0.6	0.2	0.0	0.2
Partly completed (EWPC)	0.1	0.2	0.2	0.3	0.1	0.1	0.7	0.0	0.2	0.5	0.3	0.2	0.1	0.2
Incapacitated (EWI)	0.6	0.5	0.5	0.2	0.7	0.3	0.5	0.7	0.4	0.4	1.5	0.5	0.5	0.5
Other (EWO)	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.0	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
Number of women	4,636	11,080	1,326	907	1,946	2,608	873	1,008	2,065	913	944	2,050	1,076	15,716
Eligible woman response rate (EWRR)[2]	98.0	97.7	98.5	94.6	98.1	98.8	96.7	98.4	98.2	95.9	96.2	98.3	97.9	97.8
Overall response rate (ORR)[3]	97.0	97.1	98.3	92.6	97.8	98.5	96.3	98.2	97.8	94.0	95.0	97.6	96.8	97.1

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, dwelling not found, household absent, dwelling vacant, dwelling destroyed, and "other." The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated, and "other." The overall response rate is the product of the household and woman response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + P + R + DNF} * 100$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO} * 100$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = (HRR * EWRR) \div 100$$

Table A.1.2 Sample implementation: men

Percent distribution of households and eligible men in the Ethiopia DHS sample by results of the household and individual interviews and household, eligible men, and overall response rates, according to region and urban-rural residence, Ethiopia 2000

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oro-miya	Somali	Ben-Gumz.	SNNP	Gam-bela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	96.7	97.2	97.6	92.5	97.9	97.2	97.6	96.4	98.3	93.1	97.6	98.0	98.9	97.1
Household present but no competent respondent at home (HP)	0.4	0.3	0.0	0.0	0.3	0.5	0.0	0.0	0.3	2.3	0.0	0.0	0.6	0.3
Refused (R)	0.0	0.1	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dwelling not found (DNF)	0.0	0.2	0.0	1.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1
Household absent (HA)	0.4	0.9	0.8	3.8	1.3	0.5	0.6	1.0	0.3	0.6	0.0	0.0	0.0	0.7
Dwelling vacant/address not a dwelling (DV)	2.2	1.3	1.6	1.3	0.5	1.9	1.2	2.6	0.9	3.4	1.8	2.0	0.6	1.5
Dwelling destroyed (DD)	0.1	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Other (O)	0.1	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	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
Number of households	691	1,999	251	159	378	422	166	192	349	175	170	253	175	2,690
Household response rate (HRR)[1]	99.6	99.5	100.0	98.7	99.7	99.5	99.4	100.0	99.4	97.6	100.0	100.0	99.4	99.5
Eligible men														
Completed (EMC)	92.3	94.7	98.4	84.2	93.9	96.5	88.4	97.5	97.5	91.6	90.8	93.6	94.7	94.1
Not at home (EMNH)	5.4	3.3	0.5	11.5	4.1	1.4	9.5	0.5	1.6	6.6	4.3	4.8	4.1	3.9
Postponed (EMP)	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Refused (EMR)	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.5	0.0	1.8	0.0	0.0	0.2
Partly completed (EMPC)	0.9	0.8	1.1	3.8	0.3	0.8	1.1	1.0	0.3	0.0	0.6	0.6	0.6	0.8
Incapacitated (EMI)	1.1	0.5	0.0	0.5	0.9	0.4	1.1	0.5	0.0	1.2	1.8	1.0	0.6	0.6
Other (EMO)	0.0	0.3	0.0	0.0	0.3	0.8	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.3
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
Number of men	737	2,034	186	183	342	491	190	201	365	167	163	312	171	2,771
Eligible man response rate (EMR)[2]	92.3	94.7	98.4	84.2	93.9	96.5	88.4	97.5	97.5	91.6	90.8	93.6	94.7	94.1
Overall response rate (ORR)[3]	91.9	94.3	98.4	83.0	93.6	96.1	87.9	97.5	97.0	89.4	90.8	93.6	94.2	93.6

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, dwelling not found, household absent, dwelling vacant, dwelling destroyed, and "other." The eligible man response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated, and "other." The overall response rate is the product of the household and man response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF} * 100$$

[2] Using the number of eligible women falling into specific response categories, the eligible man response rate (EWRR) is calculated as:

$$\frac{EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO} * 100$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = (HRR * EMRR) \div 100$$

ESTIMATES OF SAMPLING ERRORS APPENDIX B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the Ethiopia DHS to minimise this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the Ethiopia DHS 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 formulas for calculating sampling errors. However, the Ethiopia DHS sample is the result of a two-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the Ethiopia DHS is the ISSA Sampling Error Module (SAMPERR). This module used the Taylor linearisation 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 linearisation 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:

$$var(r) = \frac{1-f}{x^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot x_h$$

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* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the Ethiopia DHS, there were 539 non-empty clusters. Hence, 539 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

$$r_i = k\,r - (k-1)\,r_{(i)}$$

where r is the estimate computed from the full sample of 539 clusters,
$r_{(I)}$ is the estimate computed from the reduced sample of 538 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, SAMPERR computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. SAMPERR also computes the relative error and confidence limits for the estimates.

Sampling errors for the Ethiopia DHS are calculated for selected variables considered to be of primary interest. One set of results, one for women and for men, are presented in this appendix for the country as a whole, for urban and rural areas. 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.4 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 domain and 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 general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *using any contraceptive method*, the relative standard errors as a percent of the estimated mean for the whole country, for urban areas, and for rural areas are 5.7 percent, 5.2 percent, and 9.2 percent, respectively.

The confidence interval (e.g., as calculated for the variable *using any method* can be interpreted as follows: the overall national sample proportion is 0.081 and its standard error is 0.005. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, ie. $0.081 \pm 2 \times 0.005$. There is a high probability (95 percent) that the *true* proportion of all women 15-59 using a contraceptive method is between 7.2 and 9.0 percent.

Table B.1 List of selected variables for sampling errors, Ethiopia 2000

Variable	Estimate	Base population
Urban residence	Proportion	All women age 15-49
No education	Proportion	All women age 15-49
Secondary education and higher	Proportion	All women age 15-49
Never married	Proportion	All women age 15-49
Currently married	Proportion	All women age 15-49
Married by age 20	Proportion	All women age 15-49
Sex by age 18	Proportion	Women age 25-49
Children ever born	Mean	All women age 15-49
Ever born for women 40-49	Mean	Women age 40-49
Children surviving	Mean	All women age 15-49
Knows at least one method	Proportion	Currently married women age 15-49
Know any modern method	Proportion	Currently married women age 15-49
Ever used any method	Proportion	Currently married women age 15-49
Currently using method	Proportion	Currently married women age 15-49
Current users of modern method	Proportion	Currently married women age 15-49
Currently using pills	Proportion	Currently married women age 15-49
Currently using injections	Proportion	Currently married women age 15-49
Currently using female sterilization	Proportion	Currently married women age 15-49
Currently using abstinence	Proportion	Currently married women age 15-49
Currently using withdrawal	Proportion	Currently married women age 15-49
Using public sector source	Proportion	Current users of modern methods
Want no more children	Proportion	Currently married women age 15-49
Delay birth at least two years	Proportion	Currently married women age 15-49
Ideal family size	Mean	All women 15-49 who gave numeric response
Mother received tetanus injection	Proportion	Women age 15-49 who had a live birth in the 5 years preceding the survey
Deliveries attended by health professional	Proportion	Births in the 5 years preceding the survey
Children with diarrhea in the 2 weeks preceding the survey	Proportion	Children age 1-59 months
Children with diarrhea given ORS	Proportion	Children age 1-59 months with diarrhea in the 2 weeks preceding the interview
Children with diarrhea taken to a health provider	Proportion	Children age 1-59 months with diarrhea in the 2 weeks preceding the interview
Children with health card	Proportion	Children 12-23 months
Children received BCG	Proportion	Children 12-23 months
Children received 3 doses of DPT	Proportion	Children 12-23 months
Children received 3 doses of polio	Proportion	Children 12-23 months
Children received measles vaccination	Proportion	Children 12-23 months
Children fully immunized	Proportion	Children 12-23 months
Weight-for-height (-2SD)	Proportion	Children age 0-59 months
Height-for-age (-2SD)	Proportion	Children age 0-59 months
Weight-for-age (-2SD)	Proportion	Children age 0-59 months
Total fertility rate (5 years)	Rate	All women age 15-49
Neonatal mortality rate	Rate	Number of births to women age 15-49
Infant mortality rate	Rate	Number of births to women age 15-49
Child mortality rate	Rate	Number of births to women age 15-49
Under-5 child mortality rate	Rate	Number of births to women age 15-49
Postneonatal mortality rate	Rate	Number of births to women age 15-49
MEN		
Urban residence	Proportion	All men age 15-59
No education	Proportion	All men age 15-59
Secondary and higher	Proportion	All men age 15-59
Never married	Proportion	All men age 15-59
Currently married	Proportion	All men age 15-59
Knows at least one method	Proportion	Currently married men age 15-59
Know any modern method	Proportion	Currently married men age 15-59
Ever used any method	Proportion	Currently married men age 15-59
Currently using method	Proportion	Currently married men age 15-59
Current users of modern method	Proportion	Currently married men age 15-59
Currently using pills	Proportion	Currently married men age 15-59
Currently using injections	Proportion	Currently married men age 15-59
Currently using female sterilization	Proportion	Currently married men age 15-59
Currently using abstinence	Proportion	Currently married men age 15-59
Currently using withdrawal	Proportion	Currently married men age 15-59
Want no more children	Proportion	Currently married men age 15-59
Delay birth at least two years	Proportion	Currently married men age 15-59
Ideal family size	Mean	All men age 15-59 who gave numeric response

Table B.2 Sampling errors: National sample, Ethiopia 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.182	0.010	15367	15367	3.167	0.054	0.162	0.201
No education	0.752	0.009	15367	15367	2.654	0.012	0.733	0.770
Secondary education and higher	0.091	0.005	15367	15367	2.238	0.057	0.080	0.101
Never married	0.240	0.007	15367	15367	1.986	0.029	0.226	0.254
Currently married	0.637	0.007	15367	15367	1.735	0.011	0.624	0.650
Married by age 20	0.781	0.007	11783	11657	1.725	0.008	0.768	0.794
Sex by age 18	0.689	0.008	8939	8797	1.606	0.011	0.674	0.705
Children ever born	3.091	0.036	15367	15367	1.404	0.012	3.020	3.162
Ever born for women 40-49	6.975	0.090	2559	2655	1.580	0.013	6.796	7.154
Children surviving	2.393	0.027	15367	15367	1.364	0.011	2.339	2.448
Knows at least one method	0.862	0.007	9380	9789	2.028	0.008	0.847	0.876
Know any modern method	0.853	0.007	9380	9789	2.007	0.009	0.838	0.868
Ever used any method	0.166	0.007	9380	9789	1.897	0.044	0.152	0.181
Currently using method	0.081	0.005	9380	9789	1.647	0.057	0.072	0.090
Current users of modern method	0.063	0.004	9380	9789	1.743	0.069	0.055	0.072
Currently using pills	0.025	0.003	9380	9789	1.828	0.117	0.019	0.031
Currently using IUD	0.001	0.000	9380	9789	0.880	0.265	0.001	0.002
Currently using injections	0.031	0.003	9380	9789	1.720	0.100	0.024	0.037
Currently using condom	0.003	0.001	9380	9789	2.210	0.438	0.000	0.005
Currently using female sterilization	0.003	0.001	9380	9789	1.290	0.236	0.002	0.005
Currently using abstinence	0.015	0.002	9380	9789	1.653	0.140	0.011	0.019
Currently using withdrawal	0.002	0.001	9380	9789	1.218	0.283	0.001	0.003
Using public sector source	0.775	0.026	1059	720	2.062	0.034	0.722	0.828
Want no more children	0.320	0.009	9380	9789	1.811	0.027	0.303	0.338
Delay birth at least two years	0.364	0.008	9380	9789	1.533	0.021	0.349	0.380
Ideal family size	5.260	0.063	13074	12604	2.415	0.012	5.135	5.386
Mother received tetanus injection	0.262	0.010	7245	7978	1.957	0.037	0.243	0.282
Deliveries attended by health professional	0.056	0.004	10872	12258	1.857	0.077	0.048	0.065
Children with diarrhea in the 2 weeks preceding the survey	0.236	0.008	9560	10753	1.761	0.032	0.221	0.251
Children with diarrhea given ORS	0.131	0.010	2158	2540	1.450	0.077	0.110	0.151
Children with diarrhea taken to a health provider	0.133	0.010	2158	2540	1.396	0.072	0.114	0.152
Children with health card	0.270	0.015	1844	2143	1.586	0.057	0.240	0.301
Children received BCG	0.456	0.018	1844	2143	1.682	0.040	0.419	0.492
Children received 3 doses of DPT	0.207	0.013	1844	2143	1.528	0.065	0.180	0.234
Children received 3 doses of polio	0.346	0.016	1844	2143	1.502	0.045	0.315	0.377
Children received measles vaccination	0.266	0.015	1844	2143	1.541	0.055	0.237	0.296
Children fully immunized	0.143	0.011	1844	2143	1.405	0.075	0.121	0.164
Weight-for-height	0.107	0.005	8590	9814	1.576	0.047	0.097	0.117
Height-for-age	0.512	0.009	8590	9814	1.761	0.018	0.494	0.531
Weight-for-age	0.471	0.009	8590	9814	1.755	0.019	0.453	0.489
Total fertility rate (0-4 years)	5.864	0.105	NA	66668	1.981	0.018	5.655	6.074
Neonatal mortality rate (0-4 years)	48.694	3.332	11124	12559	1.508	0.068	42.029	55.358
Infant mortality rate (0-4 years)	97.007	4.194	11162	12601	1.405	0.043	88.619	105.395
Child mortality rate (0-4 years	76.551	4.303	11486	12906	1.688	0.056	67.945	85.157
Under-5 child mortality rate (0-4 years)	166.131	5.486	11528	12954	1.541	0.033	155.160	177.103
Postneonatal mortality rate (0-4 years)	48.313	2.849	11158	12595	1.403	0.059	42.615	54.010
MEN								
Urban residence	0.145	0.011	2607	2607	1.573	0.075	0.124	0.167
No education	0.521	0.016	2607	2607	1.597	0.030	0.490	0.552
Secondary and higher	0.149	0.011	2607	2607	1.596	0.075	0.127	0.171
Never married	0.399	0.012	2607	2607	1.279	0.031	0.374	0.423
Currently married	0.560	0.012	2607	2607	1.269	0.022	0.535	0.585
Knows at least one method	0.916	0.010	1433	1460	1.412	0.011	0.896	0.937
Know any modern method	0.897	0.011	1433	1460	1.394	0.013	0.874	0.919
Ever used any method	0.249	0.016	1433	1460	1.395	0.064	0.217	0.281
Currently using method	0.153	0.014	1433	1460	1.456	0.091	0.125	0.181
Current users of modern method	0.088	0.010	1433	1460	1.399	0.119	0.067	0.109
Currently using pills	0.040	0.007	1433	1460	1.321	0.171	0.026	0.054
Currently using IUD	0.001	0.000	1433	1460	0.431	0.343	0.000	0.002
Currently using injections	0.041	0.008	1433	1460	1.473	0.188	0.026	0.056
Currently using condom	0.005	0.004	1433	1460	1.965	0.754	0.000	0.012
Currently using female sterilization	0.001	0.001	1433	1460	1.438	0.998	0.000	0.004
Currently using abstinence	0.058	0.009	1433	1460	1.465	0.157	0.040	0.076
Currently using withdrawal	0.006	0.003	1433	1460	1.274	0.440	0.001	0.011
Want no more children	0.246	0.017	1433	1460	1.468	0.068	0.213	0.279
Delay birth at least two years	0.431	0.019	1433	1460	1.433	0.044	0.393	0.468
Ideal family size	6.380	0.121	2317	2328	1.166	0.019	6.139	6.621

NA = Not applicable

Table B.3 Sampling errors: Urban sample, Ethiopia 2000

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	0.358	0.023	4543	2791	3.279	0.065	0.311	0.404
Secondary education and higher	0.408	0.023	4543	2791	3.158	0.056	0.362	0.454
Ever born for women 40-49	5.550	0.226	602	345	1.943	0.041	5.098	6.002
Children surviving	1.586	0.060	4543	2791	1.906	0.038	1.467	1.706
Knows at least one method	0.981	0.006	1843	1193	1.934	0.006	0.969	0.994
Know any modern method	0.981	0.006	1843	1193	1.934	0.006	0.969	0.994
Currently using method	0.356	0.018	1843	1193	1.652	0.052	0.319	0.393
Current users of modern method	0.283	0.023	1843	1193	2.182	0.081	0.237	0.329
Currently using pills	0.096	0.019	1843	1193	2.782	0.199	0.058	0.134
Currently using IUD	0.010	0.003	1843	1193	1.137	0.269	0.004	0.015
Currently using injections	0.141	0.017	1843	1193	2.057	0.118	0.108	0.174
Currently using norplant	0.002	0.001	1843	1193	0.670	0.348	0.001	0.003
Currently using condom	0.020	0.009	1843	1193	2.814	0.456	0.002	0.039
Currently using female sterilization	0.014	0.005	1843	1193	1.767	0.345	0.004	0.024
Currently using abstinence	0.063	0.011	1843	1193	2.008	0.181	0.040	0.085
Currently using withdrawal	0.006	0.003	1843	1193	1.451	0.431	0.001	0.011
Want no more children	0.403	0.025	1843	1193	2.209	0.063	0.352	0.453
Ideal family size	4.114	0.107	4213	2590	2.933	0.026	3.900	4.327
Mother received tetanus injection	0.583	0.027	1286	908	2.098	0.046	0.529	0.636
Deliveries attended by health professional	0.345	0.025	1712	1277	2.127	0.073	0.295	0.395
Children with diarrhea in the 2 weeks preceding the survey	0.167	0.016	1541	1141	1.708	0.093	0.136	0.198
Children with diarrhea given ORS	0.473	0.064	273	190	2.206	0.135	0.345	0.601
Children with diarrhea taken to a health provider	0.434	0.052	273	190	1.773	0.119	0.331	0.538
Children with health card	0.513	0.044	305	225	1.667	0.085	0.426	0.600
Children received BCG	0.707	0.082	305	225	3.449	0.116	0.543	0.871
Children received 3 doses of DPT	0.513	0.064	305	225	2.462	0.125	0.384	0.641
Children received 3 doses of polio	0.603	0.054	305	225	2.098	0.089	0.496	0.710
Children received measles vaccination	0.631	0.056	305	225	2.211	0.088	0.519	0.742
Children fully immunized	0.420	0.059	305	225	2.301	0.141	0.301	0.539
Weight-for-height	0.054	0.008	1362	1012	1.361	0.141	0.039	0.069
Height-for-age	0.416	0.040	1362	1012	3.136	0.095	0.337	0.496
Weight-for-age	0.340	0.033	1362	1012	2.709	0.097	0.274	0.406
Total fertility rate (0-4 years)	3.300	0.222	NA	11747	3.089	0.067	2.855	3.744
Neonatal mortality rate (0-9 years)	46.325	5.905	3418	2472	1.496	0.127	34.516	58.135
Infant mortality rate (0-9 years)	96.521	8.363	3428	2481	1.623	0.087	79.795	113.247
Child mortality rate (0-9 years)	57.622	8.825	3450	2504	2.084	0.153	39.972	75.272
Under-5 child mortality rate (0-9 years)	148.581	11.895	3460	2513	1.930	0.080	124.792	172.371
Postneonatal mortality rate (0-9 years)	50.196	7.303	3428	2481	1.888	0.145	35.591	64.801
MEN								
No education	0.163	0.031	680	379	2.181	0.190	0.101	0.225
Secondary and higher	0.613	0.038	680	379	2.039	0.062	0.536	0.689
Knows at least one method	0.984	0.008	282	183	1.077	0.008	0.967	1.000
Know any modern method	0.984	0.008	282	183	1.077	0.008	0.967	1.000
Ever used any method	0.697	0.051	282	183	1.876	0.074	0.594	0.800
Currently using method	0.472	0.064	282	183	2.137	0.135	0.345	0.600
Current users of modern method	0.355	0.052	282	183	1.827	0.147	0.251	0.460
Currently using pills	0.146	0.040	282	183	1.888	0.273	0.066	0.225
Currently using IUD	0.009	0.003	282	183	0.570	0.361	0.002	0.015
Currently using injections	0.163	0.037	282	183	1.692	0.229	0.088	0.238
Currently using condom	0.037	0.029	282	183	2.580	0.780	0.000	0.096
Currently using abstinence	0.095	0.026	282	183	1.512	0.278	0.042	0.148
Currently using withdrawal	0.020	0.012	282	183	1.476	0.617	0.000	0.045
Want no more children	0.305	0.036	282	183	1.307	0.118	0.233	0.376
Ideal family size	4.270	0.204	627	353	1.747	0.048	3.862	4.678

NA = Not applicable

Table B.4 Sampling errors: Rural sample, Ethiopia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.839	0.009	10824	12576	2.439	0.010	0.822	0.856
Secondary education and higher	0.020	0.002	10824	12576	1.789	0.120	0.015	0.025
Never married	0.205	0.006	10824	12576	1.446	0.027	0.194	0.216
Currently married	0.684	0.006	10824	12576	1.428	0.009	0.671	0.696
Married by age 20	0.811	0.006	8447	9682	1.469	0.008	0.798	0.823
Sex by age 18	0.707	0.009	6524	7365	1.579	0.013	0.689	0.724
Children ever born	3.348	0.032	10824	12576	1.037	0.010	3.284	3.412
Ever born for women 40-49	7.188	0.096	1957	2311	1.512	0.013	6.996	7.380
Children surviving	2.572	0.026	10824	12576	1.076	0.010	2.520	2.624
Knows at least one method	0.845	0.008	7537	8596	1.953	0.010	0.829	0.861
Know any modern method	0.835	0.008	7537	8596	1.929	0.010	0.819	0.852
Ever used any method	0.106	0.006	7537	8596	1.797	0.060	0.093	0.119
Currently using method	0.043	0.004	7537	8596	1.690	0.092	0.035	0.050
Current users of modern method	0.033	0.004	7537	8596	1.775	0.111	0.026	0.040
Currently using pills	0.015	0.002	7537	8596	1.599	0.147	0.011	0.020
Currently using injections	0.015	0.002	7537	8596	1.546	0.143	0.011	0.020
Currently using female sterilization	0.002	0.001	7537	8596	1.238	0.349	0.001	0.003
Currently using abstinence	0.008	0.001	7537	8596	1.427	0.183	0.005	0.011
Currently using withdrawal	0.001	0.001	7537	8596	1.234	0.380	0.000	0.002
Want no more children	0.309	0.009	7537	8596	1.759	0.030	0.290	0.327
Delay birth at least two years	0.371	0.008	7537	8596	1.485	0.022	0.354	0.387
Ideal family size	5.557	0.073	8861	10013	2.256	0.013	5.412	5.702
Mother received tetanus injection	0.221	0.010	5959	7070	1.895	0.046	0.201	0.242
Deliveries attended by health professional	0.023	0.003	9160	10981	1.629	0.121	0.017	0.029
Children with diarrhea in the 2 weeks preceding the survey	0.245	0.008	8019	9611	1.646	0.033	0.228	0.261
Children with diarrhea given ORS	0.103	0.008	1885	2350	1.139	0.077	0.087	0.119
Children with diarrhea taken to a health provider	0.109	0.009	1885	2350	1.318	0.085	0.090	0.127
Children with health card	0.242	0.016	1539	1917	1.528	0.067	0.209	0.274
Children received BCG	0.426	0.018	1539	1917	1.499	0.043	0.390	0.463
Children received 3 doses of DPT	0.172	0.013	1539	1917	1.416	0.077	0.145	0.198
Children received 3 doses of polio	0.315	0.016	1539	1917	1.389	0.051	0.283	0.347
Children received measles vaccination	0.223	0.015	1539	1917	1.478	0.068	0.193	0.254
Children fully immunized	0.110	0.010	1539	1917	1.328	0.093	0.090	0.131
Weight-for-height	0.113	0.005	7228	8802	1.459	0.048	0.103	0.124
Height-for-age	0.523	0.009	7228	8802	1.592	0.018	0.505	0.542
Weight-for-age	0.486	0.010	7228	8802	1.643	0.020	0.467	0.506
Total fertility rate (0-4 years)	6.385	0.096	NA	54920	1.642	0.015	6.194	6.576
Neonatal mortality rate (0-9 years)	59.463	2.869	18437	21527	1.383	0.048	53.726	65.200
Infant mortality rate (0-9 years)	114.740	3.526	18483	21576	1.297	0.031	107.689	121.791
Child mortality rate (0-9 years)	87.839	4.501	18746	21854	1.829	0.051	78.836	96.841
Under-5 child mortality rate (0-9 years)	192.500	5.314	18796	21909	1.563	0.028	181.872	203.129
Postneonatal mortality rate (0-9 years)	55.277	2.403	18479	21570	1.323	0.043	50.472	60.083
MEN								
No education	0.582	0.017	1927	2228	1.503	0.029	0.548	0.616
Secondary and higher	0.070	0.009	1927	2228	1.627	0.135	0.051	0.089
Never married	0.386	0.013	1927	2228	1.188	0.034	0.359	0.412
Currently married	0.573	0.013	1927	2228	1.184	0.023	0.547	0.600
Knows at least one method	0.907	0.012	1151	1277	1.370	0.013	0.883	0.930
Know any modern method	0.884	0.013	1151	1277	1.351	0.014	0.859	0.910
Ever used any method	0.185	0.016	1151	1277	1.356	0.084	0.154	0.216
Currently using method	0.107	0.012	1151	1277	1.361	0.116	0.082	0.132
Current users of modern method	0.050	0.009	1151	1277	1.357	0.174	0.033	0.067
Currently using pills	0.025	0.006	1151	1277	1.208	0.223	0.014	0.036
Currently using injections	0.023	0.006	1151	1277	1.375	0.262	0.011	0.036
Currently using female sterilization	0.002	0.002	1151	1277	1.377	0.997	0.000	0.005
Currently using abstinence	0.052	0.010	1151	1277	1.460	0.183	0.033	0.071
Currently using withdrawal	0.004	0.002	1151	1277	1.301	0.622	0.000	0.008
Want no more children	0.238	0.018	1151	1277	1.459	0.077	0.201	0.274
Delay birth at least two years	0.439	0.019	1151	1277	1.317	0.044	0.401	0.478
Ideal family size	6.758	0.138	1690	1975	1.099	0.020	6.481	7.034

NA = Not applicable

DATA QUALITY TABLES

APPENDIX C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Ethiopia 2000

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	1,178	3.6	1,082	3.2	37	223	0.7	252	0.7
1	1,105	3.3	1,067	3.2	38	345	1.0	406	1.2
2	1,094	3.3	1,098	3.3	39	188	0.6	237	0.7
3	1,219	3.7	1,216	3.6	40	522	1.6	450	1.3
4	1,093	3.3	1,111	3.3	41	151	0.5	224	0.7
5	973	2.9	837	2.5	42	271	0.8	259	0.8
6	1,117	3.4	1,062	3.1	43	176	0.5	249	0.7
7	1,086	3.3	1,060	3.1	44	128	0.4	214	0.6
8	1,085	3.3	1,017	3.0	45	427	1.3	381	1.1
9	1,045	3.2	935	2.8	46	171	0.5	241	0.7
10	1,050	3.2	1,010	3.0	47	164	0.5	183	0.5
11	710	2.1	779	2.3	48	245	0.7	262	0.8
12	1,076	3.3	1,003	3.0	49	111	0.3	201	0.6
13	974	2.9	911	2.7	50	362	1.1	122	0.4
14	884	2.7	646	1.9	51	108	0.3	133	0.4
15	996	3.0	921	2.7	52	168	0.5	209	0.6
16	800	2.4	800	2.4	53	95	0.3	161	0.5
17	673	2.0	677	2.0	54	101	0.3	123	0.4
18	845	2.6	853	2.5	55	271	0.8	294	0.9
19	458	1.4	542	1.6	56	144	0.4	159	0.5
20	671	2.0	834	2.5	57	101	0.3	122	0.4
21	334	1.0	422	1.2	58	167	0.5	139	0.4
22	559	1.7	628	1.9	59	115	0.3	158	0.5
23	435	1.3	476	1.4	60	202	0.6	255	0.8
24	428	1.3	545	1.6	61	60	0.2	82	0.2
25	711	2.2	822	2.4	62	120	0.4	91	0.3
26	478	1.4	511	1.5	63	67	0.2	81	0.2
27	326	1.0	397	1.2	64	124	0.4	147	0.4
28	480	1.5	557	1.6	65	176	0.5	171	0.5
29	288	0.9	313	0.9	66	81	0.2	60	0.2
30	582	1.8	654	1.9	67	81	0.2	77	0.2
31	168	0.5	266	0.8	68	67	0.2	87	0.3
32	313	0.9	401	1.2	69	68	0.2	82	0.2
33	192	0.6	270	0.8	70+	817	2.5	649	1.9
34	185	0.6	273	0.8	Don't know/				
36	273	0.8	303	0.9	Missing	6	0.0	3	0.0
					Total	33,048	100.0	33,782	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 Age distribution of eligible and interviewed women

Percent distribution of the de facto household population of women age 10-54, and of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted) by five-year age groups, Ethiopia 2000

	Household population of women age 10-54		Interviewed women age 15-49		Percentage of eligible women interviewed
Age group	Number	Percent	Number	Percent	
10-14	4,350	NA	NA	NA	NA
15-19	3,793	24.4	3,711	24.3	97.8
20-24	2,903	18.7	2,853	18.7	98.3
25-29	2,600	16.7	2,563	16.8	98.6
30-34	1,863	12.0	1,844	12.1	99.0
35-39	1,718	11.1	1,690	11.1	98.4
40-44	1,396	9.0	1,382	9.0	99.0
45-49	1,269	8.2	1,249	8.2	98.4
50-54	748	NA	NA	NA	NA
10-49	15,542	NA	15,292	NA	98.4

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview. Weights for both household population of women and interviewed women are household weights. Age is based on that reported in the household schedule.
NA = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Ethiopia 2000

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in the past 15 years		
Month only		5.7	33,044
Month and year		0.0	33,044
Age at death	Deceased children born in the past 15 years	0.1	6,324
Age/date at first union[1]	Ever-married women age 15-49	17.9	11,679
Women's education	All women age 15-49	0.0	15,367
Child's size at birth	Births in the past 0-59 months	40.3	538
Anthropometry	Living children age 0-59 months		
Height		4.5	10,753
Weight		3.6	10,753
Height or weight		4.5	10,753
Diarrhea in past 2 weeks	Living children age 0-59 months	2.1	10,753

[1] Both year and age missing

Table C.4 Births by calendar years

Distribution of births by calendar years for living (L), dead (D), and total (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Ethiopia 2000

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
2000	602	33	635	100.0	100.0	100.0	104.8	107.8	104.9	NA	NA	NA	308	17	325	294	16	310
1999	2,249	246	2,495	99.5	94.8	99.1	107.8	87.2	105.6	NA	NA	NA	1,167	115	1,281	1,082	131	1,213
1998	2,100	265	2,365	99.2	90.2	98.2	100.2	108.8	101.1	94.7	93.8	94.6	1,051	138	1,189	1,049	127	1,176
1997	2,188	320	2,508	98.5	88.9	97.3	102.7	140.5	106.8	102.8	96.9	102.0	1,109	187	1,295	1,080	133	1,213
1996	2,156	395	2,551	97.2	92.8	96.5	109.2	136.1	112.9	102.1	116.5	104.1	1,125	228	1,353	1,031	167	1,198
1995	2,033	358	2,391	98.0	94.1	97.5	94.3	139.8	100.0	104.2	83.9	100.6	987	209	1,195	1,047	149	1,196
1994	1,746	459	2,205	96.6	88.6	95.0	108.8	131.3	113.1	87.9	108.0	91.4	910	260	1,170	836	198	1,035
1993	1,941	491	2,432	94.4	90.2	93.6	103.8	110.5	105.1	111.6	99.5	108.9	989	258	1,247	952	233	1,186
1992	1,734	529	2,263	93.6	90.3	92.8	101.3	108.7	103.0	92.5	100.0	94.2	872	276	1,148	861	254	1,115
1991	1,806	567	2,373	93.9	86.6	92.2	109.6	98.7	106.9	NA	NA	NA	944	282	1,226	861	285	1,147
1996-2000	9,295	1,259	10,554	98.7	91.9	97.9	104.9	119.1	106.5	NA	NA	NA	4,759	684	5,444	4,535	575	5,110
1991-1995	9,260	2,404	11,664	95.4	89.7	94.2	103.2	114.7	105.4	NA	NA	NA	4,702	1,284	5,986	4,558	1,120	5,678
1986-1990	7,252	2,363	9,615	92.7	84.8	90.8	105.3	113.3	107.2	NA	NA	NA	3,719	1,255	4,974	3,533	1,108	4,641
81-85	5,364	2,017	7,381	92.3	86.1	90.6	109.5	138.1	116.6	NA	NA	NA	2,804	1,170	3,974	2,560	847	3,407
<1981	5,605	2,680	8,286	91.7	83.2	89.0	103.0	130.0	111.0	NA	NA	NA	2,844	1,515	4,359	2,762	1,165	3,927
All	36,776	10,724	47,500	94.7	86.6	92.9	104.9	122.7	108.7	NA	NA	NA	18,828	5,909	24,737	17,948	4,815	22,763

NA = Not applicable

[1] Both year and month of birth given

[2] $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3] $[2B_x/(B_{x-1}+B_{x+1})]*100$, 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 one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey (unweighted), Ethiopia 2000

Age at death (days)	Number of years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	177	210	149	127	663
1	119	125	61	62	366
2	32	63	52	25	173
3	51	65	46	46	207
4	16	11	18	18	61
5	18	24	23	10	75
6	8	19	12	3	42
7	40	55	36	31	162
8	3	19	15	24	61
9	3	17	3	7	30
10	16	13	20	6	54
11	2	2	8	0	11
12	5	13	4	10	32
13	4	11	5	1	20
14	5	14	19	9	47
15	43	61	48	38	190
16	2	2	3	5	11
17	0	2	3	1	7
18	0	0	2	4	6
19	3	0	0	2	4
20	22	23	21	25	91
21	12	22	18	15	67
22	1	0	4	2	8
23	0	0	2	0	2
24	0	2	2	0	4
25	0	7	6	0	13
26	1	0	0	0	1
27	5	0	0	2	7
28	0	3	7	0	10
29	2	1	2	0	4
30	2	7	2	2	12
Percent early neonatal[1]	71.1	65.3	61.3	61.3	65.0

[1] 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods preceding the survey (weighted), Ethiopia 2000

Age at death (months)	Number of years preceding survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	592	793	587	473	2,445
1	97	137	104	78	416
2	58	59	96	71	285
3	70	49	74	70	263
4	48	55	60	38	201
5	36	37	51	26	150
6	59	113	100	62	334
7	47	59	32	25	164
8	34	67	55	21	177
9	35	32	37	43	147
10	26	25	17	18	86
11	19	42	27	22	109
12	67	112	105	91	376
13	7	15	15	10	47
14	17	25	11	11	65
15	11	10	13	10	44
16	14	13	7	6	39
17	11	8	4	10	32
18	37	55	44	30	165
19	5	9	11	5	29
20	9	12	11	5	36
21	3	2	0	5	10
22	8	2	5	0	16
23	5	8	7	2	22
Percent neonatal[1]	52.8	54.0	47.3	50.0	51.2

[a] Includes deaths under 1 month reported in days
[1] Under 1 month/under 1 year

Table C.7 Data on siblings

Number of sisters and brothers reported by interviewed women and completeness of reported data on survival status, age, age at death (AD) and years since death (YSD), Ethiopia 2000

Sibling status and completeness of reporting	Sisters		Brothers		Total	
	Number	Percent	Number	Percent	Number	Percent
All siblings	43,933	100.0	47,872	100.0	91,804	100.0
Living	32,609	74.2	33,296	69.6	65,905	71.8
Dead	11,264	25.6	14,334	29.9	25,598	27.9
Status unknown	60	0.1	241	0.5	301	0.3
Living siblings	32,609	100.0	33,296	100.0	65,905	100.0
Age reported	32,604	100.0	33,288	100.0	65,892	100.0
Age missing	5	0.0	8	0.0	13	0.0
Dead siblings	11,264	100.0	14,334	100.0	25,598	100.0
AD and YSD reported	11,221	99.6	14,274	99.6	25,495	99.6
Missing only AD	13	0.1	19	0.1	33	0.1
Missing only YSD	2	0.0	3	0.0	5	0.0
Missing both AD and YSD	28	0.2	38	0.3	66	0.3

Table C.8 Indicators of data quality

Percent distribution of respondents and siblings by year of birth, Ethiopia 2000

Year of birth	Respondents	Siblings
Before 1940	0.0	3.5
1940-44	3.4	4.0
1945-49	8.5	5.8
1950-54	10.2	8.5
1955-59	10.7	11.0
1960-64	14.2	13.0
1965-69	18.3	14.6
1970 or later	34.6	39.5
Total	100.0	100.0
Lower range	1942	1906
Upper range	1977	1992
Median	1960	1959
Number of cases	15,367	91,799

Table C.9 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings, Ethiopia 2000

Year of birth of respondents	Mean sibship size	Sex ratio of siblings
<1945	6.5	101.6
1945-49	6.6	105.6
1950-54	6.6	109.3
1955-59	6.8	109.9
1960-64	7.0	108.9
1965-69	7.1	110.3
1970-77	7.2	109.3

SURVEY PERSONNEL

APPENDIX D

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Eyasu Kebede
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Netsanet Fantaye
Keflu Tesfaye
Said Jemal
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Kembate Bekele
Fikre Tepamo
Tamerat Mulugeta
Tegenu Abate
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Getachew Haile
Asfaw Getahun
Bezabih Ali
Beade Melaku
Feleke Telahun
Fuad Mume
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Nitsuh Fentie
Seble Teklu
Sewnet Taddesse
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Tigist Getachew
Tikdem T/Yohannes
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Addisalem Sahilu
Adhanet Tadesse
Agernesh Behailu
Alem Beyene
Alemnesh Dereje
Alemnesh Ketema
Alganesh Abadi
Almaz Abebe
Almaz Berhanu
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Debritu Zewge
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Meseret Kebede
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Tadelech Juta
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Nunu Demeke
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Tarikie Legesse
Tarikua Abera
Tewabech Zikargachew
Tigist Bekele
Tigist Bekele
Tigist Bezabih
Tigist Bihon
Tigist Girma
Tigist Gizachew
Tigist Taddesse
Tigist Tsegaye
Tigist Zewdu
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Toyba Eshetu
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Alemayehu G/Hiwot

CENTRAL STATISTICAL AUTHORITY
ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION

REGION _____ ZONE _____

WOREDA _____ TOWN _____

KEBELE _____ ENUMERATION AREA _____

CLUSTER NUMBER .....

URBAN/RURAL: URBAN .....1 RURAL.....2

TYPE OF PLACE: LARGE CITY .....1 SMALL CITY.....2
TOWN.....3 COUNTRYSIDE.....4

HOUSEHOLD NUMBER .....

NAME OF HEAD OF HOUSEHOLD _____

HOUSEHOLD SELECTED FOR MALE INTERVIEW?
YES = 1 NO = 2

REGION [ ][ ]

CLUSTER NUMBER [ ][ ][ ]

URBAN/ RURAL [ ] TYPE OF PLACE [ ]

HOUSEHOLD NUMBER [ ][ ][ ]

MALE [ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR 1 9 [ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INTERVIEWER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NO. 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 [ ][ ]

TOTAL ELIGIBLE CHILDREN [ ][ ]

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE [ ][ ]

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]
DATE _____	DATE _____		

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY		
	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.	What is the relationship of (NAME) to the head of the household? FOR CODES, SEE BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)
			M F	YES NO	YES NO	IN YEARS			
01			1 2	1 2	1 2		01	01	01
02			1 2	1 2	1 2		02	02	02
03			1 2	1 2	1 2		03	03	03
04			1 2	1 2	1 2		04	04	04
05			1 2	1 2	1 2		05	05	05
06			1 2	1 2	1 2		06	06	06
07			1 2	1 2	1 2		07	07	07
08			1 2	1 2	1 2		08	08	08
09			1 2	1 2	1 2		09	09	09

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, 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 ☐ → ENTER EACH IN TABLE NO ☐

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ☐ → ENTER EACH IN TABLE NO ☐

CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:

01 = HEAD
02 = WIFE OR HUSBAND OR PARTNER
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
10 = ADOPTED/FOSTER/ STEPCHILD
11= OTHER RELATIVE
12 = NOT RELATED
98 = DON'T KNOW

PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OF AGE				LITERACY	EDUCATION	
Is (NAME)'s natural mother alive?	IF ALIVE Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER	Is (NAME)'s natural father alive?	IF ALIVE Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER.	IF AGE 5 YEARS OR OLDER Is (NAME) able to read and write a simple sentence?	Has (NAME) ever had any formal education?	What is the highest grade (NAME) completed? SEE CODES FOR GRADE BELOW.
(10)	(11)	(12)	(13)	(14)	(15)	(16)
YES NO DK 1 2 8		YES NO DK 1 2 8		YES NO DK 1 2 8	YES NO 1 2 NEXT LINE	GRADE
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	

Q.10 THROUGH Q.13:

THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

CURRENT SCHOOL ATTENDANCE

IF AGE 5-24 YEARS

Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what grade [is/was] (NAME) attending? SEE CODES FOR GRADE BELOW.	During the previous school year, did (NAME) attend school at any time?	During that school year, what grade did (NAME) attend? SEE CODES FOR GRADE BELOW.
(17)	(18)	(19)	(20)	20A
YES NO	YES NO	GRADE	YES NO	GRADE
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
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1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	

GRADE FOR Q16, 19 AND 20A

00 = LESS THAN 1 YEAR COMPLETED
01-12 = GRADE CPMPLETED
13 = TECHNICAL/VOCATIONAL CERTIFICATE
14 = UNIVERSITY/COLLEGE DIPLOMA
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HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	ELIGIBILITY		
	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.	What is the relationship of (NAME) to the head of the household? FOR CODES, SEE BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)
			M F	YES NO	YES NO	IN YEARS			
10			1 2	1 2	1 2		10	10	10
11			1 2	1 2	1 2		11	11	11
12			1 2	1 2	1 2		12	12	12
13			1 2	1 2	1 2		13	13	13
14			1 2	1 2	1 2		14	14	14
15			1 2	1 2	1 2		15	15	15
16			1 2	1 2	1 2		16	16	16
17			1 2	1 2	1 2		17	17	17
18			1 2	1 2	1 2		18	18	18

TICK HERE IF CONTINUATION SHEET USED ☐

Just to make sure that I have a complete listing:

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PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OF AGE				LITERACY	EDUCATION	
Is (NAME)'s natural mother alive?	IF ALIVE Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER.	Is (NAME)'s natural father alive?	IF ALIVE Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER.	IF AGE 5 YEARS OR OLDER Is (NAME) able to read and write a simple sentence?	Has (NAME) ever had any formal education?	What is the highest grade (NAME) completed? SEE CODES FOR GRADE BELOW.
(10)	(11)	(12)	(13)	(14)	(15)	(16)
YES NO DK 1 2 8		YES NO DK 1 2 8		YES NO DK 1 2 8	YES NO 1 2 NEXT LINE	GRADE
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	
1 2 8		1 2 8		1 2 8	1 2 NEXT LINE	

Q.10 THROUGH Q.13:

THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

CURRENT SCHOOL ATTENDANCE

IF AGE 5-24 YEARS

Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what grade [is/was] (NAME) attending? SEE CODES FOR GRADE BELOW.	During the previous school year, did (NAME) attend school at any time?	During that school year, what grade did (NAME) attend? SEE CODES FOR GRADE BELOW.
(17)	(18)	(19)	(20)	20A
YES NO	YES NO	GRADE	YES NO	GRADE
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
1 2 GO TO 19	1 2 GO TO 20		1 2 NEXT LINE	
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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
21	What is the main source of drinking water for members of your household?	PIPED (TAP) PIPED INTO DWELLING .....11 PIPED INTO COMPOUND.....12 PIPED OUTSIDE COMPOUND .....13 OPEN WELL/SPRING OPEN WELL.....22 OPEN SPRING.....23 COVERED WELL/SPRING COVERED WELL.....31 COVERED SPRING.....32 SURFACE WATER RIVER .....42 POND/LAKE/DAM.....43 RAINWATER.....51 OTHER _____ 96 (SPECIFY)	→23 →23 →23
22	How long does it take you to go there, get water, and come back?	MINUTES ..... [ ][ ][ ] ONE DAY OR LONGER.....995 ON PREMISES.....996	
23	What kind of toilet facility do most members of your household use?	FLUSH TOILET .....11 PIT TOILET/LATRINE TRADITIONAL PIT TOILET.....21 VENTILATED IMPROVED PIT LATRINE (VIP) .....22 NO FACILITY/BUSH/FIELD .....31 OTHER _____ 96 (SPECIFY)	 →25
24	Do you share this facility with other households?	YES .....1 NO 2	
25	Does your household have: Electricity? A radio? A television? A telephone? An electric mitad? A kerosene lamp / pressure lamp? A bed/ table?	YES NO ELECTRICITY .....1 2 RADIO .....1 2 TELEVISION .....1 2 TELEPHONE.....1 2 ELECTRIC MITAD.....1 2 KEROSENE LAMP.....1 2 BED/TABLE.....1 2	
25A	Does your household: Own the house it is living in? Have crop land? Have cattle/camels? Have horse/mule/donkey? Have sheep/goats? Grow cash crops?	YES NO OWN HOUSE .....1 2 CROP LAND.....1 2 CATTLE/CAMELS.....1 2 HAVE HORSE/MULE/DONKEY .....1 2 SHEEP/GOATS.....1 2 CASH CROPS.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
26	What type of fuel does your household mainly use for cooking?	ELECTRICITY .....01 LPG/NATURAL GAS .....02 BIOGAS.....03 KEROSENE.....04 CHARCOAL.....05 FIREWOOD, STRAW.....06 DUNG.....07 OTHER _____ 96 (SPECIFY)	
27	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	EARTH/SAND .....11 DUNG.....12 WOOD PLANKS.....21 REED/BAMBOO.....22 PARQUET OR POLISHED WOOD .....31 VINYL SHEETS/TILES.....32 CEMENT .....33 CEMENT TILES/BRICK .....34 CARPET.....35 OTHER _____ 96 (SPECIFY)	
27A	MAIN MATERIAL OF THE ROOF RECORD OBSERVATION.	CORRUGATED IRON .....01 CEMENT/CONCRETE .....02 WOOD AND MUD .....03 THATCH.....04 REED/BAMBOO.....05 PLASTIC SHEET.....06 MOBILE ROOFS OF NOMADS .....07 OTHER _____ 96 (SPECIFY)	
27B	How many rooms in your house are used for sleeping?	ROOMS ..... [ ][ ]	
28	Does any member of your household own: A bicycle? A motorcycle or motor scooter? A car or truck? A horse or mule for human transport only?	YES NO BICYCLE .....1 2 MOTORCYCLE/SCOOTER .....1 2 CAR/TRUCK.....1 2 HORSE/MULE.....1 2	
29	Has any member of your household received any of the following services at a health facility at any time in the past 12 months: Treatment for a sick child? Immunization? Family planning education or services? Prenatal/postnatal/delivery care? Information on prevention of STD/HIV/AIDS? Information on breast feeding and infant feeding practices?	YES NO TREATMENT FOR A SICK CHILD.... 1 2 IMMUNIZATION.....1 2 FAMILY PLANNING.....1 2 PRENATAL/POSTNATAL/ DELIVERY CARE.....1 2 INFORMATION ON STD/HIV/ADIS .....1 2 INFORMATION ON BREAST FEEDING AND INFANT FEEDING PRACTICES.....1 2	
29A	CHECK 29: AT LEAST ONE "YES" [ ] ↓ NOT A SINGLE "YES" [ ] →		29C

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
29B	From what facilities have members received these services? PROBE: Anywhere else? RECORD BELOW TYPE AND/OR LOCATION OF ALL FACILITIES VISITED BY HOUSEHOLD MEMBERS IN PAST 12 MONTHS. THEN CIRCLE CODE FOR EACH TYPE OF FACILITY MENTIONED. _____ _____ _____	GOVERNMENT HOSPITAL ..... A HEALTH CENTER ..... B HEALTH STATION/CLINIC ..... C HEALTH POST ..... D COMMUNITY-BASED OUTLET ..... E OTHER GOVERNMENT _____ F (SPECIFY) NONGOVERNMENTAL ORGANIZATION (NGO) HEALTH FACILITY ..... G COMMUNITY-BASED OUTLET ..... H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL ..... J PRIVATE DOCTOR/CLINIC ..... K OTHER PRIVATE _____ L (SPECIFY) OTHER SOURCE _____ X (SPECIFY)	
29C	Has any member of your household bought any drugs during the last 12 months?	YES ..... 1 NO ..... 2 →	29F
29D	Where were the drugs mainly bought?	PHARMACY/OTHER MEDICAL FACILITY ..... A NON MEDICAL FACILITY ..... B	
29F	Does your household have any bednets that can be used while sleeping?	YES ..... 1 NO ..... 2 →	35
29G	Was the bednet ever treated with a product to kill mosquitoes?	YES ..... 1 NO 2	
35	ASK RESPONDENT FOR A TEASPOONFUL OF SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION).	0 PPM (NO IODINE) ..... 1 7 PPM ..... 2 15 PPM ..... 3 30 PPM 4	

HEIGHT AND WEIGHT MEASUREMENT

CHECK COLUMN (8): RECORD THE LINE NUMBER, NAME AND AGE OF ALL WOMEN AGE 15-49 IN Q. 36 TO Q. 38 IN THE HEIGHT AND WEIGHT GRID FOR WOMEN BELOW. THEN CHECK COLUMN (9) AND RECORD THE LINE NUMBER, NAME AND AGE OF ALL CHILDREN UNDER AGE 6 IN CLOUMNS Q. 44 – Q. 46 IN THE HEIGHT AND WEIGHT GRID FOR CHILDREN.

WOMEN 15-49				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO. FROM COL. (8)	NAME FROM COL. (2)	AGE FROM COL. (7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 4 OTHER
(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)
		YEARS					
				.	.		
				.	.		
				.	.		
				.	.		

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN BORN IN MESKEREM 1987 OR LATER			
LINE NO. FROM COL.(9)	NAME FROM COL.(2)	AGE FROM COL.(7)	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 4 OTHER
			DAY MONTH YEAR			LYING STAND.	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	
				0 .	.	1 2	

TICK HERE IF CONTINUATION SHEET USED ☐

CENTRAL STATISTICAL AUTHORITY
ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY
WOMAN'S QUESTIONNAIRE

IDENTIFICATION

REGION _____ ZONE _____

WOREDA _____ TOWN _____

KEBELE _____ ENUMERATION AREA _____

CLUSTER NUMBER .....

URBAN/RURAL: URBAN .....1 RURAL.....2

TYPE OF PLACE: LARGE CITY .....1 SMALL CITY.....2
TOWN.....3 COUNTRYSIDE.....4

HOUSEHOLD NUMBER .....

NAME OF HOUSEHOLD HEAD _____

NAME AND LINE NUMBER OF WOMAN _____

REGION [ ][ ]

CLUSTER NUMBER [ ][ ][ ]

URBAN/ RURAL [ ] TYPE OF PLACE [ ]

HOUSEHOLD NUMBER [ ][ ][ ]

LINE NUMBER OF WOMAN [ ][ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR 1 9 [ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INTERVIEWER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE

QUESTIONNAIRE	INTERVIEW	RESPONDENT'S NATIVE LANGUAGE	TRANSLATOR USED DURING INTERVIEW
AMARIGNA 1	AMARIGNA 1	AMARIGNA..... 1	YES 1
OROMIGNA 2	OROMIGNA..... 2	OROMIGNA..... 2	NO..... 2
TIGRIGNA.....3	TIGRIGNA 3	TIGRIGNA 3	
SOMALIGNA.....4	SOMALIGNA 4	SOMALIGNA 4	
AFARIGNA.....5	AFARIGNA 5	AFARIGNA 5	
OTHER _____ 6 (SPECIFY)	OTHER _____ 6 (SPECIFY)	OTHER _____ 6 (SPECIFY)	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING ..... [ ] HOUR ..... [ ][ ] MINUTES ..... [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	CITY ..... 1 TOWN ..... 2 COUNTRYSIDE 3	
103	How long have you been living continuously in (NAME OF WOREDA OR TOWN)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS ..... [ ][ ] ALWAYS ..... 95 VISITOR 96	105
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY ..... 1 TOWN ..... 2 COUNTRYSIDE 3	
105	In what month and year were you born?	MONTH ..... [ ][ ] DON'T KNOW MONTH ..... 98 YEAR ..... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS .... [ ][ ]	
107	Have you ever attended formal school?	YES ..... 1 NO 2	111
109	What is the highest grade you completed?	GRADE ..... [ ][ ] TECHNICAL / VOCATIONAL CERTIFICATE ..... 13 UNVERSITY/COLLEGE DIPLOMA ..... 14 UNVERSITY/COLLEGE DEGREE 15	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	CHECK 109: CODES 00-06 ☐ ↓ CODES 07 AND ABOVE ☐ →		114
111	Now I would like you to read out loud as much of this sentence as you can. SHOW CARD TO RESPONDENT.	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)	→ 115
114	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
115	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
116	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
117	What is your religion?	ORTHODOX ..... 1 CATHOLIC ..... 2 PROTESTANT ..... 3 MOSLEM ..... 4 TRADITIONAL ..... 5 OTHER _____ 6 (SPECIFY)	
118	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP.	_____ ☐☐	

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 survived only a few hours or days?	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 ..... [ ][ ]	
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 LINES.

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What 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 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)?
01	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (NEXT BIRTH)	DAYS.....1 MONTHS..2 YEARS 3	
02	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
03	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
04	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
05	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
06	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
07	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
08	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER → (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2

212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What 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 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)?
09	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
10	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
11	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
12	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2
13	SING... 1 MULT.. 2	BOY...1 GIRL..2	MONTH.. YEAR	YES.....1 NO.....2 → 220	AGE IN YEARS	YES .....1 NO 2	LINE NUMBER (GO TO 221)	DAYS.....1 MONTHS..2 YEARS 3	YES..... 1 NO 2

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES: PROBE AND CORRECT Q212-Q221 AND IF NECESSARY Q202-209	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)

CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐

FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐

224 CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 1987 E.C. OR LATER.
IF NONE, RECORD '0'. ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES ..... 1 NO ..... 2 UNSURE 8	→ 229
227	How many months pregnant are you?	MONTHS ..... [ ][ ]	
228	At the time you became pregnant did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?	THEN ..... 1 LATER ..... 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES ..... 1 NO 2	→ 234
230A	When did the last such pregnancy end?	MONTH ..... [ ][ ] DON'T KNOW MONTH ..... 98 YEAR ..... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 230C
230B	How many months/years ago did the last such pregnancy end?	MONTHS AGO ..... 1 [ ][ ] YEARS AGO ..... 2 [ ][ ]	
230C	How many months pregnant were you when the last such pregnancy ended?	MONTHS ..... [ ][ ]	
230D	CHECK 230A OR 230B: LAST PREGNANCY ENDED IN MESKEREM 1987 OR LATER OR 0-59 MONTHS AGO OR 0-4 YEARS AGO [ ] ↓ LAST PREGNANCY ENDED BEFORE MESKEREM 1987 OR 60 MONTHS AGO OR EARLIER or 5 OR MORE YEARS AGO [ ]		→ 234
230E	Have you had any other pregnancies in the last five years, which did not end in a live birth?	YES ..... 1 NO 2	→ 234
230F	How many other pregnancies did you have in the last five years that did not end in a live birth?	NUMBER OF OTHER NON LIVE PREGNANCIES ..... [ ]	

RECORD ALL PREGNANCIES IN MESKEREM 1987 OR LATER, OR 0-59 MONTHS AGO OR 0-4 YEARS AGO. COPY THE MONTH AND YEAR OF BIRTH OF THE LATEST PREGNANCY FROM 230A IN LINE 01 OF Q 231A, AND IF YEAR IS NOT KNOWN, THE NUMBER OF MONTHS OR YEARS AGO THE LATEST PREGNANCY ENDED FROM Q 230B IN Q 231B, AND THE NUMBER OF MONTHS PREGNANT FROM Q 230C IN Q 231C. THEN PROCEED TO Q 231A – Q231C FOR EACH OF THE EARLIER NON LIVE BIRTH PREGNANCY. CHECK TO MAKE SURE THAT THE DURATION OF EACH PREGNANCY LISTED BELOW IS CONSISTENT WITH INFORMATION IN Q.215, 217 AND 220. IF THERE ARE MORE THAN 5 SUCH PREGNANCIES USE EXTRA QUESTIONNAIRE. THE TOTAL NUMBER OF PREGNANCIES RECORDED IN THIS PAGE SHOULD EQUAL THE NUMBER OF NON – LIVE PREGNANCIES RECORDED IN Q230F + 1.

LINE NUMBER	231A When did the next pregnancy end?	231B How many months or years ago did this pregnancy end?	231C How many months pregnant were you when this pregnancy ended?
01	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ][ ][ ] (Skip to 231C) DK YEAR.....98	MONTHS AGO.....1 [ ][ ] YEARS AGO.....2 [ ][ ]	MONTHS..... [ ][ ]
02	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ][ ][ ] (Skip to 231C) DK YEAR.....98	MONTHS AGO.....1 [ ][ ] YEARS AGO.....2 [ ][ ]	MONTHS..... [ ][ ]
03	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ][ ][ ] (Skip to 231C) DK YEAR.....98	MONTHS AGO.....1 [ ][ ] YEARS AGO.....2 [ ][ ]	MONTHS..... [ ][ ]
04	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ][ ][ ] (Skip to 231C) DK YEAR.....98	MONTHS AGO.....1 [ ][ ] YEARS AGO.....2 [ ][ ]	MONTHS..... [ ][ ]
05	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ][ ][ ] (Skip to 231C) DK YEAR.....98	MONTHS AGO.....1 [ ][ ] YEARS AGO.....2 [ ][ ]	MONTHS..... [ ][ ]

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
234	Have you ever received an injection in the arm to prevent against tetanus toxoid?	YES ..... 1 NO 2	236
234A	Do you have a vaccination card/ paper where tetanus toxoid injection (TT) have been recorded? IF YES: May I see it please?	YES SEEN ..... 1 YES, NOT SEEN ..... 2 NO CARD/PAPER 3	234C
234B	(1) COPY VACCINATION DATE FOR EACH TETANUS TOXOID INJECTION GIVEN (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A TT VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	DAY / MONTH / YEAR TT1 [ ][ ] [ ][ ] [ ][ ][ ][ ] TT2 [ ][ ] [ ][ ] [ ][ ][ ][ ] TT3 [ ][ ] [ ][ ] [ ][ ][ ][ ] TT4 [ ][ ] [ ][ ] [ ][ ][ ][ ] TT5 [ ][ ] [ ][ ] [ ][ ][ ][ ]	
234C	How many times have you received a tetanus toxoid (TT) injection in your entire life?	NO. OF TIMES ..... . [ ][ ] DON'T KNOW 98	
236	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	
237	From one menstrual period to the next, is there a time when a woman is more likely to become pregnant if she has sexual relations?	YES ..... 1 NO ..... 2 DON'T KNOW 8	301
238	Is this time just before her period begins, during her period, right after her period has ended, or half way between two periods?	JUST BEFORE HER PERIOD BEGINS ..... 1 DURING HER PERIOD ..... 2 RIGHT AFTER HER PERIOD HAS ENDED ..... 3 HALF WAY BETWEEN PERIODS ..... 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

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.

CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES.....1 NO 2	Have you ever had an operation to avoid having any (more) children? YES .....1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES.....1 NO 2	Have you ever had a partner who had an operation to avoid having any (more) children? YES .....1 NO 2
03	PILL Women can take a pill every day to stop them from becoming pregnant.	YES.....1 NO 2	YES .....1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES.....1 NO 2	YES .....1 NO 2
05	INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for one or more months.	YES.....1 NO 2	YES .....1 NO 2
06	IMPLANTS Women can have several 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	YES .....1 NO 2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES.....1 NO 2	YES .....1 NO 2
08	DIAPHRAGM/FOAM/JELLY Women can place a diaphragm, suppository, jelly, or cream in their vagina before intercourse.	YES.....1 NO 2	YES .....1 NO 2
09	RHYTHM OR PERIODIC ABSTINENCE Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES.....1 NO 2	YES .....1 NO 2
10	WITHDRAWAL Men can be careful and pull out before climax.	YES.....1 NO 2	YES .....1 NO 2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES.....1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES .....1 NO .....2 YES .....1 NO 2

303	CHECK 302:		
	NOT A SINGLE "YES" (NEVER USED) ☐	AT LEAST ONE "YES" (EVER USED) ☐	→ 307

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES .....1 NO 2	→ 328
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN ..... [ ][ ]	
308	CHECK 302 (01): WOMAN NOT STERILIZED [ ] ↓ WOMAN STERILIZED [ ]		→ 311A
309	CHECK 226: NOT PREGNANT OR UNSURE [ ] ↓ PREGNANT [ ]		→ 328
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES .....1 NO 2	→ 328
311 311A	Which method are you using? CIRCLE 'A' FOR FEMALE STERILIZATION. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST.	FEMALE STERILIZATION ..... A MALE STERILIZATION ..... B PILL ..... C IUD ..... D INJECTIONS ..... E IMPLANTS ..... F CONDOM ..... G DIAPHRAGM/FOAM/JELLY ..... H PERIODIC ABSTINENCE ..... I WITHDRAWAL ..... J OTHER _____ X (SPECIFY)	→ 319C → 319A → 319B
312	What is the brand name of the pill you last used? RECORD NAME OF BRAND. _____ (BRAND NAME)	BRAND ..... [ ][ ] NO BRAND NAME .....95 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
319A 319B 319C	Where did you obtain (CURRENT METHOD) when you started using it the last time? Where did you learn to use (CURRENT METHOD)? Where did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME AND/LOCATION OF PLACE)	GOVERNMENT HOSPITAL .....11 HEALTH CENTER .....12 HEALTH STATION/CLINIC .....13 HEALTH POST .....14 COMMUNITY-BASED OUTLET .....15 OTHER GOVERNMENT _____16 (SPECIFY) NONGOVERNMENTAL (NGO) HEALTH FACILITY .....21 COMMUNITY-BASED OUTLETS .....22 OTHER NGO _____26 (SPECIFY) PRIVATE MEDICAL PRIVATE HOSPITAL .....31 PRIVATE DOCTOR/CLINIC .....32 PHARMACY .....33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE DRUG VENDOR .....41 SHOP .....42 FRIEND/RELATIVE .....43 OTHER _____ 46 (SPECIFY) DID NOT CONSULT SOURCE .....95 DON'T KNOW 98	→ 330
319D	How long does it take to go to this place?	MINUTES ..... [ ][ ][ ] DON'T KNOW 98	→ 330
328	Do you know of a place where you can obtain a method of family planning?	YES .....1 NO 2	→ 330
329	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME AND/OR LOCATION OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME AND/OR LOCATION OF PLACE)	GOVERNMENT HOSPITAL .....11 HEALTH CENTER .....12 HEALTH STATION/CLINIC .....13 HEALTH POST .....14 COMMUNITY-BASED OUTLET .....15 OTHER GOVERNMENT _____16 (SPECIFY) NONGOVERNMENTAL (NGO) HEALTH FACILITY .....21 COMMUNITY-BASED OUTLETS .....22 OTHER NGO _____26 (SPECIFY) PRIVATE MEDICAL PRIVATE HOSPITAL .....31 PRIVATE DOCTOR/CLINIC .....32 PHARMACY .....33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE DRUG VENDOR .....41 SHOP .....42 FRIEND/RELATIVE .....43 OTHER _____ 46 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
330	In the last 12 months, were you visited by a field worker who talked to you about family planning?	YES .....1 NO 2	
331	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES .....1 NO 2	 →401
332	Did any staff member at the health facility speak to you about family planning methods?	YES .....1 NO 2	

SECTION 4A. PREGNANCY, POSTNATAL CARE AND BREASTFEEDING

401 CHECK 224:

ONE OR MORE BIRTHS IN MESKEREM 1987 OR LATER ☐

NO BIRTHS IN MESKEREM 1987 OR LATER ☐ → 486

402 ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1987 E.C. OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL SHEETS).

Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately)

		LAST BIRTH	NEXT-TO-LAST BIRTH
403	LINE NUMBER FROM 212	LINE NUMBER ..... ☐☐	LINE NUMBER ..... ☐☐
404	FROM 212 AND 216	NAME _____ ALIVE ☐ DEAD ☐	NAME _____ ALIVE ☐ DEAD ☐
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN ..... 1 (SKIP TO 406A) LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 406A)	THEN ..... 1 (SKIP TO 422) LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 422)
406	How much longer would you like to have waited?	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ DON'T KNOW 998	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ DON'T KNOW 998
406A	During this pregnancy did you stop eating specific types of food that you normally eat, for cultural reasons?	YES ..... 1 NO ..... 2 (SKIP TO 407)	
406B	What did you stop eating? Anything else? RECORD ALL MENTIONED	MILK ..... A CHEESE, BUTTER ..... B ANY KIND OF MEAT ..... C ANY KIND OF VEGETABLE ..... D ANY KIND OF FRUIT ..... E OTHER _____ X (SPECIFY)	
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL ..... A OTHER PERSON TRAINED TRADITIONAL BIRTH ATTENDANT ..... B UNTRAINED TRADITIONAL BIRTH ATTENDANT ..... C OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 415)	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS..... [ ][ ] DON'T KNOW 98	
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES..... [ ][ ] DON'T KNOW 98	
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE [ ] (SKIP TO 412) MORE THAN ONCE OR DON'T KNOW [ ]	
411	How many months pregnant were you the last time you received antenatal care?	MONTHS..... [ ][ ] DON'T KNOW 98	
412	During this pregnancy, were any of the following done at least once?	YES NO WEIGHT.....1 2 HEIGHT.....1 2 BLOOD PRESSURE.....1 2 URINE SAMPLE .....1 2 BLOOD SAMPLE.....1 2	
	Were you weighed? Was your height measured? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?		
413	Were you told about the signs of pregnancy complications?	YES ..... 1 NO.....2 (SKIP TO 415) DON'T KNOW 8	
414	Were you told where to go if you had these complications?	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	
415A	During this pregnancy, how many times did you get this injection?	TIMES ..... [ ] DON'T KNOW 8	
418	During this pregnancy, did you have difficulty with your vision during the daylight?	YES ..... 1 NO..... 2 DON'T KNOW 8	
419	During this pregnancy, did you suffer from night blindness [USE LOCAL TERM]?	YES ..... 1 NO..... 2 DON'T KNOW 8	
420	During this pregnancy, were you given or did you buy any drugs in order to prevent you from getting malaria?	YES ..... 1 NO.....2 (SKIP TO 422) DON'T KNOW 8	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
421	Which drug was that? RECORD ALL MENTIONED.	FANSIDAR ..... A CHLOROQUINE ..... B PROGUANIL ..... C OTHER_____ X (SPECIFY) DON'T KNOW ..... Z	
422	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
423	Was (NAME) weighed at birth?	YES ..... 1 NO ..... 2 (SKIP TO 425) ← DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 425) ← DON'T KNOW 8
424	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD ..... 1 [ ][ ][ ][ ] GRAMS FROM RECALL ..... 2 [ ][ ][ ][ ] DON'T KNOW 99998	GRAMS FROM CARD ..... 1 [ ][ ][ ][ ] GRAMS FROM RECALL ..... 2 [ ][ ][ ][ ] DON'T KNOW 99998
425	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL ..... A OTHER PERSON TRAINED TRADITIONAL BIRTH ATTENDANT ..... B UNTRAINED TRADITIONAL BIRTH ATTENDANT ..... C RELATIVE/FRIEND/ NEIGHBOUR ..... D OTHER_____ X (SPECIFY) NO ONE ..... Y	HEALTH PROFESSIONAL ..... A OTHER PERSON TRAINED TRADITIONAL BIRTH ATTENDANT ..... B UNTRAINED TRADITIONAL BIRTH ATTENDANT ..... C RELATIVE/FRIEND/ NEIGHBOUR ..... D OTHER _____ X (SPECIFY) NO ONE ..... Y
426	Where did you give birth to (NAME)?	HOME YOUR HOME ..... 11 (SKIP TO 428) ← OTHER HOME ..... 12 GOVERNMENT HOSPITAL ..... 21 HEALTH CENTER ..... 22 HEALTH STATION/CLINIC ..... 23 OTHER GOV'T_____ 26 (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... 31 PRIVATE MEDICAL PVT. HOSPITAL ..... 41 PVT. DOCTOR/CLINIC ..... 42 OTHER PVT. _____ 46 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 428) ←	HOME YOUR HOME ..... 11 (SKIP TO 428) ← OTHER HOME ..... 12 GOVERNMENT HOSPITAL ..... 21 HEALTH CENTER ..... 22 HEALTH STATION/CLINIC ..... 23 OTHER GOV'T _____ 26 (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... 31 PRIVATE MEDICAL PVT. HOSPITAL ..... 41 PVT. DOCTOR/CLINIC ..... 42 OTHER PVT._____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 428) ←

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
427	Was (NAME) delivered by caesarian section?	YES ..... 1 (SKIP TO 432) NO 2	YES ..... 1 (SKIP TO 434) NO 2
428	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES ..... 1 NO ..... 2 (SKIP TO 432)	YES ..... 1 NO ..... 2 (SKIP TO 434)
429	How many days or weeks after the delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	DAYS AFTER DEL ..... 1 WEEKS AFTER DEL ..... 2 DON'T KNOW 998	
430	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL ..... 1 OTHER PERSON TRAINED TRADITIONAL BIRTH ATTENDANT ..... 2 UNTRAINED TRADITIONAL BIRTH ATTENDANT ..... 3 OTHER_____ 6 (SPECIFY)	
431	Where did this first check take place?	HOME YOUR HOME ..... 11 OTHER HOME ..... 12 GOVERNMENT HOSPITAL ..... 21 HEALTH CENTER ..... 22 HEALTH STATION/CLINIC ..... 23 HEALTH POST ..... 24 OTHER GOV'T_____ 25 (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... 31 PRIVATE MEDICAL PVT. HOSPITAL ..... 41 PVT. DOCTOR/CLINIC ..... 42 OTHER PVT. _____ 46 (SPECIFY) OTHER_____ 96 (SPECIFY)	
432	In the first two months after delivery, did you receive a vitamin A dose like this? SHOW CAPSULE.	YES ..... 1 NO 2	
432A	CHECK 404: CHILD ALIVE?	ALIVE DEAD (SKIP TO 433)	
432C	How many days after birth did you start exposing NAME to sunlight?	NOT STARTED ..... 000 DAYS ..... 1 WEEKS ..... 2 MONTHS 3	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
433	Has your period returned since the birth of (NAME)?	YES ..... 1 (SKIP TO 435) NO ..... 2 (SKIP TO 436)	
434	Did your period return between the birth of (NAME) and your next pregnancy? NOTE: IF BORN AT SAME TIME AS LAST BIRTH, RESPONSE SHOULD BE THE SAME AS Q 433 FOR THE LAST BIRTH.		YES ..... 1 NO ..... 2 (SKIP TO 438)
435	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS ..... [ ][ ] DON'T KNOW 98	MONTHS ..... [ ][ ] DON'T KNOW 98
436	CHECK 226: RESPONDENT PREGNANT?	NOT PREG-NANT PREGNANT OR UNSURE (SKIP TO 438)	
437	Have you resumed sexual relations since the birth of (NAME)?	YES ..... 1 NO ..... 2 (SKIP TO 439)	
438	For how many days or months after the birth of (NAME) did you <u>not</u> have sexual relations?	DAYS ..... 1 [ ][ ] MONTHS ..... 2 [ ][ ] DON'T KNOW 998	DAYS ..... 1 [ ][ ] MONTHS ..... 2 [ ][ ] DON'T KNOW 998
439	Did you ever breastfeed (NAME)?	YES ..... 1 NO ..... 2 (SKIP TO 444)	YES ..... 1 NO ..... 2 (SKIP TO 444)
440	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 [ ][ ]	IMMEDIATELY ..... 000 HOURS ..... 1 [ ][ ] DAYS ..... 2 [ ][ ]
440A	Did you squeeze out and throw away the first milk?	YES ..... 1 NO 2	YES ..... 1 NO 2
441	CHECK 404: CHILD ALIVE?	ALIVE DEAD (SKIP TO 443)	ALIVE DEAD (SKIP TO 443)

442	Are you still breastfeeding (NAME)?	YES ..... 1 (SKIP TO 445) NO 2	YES ..... 1 (SKIP TO 445) NO 2
		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
442A	Why did you stop breastfeeding?	MOTHER ILL/WEAK ..... 01 CHILD ILL/WEAK ..... 02 CHILD DIED ..... 03 NIPPLE/BREAST PROBLEM ..... 04 NOT ENOUGH MILK ..... 05 MOTHER WORKING ..... 06 CHILD REFUSED ..... 07 WEANING AGE/AGE TO STOP ... 08 BECAME PREGNANT ..... 09 STARTED USING CONTRACEPTION ..... 10 OTHER_____ 96 SPECIFY	
443	For how many months did you breastfeed (NAME)?	MONTHS ..... [ ][ ] DON'T KNOW 98	MONTHS ..... [ ][ ] DON'T KNOW 98
444	CHECK 404: CHILD ALIVE?	ALIVE [ ] (SKIP TO 447) DEAD [ ] (GO BACK TO 405 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 451)	ALIVE [ ] (SKIP TO 447) DEAD [ ] (GO BACK TO 405 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 451)
445	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS ..... [ ][ ]	NUMBER OF NIGHTTIME FEEDINGS ..... [ ][ ]
446	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS ..... [ ][ ]	NUMBER OF DAYLIGHT FEEDINGS ..... [ ][ ]
447	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

		LAST BIRTH NAME _____		NEXT-TO-LAST BIRTH NAME _____	
448	Now I would like to ask you about the types of foods [NAME] has been fed over the last seven days, including yesterday. How many days during last seven days was [NAME] given each of the following? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, ASK: In total, how many times yesterday during the day or at night was [NAME] given [ITEM]?	LAST 7 DAYS NUMBER OF DAYS	YESTERDAY/ LAST NIGHT NUMBER OF TIMES	LAST 7 DAYS NUMBER OF DAYS	YESTERDAY/ LAST NIGHT NUMBER OF TIMES
A	Plain water?	A	A	A	A
B	Milk other than breast milk?	B	B	B	B
C	Fruit juice?	C	C	C	C
D	Any other liquids such as sugar water, tea, coffee, carbonated drinks, or soup broth?	D	D	D	D
E	Any food made from grains e.g. millet, sorghum, maize, rice, wheat, barely, teff, oats?	E	E	E	E
F	Any food made from pumpkins, carrots, red sweet potatoes, green leafy vegetables, mango, papaya?	F	F	F	F
G	Any other food made from roots or tubers [e.g. white potatoes, cassava, enset or other local roots/tubers]?	G	G	G	G
H	Any other fruits and vegetables [e.g. bananas, apples, avocados, tomatoes]?	H	H	H	H
I	Meat, poultry, fish, egg, cheese, or yoghurt?	I	I	I	I
J	Any food made from legumes [e.g. lentils, beans, soybeans, pulses, or peanuts]?	J	J	J	J
K	Any food made with oil, fat, or butter?	K	K	K	K
	IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.				
449	How many times was (NAME) fed mashed or pureed food or solid or semi-solid food yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES..... DON'T KNOW 8		NUMBER OF TIMES..... DON'T KNOW 8	
450		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.	

SECTION 4B. IMMUNIZATION AND HEALTH

451	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1987 E.C OR LATER. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL SHEETS).		
452	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER..... [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER..... [ ][ ]
453	FROM 212 AND 216	NAME _____ ALIVE [ ] ↓ DEAD [ ] ↓ (GO TO 453 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 481)	NAME _____ ALIVE [ ] ↓ DEAD [ ] ↓ (GO TO 453 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 481)
454	Did (NAME) receive a Vitamin A dose like this during the last 6 months? SHOW CAPSULE.	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
455	Do you have a card/paper where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN ..... 1 → (SKIP TO 457) YES, NOT SEEN ..... 2 → (SKIP TO 459) NO CARD/PAPER..... 3	YES, SEEN..... 1 → (SKIP TO 457) YES, NOT SEEN ..... 2 → (SKIP TO 459) NO CARD/PAPER..... 3
456	Did you ever have a vaccination card/paper for (NAME)?	YES ..... 1 → (SKIP TO 459) NO 2	YES ..... 1 → (SKIP TO 459) NO 2

457	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD/PAPER. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.		DAY	MONTH	YEAR		DAY	MONTH	YEAR
	BCG	BCG				BCG			
	POLIO 0	POLIO 0				POLIO 0			
	POLIO 1	POLIO 1				POLIO 1			
	POLIO 2	POLIO 2				POLIO 2			
	POLIO 3	POLIO 3				POLIO 3			
	DPT 1	DPT 1				DPT 1			
	DPT 2	DPT 2				DPT 2			
	DPT 3	DPT 3				DPT 3			
	MEASLES	MEASLES				MEASLES			

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
458	Has (NAME) received any vaccinations that are not recorded on this card/paper, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDANT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINE(S).	YES .....1 PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457. THEN: (SKIP TO 461) NO .....2 (SKIP TO 461) DON'T KNOW 8	YES ..... 1 PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457. THEN: (SKIP TO 461) NO ..... 2 (SKIP TO 461) DON'T KNOW 8
459	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES ..... 1 NO .....2 (SKIP TO 463) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 463) DON'T KNOW 8
460	Please tell me if (NAME) received any of the following vaccinations:		
460A	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
460B	Polio vaccine, that is, drops in the mouth?	YES ..... 1 NO .....2 (SKIP TO 460E) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 460E) DON'T KNOW 8
460C	When was the first polio vaccine received, just after birth or later?	JUST AFTER BIRTH..... 1 LATER..... 2	JUST AFTER BIRTH ..... 1 LATER 2
460D	How many times was the polio vaccine received?	NUMBER OF TIMES..... [ ]	NUMBER OF TIMES ..... [ ]
460E	DPT 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 460G) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 460G) DON'T KNOW 8
460F	How many times?	NUMBER OF TIMES..... [ ]	NUMBER OF TIMES ..... [ ]
460G	An injection to prevent measles?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
461	Were any of the vaccinations (NAME) received during the last three years given as a part of a national immunization day campaign	YES ..... 1 NO .....2 (SKIP TO 463) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 463) DON'T KNOW 8
462	At which national immunization day campaigns did (NAME) receive vaccinations? RECORD ALL MENTIONED.	TIKEMT/HIDAR 1990 CAMPAIGIN .....A TIKEMT/HIDAR 1991 CAMPAIGIN .....B TIKEMT/HIDAR 1992 CAMPAIGIN C	TIKEMT/HIDAR 1990 CAMPAIGIN .....A TIKEMT/HIDAR 1991 CAMPAIGIN .....B TIKEMT/HIDAR 1992 CAMPAIGIN C

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
463	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
464	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 466) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 466) DON'T KNOW 8
465	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, fast breaths?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
466	CHECK 463 AND 464: FEVER OR COUGH?	"YES" IN 463 OR 464 OTHER (SKIP TO 472)	"YES" IN 463 OR 464 OTHER (SKIP TO 472)
467	Did you seek advice or treatment for the fever/cough?	YES ..... 1 NO ..... 2 (SKIP TO 472)	YES ..... 1 NO ..... 2 (SKIP TO 472)
468	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	GOVERNMENT HOSPITAL ..... A HEALTH CENTER ..... B HEALTH STATION/CLINIC ..... C HEALTH POST ..... D COMMUNITY-BASED OUTLET .. E OTHER GOV'T _____ F (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... G COMMUNITY-BASED OUTLET .. H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL ..... J PVT.DOCTOR/CLINIC ..... K PHARMACY ..... L OTHER PVT. MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR ..... N SHOP ..... O TRAD. PRACTITIONER ..... P OTHER _____ X (SPECIFY)	GOVERNMENT HOSPITAL ..... A HEALTH CENTER ..... B HEALTH STATION/CLINIC ..... C HEALTH POST ..... D COMMUNITY-BASED OUTLET .. E OTHER GOV'T _____ F (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... G COMMUNITY-BASED OUTLET .. H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL ..... J PVT.DOCTOR/CLINIC ..... K PHARMACY ..... L OTHER PVT. MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR ..... N SHOP ..... O TRAD. PRACTITIONER ..... P OTHER _____ X (SPECIFY)
469	CHECK 463: HAD FEVER?	"YES" IN 463 "NO"/"DK" IN 463 (SKIP TO 472)	"YES" IN 463 "NO"/"DK" IN 463 (SKIP TO 472)
470	Did (NAME) take any drugs for the fever?	YES ..... 1 NO ..... 2 (SKIP TO 472) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 472) DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
471	What drugs did (NAME) take? RECORD ALL MENTIONED. IF THE RESPONDANT HAS GIVEN A DRUG FOR THE CHILD BUT DOESN'T KNOW THE NAME OF THE DRUG, ASK TO SEE THE PACKET OF DRUGS SHE GAVE THE CHILD. BUT IF SHE DOESN'T HAVE ANY SAMPLE LEFT, THE INTERVIEWER HAS TO SHOW THE SAMPLES SHE HAS TO THE RESPONDANT INORDER TO HELP IDENTIFY.	FANSIDAR ..... A CHLOROQUINE ..... B QUININE ..... C ASPIRIN/PARACETAMOL ..... D IBUPROFEN/ACETAMINOPHEN .... E ANTIBIOTICS (TETRACYCLINE, AMPICILINE, BACTRIUM, ETC...) .... F OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	FANSIDAR ..... A CHLOROQUINE ..... B QUININE ..... C ASPIRIN/PARACETAMOL ..... D IBUPROFEN/ACETAMINOPHEN ... E ANTIBIOTICS (TETRACYCLINE, AMPICILINE, BACTRIUM, ETC...) ... F OTHER _____ X (SPECIFY) DON'T KNOW ..... Z
472	Has (NAME) had diarrhea in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 480) ← DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 480) ← DON'T KNOW 8
473	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink?	LESS ..... 1 ABOUT THE SAME ..... 2 MORE ..... 3 NOTHING TO DRINK ..... 4 DON'T KNOW 8	LESS ..... 1 ABOUT THE SAME ..... 2 MORE ..... 3 NOTHING TO DRINK ..... 4 DON'T KNOW 8
474	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, more than usual, or nothing to eat?	LESS ..... 1 ABOUT THE SAME ..... 2 MORE ..... 3 STOPPED FOOD ..... 4 NEVER GAVE FOOD ..... 5 DON'T KNOW 8	LESS ..... 1 ABOUT THE SAME ..... 2 MORE ..... 3 STOPPED FOOD ..... 4 NEVER GAVE FOOD ..... 5 DON'T KNOW 8
475	Was he/she given any of the following to drink: Fluid from ORS packet? Home made sugar and salt solution? Other home made fluid?	YES NO DK Fluid from ORS packet 1 2 8 Home made sugar and salt solution 1 2 8 Other home made fluid 1 2 8	YES NO DK Fluid from ORS packet 1 2 8 Home made sugar and salt solution 1 2 8 Other home made fluid 1 2 8
476	Was anything (else) given to treat the diarrhea?	YES ..... 1 NO ..... 2 (SKIP TO 478) ← DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 478) ← DON'T KNOW 8
477	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	PILL OR SYRUP ..... A INJECTION ..... B (I.V.) INTRAVENOUS ..... C HOME REMEDIES/ HERBAL MEDICINES ..... D OTHER _____ X (SPECIFY)	PILL OR SYRUP ..... A INJECTION ..... B (I.V.) INTRAVENOUS ..... C HOME REMEDIES/ HERBAL MEDICINES ..... D OTHER _____ X (SPECIFY)
478	Did you seek advice or treatment for the diarrhea?	YES ..... 1 NO ..... 2 (SKIP TO 480) ←	YES ..... 1 NO ..... 2 (SKIP TO 480) ←

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
479	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	GOVERNMENT HOSPITAL ..... A HEALTH CENTER ..... B HEALTH STATION/CLINIC..... C HEALTH POST ..... D COMMUNITY-BASED OUTLET .. E OTHER GOV'T _____ F (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... G COMMUNITY-BASED OUTLET .. H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL ..... J PVT.DOCTOR/CLINIC ..... K PHARMACY ..... L OTHER PVT. MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR ..... N SHOP ..... O TRAD. PRACTITIONER..... P OTHER _____ X (SPECIFY)	GOVERNMENT HOSPITAL..... A HEALTH CENTER ..... B HEALTH STATION/CLINIC..... C HEALTH POST ..... D COMMUNITY-BASED OUTLET.. E OTHER GOV'T _____ F (SPECIFY) NONGOVERNMENTAL (NGO) NGO HEALTH FACILITY ..... G COMMUNITY-BASED OUTLET.. H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL..... J PVT.DOCTOR/CLINIC ..... K PHARMACY ..... L OTHER PVT. MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR..... N SHOP ..... O TRAD. PRACTITIONER ..... P OTHER _____ X (SPECIFY)
480		GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.	GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
481	CHECK 453, ALL COLUMNS: NUMBER OF LIVING CHILDREN BORN IN 1987 E.C OR LATER ONE OR MORE ☐ ↓ NONE ☐		→ 486
482	The last time you fed your child(ren) using your hands, did you wash your hands immediately before feeding (him/her/them)?	YES .....1 NO 2	
483	The last time you had to clean (your child/one of your children) after he/she defecated, did you wash your hands immediately afterwards?	YES .....1 NO 2	
484	What usually happens with your (youngest) child's stools when he/she does not use any toilet facility?	ALWAYS USE TOILET/LATRINE .....01 THROW IN THE TOILET/LATRINE .....02 THROW OUTSIDE THE DWELLING.....03 THROW OUTSIDE THE YARD.....04 BURY IN THE YARD.....05 RINSED AWAY .....06 NOT DISPOSED OF .....07 OTHER _____ 96 (SPECIFY)	
485	CHECK 475, ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET/ NOT ASKED ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐		→ 487
486	Have you ever heard of a special product called ORS in a packet you can get for the treatment of diarrhea?	YES .....1 NO 2	
487	CHECK 218: HAS ONE OR MORE CHILDREN LIVING WITH HER ☐ ↓ HAS NO CHILDREN LIVING WITH HER/ NOT ASKED ☐		→ 488A
488	When (your child/one of your children) is seriously ill, can you decide by yourself whether the child should be taken for medical treatment?	YES .....1 NO .....2 DEPENDS 3	
488A	The last time you prepared a meal for your family, before starting did you wash your hands?	YES .....1 NO .....2 NEVER PREPARED MEALS 3	
489	The last time you were sick did you seek medical treatment?	YES .....1 NO 2	→ 501

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
489A	Why did you not seek medical treatment? Any other reasons? RECORD ALL MENTIONED	DON'T KNOW WHERE TO GO.....A DID NOT GET PERMISSION TO GO..... B NO MONEY FOR TREATMENT ..... C NO HEALTH FACILITY NEARBY ..... D NO TRANSPORT.....E DID NOT WANT TO GO ALONE.....F CONCERN THAT THERE MAY NOT BE A FEMALE HEALTH PROVIDER..... G OTHER REASONS _____ X (SPECIFY)	

SECTION 5. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married or living with a man?	CURRENTLY MARRIED ..... 1 LIVING WITH A MAN..... 2 NOT IN UNION 3	→ 505
502	Have you ever been married or lived with a man?	FORMERLY MARRIED ..... 1 LIVED WITH A MAN ..... 2 NEVER MARRIED 3	→ 507 → 601
504	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED ..... 1 DIVORCED ..... 2 SEPARATED 3	→ 507
505	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER..... 1 STAYING ELSEWHERE..... 2	
506	ASK NAME OF HUSBAND. THEN GO BACK TO THE HOUSEHOLD QUESTIONNAIRE AND COPY THE LINE NUMBER. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO..... [ ][ ]	
506A	Does your husband/partner have any other wives besides yourself?	YES ..... 1 NO..... 2	→ 507
506B	How many other wives does he have?	NUMBER..... [ ][ ] DON'T KNOW 98	→ 507
506C	Are you the first, second, ... wife?	RANK ..... [ ][ ]	
507	Have you been married or lived with a man only once, or more than once?	ONCE..... 1 MORE THAN ONCE 2	
508	CHECK 507: 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 we will talk 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	→ 601
509	How old were you when you started living with him?	AGE..... [ ][ ]	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NOT ASKED ☐ ↓ NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐ →		614
602	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ 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? PREGNANT ☐ ↓ 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 (A/ANOTHER) CHILD ..... 1 NO MORE/NONE ..... 2 SAYS SHE CAN'T GET PREGNANT ..... 3 UNDECIDED/DON'T KNOW 8	 → 604 → 609 → 608
603	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	 → 609
604	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ →		610
605	CHECK 310: USING A METHOD? NOT ASKED ☐ ↓ NOT CURRENTLY USING ☐ ↓ CURRENTLY USING ☐ →		608
606	CHECK 603: NOT ASKED ☐ ↓ 24 OR MORE MONTHS OR 2 OR MORE YEARS ☐ ↓ 00-23 MONTHS OR 00-01 YEARS ☐ →		610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
607	CHECK 602: WANTS A/ANOTHER CHILD ☐ You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why? WANTS NO (MORE) CHILDREN ☐ You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why? RECORD ALL MENTIONED.	NOT MARRIED ..... A FERTILITY-RELATED REASONS NOT HAVING SEX ..... B INFREQUENT SEX ..... C MENOPAUSAL/HYSTERECTOMY. ..... D SUBFECUND/INFECUND ..... E POSTPARTUM AMENORRHEIC ..... F BREASTFEEDING ..... G 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 HEALTH CONCERNS ..... O FEAR OF SIDE EFFECTS ..... P LACK OF ACCESS/TOO FAR ..... Q COST TOO MUCH ..... R INCONVENIENT TO USE ..... S INTERFERES WITH BODY'S NATURAL PROCESSES ..... T OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
608	In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?	BIG PROBLEM ..... 1 SMALL PROBLEM ..... 2 NO PROBLEM ..... 3 SAYS SHE CAN'T GET PREGNANT 4	
609	CHECK 310: USING A METHOD? NOT ASKED ☐ NOT CURRENTLY USING ☐ CURRENTLY USING ☐		→ 614
610	Do you think you will use a method to delay or avoid pregnancy at any time in the future?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ 612

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
611	Which method would you prefer to use? FOR WOMAN WHO MENTIONS MORE THAN ONE METHOD RECORD METHOD SHE PEREFERS MOST	FEMALE STERILIZATION ..... 01 MALE STERILIZATION ..... 02 PILL ..... 03 IUD ..... 04 INJECTIONS ..... 05 IMPLANTS..... 06 CONDOM ..... 07 DIAPHRAGM/FOAM/JELLY..... 08 PERIODIC ABSTINENCE ..... 09 WITHDRAWAL ..... 10 OTHER _____ 96 (SPECIFY) UNSURE 98	→ 614
612	What is the main reason that you think you will not use a method at any time in the future?	NOT MARRIED ..... 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX ..... 22 MENOPAUSAL/HYSTERECTOMY ..... 23 SUBFECUND/INFECUND ..... 24 WANTS AS MANY CHILDREN AS POSSIBLE ..... 26 OPPOSITION TO USE RESPONDENT OPPOSED..... 31 HUSBAND OPPOSED ..... 32 OTHERS OPPOSED..... 33 RELIGIOUS PROHIBITION ..... 34 LACK OF KNOWLEDGE KNOWS NO METHOD..... 41 KNOWS NO SOURCE ..... 42 METHOD-RELATED REASONS HEALTH CONCERNS..... 51 FEAR OF SIDE EFFECTS ..... 52 LACK OF ACCESS/TOO FAR ..... 53 COST TOO MUCH..... 54 INCONVENIENT TO USE..... 55 INTERFERES WITH BODY'S NORMAL PROCESSES..... 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 614
613	Would you ever use a method if you were married?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
614	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.	NUMBER ..... ☐☐ OTHER _____ 96 (SPECIFY)	→ 616
615	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?	BOYS GIRLS EITHER NUMBER ..... ☐☐ .... ☐☐ .... ☐☐ OTHER 999996 _____ (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
616	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE ..... 1 DISAPPROVE ..... 2 DON'T KNOW/UNSURE 3	
617	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine? Pamphlet/Poster Community events	YES NO RADIO ..... 1 2 TELEVISION ..... 1 2 NEWSPAPER OR MAGAZINE .... 1 2 PAMPHLET/POSTER ..... 1 2 COMMUNITY EVENTS 1 2	
619	In the last few months, have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES ..... 1 NO 2	→ 621
620	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBAND/PARTNER ..... A MOTHER ..... B FATHER ..... C SISTER(S) ..... D BROTHER(S) ..... E DAUGHTER ..... F SON ..... G MOTHER-IN-LAW ..... H FRIENDS/NEIGHBORS ..... I OTHER _____ X (SPECIFY)	
621	CHECK 501 CURRENTLY MARRIED ☐ ↓ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐		→ 701
621A	CHECK 311/311A: ANY CODE CIRCLED ☐ ↓ NO CODE CIRCLED ☐		→ 622
621B	You have told me that you are currently using contraception. 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)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
622	Now I want to ask you about your husband's/partner's views on family planning. Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES ..... 1 DISAPPROVES ..... 2 DON'T KNOW 8	
623	How often have you talked to your husband/partner about family planning in the past year?	NEVER ..... 1 ONCE OR TWICE ..... 2 MORE OFTEN 3	
624	Do you think your husband/partner wants 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 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 501 AND 502: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ NEVER MARRIED AND NEVER LIVED WITH A MAN ☐		→703 →708
702	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS.... ☐☐	
702A	Is your husband able to read and write a simple sentence?	YES .....1 NO .....2 DON'T KNOW 8	
703	Did your (last) husband/partner ever attend formal school?	YES .....1 NO 2	→706
705	What was the highest grade he completed?	GRADE..... ☐☐ TECHNICAL/VOCATIONAL CERTIFICATE.....13 UNIVERSITY/COLLEGE DIPLOMA.....14 UNIVERSITY/COLLEGE DEGREE.....15 DON'T KNOW 98	
706	CHECK 701: 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? DO NOT RECORD NAME OR TYPE OF ESTABLISHMENT. RECORD THE ACTUAL TYPE OF WORK PERFORMED BY HIM. MEN WHO WORK AS AGRICULTURAL WORKERS SHOULD BE RECORDED AS "SKILLED AGRICULTURAL WORKERS" OR "NON SKILLED AGRICULTURAL WORKERS".	☐☐ _____ _____	
708	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. Are you currently doing any of these things or any other work?	YES .....1 NO 2	→710
709	Aside from housework, have you done any work in the last 12 months?	YES .....1 NO 2	→720
710	What is your usual occupation, that is, what kind of work do you mainly do? DO NOT RECORD NAME OR TYPE OF ESTABLISHMENT. RECORD THE ACTUAL TYPE OF WORK PERFORMED BY HER. MOMEN WHO WORK AS AGRICULTURAL WORKERS SHOULD BE RECORDED AS "SKILLED AGRICULTURAL WORKERS" OR "NON SKILLED AGRICULTURAL WORKERS".	☐☐ _____ _____ _____	
711	CHECK 710:: WORKS IN AGRICULTURE ☐ DOES NOT WORK IN AGRICULTURE ☐		→713
712	Do you work mainly on your own land, on family land or do you work on land belonging to a relative, on land that you rent from someone else, or do you work on someone else's land?	OWN LAND/FAMILY LAND .....1 RELATIVE'S LAND .....2 RENTED LAND .....3 SOMEONE ELSE'S LAND 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712A	Do you usually work throughout the agricultural season, or do you work only part of the agricultural season?	THROUGHOUT THE AGRICULTURAL SEASON ....1 PART OF THE AGRICULTURAL SEASON ....2 ONCE IN A WHILE....3	►714
713	Do you usually work throughout the year, or do you work only part of the year?	THROUGHOUT THE YEAR....1 SEASONALLY/PART OF THE YEAR....2 ONCE IN A WHILE....3	
714	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	
715	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	►718
716	Who mainly decides how the money you earn will be used?	RESPONDENT....1 HUSBAND/PARTNER....2 RESPONDENT AND HUSBAND/PARTNER JOINTLY....3 SOMEONE ELSE....4 RESPONDENT AND SOMEONE ELSE JOINTLY....5	
718	Do you usually work at home or away from home?	HOME....1 AWAY....2	
720	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING OR NOT PRESENT)	PRES/ LISTEN. / PRES/ NOT LISTEN. / NOT PRS CHILDREN <10 ....1 / 2 / 8 HUSBAND ....1 / 2 / 8 OTHER MALES ....1 / 2 / 8 OTHER FEMALES....1 / 2 / 8	
721	Sometimes a husband is annoyed or angered by things which his wife does. 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 8. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	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 her, 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..... [ ][ ]	
802	CHECK 801: TWO OR MORE BIRTHS [ ] ↓ ONLY ONE BIRTH (RESPONDENT ONLY) [ ] →		901
803	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS ..... [ ][ ]	

RECORD NAMES OF ALL SIBLINGS

804	What was the name given to your oldest (next oldest) brother or sister?	[1] _____	[2] _____	[3] _____	[4] _____	[5] _____
805	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
806	Is (NAME) still alive?	YES ..... 1 NO ..... 2 (GO TO 808) DK ..... 8 (GO TO [2])	YES..... 1 NO ..... 2 (GO TO 808) DK..... 8 (GO TO [3])	YES ..... 1 NO ..... 2 (GO TO 808) DK ..... 8 (GO TO [4])	YES ..... 1 NO ..... 2 (GO TO 808) DK..... 8 (GO TO [5])	YES..... 1 NO..... 2 (GO TO 808) DK ..... 8 (GO TO [6])
807	How old is (NAME)?	[ ][ ] GO TO [2]	[ ][ ] GO TO [3]	[ ][ ] GO TO [4]	[ ][ ] GO TO [5]	[ ][ ] GO TO [6]
808	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
809	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]
810	Was (NAME) pregnant when she died?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
811	Did (NAME) die during childbirth?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
812	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
813	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

IF NO MORE BROTHERS OR SISTERS, GO TO 901

804	What was the name given to your oldest (next oldest) brother or sister?	[6] _____	[7] _____	[8] _____	[9] _____	[10] _____
805	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
806	Is (NAME) still alive?	YES ..... 1 NO .....2 (GO TO 808) DK .....8 (GO TO [7])	YES..... 1 NO ..... 2 (GO TO 808) DK..... 8 (GO TO [8])	YES ..... 1 NO.....2 (GO TO 808) DK .....8 (GO TO [9])	YES ..... 1 NO .....2 (GO TO 808) DK.....8 (GO TO [10])	YES..... 1 NO..... 2 (GO TO 808) DK ..... 8 (GO TO [11)
807	How old is (NAME)?	☐☐ GO TO [7]	☐☐ GO TO [8]	☐☐ GO TO [9]	☐☐ GO TO [10]	☐☐ GO TO [11)
808	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐
809	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [7]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [9]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [10]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [11)
810	Was (NAME) pregnant when she died?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO..... 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
811	Did (NAME) die during childbirth?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO..... 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
812	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
813	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO 901

804	What was the name given to your oldest (next oldest) brother or sister?	[11] _____	[12] _____	[13] _____	[14] _____	[15] _____
805	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
806	Is (NAME) still alive?	YES ..... 1 NO .....2 (GO TO 808) DK .....8 (GO TO [12])	YES..... 1 NO ..... 2 (GO TO 808) DK..... 8 (GO TO [13])	YES ..... 1 NO.....2 (GO TO 808) DK ..... 8 (GO TO [14])	YES ..... 1 NO .....2 (GO TO 808) DK.....8 (GO TO [15])	YES..... 1 NO..... 2 (GO TO 808) DK ..... 8 (GO TO [16)
807	How old is (NAME)?	☐☐ GO TO [12]	☐☐ GO TO [13]	☐☐ GO TO [14]	☐☐ GO TO [15]	☐☐ GO TO [16)
808	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐
809	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [12]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [13]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [14]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [15]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [16)
810	Was (NAME) pregnant when she died?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO..... 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
811	Did (NAME) die during childbirth?	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO 2	YES ..... 1 (GO TO 813) NO..... 2	YES ..... 1 (GO TO 813) NO 2	YES..... 1 (GO TO 813) NO..... 2
812	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
813	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO 901

SECTION 9: FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Have you ever heard of female circumcision? IF NO PROBE: Have you ever heard of the practice in which a girl may have parts of her genitals cut?	YES .....1 NO 2	→1001
902	Have you yourself ever been circumcised?	YES .....1 NO 2	→ 904
903	In some parts of Ethiopia, there is a type of circumcision, where the genital area is sewn closed. Was this done to you?	YES .....1 NO .....2 DON'T KNOW 8	
904	CHECK 214 AND 216: HAS AT LEAST ONE LIVING DAUGHTER ☐ ↓ HAS NO LIVING DAUGHTER ☐ → 910		
905	Have any of your daughters had been circumcised? IF YES: How many?	NUMBER CIRCUMCISED ..... ☐☐ NO DAUGHTER CIRCUMCISED 95	→ 910
906	To which of your daughters did this happen most recently? _____ (DAUGHTER'S NAME) INTERVIEWER: CHECK 212 AND RECORD THE LINE NUMBER FOR THE DAUGHTER	DAUGHTER'S LINE NUMBER FROM Q212 ..... ☐☐	
907	Was (NAME OF THE DAUGHTER FROM Q.906) genital area sewn closed?	YES .....1 NO .....2 DON'T KNOW 8	
908	How old was (NAME) 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	
909	Who did the circumcision?	TRADITIONAL TRAD. CIRCUMCISER .....1 TRAD. BIRTH ATTENDANT .....2 OTHER TRADITIONAL _____ 3 (SPECIFY) HEALTH PROFESSIONAL .....4 DON'T KNOW 8	
910	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: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to talk about something else. Have you ever heard of the virus HIV or an illness called AIDS?	YES ..... 1 NO 2	→ 1018
1001A	From which sources of information have you heard about AIDS? Any other sources? RECORD ALL MENTIONED.	RADIO ..... A TELEVISION ..... B NEWSPAPERS/MAGAZINES ..... C PAMPHLETS/POSTERS ..... D HEALTH WORKERS ..... E CHURCHES/MOSQUES ..... F SCHOOLS/TEACHERS ..... G COMMUNITY EVENT ..... H FRIENDS/RELATIVES ..... I WORK PLACE ..... J DRAMA/PERFORMANCE ..... K OTHER _____ X (SPECIFY)	
1002	Is there anything a person can do to avoid getting infected with HIV which is the virus that causes AIDS?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ 1010
1003	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX ..... A USE CONDOMS ..... B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER ..... C LIMIT NUMBER OF SEXUAL PARTNERS ..... D AVOID SEX WITH PROSTITUTES ..... E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS ..... F AVOID SEX WITH HOMOSEXUALS ..... G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY ... H AVOID BLOOD TRANSFUSIONS ..... I AVOID INJECTIONS WITH UNCLEAN NEEDLES ..... J AVOID KISSING ..... K AVOID MOSQUITO BITES ..... L SEEK PROTECTION FROM TRADITIONAL HEALER ..... M AVOID SHARING RAZORS/BLADES ..... N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
1004	CHECK 1003: NEITHER CODE 'C' NOR CODE 'D' CIRCLED ☐ ↓ CODE 'C' AND/OR CODE 'D' CIRCLED ☐		→ 1007
1005	In your view, is a person's chance of getting AIDS influenced by the number of sexual partners he or she has?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→ 1007

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1006	If a person has sex with only one partner, does this person have a greater or a lesser chance of getting AIDS than a person who has sex with many partners?	GREATER CHANCE OF AIDS.....1 LESSER CHANCE OF AIDS.....2	
1007	CHECK 1003: DID NOT MENTION USE OF CONDOMS DURING SEX (CODE'B' NOT CIRCLED) ☐ ↓ MENTIONED USE OF CONDOMS DURING SEX (CODE 'B' CIRCLED) ☐ →		1010
1008	Do you think that by using condoms during sexual intercourse a person decreases his/her chances of getting AIDS, increases his/her chances of getting AIDS, or does not make a difference?	DECREASES HIS CHANCES.....1 INCREASES HIS CHANCES .....2 DOESN'T MAKE A DIFFERENCE .....3 DON'T KNOW/UNSURE 8	
1010	Is it possible for a healthy-looking person to have the AIDS virus?	YES .....1 NO .....2 DON'T KNOW 8	
1011	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES .....1 NO .....2 UNSURE/ DON'T KNOW 8	
1012	Can the virus that causes AIDS be transmitted from a mother to a child?	YES .....1 NO .....2 DON'T KNOW .....8 →	1014
1013	When can the virus that causes AIDS be transmitted from a mother to a child? Any others times? RECORD ALL RESPONSES.	DURING PREGNANCY.....A AT DELIVERY .....B DURING BREASTFEEDING..... C OTHER TIMES. ..... D DON'T KNOW .....Z	
1014	CHECK 501: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		1016
1015	Have you ever talked about ways to prevent getting the virus that causes AIDS with your husband/the man you are living with?	YES .....1 NO 2	
1016	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE .....1 AVAILABLE TO COMMUNITY.....2 DK/NOT SURE.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1017	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES ..... 1 NO ..... 2 DK/NOT SURE/DEPENDS..... 8	
1018	CHECK 1001: KNOWS AIDS → Apart from AIDS, have you heard about (other) infections that can be transmitted through sexual contact? DOES NOT KNOW AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES ..... 1 NO 2	→ 1101
1019	In a man, what signs and symptoms would lead you to think that he has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN ..... A GENITAL DISCHARGE/DRIPPING ..... B FOUL SMELLING DISCHARGE ..... C BURNING PAIN ON URINATION ..... D REDNESS/INFLAMMATION IN GENITAL AREA ..... E SWELLING IN GENITAL AREA ..... F GENITAL SORES/ULCERS ..... G GENITAL WARTS ..... H BLOOD IN URINE ..... I LOSS OF WEIGHT ..... J IMPOTENCE ..... K NO SYMPTOMS..... L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
1020	In a woman, what signs and symptoms would lead you to think that she has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN ..... A GENITAL DISCHARGE..... B FOUL SMELLING DISCHARGE ..... C BURNING PAIN ON URINATION ..... D REDNESS/INFLAMMATION IN GENITAL AREA ..... E SWELLING IN GENITAL AREA ..... F GENITAL SORES/ULCERS ..... G GENITAL WARTS ..... H BLOOD IN URINE ..... I LOSS OF WEIGHT ..... J INABILITY TO GIVE BIRTH ..... K NO SYMPTOMS..... L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	

SECTION 11. SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER ..... 00 AGE IN YEARS ..... [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER .... 96 DON'T KNOW 98	→ 1114
1102	In order to know your risk of pregnancy we need to know about your recent sexual activity. When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO.	DAYS AGO .....1 [ ][ ] WEEKS AGO .....2 [ ][ ] MONTHS AGO .....3 [ ][ ] YEARS AGO .....4 [ ][ ]	→ 1111
1103	The last time you had sexual intercourse, was a condom used?	YES ..... 1 NO 2	
1104	What is your relationship to the man with whom you last had sex? IF "GIRLFRIEND" OR "FIANCEE", ASK: Was your boyfriend/fiance living with you when you last had sex? IF YES, RECORD '1'. IF NO, RECORD '2'.	WIFE/COHABITING PARTNER ..... 1 GIRLFRIEND/FIANCEE ..... 2 OTHER FRIEND ..... 3 CASUAL ACQUAINTANCE ..... 4 RELATIVE ..... 5 OTHER _____ 6 (SPECIFY)	→ 1106
1105	For how long have you had a sexual relationship with this man?	DAYS .....1 [ ][ ] WEEKS .....2 [ ][ ] MONTHS .....3 [ ][ ] YEARS .....4 [ ][ ]	
1106	Have you had sex with anyone else in the last 12 months?	YES ..... 1 NO 2	→ 1111
1107	The last time you had sexual intercourse with this other man, was a condom used?	YES ..... 1 NO 2	
1108	What is your relationship to the man with whom you last had sex? IF "GIRLFRIEND" OR "FIANCEE", ASK: Was your boyfriend/fiance living with you when you last had sex? IF YES, RECORD '1'. IF NO, RECORD '2'.	WIFE/COHABITING PARTNER ..... 1 GIRLFRIEND/FIANCEE ..... 2 OTHER FRIEND ..... 3 CASUAL ACQUAINTANCE ..... 4 RELATIVE ..... 5 OTHER _____ 6 (SPECIFY)	→ 1110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1109	For how long have you had a sexual relationship with this man?	DAYS .....1 [ ][ ] WEEKS .....2 [ ][ ] MONTHS .....3 [ ][ ] YEARS .....4 [ ][ ]	
1110	Altogether, with how many different men have you had sex in the last 12 months?	NUMBER OF PARTNERS..... [ ][ ]	
1111	Do you know of a place where one can get condoms?	YES ..... 1 NO 2	 → 1114
1112	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME AND/OR LOCATION OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME AND/OR LOCATION OF PLACE)	GOVERNMENT HOSPITAL .....11 HEALTH CENTER .....12 HEALTH STATION/CLINIC .....13 HEALTH POST .....14 COMMUNITY-BASED OUTLET .....15 OTHER GOVERNMENT _____ 16 (SPECIFY) NONGOVERNMENTAL (NGO) HEALTH FACILITY .....21 COMMUNITY-BASED OUTLETS.....22 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL PRIVATE HOSPITAL.....31 PRIVATE DOCTOR .....32 PHARMACY.....33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE DRUG VENDOR .....41 SHOP .....42 FRIEND/RELATIVE .....43 OTHER _____ 46 (SPECIFY)	
1113	If you wanted to, could you yourself get a condom?	YES ..... 1 NO ..... 2 DON'T KNOW/UNSURE..... 8	
1114	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING ..... [ ] HOUR ..... [ ][ ] MINUTES ..... [ ][ ]	

THANK YOU

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

_____

_____

_____

_____

_____

COMMENTS ON SPECIFIC QUESTIONS:

_____

_____

_____

_____

_____

ANY OTHER COMMENTS:

_____

_____

_____

_____

_____

SUPERVISOR'S OBSERVATIONS

_____

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NAME OF THE SUPERVISOR:_____ DATE: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

_____

_____

NAME OF EDITOR:_____ DATE: _____

CENTRAL STATISTICAL AUTHORITY
ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY
MAN'S QUESTIONNAIRE

IDENTIFICATION

REGION _____ ZONE _____

WOREDA _____ TOWN _____

KEBELE _____ ENUMERATION AREA _____

CLUSTER NUMBER .....

URBAN/RURAL: URBAN .....1 RURAL.....2

TYPE OF PLACE: LARGE CITY.....1 SMALL CITY.....2
TOWN.....3 COUNTRYSIDE.....4

NAME OF HOUSEHOLD HEAD _____

HOUSEHOLD NUMBER .....

NAME AND LINE NUMBER OF MAN _____

REGION [ ][ ]

CLUSTER NUMBER [ ][ ][ ]

URBAN/ RURAL [ ] TYPE OF PLACE [ ]

HOUSEHOLD NUMBER [ ][ ][ ]

LINE NUMBER OF MAN [ ][ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ] MONTH [ ][ ] YEAR 1 9 [ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	INTERVIEWER [ ][ ][ ]
RESULT*	_____	_____	_____	RESULT [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE

QUESTIONNAIRE	INTERVIEW	RESPONDENT'S NATIVE LANGUAGE	TRANSLATOR USED DURING INTERVIEW
AMARIGNA 1	AMARIGNA 1	AMARIGNA..... 1	YES 1
OROMIGNA 2	OROMIGNA..... 2	OROMIGNA..... 2	NO..... 2
TIGRIGNA 3	TIGRIGNA 3	TIGRIGNA 3	
SOMALIGNA 4	SOMALIGNA 4	SOMALIGNA 4	
AFARIGNA 5	AFARIGNA 5	AFARIGNA 5	
OTHER _____ 6 (SPECIFY)	OTHER _____ 6 (SPECIFY)	OTHER _____ 6 (SPECIFY)	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ][ ]	NAME _____ [ ][ ][ ]	[ ][ ]	[ ][ ]
DATE _____	DATE _____		

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SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M101	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING ..... [ ] HOUR ..... [ ][ ] MINUTES ..... [ ][ ]	
M102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	CITY ..... 1 TOWN ..... 2 COUNTRYSIDE 3	
M103	How long have you been living continuously in (NAME OF WOREDA OR TOWN)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS ..... [ ][ ] ALWAYS ..... 95 VISITOR 96	→ 105
M104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY ..... 1 TOWN ..... 2 COUNTRYSIDE 3	
M105	In what month and year were you born?	MONTH ..... [ ][ ] DON'T KNOW MONTH ..... 98 YEAR ..... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
M106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS .... [ ][ ]	
M107	Have you ever attended formal school?	YES ..... 1 NO 2	→ 111
M109	What is the highest grade you completed?	GRADE ..... [ ][ ] TECHNICAL / VOCATIONAL CERTIFICATE ..... 13 UNVERSITY/COLLEGE DIPLOMA ..... 14 UNVERSITY/COLLEGE DIGREE 15	
M110	CHECK 109: 00-06 [ ] ↓ 07 AND HIGHER [ ]		→ 114
M111	Now I would like you to read out loud as much of this sentence as you can. SHOW CARD TO RESPONDENT.	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)	→ 115

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M114	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
M115	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
M116	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL 4	
M117	What is your religion?	ORTHODOX ..... 1 CATHOLIC ..... 2 PROTESTANT ..... 3 MOSLEM ..... 4 TRADITIONAL ..... 5 OTHER _____ 6 (SPECIFY)	
M118	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP.	_____ [ ][ ]	
M119	Are you currently working?	YES ..... 1 NO 2	→122
M120	Have you done any work in the last 12 months?	YES ..... 1 NO 2	→201
M122	What is your occupation, that is, what kind of work do you mainly do? DO NOT RECORD NAME OR TYPE OF ESTABLISHMENT. RECORD THE ACTUAL TYPE OF WORK PERFORMED BY HIM. MEN WHO WORK AS AGRICULTURAL WORKERS SHOULD BE RECORDED AS “SKILLED AGRICULTURAL WORKERS” OR “NON SKILLED AGRICULTURAL WORKERS”.	_____ [ ][ ] _____ _____	

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M201	Now I would like to ask about your children. I am interested only in the children that are biologically yours. Have you ever had children?	YES ..... 1 NO 2	→ M207
M203	Are any of your children living with you now? IF YES: How many? IF NONE, RECORD '00'.	CHILDREN AT HOME ..... [ ][ ] NONE 00	
M205	Do you have any children who are alive but not living with you? IF YES: How many? IF NONE, RECORD '00'.	CHILDREN AWAY ..... [ ][ ] NONE 00	
M207	Do you have any children who have died? IF YES: How many? IF NONE, RECORD '00'.	CHILDREN DEAD ..... [ ][ ] NONE 00	
M208	SUM ANSWERS TO M203, M205, AND M207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL ..... [ ][ ]	
M209	CHECK M208: Just to make sure that I have this right: you have had in TOTAL _____ children during your life. Is that correct? **IF HE HAS NOT HAD CHILDREN (M208 IS '00')** Just to make sure I have this right: you have not had any children during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT M201-M208 AS NECESSARY.		
M210	CHECK M208: HAS HAD CHILDREN [ ] ↓ HAS NOT HAD ANY CHILDREN [ ] →		M301
M211	In what month and year was your last child born?	MONTH ..... [ ][ ] YEAR ..... [ ][ ][ ][ ]	
M212	What is the name of your last child?	_____ (NAME OF LAST CHILD)	
M213	When (NAME OF LAST CHILD)'s mother became pregnant with (him/her), did you want to have a child <u>then</u>, did you want to have a child but wanted to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?	WANTED THEN ..... 1 WANTED LATER ..... 2 DID NOT WANT AT ALL 3	→ M301 → M301
M214	How much longer would you like to have waited?	MONTHS ..... 1 YEARS ..... 2 UNDECIDED/DON'T KNOW 998	

SECTION 3. CONTRACEPTION

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.

CIRCLE CODE 1 IN M301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN M301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN M301, ASK M302.

M301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		M302 Have you ever had a partner who used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES.....1 NO 2	Have you ever had a partner who had an operation to avoid having any (more) children? YES .....1 NO, DOES NOT KNOW.....2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES.....1 NO 2	Have you ever had an operation to avoid having any (more) children? YES .....1 NO 2
03	PILL Women can take a pill every day to stop them from becoming pregnant.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
05	INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for one or more months.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
06	IMPLANTS Women can have several 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	YES .....1 NO, DOES NOT KNOW.....2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES.....1 NO 2	Have you ever used a condom? YES .....1 NO 2
08	DIAPHRAGM/FOAM/JELLY Women can place a sponge, diaphragm, suppository, jelly, or cream in their vagina before intercourse.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
09	RHYTHM OR PERIODIC ABSTINENCE Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
10	WITHDRAWAL Men can be careful and pull out before climax.	YES.....1 NO 2	YES .....1 NO, DOES NOT KNOW.....2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES.....1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES .....1 NO, DOES NOT KNOW.....2 YES .....1 NO, DOES NOT KNOW.....2

M303	CHECK M302:		
	NOT A SINGLE "YES" (NEVER USED) ☐	AT LEAST ONE "YES" (EVER USED) ☐	→ M306

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M304	Have you or any of your sex partners ever used anything or tried in any way to delay or avoid pregnancy?	YES .....1 NO 2	→ M312
M305	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
M306	CHECK M302 (02): RESPONDENT NOT STERILIZED (CODE '1' NOT CIRCLED) ☐ ↓ RESPONDENT STERILIZED (CODE '1' CIRCLED) ☐		→ M308A
M307	Are you, your wife (wives), or any other partner with whom you have sex currently doing something or using any method to delay or avoid a pregnancy?	YES .....1 NO, DOES NOT KNOW 2	→ M312
M308 M308A	Which method are you using? CIRCLE '**B**' FOR MALE STERILIZATION. IF REPONDENT USES CONDOM, FOLLOW SKIP INSTRUCTION FOR CONDOM.	FEMALE STERILIZATION ..... A MALE STERILIZATION..... B PILL ..... C IUD ..... D INJECTIONS ..... E IMPLANTS ..... F CONDOM ..... G DIAPHRAGM/FOAM/JELLY..... H RHYTHM/PERIODIC ABSTINENCE..... I WITHDRAWAL..... J OTHER _____ X (SPECIFY)	→ M401 → M401
M309	What is the brand name of the condom you last used? RECORD NAME OF BRAND. _____ (BRAND NAME)	BRAND..... ☐☐ NO BRAND NAME .....95 DON'T KNOW 98	
M310	Do you use more condoms now than a year ago, about the same number, or fewer?	MORE .....1 SAME .....2 FEWER 3	→ M401
M311	What is the main reason you use more condoms now than a year ago?	FEAR OF GETTING AIDS .....1 FEAR OF GETTING OTHER STDS.....2 FAMILY PLANNING .....3 LESS EXPENSIVE NOW.....4 MORE AVAILABLE NOW .....5 INCREASED SEXUAL ACTIVITY.....6 OTHER _____ 7 (SPECIFY) DON'T KNOW 8	→ M401

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M312	What is the main reason you are not using a method of contraception to avoid pregnancy?	NOT MARRIED .....11 FERTILITY-RELATED REASONS NOT HAVING SEX .....21 INFREQUENT SEX .....22 WIFE/PARTNER MENOP./HYST. .....23 COUPLE SUBFECUND/INFECUND ..24 WIFE/PARTNER POSTP./BREASTF. 25 WANTS (MORE) CHILDREN .....26 OPPOSITION TO USE RESPONDENT OPPOSED .....31 WIFE/PARTNER OPPOSED .....32 OTHERS OPPOSED .....33 RELIGIOUS PROHIBITION .....34 LACK OF KNOWLEDGE KNOWS NO METHOD .....41 KNOWS NO SOURCE.....42 METHOD-RELATED REASONS HEALTH CONCERNS.....51 FEAR OF SIDE EFFECTS.....52 LACK OF ACCESS/TOO FAR .....53 COST TOO MUCH.....54 INCONVENIENT TO USE.....55 INTERFERES WITH BODY'S NORMAL PROCESSES .....56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

SECTION 4. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M401	Are you currently married or living with a woman?	YES, CURRENTLY MARRIED ..... 1 YES, LIVING WITH A WOMAN ..... 2 NO, NOT IN UNION 3	 →M404 →M406
M402	How many wives do you have?	NUMBER OF WIVES ..... [ ][ ]	
M403	Besides your wife / wives, do you have any other women with whom you live as if married?	YES ..... 1 NO 2	 →M405
M404	CHECK M401: CURRENTLY MARRIED [ ] → How many other women are you living with as if you were married? LIVING WITH A WOMAN [ ] → How many women are you living with as if you were married?	NUMBER OF LIVE-IN PARTNERS ..... [ ][ ]	
M405	WRITE THE NAMES AND LINE NUMBERS FROM THE HOUSEHOLD QUESTIONNAIRE FOR HIS WIFE / WIVES AND PARTNER(S). IF A WIFE / PARTNER DOES NOT LIVE IN THE HOUSEHOLD, WRITE '00' IN THE LINE NUMBER BOX. THE NUMBER OF BOXES FILLED MUST BE EQUAL TO THE NUMBER OF WIVES PLUS NUMBER OF LIVE-IN PARTNERS.		
	Please tell me the name(s) of your wife/wives and live-in partner(s)	LINE NUMBER	
	1 _____	..... [ ][ ]	
	2 _____	..... [ ][ ]	
	3 _____	..... [ ][ ]	
	4 _____	..... [ ][ ]	
	5 _____	..... [ ][ ]	→M409
	6 _____	..... [ ][ ]	
	7 _____	..... [ ][ ]	
M406	Do you currently have a regular sexual partner, an occasional sexual partner, or no sexual partner at all?	REGULAR SEXUAL PARTNER ..... 1 OCCASIONAL SEXUAL PARTNER ..... 2 NO SEXUAL PARTNER 3	
M407	Have you ever been married or lived with a woman?	YES, FORMERLY MARRIED ..... 1 YES, LIVED WITH A WOMAN ..... 2 NO 3	 → M409 → M501
M408	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED ..... 1 DIVORCED ..... 2 SEPARATED 3	
M409	Have you been married or lived with a woman only once, or more than once?	ONCE ..... 1 MORE THAN ONCE 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M410	CHECK M409: MARRIED/LIVED WITH A WOMAN ONLY ONCE ☐ → In what month and year did you start living with your wife/partner? MARRIED/LIVED WITH A WOMAN MORE THAN ONCE ☐ → Now we will talk about your first wife/partner. In what month and year did you start living with her?	MONTH ..... ☐☐ DON'T KNOW MONTH ..... 98 YEAR ..... ☐☐☐☐ DON'T KNOW YEAR 9998	→ M501
M411	How old were you when you started living with her?	AGE..... ☐☐	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M501	CHECK M401: CURRENTLY MARRIED OR LIVING WITH A WOMAN ☐ NOT CURRENTLY IN UNION ☐		→ M506
M502	CHECK M402, and M404 HAS ONE WIFE/ WOMAN HE IS LIVING WITH ☐ Is your wife/the woman you are living with currently pregnant? MORE THAN ONE WIFE/WOMAN HE IS LIVING WITH ☐ Is one of your wives (the women you are living with) pregnant?	YES ..... 1 NO ..... 2 DOES NOT KNOW/UNSURE 3	→ M504
M503	When she became pregnant, did you want her to become pregnant then, did you want her to have a child but wanted to wait or did you not want her to have a child at all?	THEN ..... 1 WANTED TO WAIT ..... 2 NOT AT ALL 3	
M504	CHECK M502 WIFE/PARTNER NOT PREGNANT/ NOT SURE ☐ 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? WIFE/PARTNER PREGNANT ☐ Now I have some questions about the future. After the child your wife/partner is expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD ..... 1 NO MORE/NONE ..... 2 SAYS WIFE CAN'T GET PREGNANT ..... 3 SAYS HE CAN'T HAVE ANY MORE ..... 4 UNDECIDED/DOESN'T KNOW 8	→ M506
M505	CHECK M502: WIFE/PARTNER NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT ☐ After the birth of the child your wife/partner is expecting now, how long would you like to wait before the birth of another child?	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ SOON/NOW ..... 993 SAYS WIFE CAN'T GET PREGNANT .. 994 AFTER MARRIAGE ..... 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M506	CHECK M308: USING A METHOD NOT ASKED ☐ ↓ NOT CURRENTLY USING ☐ ↓ CURRENTLY USING ☐ → M509		
M507	Do you think you will use a method to avoid pregnancy at any time in the future?	YES ..... 1 NO ..... 2 DON'T KNOW 8	1 → M509
M508	What is the main reason that you think you will never use a method at any time in the future?	NOT CURRENTLY MARRIED ..... 11 FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX ..... 22 WIFE/PART. MENOP./HYSTEREC. .... 23 COUPLE SUBFECUND/INFECUND .... 24 WANTS AS MANY CHILDREN AS POSSIBLE ..... 26 OPPOSITION TO USE RESPONDENT OPPOSED ..... 31 WIFE/PARTNER OPPOSED ..... 32 OTHERS OPPOSED ..... 33 RELIGIOUS PROHIBITION ..... 34 LACK OF KNOWLEDGE KNOWS NO METHOD ..... 41 KNOWS NO SOURCE ..... 42 METHOD-RELATED REASONS HEALTH CONCERNS ..... 51 FEAR OF SIDE EFFECTS ..... 52 LACK OF ACCESS/TOO FAR ..... 53 COST TOO MUCH ..... 54 INCONVENIENT TO USE ..... 55 INTERFERES WITH BODY'S NORMAL PROCESSES ..... 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
M509	CHECK M203 AND M205: 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.	NUMBER ..... ☐☐ OTHER _____ 96 (SPECIFY)	96 → M511
M510	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?	BOYS GIRLS EITHER NUMBER ..... ☐☐ .... ☐☐ .... ☐☐ OTHER _____ 9 9 9 9 9 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M511	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE ..... 1 DISAPPROVE ..... 2 DON'T KNOW/UNSURE 3	
M512	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine? From a pamphlet/poster? At a community event?	YES NO RADIO ..... 1 2 TELEVISION ..... 1 2 NEWSPAPER OR MAGAZINE .... 1 2 PAMPHLET/POSTER ..... 1 2 COMMUNITY EVENT..... 1 2	
M518	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING OR NOT PRESENT)	PRES/ LISTEN. PRES/ NOT LISTEN. NOT PRS CHILDREN <10 .....1 2 8 HUSBAND .....1 2 8 OTHER MALES.....1 2 8 OTHER FEMALES 1 2 8	
M519	Sometimes a husband is annoyed or angered by things which his wife does. 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 6. SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M601	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER ..... 00 AGE ..... [ ][ ] WHEN FIRST UNION STARTED 96	→ M701
M602	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO.	DAYS AGO ..... 1 [ ][ ] WEEKS AGO ..... 2 [ ][ ] MONTHS AGO ..... 3 [ ][ ] YEARS AGO ..... 4 [ ][ ]	
M603	The last time you had sexual intercourse, did you use a condom?	YES ..... 1 NO ..... 2 DOES NOT KNOW CONDOMS 3	→ M605
M604	What was the main reason you used a condom on that occasion?	TO PREVENT STD/HIV ..... 1 TO PREVENT PREGNANCY ..... 2 TO PREVENT BOTH STD/HIV AND PREGNANCY ..... 3 DID NOT TRUST PARTNER/FEELS SHE HAS OTHER PARTNERS ..... 4 PARTNER INSISTED ..... 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	→ M607
M605	The last time you had sexual intercourse, did you or your partner do something or use some method to avoid a pregnancy?	YES ..... 1 NO ..... 2 UNSURE/DOES NOT KNOW 3	→ M607
M606	What did you do or what did you use?	FEMALE STERILIZATION ..... A MALE STERILIZATION ..... B PILL ..... C IUD ..... D INJECTIONS ..... E IMPLANTS ..... F CONDOM ..... G DIAPHRAGM/FOAM/JELLY ..... H PERIODIC ABSTINENCE ..... I WITHDRAWAL ..... J OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M607	What is your relationship to the woman with whom you last had sex? IF "BOYFRIEND" OR "FIANCE", ASK: Was your girlfriend/fiancee living with you when you last had sex? IF YES, RECORD '1'. IF NO, RECORD '2'.	SPOUSE/LIVE-IN PARTNER ..... 1 BOYFRIEND/FIANCE ..... 2 FRIEND/ACQUAINTANCE ..... 3 RELATIVE ..... 4 PROSTITUTE ..... 5 OTHER _____ 8 (SPECIFY)	→ M609
M608	How long have you had a sexual relationship with this woman you last had sex with?	DAYS ..... 1 [ ][ ] WEEKS ..... 2 [ ][ ] MONTHS ..... 3 [ ][ ] YEARS ..... 4 [ ][ ]	
M609	Have you had sex with anyone else in the last 12 months?	YES ..... 1 NO 2	→ M617
M610	The last time you had sexual intercourse with this other woman, did you use a condom?	YES ..... 1 NO ..... 2 DOES NOT KNOW CONDOMS 3	→ M612
M611	What was the main reason you used a condom on that occasion?	TO PREVENT STD/HIV ..... 1 TO PREVENT PREGNANCY ..... 2 TO PREVENT BOTH STD/HIV AND PREGNANCY ..... 3 DID NOT TRUST PARTNER/FEELS SHE HAS OTHER PARTNERS ..... 4 PARTNER INSISTED ..... 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	→ M614
M612	The last time you had sexual intercourse with this woman, did you or your partner do something or use some method to avoid a pregnancy?	YES ..... 1 NO ..... 2 UNSURE/DOES NOT KNOW 3	→ M614
M613	What did you do or what did you use?	FEMALE STERILIZATION ..... A MALE STERILIZATION ..... B PILL ..... C IUD ..... D INJECTIONS ..... E IMPLANTS ..... F CONDOM ..... G DIAPHRAGM/FOAM/JELLY ..... H PERIODIC ABSTINENCE ..... I WITHDRAWAL ..... J OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M614	What is your relationship to this woman? IF "BOYFRIEND" OR "FIANCE", ASK: Was your girlfriend/fiancee living with you when you last had sex? IF YES, RECORD '1'. IF NO, RECORD '2'.	SPOUSE/LIVE-IN PARTNER ..... 1 BOYFRIEND/FIANCE ..... 2 FRIEND/ACQUAINTANCE ..... 3 RELATIVE ..... 4 WOMAN IS A PROSTITUTE ..... 5 OTHER _____ 6 (SPECIFY)	→ M616
M615	How long have you maintained a sexual relationship with this woman?	DAYS ..... 1 [ ][ ] WEEKS ..... 2 [ ][ ] MONTHS ..... 3 [ ][ ] YEARS ..... 4 [ ][ ]	
M616	Altogether, with how many different women have you had sex in the last 12 months?	NUMBER OF PARTNERS ..... [ ][ ]	
M617	Have you ever paid for sex?	YES ..... 1 NO 2	→ M701
M618	How long ago was the last time you paid for sex?	DAYS AGO ..... 1 [ ][ ] WEEKS AGO ..... 2 [ ][ ] MONTHS AGO ..... 3 [ ][ ] YEARS AGO ..... 4 [ ][ ] DOES NOT REMEMBER 998	
M619	The last time you paid for sex, did you use a condom?	YES ..... 1 NO 2	

SECTION 7: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES ..... 1 NO 2	 →M724
M701A	From which sources of information have you heard about AIDS? Any other sources? RECORD ALL MENTIONED.	RADIO ..... A TV ..... B NEWSPAPERS/MAGAZINES ..... C PAMPHLETS/POSTERS ..... D HEALTH WORKERS ..... E MOSQUES/CHURCHES ..... F SCHOOLS/TEACHERS ..... G COMMUNITY EVENTS ..... H FRIENDS/RELATIVES ..... I WORK PLACE ..... J DRAMA/PERFORMANCE ..... K OTHER _____ X (SPECIFY)	
M702	Is there anything a person can do to avoid getting AIDS, or the virus which causes AIDS?	YES ..... 1 NO ..... 2 DON'T KNOW 8	 →M704
M703	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX ..... A USE CONDOMS ..... B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER ..... C LIMIT NUMBER OF SEXUAL PARTNERS ..... D AVOID SEX WITH PROSTITUTES ..... E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS ..... F AVOID SEX WITH HOMOSEXUALS ..... G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY ... H AVOID BLOOD TRANSFUSIONS ..... I AVOID INJECTIONS WITH UNCLEAN NEEDLES ..... J AVOID KISSING ..... K AVOID MOSQUITO BITES ..... L SEEK PROTECTION FROM TRADITIONAL HEALER ..... M AVOID SHARING RAZORS/BLADES ..... N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
M704	CHECK M703: NEITHER CODE '**C**' NOR CODE '**D**' CIRCLED ☐ ↓ CODE '**C**' AND/OR CODE '**D**' CIRCLED ☐		→M707

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M705	In your view, is a person's chance of getting AIDS influenced by the number of sexual partners he or she has?	YES ..... 1 NO ..... 2 DON'T KNOW 8	 M707
M706	If a person has sex with only one partner, does this person have a greater or a lesser chance of getting AIDS than a person who has sex with many partners?	GREATER CHANCE OF AIDS ..... 1 LESSER CHANCE OF AIDS 2	
M707	CHECK M703: DID NOT MENTION USE OF CONDOMS DURING SEX (CODE '**B**' NOT CIRCLED) ☐ ↓ MENTIONED USE OF CONDOMS DURING SEX (CODE '**B**' CIRCLED) ☐		M709
M708	Do you think that by using condoms during sexual intercourse a person decreases his/her chances of getting AIDS, increases his/her chances of getting AIDS, or it does not make a difference?	DECREASES HIS CHANCES ..... 1 INCREASES HIS CHANCES ..... 2 DOESN'T MAKE A DIFFERENCE ..... 3 DON'T KNOW/UNSURE 8	
M709	Is it possible for a healthy-looking person to have the AIDS virus?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
M710	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES ..... 1 NO ..... 2 UNSURE/DON'T KNOW 8	
M711	Can the virus that causes AIDS be transmitted from a mother to a child?	YES ..... 1 NO ..... 2 DON'T KNOW 8	 M713
M712	When can the virus that causes AIDS be transmitted from a mother to a child? Any others times? RECORD ALL RESPONSES.	DURING PREGNANCY ..... A AT DELIVERY ..... B DURING BREASTFEEDING ..... C OTHER TIMES ..... D DON'T KNOW ..... Z	
M713	CHECK M501: CURRENTLY MARRIED/ LIVING WITH A WOMAN ☐ ↓ NOT IN UNION ☐		M716
M714	Have you ever talked about ways to prevent getting the virus that causes AIDS with your wife/ the woman you are living with?	YES ..... 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M716	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE ..... 1 AVAILABLE TO COMMUNITY ..... 2 DK/NOT SURE/DEPENDS 8	
M717	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES ..... 1 NO ..... 2 DK/NOT SURE/DEPENDS 8	
M718	Have you ever been tested for AIDS?	YES ..... 1 NO 2	→M724
M719	Would you like to be tested for AIDS?	YES ..... 1 NO 2	
M724	CHECK M701: KNOWS AIDS ☐ ↓ Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? DOES NOT KNOW AIDS ☐ ↓ Have you heard about infections that can be transmitted through sexual contact?	YES ..... 1 NO 2	→ M727
M725	In a man, what signs and symptoms would lead you to think that he has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN ..... A GENITAL DISCHARGE/DRIPPING ..... B FOUL SMELLING DISCHARGE ..... C BURNING PAIN ON URINATION ..... D REDNESS/INFLAMMATION IN GENITAL AREA ..... E SWELLING IN GENITAL AREA ..... F GENITAL SORES/ULCERS ..... G GENITAL WARTS ..... H BLOOD IN URINE ..... I LOSS OF WEIGHT ..... J IMPOTENCE ..... K NO SYMPTOMS ..... L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M726	In a woman, what signs and symptoms would lead you to think that she has such an infection? Any others? RECORD ALL MENTIONED.	ABDOMINAL PAIN ..... A GENITAL DISCHARGE ..... B FOUL SMELLING DISCHARGE ..... C BURNING PAIN ON URINATION ..... D REDNESS/INFLAMMATION IN GENITAL AREA ..... E SWELLING IN GENITAL AREA ..... F GENITAL SORES/ULCERS ..... G GENITAL WARTS ..... H BLOOD IN URINE ..... I LOSS OF WEIGHT ..... J INABILITY TO GIVE BIRTH ..... K NO SYMPTOMS ..... L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
M727	CHECK M601: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NEVER HAD SEXUAL INTERCOURSE ☐ →		M736
M728	During the last twelve months, have you had a sexually-transmitted disease?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
M729	Now I would like to ask you some questions about your health in the last twelve months. Sometimes, men experience a discharge from their penis. During the last twelve months, did you have a discharge from your penis?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
M730	Sometimes, men experience a sore or ulcer on or near their penis. During the last twelve months, did you have a sore or ulcer on your penis?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
M731	CHECK M728, M729, AND M730: HAS HAD AN INFECTION (AT LEAST ONE 'YES') ☐ ↓ HAS NOT HAD ANY INFECTIONS (NOT A SINGLE YES) ☐ →		M736
M732	The last time you had the (sexually-transmitted disease/discharge from your penis/sore or ulcer on your penis) did you seek advice or treatment?	YES ..... 1 NO ..... 2 →	M734

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M733	Where did you seek advice or treatment? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	GOVERNMENT HOSPITAL ..... 11 HEALTH CENTER ..... 12 HEALTH STATION/CLINIC ..... 13 HEALTH POST ..... 14 OTHER GOVERNMENT _____ 16 (SPECIFY) NONGOVERNMENTAL (NGO) HEALTH FACILITY ..... 21 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL ..... 31 PRIVATE DOCTOR/CLINIC ..... 32 PHARMACY ..... 33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCES OTHER _____ 96 (SPECIFY)	
M734	When you had the (sexually-transmitted disease/discharge from your penis/sore or ulcer on your penis) did you inform the person or persons you were having sex with?	YES ..... 1 NO ..... 2 SOME, NOT ALL ..... 3 DID NOT HAVE SEX PARTNERS AT THAT TIME 4	
M735	When you had the (sexually transmitted disease/discharge from your penis/sore or ulcer on your penis) did you do something to avoid infecting the person or persons you were having sex with?	YES ..... 1 NO ..... 2 PARTNER ALREADY INFECTED ..... 3 NOT HAVING SEX AT THAT TIME 4	→ M736
M735A	What did you do? Any thing else? RECORD ALL MENTIONED	USE CONDOM ..... A STOPPED HAVING SEX ..... B WASH PENIS BEFORE SEX ..... C REDUCED THE FREQUENCY OF SEXUAL INTERCOURSE ..... D OTHER _____ X (SPECIFY)	
M736	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING ..... [ ] HOUR ..... [ ][ ] MINUTES ..... [ ][ ]	

THANK YOU

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

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COMMENTS ON SPECIFIC QUESTIONS:

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ANY OTHER COMMENTS:

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SUPERVISOR'S OBSERVATIONS

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NAME OF THE SUPERVISOR:_____ DATE: _____

EDITOR'S OBSERVATIONS

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NAME OF EDITOR:_____ DATE: _____