Ethiopia Demographic and Health Survey 2011

Central Statistical Agency

Addis Ababa, Ethiopia

ICF International

Calverton, Maryland, USA

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Additional information about the 2011 EDHS may be obtained from the Central Statistical Agency, P.O. Box 1143, Addis Ababa, Ethiopia; Telephone: (251) 111 55 30 11/111 15 78 41, Fax: (251) 111 55 03 34, E-mail: csa@ethionet.et.

Information about the MEASURE DHS project may be obtained from ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200, Fax: 301-572-0999, E-mail: info@measuredhs.com, Internet: http://www.measuredhs.com.

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FOREWORD

The 2011 Ethiopia Demographic and Health Survey (EDHS) was conducted by the Central Statistical Agency (CSA) under the auspices of the Ministry of Health. The Ethiopian Health and Nutrition Research Institute (EHNRI) was responsible for the testing of HIV from dry blood samples (DBS). This survey is the third in a series of similar surveys conducted at five-year intervals since 2000 and the second survey presenting results from HIV and anemia testing. The preliminary report containing results of selected variables was released in October 2011 and this final report presents the details of the findings of the survey including results released earlier.

The primary objectives of the 2011 EDHS are to provide up-to-date information for planning, policy formulation, monitoring and evaluation of population and health programmes in the country. The survey was intented to be conducted at the beginning of the last term of the MDG plan period and to provide data for the assessment of Millennium Development Goals (MDGs). Apart from these goals and in conjunction with statistical information obtained from the Welfare Monitoring Survey (WMS) and Household Income, Consumption and Expenditure Survey (HICES), that were carried at about the same period, the 2011 EDHS provides critical information for use as baseline data in monitoring and evaluation of the Growth and Transformation Plan (GTP) as well as various sector development policies and programmes.

In the 2011 EDHS information on population and health covering topics on family planning, fertility levels and determinants, fertility preferences, infant, child, adult and maternal mortality, maternal and child health, nutrition, women's empowerment, and knowledge of HIV/AIDS, were collected. Moreover, the 2011 EDHS includes blood sample collection from the respondents of the survey. To, this effect, a nationally representative sample of about 18,500 households was selected and all women aged 15-49 and all men aged 15-59 in these households were eligible for the individual interview module of the survey. In this report key indicators relating to each of the above topics are provided for the nine regional states and two city administrations. In addition, this report also provides data by urban and rural residence at the country level.

Major stakeholders from various government, non-government and UN organizations have been involved and contributed in the technical, managerial and operational aspects of the survey. The CSA would, therefore, like to acknowledge a number of organizations and individuals who contributed in various ways to the successful completion of the 2011 EDHS. The Agency is grateful for the commitment of the Government of Ethiopia and the generous funding support primarily by the HIV/AIDS Prevention and Control Office (HAPCO), the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Kingdom for International Development (DFID), the United Nations Children's Fund (UNICEF) and the Centers for Disease Control and Prevention (CDC). ICF International provided technical assistance as well as funding through the MEASURE DHS project, a USAID funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

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Samia Zekaria
Director General
Central Statistical Agency

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Mr. Gebeyeu Abelti, Central Statistical Agency
Mr. Jelaludin Ahmed, CDC
Ms. Eleni Seyuom, WHO
Ms. Genet Mengistu, MoFED
Mr. Terefe Bogale, MoFED
Ms. Wegen Tamene, EHNRI
Mr. Desta Kassa, EHNRI
Dr. Belete Tegbaru, EHNRI
Ms. Martha Kibur, UNICEF
Ms. Roman G/Yes, MOH
Ms. Alemitu Seyoum, MOH
Mr. Fantahun Walle, Central Statistical Agency
Mr. Wondwessen Demise, Central Statistical Agency
Mr. Girum Haile, Central Statistical Agency
Mr. Akalework Bezu, Central Statistical Agency
Mr. Assefa Negera, Central Statistical Agency
Mr. Million Taye, Central Statistical Agency
Mr. Ashenafi Seyoum, Central Statistical Agency
Mr. Seyoum Tadesse, Central Statistical Agency
Mr. Kassahun Mengistu, Central Statistical Agency
Ms. Alemeshet Ayele, Central Statistical Agency
Ms. Alemtsehay Beru, ICF International
Dr. Fred Arnold, ICF International
Ms. Zhuzhi Moore, ICF International
Dr. Pav Govindasamy, ICF International
Ms. Anjushree Pradhan, ICF International
Ms. Velma Lopez, ICF International
Ms. Joy Fishel, ICF International

Millennium Development Goal Indicators, Ethiopia 2011

Goal	Indicator	Value: Female	Value: Male	Total
1.	**Eradicate extreme poverty and hunger**			
	1.8 Prevalence of underweight children under five years of age[1]	26.8%	30.5%	28.7%
2.	**Achieve universal primary education**			
	2.1 Net attendance ratio in primary education[2]	65.0%	64.5%	64.5%
	2.3 Literacy rate of 15-24 year olds[3]	56.9%	75.0%	66.0%
3.	**Promote gender equality and empower women**			
	3.1a Ratio of girls to boys in primary education[4]			1.0
	3.1b Ratio of girls to boys in secondary education[4]			1.0
	3.1c Ratio of girls to boys in tertiary education[4]			1.0
4.	**Reduce child mortality**			
	4.1 Under-five mortality rate (per 1000 live births)[5]	98 per 1,000	122 per 1,000	88 per 1,000
	4.2 Infant mortality rate (per 1000 live births)[5]	63 per 1,000	84 per 1,000	59 per 1,000
	4.3 Proportion of 1 year-old children immunized against measles	55.7%	55.7%	55.7%
5.	**Improve maternal health**			
	5.1 Maternal mortality ratio[6]	676 deaths per 100,000		
	5.2 Proportion of births attended by skilled health personnel[7]	10.0%	na	na
	5.3 Contraceptive prevalence rate[8]	28.6%	na	na
	5.4 Adolescent birth rate[9]	79 per 1,000	na	na
	5.5 a) Antenatal care coverage: at least one ANC visit	42.6%	na	na
	b) Antenatal care coverage: at least four ANC visits	19.1%	na	na
	5.6 Unmet need for family planning	25.3%	na	na
6.	**Combat HIV/AIDS, malaria and other diseases**			
	6.1 HIV prevalence among population aged 15-24	0.5%	0.1%	0.3%
	6.2 Condom use at last high-risk sex: youth 15-24 years[10]	61.6%	47.2%	54.4%
	6.3 Percentage of population 15-24 years with comprehensive knowledge About AIDS[11]	23.9%	34.2%	30.5%
	6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	1.01	0.81	0.90
		Urban	Rural	Total
7.	**Ensure environmental sustainability**			
	7.8 Proportion of population using an improved drinking water source[12]	92.8%	41.6%	50.8%
	7.9 Proportion of population using an improved sanitation facility[13]	18.2%	6.8%	8.8%

na = Not applicable

[1] Proportion of children age 0-59 months who are below -2 standard deviations (SD) from the median of the WHO Child Growth Standards in weight-for-age.

[2] The rate is based on reported attendance, not enrollment, in primary education among primary school age children (7-14 year-olds). The rate also includes children of primary school age enrolled in secondary education. This is a proxy for MDG indicator 2.1, Net enrollment ratio.

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

[4] Based on reported net attendance, not gross enrollment

[5] Expressed in terms of deaths per 1,000 live births. Mortality by sex refers to a 10-year reference period preceding the survey. Mortality rates for males and females combined refer to the 5-year period preceding the survey. The difference in the reference periods explains the apparent inconsistency between the sex-specific and total mortality rates.

[6] Expressed in terms of maternal deaths per 100,000 live births in the 7 -year period preceding the survey

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

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

[9] Equivalent to the age-specific fertility rate for women age 15-19 for the 3-year period before the survey, expressed in terms of births per 1,000 women age 15-19

[10] High-risk sex refers to sexual intercourse with a non-cohabiting, non-marital partner. Expressed as a percentage of men and women age 15-24 who had high-risk sex in the past 12 months.

[11] Comprehensive knowledge about AIDS means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus. The two most common local misconceptions in Ethiopia are: 1) AIDS can be transmitted by mosquito bites and 2) AIDS can be transmitted by supernatural means.

[12] Percentage of de-jure population whose main source of drinking water is a household connection (piped), public standpipe, borehole, protected dug well or spring, rainwater collection, or bottled water.

[13] Percentage of de-jure population with access to flush toilet, ventilated improved pit latrine, traditional pit latrine with a slab, or composting toilet and does not share this facility with other households.

INTRODUCTION 1

Key Findings

- The 2011 Ethiopia Demographic and Health Survey (EDHS) is a nationally representative survey of 16,515 women age 15-49 and 14,110 men age 15-59.
- The 2011 EDHS is the third comprehensive survey conducted in Ethiopia as part of the worldwide Demographic and Health Surveys project.
- The primary purpose of the EDHS is to furnish policymakers and planners with detailed information on fertility, family planning, infant, child, adult and maternal mortality, maternal and child health, nutrition and knowledge of HIV/AIDS and other sexually transmitted infections.
- In all selected households, women age 15-49 and children age 6-59 months were tested for anaemia, and women age 15-49 and men age 15-59 were tested for HIV.

1.1 HISTORY, GEOGRAPHY, AND ECONOMY

History

Ethiopia is an ancient country. Paleontological studies identify Ethiopia as one of the cradles of mankind. For instance, "Dinknesh" or "Lucy," one of the earliest and most complete hominoid skeletons ever found was discovered in Hadar through archaeological excavations in 1974, and dates back 3.5 million years. More recently, an older female skeleton, nicknamed Ardi, was discovered in 1994, and is considered to be the earliest hominid skeleton—dating a million years before the Lucy was ever found. Situated in the Horn of Africa, the country is at the crossroads between the Middle East and Africa. Thus, throughout its long history Ethiopia has been a melting pot of diverse customs and cultures. Today, it embraces a complex variety of nationalities, peoples, and linguistic groups. Its peoples altogether speak over 80 different languages, constituting 12 Semitic, 22 Cushitic, 18 Omotic, and 18 Nilo-Saharan languages (MOI, 2004).

Ethiopia is one of the few African countries to have maintained its independence, even during the colonial era. Furthermore, the country is one of the founding members of the United Nations. Ethiopia takes an active role in African affairs, for example, playing a pioneering role in the formation of the Organization of African Unity (OAU). In fact, the capital city, Addis Ababa, has been a seat for the OAU since its establishment and continues to serve as the seat for the African Union (AU) today.

Historically, Ethiopia was ruled by successive emperors and kings, with a feudal system of government. In 1974 the military took over the reins 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 Peoples' Representatives and the House of the Federation. Major changes in the administrative boundaries within the country have been made three times since the mid-1970s. At present Ethiopia is administratively structured into nine regional states—Tigray, Affar, Amhara, Oromiya, Somali, Benishangul-Gumuz, Southern Nations Nationalities and Peoples (SNNP), Gambela, and Harari—and two city administrations, that is, Addis Ababa and Dire Dawa Administration Councils.

Geography

Ethiopia has great geographical diversity; its topographic features range from the highest peak at Ras Dashen, 4,550 metres above sea level, down to the Affar Depression, 110 metres below sea level (CSA, 2009). The climate varies with the topography, from as high as 47 degrees Celsius in the Affar Depression to as low as 10 degrees Celsius in the highlands. Ethiopia's total surface area is about 1.1 million square kilometres. Djibouti, Eritrea, the Republic of the Sudan, the Republic of the Southern Sudan, Kenya, and Somalia border the country.

There are three principal climates in Ethiopia: tropical rainy, dry, and warm temperate. Maximum and minimum average temperatures vary across regions of the country and seasons of the year. Generally, the mean maximum temperature is highest from March to May and the mean minimum temperature is lowest from November to December. Ethiopia's mean annual distribution of rainfall is influenced by both the westerly and the south-easterly winds. The general distribution of annual rainfall is seasonal and also varies in amount, area, and time as it moves from the southwest to the northeast (MOI, 2004).

Economy

Ethiopia is an agrarian country and agriculture accounts for 43 percent of the gross domestic product or GDP (CSA, 2009). Coffee has long been one of the main export items of the country; however, other agricultural products are currently being introduced on the international market. The Ethiopian currency is the Birr and at the current exchange rate, 1 US dollar is equivalent to about 17 Birr. Between 1974 and 1991 the country operated a central command economy but has since moved toward a market-oriented economy. Currently, the country has one commercial and two specialized government owned banks and 14 privately owned commercial banks, one government-owned insurance company and eleven private insurance companies. There are also 30 micro-financing institutions established by private organizations (NBE, 2010).

To help attain the Millennium Development Goals (MDGs) by 2015, Ethiopia adopted the Plan for Accelerated and Sustained Development to End Poverty (PASDEP), the second poverty reduction strategy, covering the period 2005/06 to 2009/10. In keeping with this plan, the economy has grown in real GDP at a rate of 11 percent per annum in the past five years. With an average population growth rate of 2.6 percent, the GDP growth rate translates to an 8.4 percent growth in average annual per capita income. This rapid growth is the result of diversification and commercialization of small-scale agriculture, expansion of non-agricultural production in services and industry, capacity-building and good governance, off-farm employment especially through small enterprises, and investment in infrastructure (MOFED, 2010).

The Growth and Transformation Plan (GTP) has been developed for the next five years, designed to maintain rapid and broad-based economic growth and eventually to end poverty (MOFED, 2010). The primary objectives of the GTP are:

- Maintain the average real GDP growth rate of 11 percent and meet the MDGs;
- Expand and ensure education and health services, thereby achieving the MDGs in the social sectors;
- Establish favourable conditions for sustainable state-building through the creation of a stable democratic and developmental state;
- Ensure sustainability of growth by realising the above objectives within a stable macroeconomic framework.

1.2 POPULATION

Despite Ethiopia's long history, there were no estimates of its total population prior to the 1930s. The first population and housing census was conducted in 1984. The 1984 census covered about 81 percent of the population, and official estimates were made for the remaining 19 percent. A second census was conducted in 1994, and a third in 2007. Unlike the first census, the second and the third censuses covered the entire population. Table 1.1 provides a summary of the basic demographic indicators for Ethiopia from these three censuses.

The population has increased steadily over the last three decades, from 42.6 million in 1984 to 53.5 million in 1994 and 73.8 million in 2007. There were slight declines in the population growth rates over these periods, from 3.1 percent per annum in 1984 to 2.9 percent in 1994 and 2.6 percent in 2007.

Table 1.1 Basic demographic indicators

Indicator	1984 Census[1]	1994 Census[2]	2007 Census[3]
Population (millions)	42.6	53.5	73.8
Growth rate (percent)	3.1	2.9	2.6
Density (population/km^2)	34.0	48.6	67.1
Percent urban	11.4	13.7	16.1
Life expectancy			
Male	51.1	50.9	na
Female	53.4	53.5	na

na=Not available
[1] Including Eritrea; CSA, 1991
[2] CSA, 1998
[3] CSA, 2010

Ethiopia is one of the least urbanized countries in the world; only 16 percent of the population lives in urban areas (CSA, 2010). The majority of the population lives in the highland areas. The main occupation of the settled rural population is farming, while the lowland areas are mostly inhabited by a pastoral people, who depend mainly on livestock production and move from place to place in search of grass and water. More than 80 percent of the country's total population lives in the regional states of Amhara, Oromiya, and SNNP.

Christianity and Islam are the main religions; about half of the population are Orthodox Christians, one-third are Muslims, about one in every five (18 percent) are Protestants, and 3 percent

are followers of traditional religion. The country is home to more than 80 ethnic groups, which vary in population size from more than 26 million people to fewer than 100 (CSA, 2010).

Ethiopia has made an effort to generate reliable demographic data by conducting a number of surveys. These include the 1981 Demographic Survey, the 1990 National Family and Fertility Survey (NFFS), the 1995 Fertility Survey of Urban Addis Ababa, and the 2000, 2005, and 2011 Ethiopia Demographic and Health Surveys (EDHS). The 1990 NFFS was the first nationally representative survey to yield substantial information on fertility, family planning, contraceptive use, and related topics. In addition to the topics covered by the NFFS, the 2000, 2005, and 2011 EDHS surveys collected information on maternal and child health, nutrition and breastfeeding practices, and HIV and other sexually transmitted diseases.

1.3 POPULATION AND HEALTH POLICIES

National Population Policy

Population policies had low priority in Ethiopia until the early 1990s. In 1993 the Transitional Government adopted a national population policy (TGE, 1993a). Since then, developments have taken place nationally and internationally that have a direct bearing on the country's population. The primary objective of the 1993 national population policy is to harmonize the rate of population growth with socioeconomic development in order to achieve a high level of welfare. The main long-term objective is to close the gap between high population growth rates and low economic productivity and to expedite socioeconomic development through holistic, integrated programmes. Other objectives include preserving the environment, reducing rural-to-urban migration, and reducing morbidity and mortality, particularly infant and child mortality. More specifically, the population policy seeks to accomplish the following:

- Reduce the total fertility rate (TFR) from 7.7 children per woman in 1990 to 4.0 children per woman in 2015;
- Increase contraceptive prevalence from 4 percent in 1990 to 44 percent in 2015;
- Reduce maternal, infant, and child morbidity and mortality rates, as well as promote the general welfare of the population;
- Significantly increase female participation at all levels of the educational system;
- Remove all legal and customary practices that prevent women from the full enjoyment of economic and social rights, including property rights and access to gainful employment;
- Ensure spatially balanced population distribution patterns, with a view to maintaining environmental security and extending the scope of development activities;
- Improve productivity in agriculture and introduce off-farm and non-agricultural activities for the purpose of diversifying employment;
- Mount an effective countrywide population information and education programme addressing issues pertaining to small family size and its relationship with human welfare and environmental security (TGE, 1993a).

Population and development has been considered as a cross cutting issue in the Growth and Transformation Plan and due emphases is given to integrate population issues in sector development plans.

Health policy

Ethiopia had no health policy until the early 1960s, when a health policy initiated by the World Health Organization (WHO) was adopted. In the mid-1970s, during the Derg regime, a health policy was formulated with emphasis on disease prevention and control. This policy gave priority to rural areas and advocated community involvement (TGE, 1993b). The current health policy, promulgated by the Transitional Government, takes into account broader issues such as population dynamics, food availability, acceptable living conditions, and other essentials of better health (TGE, 1993b).

To realize the objectives of the health policy, the government established the Health Sector Development Programme (HSDP), which is a 20-year health development strategy implemented through a series of four consecutive 5-year investment programmes (MOH, 2010). The first phase (HSDP I) was initiated in 1996/97. The core elements of the HSDP include: democratisation and decentralisation of the health care system; development of the preventive and curative components of health care; ensuring accessibility of health care for all segments of the population; and, promotion of private sector and NGO participation in the health sector. The HSDP prioritizes maternal and newborn care, and child health, and aims to halt and reverse the spread of major communicable disease such as HIV/AIDS, TB, and malaria. The Health Extension Programme (HEP) serves as the primary vehicle for prevention, health promotion, behavioural change communication, and basic curative care. The HEP is an innovative health service delivery program that aims at universal coverage of primary health care. The programme is based on expanding physical health infrastructure and developing Health Extension Workers (HEWs) who provide basic preventive and curative health services in the rural community.

The first phase (HSDP I) was initiated in 1996/97.Thus far, the country has implemented the HSDP in three cycles and is currently extending it into the forth programme, HSDP IV. Assessment of HSDP III shows remarkable achievements in the expansion and construction of health facilities, and improvement in the quality of health service provision. The assessment also shows that in the last five years the distribution of insecticide treated nets (ITN) were successful in reaching targeted areas of the country including areas that are hard to reach, placing Ethiopia as the third largest distributor of ITNs in Sub Saharan Africa (MOH, 2010).

HSDP IV is designed to provide massive training of health workers to improve the provision of quality health services and the development of a community health insurance strategy for the country. In addition, HSDP IV will prioritize maternal and newborn care, and child health, and aim to halt and reverse the spread of major communicable disease such as HIV/AIDS, TB and Malaria. In line with the government's current five-year national plan, the health sector continues to emphasize primary health care and preventive services; with focus on extending services to those who have not yet been reached and on improving the effectiveness of services, especially addressing difficulties in staffing and the flow of drugs.

1.4 OBJECTIVES OF THE 2011 EDHS SURVEY

The principal objective of the 2011 Ethiopia Demographic and Health Survey (EDHS) is to provide current and reliable data on fertility and family planning behaviour, child mortality, adult and maternal mortality, children's nutritional status, use of maternal and child health services, knowledge of HIV/AIDS, and prevalence of HIV/AIDS and anaemia. The specific objectives are these:

- Collect data at the national level that will allow the calculation of key demographic rates;

- Analyse the direct and indirect factors that determine fertility levels and trends;
- Measure the levels of contraceptive knowledge and practice of women and men by family planning method, urban-rural residence, and region of the country;
- Collect high-quality data on family health, including immunisation coverage among children, prevalence and treatment of diarrhoea and other diseases among children under age five, and maternity care indicators, including antenatal visits and assistance at delivery;
- Collect data on infant and child mortality and maternal mortality;
- Obtain data on child feeding practices, including breastfeeding, and collect anthropometric measures to assess the nutritional status of women and children;
- Collect data on knowledge and attitudes of women and men about sexually transmitted diseases and HIV/AIDS and evaluate patterns of recent behaviour regarding condom use;
- Conduct haemoglobin testing on women age 15-49 and children 6-59 months to provide information on the prevalence of anaemia among these groups;
- Carry out anonymous HIV testing on women and men of reproductive age to provide information on the prevalence of HIV.

This information is essential for informed policy decisions, planning, monitoring, and evaluation of programmes 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 Agency to plan, conduct, process, and analyse data from complex national population and health surveys.

Moreover, the 2011 EDHS provides national and regional estimates on population and health that are comparable to data collected in similar surveys in other developing countries and to Ethiopia's two previous DHS surveys, conducted in 2000 and 2005. Data collected in the 2011 EDHS add to the large and growing international database of demographic and health indicators.

1.5 ORGANIZATION OF THE SURVEY

The 2011 EDHS was carried out under the aegis of the Ministry of Health (MOH) and was implemented by the Central Statistical Agency (CSA). The testing of the blood samples for HIV status was handled by the Ethiopia Health and Nutrition Research Institute (EHNRI). ICF International provided technical assistance as well as funding to the project through the MEASURE DHS project, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

The resources for the conduct of the survey were provided by the government of Ethiopia and various international donor organizations and governments: the United States Agency for International Development (USAID), the HIV/AIDS Prevention and Control Office (HAPCO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the United Kingdom Department for International Development (DFID), and the United States Centers for Disease Control and Prevention (CDC).

A steering committee composed of major stakeholders from the government, international organizations, and NGOs was formed. The steering committee was responsible for coordination,

oversight, advice, and decision-making on all major aspects of the survey. Members of the steering committee include the MOH, CSA, EHNRI, HAPCO, the population Affairs Directorate of the Ministry of Finance and Economic Development (MOFED), the consortium of reproductive Health Associations (CORHA), USAID, UNFPA, UNICEF, the Joint United Nations Programme on HIV/AIDS (UNAIDS), CDC, and WHO. A technical committee was also formed from among the steering committee institutions to oversee all technical issues related to the survey such as questionnaire design, training, and report writing. Ethical clearance for the survey was provided by the EHNRI Review Board, the National Research Ethics Review Committee (NRERC) at the Ministry of Science and Technology, the Institutional Review Board of ICF International, and the CDC.

1.6 SAMPLE DESIGN

The sample for the 2011 EDHS was designed to provide population and health indicators at the national (urban and rural) and regional levels. The sample design allowed for specific indicators, such as contraceptive use, to be calculated for each of Ethiopia's 11 geographic/administrative regions (the nine regional states and two city administrations). The 2007 Population and Housing Census, conducted by the CSA, provided the sampling frame from which the 2011 EDHS sample was drawn.

Administratively, regions in Ethiopia are divided into zones, and zones, into administrative units called *weredas*. Each *wereda* is further subdivided into the lowest administrative unit, called *kebele*. During the 2007 census each *kebele* was subdivided into census enumeration areas (EAs), which were convenient for the implementation of the census. The 2011 EDHS sample was selected using a stratified, two-stage cluster design, and EAs were the sampling units for the first stage. The sample included 624 EAs, 187 in urban areas and 437 in rural areas.

Households comprised the second stage of sampling. A complete listing of households was carried out in each of the 624 selected EAs from September 2010 through January 2011. Sketch maps were drawn for each of the clusters, and all conventional households were listed. The listing excluded institutional living arrangements and collective quarters (e.g., army barracks, hospitals, police camps, and boarding schools). A representative sample of 17,817 households was selected for the 2011 EDHS. Because the sample is not self-weighting at the national level, all data in this report are weighted unless otherwise specified.

In the Somali region, in 18 of the 65 selected EAs listed households were not interviewed for various reasons, such as drought and security problems, and 10 of the 65 selected EAs were not listed due to security reasons. Therefore, the data for Somali may not be totally representative of the region as a whole. However, national-level estimates are not affected, as the percentage of the population in the EAs not covered in the Somali region is proportionally very small.

1.7. QUESTIONNAIRES

The 2011 EDHS used three questionnaires: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. These questionnaires were adapted from model survey instruments developed for the MEASURE DHS project to reflect the population and health issues relevant to Ethiopia. Issues were identified at a series of meetings with the various stakeholders. In addition to English, the questionnaires were translated into three major languages—Amharigna, Oromiffa, and Tigrigna.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Basic information was collected on the characteristics of each person listed, including

age, sex, education, and relationship to the head of the household. For children under age 18, survival status of the parents was determined. The data on the age and sex of household members obtained in the Household Questionnaire were used to identify women and men who were eligible for the individual interview. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, and ownership of various consumer durable goods. In addition, this questionnaire was used to record height and weight measurements of eligible women and men and children under age 5, as well as male and female respondents' voluntary consent to give blood samples.

The Woman's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- Background characteristics such as age, education and media exposure
- Birth history and childhood mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal, delivery and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Women's work
- Husband's background characteristics
- Awareness and behaviour regarding AIDS and other sexually transmitted infections (STIs)
- Adult mortality, including maternal mortality

The Man's Questionnaire was administered to all men age 15-59 in each household in the 2011 EDHS sample. The Man's Questionnaire collected much of the same information as the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health.

1.8 LISTING, PRETEST, MAIN TRAINING, FIELDWORK, AND DATA PROCESSING

Listing

After the selection of the 624 clusters throughout the 11 regions and administrative areas, a listing operation was conducted in the selected clusters for about four months, starting in September 2010. For this purpose, training was conducted for 44 listing staff and 11 supervisors who had been recruited from all the regions and from the CSA head office to carry out the listing of households and preparation of the sketch map for each selected EA. A manual that described the listing and mapping

procedures was prepared as a guideline, and the training involved both classroom demonstrations and field practice. The listing was performed by organizing the listing staff into teams, with two listers per team. Eleven supervisors were also assigned from the CSA branch offices to perform quality checks and handle all the administrative and financial aspects of the listing operation. Rounds of supervision were carried out by CSA central office staff to assess the quality of the field operation and to ensure proper listing.

Pretest

Before the start of fieldwork, the questionnaires were pretested in all three local languages to make sure that the questions were clear and could be understood by the respondents. Testing of blood sample collection was also conducted during the pretest. CSA staff and various experts from government ministries and donor organizations participated in a three-week pretest training and fieldwork conducted by staff from ICF International, from 20 September to 8 October 2010. Fifty-five participants were trained to administer paper questionnaires, take anthropometric measurements, and collect blood samples for anaemia and HIV testing. Representatives from EHNRI assisted in training participants on the finger prick for blood collection and proper handling and storage of the dried blood spots (DBS) for HIV testing. The pretest fieldwork was conducted over five days in the selected urban *kebeles* of Addis Ababa; and in both urban and rural *kebeles* in the surrounding towns of Ambo, Debre Birhan, Hawassa, and Mekele, covering 191 households. Debriefing sessions were held with the pretest field staff, and the questionnaires were modified based on lessons drawn from the pretest exercise.

Main Training

Recruitment of interviewers, editors, and supervisors for the main fieldwork was conducted in the nine regions and two city administrations, taking into account the languages of the specific areas. Accommodation was arranged for the trainees and trainers at a training site, Ethiopian Civil Service College in Addis Ababa. CSA recruited and trained 307 people for the main fieldwork to serve as supervisors, editors, male and female interviewers, and reserve interviewers. Also trained were field quality control staff, office editors, and office supervisors. The training of interviewers, editors and supervisors was conducted from 24 November to 23 December 2010. The training consisted of instruction on interviewing techniques and field procedures, a detailed review of the questionnaire content, instruction and practice in weighing and measuring children, mock interviews between participants in the classroom, and practice interviews with real respondents in areas outside the 2011 EDHS sample points. Field practice in anthropometry, anaemia testing, and blood sample collection was also carried out for interviewers who were assigned as team biomarker technicians. Team supervisors and editors were trained in data quality control procedures and fieldwork coordination. The Amharic questionnaires were mainly used during the training, while the Tigrigna and Oromiffa versions were simultaneously checked against the Amharic questionnaires to ensure accurate translation.

Fieldwork

Thirty-five interviewing teams carried out data collection for the 2011 EDHS. Each team consisted of one team supervisor, one field editor, four female interviewers, two male interviewers, one cook, and one driver. Ten staff members from CSA coordinated and supervised fieldwork activities. An ICF International staff and representatives from other organisations supporting the survey, including EHNRI, CDC, and USAID, participated in fieldwork monitoring. In addition to the field teams, a quality control team was present in each of the 11 regions. Each quality control team

included a field coordinator, one female and one male staff member to monitor the quality of the interviews, and one biomarker quality control staff member. The quality control teams regularly visited and often stayed with the EDHS teams throughout the fieldwork period to closely supervise and monitor them. Data collection took place over a five-month period from 27 December 2010 to 3 June 2011.

Data Processing

All questionnaires for the 2011 EDHS were returned to the CSA headquarters in Addis Ababa for data processing, which consisted of office editing, coding of open-ended questions, data entry, and editing computer-identified errors. The data were processed by a team of 32 data entry operators, 6 office editors, and 4 data entry supervisors. Data entry and editing were accomplished using the CSPro software. The processing of data was initiated in January 2011 and completed in June 2011.

1.9 ANTHROPOMETRY, ANAEMIA, AND HIV TESTING

The 2011 EDHS included height and weight measurement, anaemia testing, and blood sample collection for HIV testing in the laboratory.

Height and Weight Measurement

Height and weight measurements were carried out on women age 15-49, men age 15-59, and children under age 5 in all selected households. Weight measurements were obtained using lightweight, SECA mother-infant scales with a digital screen, designed and manufactured under the guidance of UNICEF. Height measurements were carried out using a measuring board. Children younger than 24 months were measured for height while lying down, and older children, while standing.

Anaemia Testing

Blood specimens were collected for anaemia testing from all children age 6-59 months, women age 15-49, and men age 15-59 who voluntarily consented to the testing. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of young children with small fingers) and collected in a microcuvette.

Haemoglobin analysis was carried out onsite using a battery-operated portable HemoCue analyser. Results were given verbally and in writing. Parents of children with a haemoglobin level under 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, non-pregnant women were referred for follow-up care if their haemoglobin level was below 7 g/dl, and pregnant women and men were referred if their haemoglobin level was below 9 g/dl. All households in which anaemia testing was conducted received a brochure explaining the causes and prevention of anaemia.

HIV Testing

Blood specimens for laboratory testing of HIV were collected by the EDHS biomarker technicians from all women age 15-49 and men age 15-59 who consented to the test. The protocol for the blood specimen collection and analysis was based on the anonymous linked protocol developed for MEASURE DHS. This protocol allows for the merging of the HIV test results with the socio-demographic data collected in the individual questionnaires after all information that could potentially identify an individual respondent has been destroyed.

Interviewers explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to the respondent. If a respondent consented to the HIV testing, five blood spots from the finger prick were collected on a filter paper card labelled with a barcode unique to the respondent. Respondents were asked whether they consented to having the laboratory store their blood sample for future unspecified testing. If the respondent did not consent to additional testing using their sample, the words "no additional testing" were written on the filter paper card. Each household, whether individuals consented to HIV testing or not, received an informational brochure on HIV/AIDS and a list of fixed sites providing voluntary counselling and testing (VCT) services within the surrounding 10 km radius from the cluster for each region. For households farther than 10 km from a fixed VCT site, mobile VCT units were set up in or near survey areas following data collection. The USAID and CDC partners provided the logistical services for the provisions of mobile VCT services.

For each barcoded blood sample, a duplicate label was attached to the Biomarker Data Collection Form. A third copy of the same barcode was affixed to the Blood Sample Transmittal Form to track the blood samples from the field to the laboratory. Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected in the field, along with the completed questionnaires, and transported to CSA in Addis Ababa to be logged in and checked; blood samples were then transported and submitted for testing to EHNRI in Addis Ababa.

Upon arrival at EHNRI, each blood sample was logged into the CSPro HIV Test Tracking System (CHTTS) database, given a laboratory number, and stored at −20˚C until tested. The HIV testing protocol stipulates that testing of blood can be conducted only after the questionnaire data entry is completed, verified, and cleaned, and all unique identifiers except the anonymous barcode number are removed from the questionnaire file. The testing algorithm calls for testing all samples on the first ELISA assay test, the Vironostika® HIV Uni-Form II Plus O (Biomerieux). All positives were subjected to a second ELISA, the Murex HIV Ag/Ab Combination. If the first and second tests were discordant, a third confirmatory test, the HIV 2.2 western blot (DiaSorin), was conducted to resolve the discordance. The final result was rendered positive if the western blot confirmed the result to be positive and was rendered negative if the western blot confirmed it to be negative. When the western blot results were indeterminate, the sample result was recorded indeterminate.

Following HIV testing, the HIV test results for the 2011 EDHS were entered into the CHTTS database with a barcode as the unique identifier to the result. The barcodes identifying the HIV test results were linked with the data from the individual interviews to enable analysis and publication of HIV data linked with other EDHS data.

1.10 RESPONSE RATES

Table 1.2 shows household and individual response rates for the 2011 EDHS. A total of 17,817 households were selected for the sample, of which 17,018 were found to be occupied during data collection. Of these, 16,702 were successfully interviewed, yielding a household response rate of 98 percent.

In the interviewed households 17,385 eligible women were identified for individual interview; complete interviews were conducted for 16,515, yielding a response rate of 95 percent. Similarly, a total of 15,908 eligible men were identified for interview; completed interviews were conducted for 14,110, yielding a response rate of 89 percent. In general, response rates were higher in rural areas than urban areas, for both women and men.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Ethiopia 2011

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	5,518	12,299	17,817
Households occupied	5,272	11,746	17,018
Households interviewed	5,112	11,590	16,702
Household response rate[1]	97.0	98.7	98.1
Interviews with women age 15-49			
Number of eligible women	5,656	11,729	17,385
Number of eligible women interviewed	5,329	11,186	16,515
Eligible women response rate[2]	94.2	95.4	95.0
Interviews with men age 15-59			
Number of eligible men	5,062	10,846	15,908
Number of eligible men interviewed	4,216	9,894	14,110
Eligible men response rate[2]	83.3	91.2	88.7

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

Due to the non-proportional allocation of the sample to the different regions and to their urban and rural areas, sampling weights are used for analyzing the 2011 EDHS data to ensure the actual representativeness of the survey results at the national and regional level (for more information on sample weights, see Appendix A) . Whenever applicable, both weighted and unweighted numbers are used in the tables of this report.

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION

2

Key Findings

- More than half of households in Ethiopia (54 percent) have access to an improved source of drinking water.
- Only 8 percent of households have an improved toilet facility, not shared with other households.
- About one household in every four (23 percent) is electrified.
- A large proportion of the Ethiopian population (47 percent) is under age 15.
- More than one household in every four (26 percent) is female-headed.
- Twenty-seven percent of Ethiopian children age 5-14 are engaged in child labour.

This chapter summarizes demographic and socioeconomic characteristics of the population in the households sampled in the 2011 EDHS. The survey 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. In the EDHS a household was defined as a single person or a group of related or 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. The Household Questionnaire (see Appendix E) included a schedule collecting basic demographic and socioeconomic information (e.g., age, sex, educational attainment, and current school attendance) for all usual residents and for visitors who spent the night preceding the interview in the household. The Household Questionnaire also obtained information on housing characteristics (e.g., sources of water supply and sanitation facilities) and household possessions.

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

2.1 HOUSEHOLD ENVIRONMENT

Physical characteristics of a household's environment are important determinants of the health status of household members, especially children. They can also serve as indicators of the socioeconomic status of households. The 2011 EDHS asked respondents about their household environment, including access to electricity, source of drinking water, type of sanitation facility, type of flooring material, and number of rooms in the dwelling. The results are presented here in terms of households and of the de jure population.

2.1.1 Drinking Water

Increasing access to improved drinking water is one of the Millennium Development Goals that Ethiopia and other nations worldwide have adopted (United Nations General Assembly, 2002). Table 2.1 presents a number of indicators that are useful in monitoring household access to improved drinking water. The source of the water is an indicator of whether it is suitable for drinking. In Table

2.1 sources that are likely to provide water suitable for drinking are identified as improved sources. These include a piped source within the dwelling, yard, or plot; a public tap/stand pipe, or borehole; a protected well; spring water and rainwater (WHO and UNICEF Joint Monitoring Program for Water Supply and Sanitation, 2010). Lack of easy access to a water source may limit the quantity of suitable drinking water that is available to a household. Even if the water is obtained from an improved source, when the water needs to be fetched from a source that is not immediately accessible to the household, it may become contaminated during transport or storage. Especially in such situations, home water treatment can be effective in improving the quality of household drinking water. Another factor in considering access to a water source is that the burden of fetching water often falls disproportionately on female members of the household.

Table 2.1 Household drinking water

Percent distribution of households and de jure population by source of drinking water, time to obtain drinking water, person who usually collects drinking water and by treatment of drinking water, according to residence, Ethiopia 2011

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source						
Piped into dwelling	4.2	0.0	1.0	4.9	0.0	0.9
Piped to yard/plot	44.2	0.1	10.1	41.9	0.1	7.6
Public tap/standpipe	38.6	18.8	23.3	38.6	18.9	22.5
Borehole	1.1	4.0	3.3	1.0	4.0	3.5
Protected well	4.1	7.6	6.8	3.7	7.6	6.9
Protected spring	2.0	11.1	9.0	2.4	10.8	9.3
Rainwater	0.1	0.2	0.1	0.2	0.2	0.2
Bottled water	0.3	0.0	0.1	0.1	0.0	0.0
Non-improved source	5.2	58.0	46.0	7.0	58.1	48.9
Unprotected well	0.5	4.5	3.6	0.8	4.7	4.0
Unprotected spring	2.5	32.0	25.3	3.0	32.1	26.9
Tanker truck/cart with small tank	1.4	0.5	0.7	2.0	0.4	0.7
Surface water (river/lake/pond/stream dam)	0.8	21.0	16.4	1.2	20.9	17.3
Other source	0.2	0.3	0.3	0.2	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	94.5	41.7	53.7	92.8	41.6	50.8
Time to obtain drinking water (round trip)						
Water on premises	50.4	1.3	12.5	49.0	1.4	10.0
Less than 30 minutes	30.1	35.9	34.6	29.1	34.8	33.8
30 minutes or longer	18.9	62.4	52.6	21.4	63.6	56.0
Don't know/missing	0.6	0.3	0.4	0.4	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult woman	34.0	70.7	62.4	35.3	69.3	63.1
Adult man	8.8	7.3	7.6	6.6	5.8	5.9
Female child under 15 years old	3.8	14.9	12.4	5.3	17.6	15.4
Male child under 15 years old	1.8	4.9	4.2	2.8	5.2	4.8
Other	1.0	0.9	0.9	0.9	0.7	0.7
Water on premises	50.4	1.3	12.5	49.0	1.4	10.0
Missing	0.2	0.0	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[1]						
Boiled	3.8	2.4	2.7	4.0	2.2	2.6
Bleach/chlorine added[2]	9.2	4.9	5.8	9.3	4.9	5.7
Strained through cloth	0.6	1.4	1.2	0.5	1.5	1.3
Bio-sand, composite, ceramic pot filter	0.4	0.2	0.2	0.6	0.2	0.2
Let it stand and settle	0.0	0.2	0.1	0.0	0.2	0.2
Other	0.5	0.1	0.2	0.6	0.1	0.2
No treatment	86.9	91.1	90.2	86.3	91.1	90.2
Percentage using an appropriate treatment method[3]	12.3	8.2	9.1	12.9	8.3	9.1
Weighted number	3,780	12,922	16,702	13,939	63,438	77,377
Unweighted number	5,112	11,590	16,702	18,917	56,738	75,655

[1] Respondents may report multiple treatment methods; therefore, the sum of treatments may exceed 100 percent.
[2] Includes use of water guard, Pur, Bishan Gari, and aquatabs
[3] Appropriate water treatment methods include boiling, bleaching, straining, and filtering.

As Table 2.1 shows, more than half of the households in Ethiopia (54 percent) have access to an improved source of drinking water, with a much higher proportion among urban households (95 percent) than among rural households (42 percent). The most common source of improved drinking water in urban households is piped water, used by 87 percent of urban households. In contrast, only 19 percent of rural households have access to piped water. Eleven percent of rural households have access to drinking water from a protected spring, and 8 percent have access to drinking water from a protected well.

Nationally, the proportion of Ethiopian households with access to piped water has increased from 18 percent in 2000 to 24 percent in 2005 and 34 percent in 2011. In the last six years there has been a rapid increase in the percentage of households in Ethiopia that use some type of improved source of drinking water, from 35 percent in the 2005 EDHS to 54 percent in the 2011 EDHS.[1]

In the 2011 EDHS only 13 percent of households reported having water on their premises. Households not having water on their premises were asked how long it takes to fetch water. Thirty-five percent of all households (30 percent in urban areas and 36 percent in rural areas) take less than 30 minutes to fetch drinking water. More than half of all households (53 percent) travel 30 minutes or more to fetch their drinking water (19 percent in urban areas and 62 percent in rural areas).

Women in Ethiopia, especially in rural areas, bear the burden of collecting drinking water. In six of every ten households (62 percent), adult women are responsible for water collection. In rural households adult women are ten times more likely than adult men to usually fetch the water for the household (71 percent versus 7 percent). Even in urban households women are almost four times more likely than men to collect water (34 percent versus 9 percent). Female children under age 15 are about three times more likely than male children of the same age group to fetch drinking water (12 percent versus 4 percent).

In the 2011 EDHS all households also were asked whether they treat their drinking water. An overwhelming majority, nine households in every ten, do not treat their drinking water. Urban households (12 percent) are somewhat more likely than rural households (8 percent) to use an appropriate treatment method to ensure that water is safe for drinking.

2.1.2 Household Sanitation Facilities

Ensuring adequate sanitation facilities is another Millennium Development Goal that Ethiopia shares with other countries. At the household level, adequate sanitation facilities include an improved toilet and disposal that separates waste from human contact. A household is classified as having an improved toilet if it is used only by members of one household (that is, it is not shared) and if the facility used by the household separates the waste from human contact (WHO and UNICEF, 2010).

[1] There was an error in the 2005 Ethiopia DHS Final Report in the proportion of households with access to an improved source of drinking water. The error occurred because the codes for protected and unprotected spring water were reversed. The total percentage of households with an improved source of drinking water was actually 35 percent and not 61 percent as reported.

Table 2.2 shows that 8 percent of households in Ethiopia use improved toilet facilities that are not shared with other households, 14 percent in urban areas and 7 percent in rural areas. One in ten households (32 percent in urban areas and 3 percent in rural areas) use shared toilet facilities. The large majority of households, 82 percent, use non-improved toilet facilities (91 percent in rural areas and 54 percent in urban areas). The most common type of non-improved toilet facility is an open pit latrine or pit latrine without slabs, used by 45 percent of households in rural areas and 37 percent of households in urban areas. Overall, 38 percent of households have no toilet facility, 16 percent in urban areas and 45 percent in rural areas.

Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Ethiopia 2011

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	**14.1**	**6.6**	**8.3**	**18.2**	**6.8**	**8.8**
Flush/pour flush to piped sewer system	1.9	0.0	0.5	2.4	0.0	0.5
Flush/pour flush to septic tank	1.2	0.1	0.4	1.6	0.1	0.4
Flush/pour flush to pit latrine	1.4	0.9	1.0	1.7	1.0	1.1
Ventilated improved pit (VIP) latrine	1.2	1.0	1.0	1.7	1.0	1.1
Pit latrine with slab	7.2	1.1	2.5	9.2	1.1	2.6
Composting toilet	1.2	3.5	3.0	1.6	3.6	3.2
Shared facility[1]	**32.2**	**2.8**	**9.5**	**26.7**	**2.2**	**6.7**
Flush/pour flush to piped sewer system	0.5	0.0	0.1	0.4	0.0	0.1
Flush/pour flush to septic tank	0.8	0.1	0.3	0.9	0.1	0.2
Flush/pour flush to pit latrine	1.5	0.2	0.5	1.3	0.2	0.4
Ventilated improved pit (VIP) latrine	2.0	0.3	0.7	1.7	0.2	0.5
Pit latrine with slab	24.4	1.0	6.3	20.2	0.8	4.3
Composting toilet	2.9	1.2	1.6	2.3	0.9	1.2
Non-improved facility	**53.7**	**90.6**	**82.2**	**55.0**	**91.0**	**84.5**
Flush/pour flush not to sewer/septic tank/pit latrine	0.1	0.1	0.1	0.2	0.1	0.1
Pit latrine without slab/open pit	37.1	45.4	43.5	38.3	47.7	46.0
Hanging toilet/hanging latrine	0.1	0.0	0.0	0.2	0.0	0.0
No facility/bush/field	15.9	44.8	38.3	16.1	43.0	38.2
Other	0.3	0.2	0.2	0.2	0.1	0.1
Missing	0.1	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number	3,780	12,922	16,702	13,939	63,438	77,377
Unweighted number	5,112	11,590	16,702	18,917	56,738	75,655

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

2.1.3 Housing Characteristics

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

Table 2.3 Household characteristics

Percent distribution of households by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Ethiopia 2011

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	85.2	4.8	23.0
No	14.8	95.2	77.0
Total	100.0	100.0	100.0
Flooring material			
Earth/sand	32.8	56.0	50.7
Dung	15.3	39.5	34.0
Wood/planks	0.4	0.1	0.1
Palm/bamboo	0.7	0.7	0.7
Parquet or polished wood	1.1	0.0	0.2
Vinyl or asphalt strips	23.8	1.0	6.2
Ceramic tiles	1.5	0.0	0.4
Cement	15.5	1.1	4.3
Carpet	8.4	0.9	2.6
Other	0.6	0.7	0.7
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	67.8	71.0	70.3
Two	25.9	24.5	24.8
Three or more	6.2	4.2	4.6
Missing	0.2	0.3	0.3
Total	100.0	100.0	100.0
Place for cooking			
In the house	29.3	59.3	52.5
In a separate building	49.4	32.5	36.3
Outdoors	15.8	7.4	9.3
Other	0.1	0.1	0.1
No food cooked in the house	5.4	0.8	1.8
Total	100.0	100.0	100.0
Cooking fuel			
Electricity	2.9	0.0	0.7
LPG/natural gas/biogas	1.3	0.0	0.3
Kerosene	10.1	0.1	2.4
Charcoal	29.9	1.2	7.7
Wood	45.9	86.2	77.0
Straw/shrubs/grass	0.3	1.1	0.9
Agricultural crop	1.3	2.2	2.0
Animal dung	2.8	8.3	7.0
Other	0.1	0.1	0.1
No food cooked in household	5.4	0.8	1.8
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	80.2	99.0	94.7
Frequency of smoking in the home			
Daily	6.6	7.2	7.1
Weekly	3.0	2.5	2.6
Monthly	0.7	0.6	0.6
Less than monthly	1.0	1.1	1.1
Never	88.7	88.6	88.6
Total	100.0	100.0	100.0
Weighted number	3,780	12,922	16,702
Unweighted number	5,112	11,590	16,702

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

Only about one household in every four (23 percent) has electricity, with a very large disparity between urban and rural households (85 percent versus 5 percent). In urban areas the proportion of households with electricity rose from 76 percent in 2000 to 86 percent in 2005 but then remained virtually unchanged in 2011 at 85 percent. In rural areas the percentage increased from less than 1 percent in 2000 to 2 percent in 2005 and 5 percent in 2011.

More than half (51 percent) of households have earth or sand floors, and about one-third (34 percent) have dung floors. Rural houses are more likely than urban houses to have earth, sand, or

dung floors, while urban houses are more likely to have floors made with vinyl or asphalt strips or with cement.

The number of rooms used for sleeping in relation to the number of household members is an indicator of the extent of crowding, which in turn increases the risk of contracting communicable diseases. Overall, 70 percent of Ethiopian households use one room for sleeping, 25 percent use two rooms, and 5 percent use three or more rooms for sleeping.

More than half (53 percent) of households cook in the housing unit where they live, while more than one-third (36 percent) use a separate building, and about one household in every ten (9 percent) cooks outdoors.

Cooking and heating with solid fuels can lead to high levels of indoor smoke, which consists of a complex mix of pollutants that could increase the risk of contracting diseases. Solid fuels include charcoal, wood, straw, shrubs, grass, agricultural crops, and animal dung. The great majority (95 percent) of households primarily use solid fuel for cooking. The practice is nearly universal in with rural households, at 99 percent, and very common in urban households (80 percent) as well. Wood is the main type of cooking fuel, used by 77 percent of households (46 percent of urban households and 86 of rural households). In addition to wood, charcoal and kerosene are important types of cooking fuel in urban areas; 30 percent of urban households use charcoal and 10 percent use kerosene for cooking.

The 2011 EDHS collected information on the frequency of smoking tobacco in the home. Table 2.2 shows that 7 percent of households are exposed to daily smoking and 3 percent are exposed weekly. There is little difference between rural and urban areas.

2.1.4 Household Possessions

The availability of durable consumer goods is another indicator of a household's socioeconomic status. Moreover, particular goods have specific benefits. For instance, a radio or a television can bring household members information and new ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport can increase access to many services that are beyond walking distance. Table 2.4 shows the extent of possession of selected consumer goods by urban or rural residence. Forty-one percent of households have radios, 25 percent have mobile telephones, 10 percent have televisions, 5 percent have non-mobile telephones, and 4 percent have refrigerators.

In both urban and rural areas only a small percentage of households possess a means of transport. Urban households are slightly more likely than rural households to own bicycles (6 percent versus 1 percent) or a car or lorry (4 percent versus less than 1 percent). Three-fourths of all households own agricultural land (73 percent) or farm animals (76 percent).

There is noticeable urban-rural variation in the proportion of households owning specific goods. Most of the electronic goods are considerably more prevalent in urban areas, while farm-oriented possessions are more common in rural areas. For example, 42 percent of urban households own televisions, compared with only 1 percent of rural households. Similarly, 65 percent of urban households own mobile telephones, compared with 13 percent of rural households. As expected, ownership of agricultural land is much more widespread among rural than urban households (88 percent versus 23 percent), as is ownership of farm animals (90 percent versus 31 percent).

Table 2.4 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals, by residence, Ethiopia 2011

Possession	Residence		Total
	Urban	Rural	
Household effects			
Radio	63.9	33.7	40.5
Television	42.1	1.1	10.4
Mobile telephone	65.2	12.8	24.7
Non-mobile telephone	19.0	0.2	4.5
Refrigerator	14.3	0.6	3.7
Means of transportation			
Bicycle	5.6	1.4	2.3
Animal-drawn cart	0.7	1.1	1.0
Motorcycle/scooter	0.6	0.1	0.2
Car/truck	3.6	0.1	0.9
Ownership of agricultural land	22.5	87.8	73.1
Ownership of farm animals[1]	30.5	89.5	76.1
Weighted number	3,780	12,922	16,702
Unweighted number	5,112	11,590	16,702

[1] Milk cows, oxen, bulls, horses, donkeys, mules, camels, goats, sheep, or chickens

2.2 WEALTH INDEX

The wealth index used in this survey is a measure that has been used in many DHS and other country-level surveys to indicate inequalities in household characteristics, in the use of health and other services, and in health outcomes (Rutstein et al., 2000). It serves as an indicator of level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The index was constructed using household asset data via a principal components analysis.

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

Table 2.5 presents the wealth quintiles by residence and administrative regions of the country. In urban areas 88 percent of the population is in the highest wealth quintile, in sharp contrast to the rural areas, where only 5 percent of the population are in the highest wealth quintile. Among regions the wealth quintile distribution varies greatly. A relatively high percentage of the population in the most urbanized regions is in the highest wealth quintile—Addis Ababa (99 percent), Dire Dawa (66 percent), and Harari (60 percent). In contrast, a significant proportion of the population in the

more rural regions are in the lowest wealth quintile, as in Affar (57 percent), Somali (44 percent), and Gambela (35 percent).

Table 2.5 also shows the Gini Coefficient of wealth in Ethiopia, which indicates the concentration of wealth, with 0 representing an exactly equal distribution (everyone having the same amount of wealth) and 1 representing a totally unequal distribution (one person having all the wealth). The overall Gini Coefficient for Ethiopia is 0.23. It is much higher in urban areas (0.14) than in rural areas (0.07), indicating a more unequal distribution of wealth in the urban population than in the rural population. The lowest Gini Coefficient is seen in Addis Ababa (0.02) where almost the entire population (99 percent) is in the highest wealth quintile. The highest Gini Coefficient—that is, the least equitable distribution of wealth—is observed in Affar and Gambela (both 0.29).

Table 2.5 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and region, Ethiopia 2011

Residence/region	Wealth quintile					Total	Weighted number	Unweighted number	Gini Coefficient
	Lowest	Second	Middle	Fourth	Highest				
Residence									
Urban	2.3	1.0	1.1	8.0	87.6	100.0	13,939	18,917	0.14
Rural	23.9	24.2	24.1	22.6	5.1	100.0	63,438	56,738	0.07
Region									
Tigray	25.8	22.3	16.1	13.1	22.7	100.0	5,035	7,794	0.26
Affar	57.0	9.5	4.9	6.9	21.7	100.0	667	6,048	0.29
Amhara	22.4	22.7	21.8	17.1	16.0	100.0	19,478	9,264	0.20
Oromiya	16.0	20.9	22.4	25.3	15.4	100.0	29,800	10,325	0.19
Somali	43.9	8.0	9.7	11.6	26.8	100.0	1,810	5,150	0.20
Benishangul-Gumuz	29.7	18.7	19.0	20.2	12.3	100.0	809	5,978	0.18
SNNP	21.7	20.4	20.6	21.0	16.2	100.0	16,069	10,169	0.17
Gambela	34.9	7.5	8.0	22.7	26.9	100.0	284	5,473	0.29
Harari	2.0	6.5	10.0	21.4	60.1	100.0	213	4,865	0.26
Addis Ababa	0.3	0.2	0.1	0.4	98.9	100.0	2,919	5,710	0.02
Dire Dawa	8.0	9.7	11.0	5.7	65.7	100.0	291	4,879	0.23
Total	20.0	20.0	20.0	20.0	20.0	100.0	77,377	75,655	0.23

2.3 POPULATION BY AGE AND SEX

Age and sex are important variables that are the primary basis for demographic classification in vital statistics, censuses, and surveys. They are also important variables for the study of mortality, fertility, and marriage.

Table 2.6 Household population by age, sex, and residence

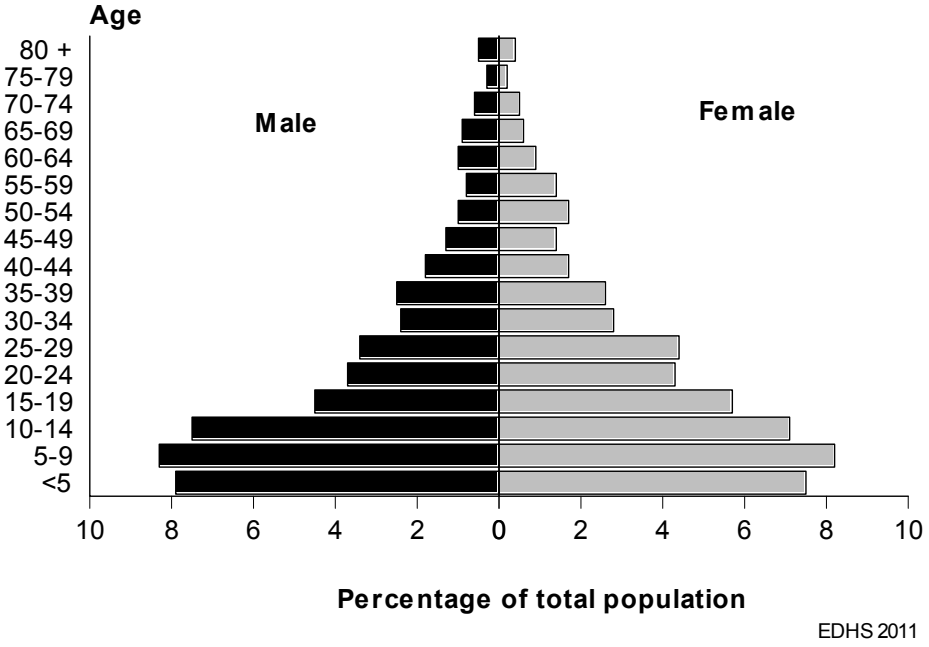
Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Ethiopia 2011

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	11.8	10.2	10.9	17.2	15.7	16.4	16.3	14.6	15.4
5-9	13.1	10.5	11.7	18.0	17.2	17.6	17.1	15.9	16.5
10-14	13.0	13.0	13.0	15.9	13.9	14.9	15.4	13.8	14.6
15-19	11.1	14.7	13.0	8.9	10.2	9.6	9.3	11.0	10.2
20-24	11.0	12.6	11.8	7.0	7.3	7.2	7.7	8.3	8.0
25-29	9.7	11.0	10.4	6.5	7.9	7.2	7.1	8.5	7.8
30-34	7.0	6.7	6.8	4.5	5.1	4.8	4.9	5.4	5.1
35-39	6.6	5.4	6.0	4.8	5.0	4.9	5.1	5.1	5.1
40-44	4.7	3.6	4.1	3.5	3.4	3.4	3.7	3.4	3.5
45-49	3.1	2.3	2.6	2.7	2.9	2.8	2.8	2.8	2.8
50-54	2.4	3.0	2.7	2.1	3.3	2.7	2.1	3.2	2.7
55-59	1.4	1.8	1.7	1.7	3.0	2.4	1.7	2.7	2.2
60-64	1.8	1.5	1.6	2.2	1.8	2.0	2.1	1.8	1.9
65-69	1.3	1.2	1.2	1.9	1.1	1.5	1.8	1.1	1.5
70-74	0.8	0.9	0.9	1.3	1.1	1.2	1.2	1.1	1.1
75-79	0.5	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6
80 +	0.7	1.0	0.9	1.1	0.7	0.9	1.0	0.8	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number	6,346	7,412	13,758	30,731	31,808	62,539	37,077	39,219	76,296
Unweighted number	8,653	9,964	18,617	27,037	28,442	55,479	35,690	38,406	74,096

Table 2.6 shows the distribution of the household population in the 2011 EDHS by five-year age groups, according to urban or rural residence and sex. The total population counted in the survey was 76,296, with females slightly outnumbering males (39,219 compared with 37,077). The results indicate an overall sex ratio of 95 males per 100 females. The sex ratio is higher in rural areas (97 males per 100 females) than in urban areas (86 males per 100 females).

The age structure of the household population in Ethiopia is typical of a society with a young population. The population pyramid in Figure 2.1 shows the sex and age distribution of the population. The pyramidal age structure reflects the large number of children under age 15. Children under age 15 account for nearly half (47 percent) of the total population, a feature of populations with high fertility levels, while only about 4 percent of Ethiopians are over age 65. This population distribution is similar to that observed in the 2000 and 2005 surveys.

Figure 2.1 **Population Pyramid**



2.4 HOUSEHOLD COMPOSITION

Table 2.7 presents information about the composition of households by sex of the household head and size of the household. These characteristics are important because they are associated with household welfare.

About one-quarter (26 percent) of Ethiopian households are headed by women, a slight increase from 23 percent in 2005. Average household size is 4.6 persons, which is slightly lower than the average of 5.0 persons per household reported in 2005.

Urban households have fewer members than rural households. In urban areas the average household size is 3.7 persons, compared with 4.9 persons in rural areas. Single-person households are more common in urban areas (17 percent) than in rural areas (5 percent). Also, a much lower

proportion of urban households (19 percent) have six or more members than do rural households (38 percent).

The 2011 EDHS also collected information on the presence in households of foster children and orphans. Foster children are children under age 18 living in households with neither their mother nor their father present; orphans are children with one or both parents dead. Foster children and orphans are of concern because they may be neglected or exploited if no parent is present. There is little difference between rural and urban areas in the distribution of orphans. Overall, 19 percent of households have foster children, with little variation between urban and rural households. Single orphans (one parent dead) are present in 11 percent of households, whereas double orphans (both parents dead) are present in 1 percent of households.

Table 2.7 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, Ethiopia 2011

	Residence		
Characteristic	Urban	Rural	Total
Household headship			
Male	64.2	76.8	73.9
Female	35.8	23.2	26.1
Total	100.0	100.0	100.0
Number of usual members			
0	0.2	0.1	0.1
1	16.5	5.0	7.6
2	18.5	9.9	11.9
3	17.8	14.2	15.0
4	14.1	16.0	15.5
5	14.1	16.9	16.3
6	8.4	14.0	12.7
7	4.7	10.4	9.1
8	2.4	7.3	6.2
9+	3.3	6.2	5.5
Total	100.0	100.0	100.0
Mean size of households	3.7	4.9	4.6
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]	21.2	18.9	19.4
Double orphans	1.9	1.3	1.4
Single orphans[2]	10.2	11.7	11.3
Foster and/or orphan children	25.7	25.6	25.6
Weighted number	3,780	12,922	16,702
Unweighted number	5,112	11,590	16,702

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

2.5 CHILDREN'S LIVING ARRANGEMENTS AND PARENTAL SURVIVAL

Table 2.8 presents data on children's living arrangements and orphanhood in Ethiopia. Seventy-two percent of children under age 18 live with both parents; 14 percent live with their mothers but not their fathers; 3 percent live with their fathers but not their mothers; and 11 percent live with neither of their natural parents.

The proportion of children living with both parents decreases with age. That is, younger children are more likely than older children to live with both parents. The proportion of children living with both parents varies little by the child's sex. Rural children are substantially more likely to live with both parents than urban children (74 percent versus 58 percent). Among regions of the country, the highest proportion of children living with both parents is in Benishangul-Gumuz (75 percent), while the lowest proportion is in Addis Ababa (52 percent). The percentage of children living with both parents tends to decrease with an increase in household wealth.

Table 2.8 Children's living arrangements and orphanhood

Percent distribution of de jure children under 18 years of age by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Ethiopia 2011

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Weighted number of children	Unweighted number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/ mother					
Age															
0-4	82.3	11.1	2.0	0.7	0.3	2.8	0.3	0.2	0.1	0.2	100.0	3.4	2.9	11,801	11,569
0-1	86.3	11.0	1.5	0.1	0.0	0.7	0.2	0.0	0.0	0.2	100.0	0.9	1.7	4,423	4,254
2-4	79.8	11.2	2.2	1.0	0.5	4.1	0.3	0.3	0.1	0.3	100.0	4.9	3.6	7,378	7,315
5-9	73.4	9.0	4.5	2.2	0.9	7.7	0.7	0.8	0.5	0.4	100.0	9.7	7.4	12,739	12,310
10-14	65.7	8.6	7.1	2.5	1.8	9.3	1.4	1.8	1.3	0.4	100.0	13.9	13.5	11,174	10,540
15-17	54.1	7.3	9.8	2.2	2.3	15.1	2.3	3.8	1.9	1.2	100.0	23.1	20.2	4,798	4,457
Sex															
Male	72.9	9.1	5.1	2.2	1.3	6.2	1.0	1.2	0.9	0.3	100.0	9.2	9.4	20,451	19,582
Female	70.3	9.5	5.2	1.5	1.0	9.0	0.9	1.4	0.7	0.6	100.0	12.0	9.2	20,062	19,294
Residence															
Urban	58.3	14.9	5.4	2.3	0.7	12.5	1.2	2.4	1.7	0.7	100.0	17.8	11.5	5,948	7,492
Rural	73.9	8.3	5.1	1.8	1.2	6.7	0.9	1.1	0.6	0.4	100.0	9.3	8.9	34,565	31,384
Region															
Tigray	69.1	14.7	5.5	1.2	1.6	5.4	0.5	0.8	0.8	0.4	100.0	7.6	9.2	2,617	4,083
Affar	63.3	18.8	4.2	2.8	2.9	5.0	1.2	1.0	0.7	0.2	100.0	7.9	10.0	363	3,369
Amhara	74.1	9.2	3.7	2.3	1.1	6.6	0.8	1.1	0.7	0.4	100.0	9.3	7.4	9,632	4,624
Oromiya	74.1	6.9	5.7	1.4	1.1	7.5	1.0	1.2	0.7	0.5	100.0	10.3	9.6	16,124	5,591
Somali	70.4	13.7	4.7	1.6	1.1	5.2	1.1	0.8	1.0	0.5	100.0	8.1	8.7	1,083	3,093
Benishangul-Gumuz	75.0	9.2	3.1	3.1	1.3	5.2	0.9	1.1	0.8	0.3	100.0	8.1	7.2	424	3,149
SNNP	67.8	10.6	5.5	2.1	1.3	8.8	1.1	1.5	0.9	0.4	100.0	12.3	10.3	8,935	5,696
Gambela	52.6	15.4	9.0	3.7	1.0	11.5	1.7	3.1	1.7	0.4	100.0	17.9	16.5	132	2,887
Harari	70.9	8.2	4.1	2.9	1.2	8.7	1.2	1.2	1.0	0.6	100.0	12.1	8.7	98	2,249
Addis Ababa	51.7	12.8	6.8	4.1	0.4	16.9	1.5	3.1	1.8	0.8	100.0	23.3	13.6	972	1,848
Dire Dawa	65.2	10.4	5.0	2.0	0.6	10.9	1.6	1.8	1.5	1.0	100.0	15.8	10.6	132	2,287
Wealth quintile															
Lowest	72.0	10.3	6.5	1.7	1.3	5.3	0.9	1.1	0.6	0.3	100.0	7.9	10.4	8,652	11,403
Second	75.5	7.9	4.9	1.6	1.3	6.2	0.7	1.0	0.7	0.2	100.0	8.5	8.6	8,365	6,635
Middle	75.9	6.9	4.5	1.9	1.2	6.5	1.2	1.0	0.7	0.4	100.0	9.3	8.6	8,470	6,295
Fourth	71.7	8.6	4.6	2.2	1.1	8.3	0.9	1.2	0.6	0.6	100.0	11.1	8.6	8,277	6,384
Highest	60.6	13.6	4.9	1.9	0.8	12.7	1.0	2.2	1.5	0.7	100.0	17.5	10.5	6,750	8,159
Total <15	73.9	9.6	4.5	1.8	1.0	6.6	0.8	0.9	0.6	0.3	100.0	8.9	7.8	35,715	34,419
Total <18	71.6	9.3	5.1	1.8	1.2	7.6	1.0	1.3	0.8	0.4	100.0	10.6	9.3	40,513	38,876

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

2.6 EDUCATION OF THE HOUSEHOLD POPULATION

Education is a key determinant of individual opportunities, attitudes, and economic and social status. Studies have consistently shown that educational attainment has a strong effect on reproductive behaviour, fertility, infant and child mortality and morbidity, and attitudes and awareness related to family health, use of family planning, and sanitation. The 2011 EDHS reports educational attainment among household members and school attendance among youth.

For many years Ethiopia's education system did not change substantially. Recently, however, the Ethiopian government undertook a major restructuring and expansion programme within the government system, as well as opening the education sector to the free-market economy and to private investments. The current system of formal education is based on a three-tier system: eight years of primary education, followed by four years of secondary education, and four to seven years for tertiary education, depending on the area of study. Currently, several pre-university colleges and educational institutions operated by the government or the private sector offer vocational, technical, and professional training in different parts of the country. The number of public and private universities and vocational and technical schools has increased substantially over the last few years.

2.6.1 School Attendance by Survivorship of Parents

The survival status of parents has an impact on their children's school attendance. Table 2.9 shows the percentage of children age 10-14 attending school by parental survival, and the ratio of the percentage attending by parental survival, according to background characteristics. Children whose parents both are dead are less likely to attend school (69 percent) than children who have both parents alive and are living with at least one parent (76 percent), resulting in a ratio of 0.90 between the percentage of children with both parents deceased and the percentage with both parents alive and living with a parent.

Male children with both parents deceased are much less likely than female children in the same situation to attend school (60 percent versus 80 percent).

Table 2.9 School attendance by survivorship of parents

For de jure children 10-14 years of age, the percentage attending school by parental survival and the ratio of the percentage attending, by parental survival, according to background characteristics, Ethiopia 2011

	Percentage attending school by survivorship of parents						
Background characteristic	Both parents deceased	Weighted number	Unweighted number	Both parents alive and living with at least one parent	Weighted number	Unweighted number	Ratio[1]
Sex							
Male	59.9	81	81	73.6	4,513	4,273	0.81
Female	79.7	68	71	79.1	4,077	3,692	1.01
Residence							
Urban	93.2	50	61	94.4	1,263	1,402	0.99
Rural	56.8	100	91	73.1	7,327	6,563	0.78
Region							
Tigray	*	8	11	78.3	542	846	0.92
Affar	*	1	13	55.1	75	701	0.67
Amhara	*	23	9	77.9	2,349	1,112	0.75
Oromiya	*	54	20	73.4	3,198	1,117	0.88
Somali	*	6	11	67.2	208	588	0.97
Benishangul-Gumuz	*	1	9	81.5	90	674	0.85
SNNP	(75.5)	46	27	77.6	1,882	1,202	0.97
Gambela	*	1	11	93.3	22	533	0.73
Harari	*	0	10	78.2	20	450	1.01
Addis Ababa	*	8	17	97.5	182	342	0.97
Dire Dawa	*	1	14	82.2	22	400	0.73
Wealth quintile							
Lowest	*	22	30	62.6	1,745	2,351	1.05
Second	(42.0)	29	18	71.2	1,709	1,373	0.59
Middle	*	21	22	73.9	1,858	1,336	1.00
Fourth	(64.3)	29	20	81.8	1,853	1,353	0.79
Highest	(87.0)	49	62	94.6	1,425	1,552	0.92
Total	68.9	150	152	76.2	8,590	7,965	0.90

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

2.6.2 Educational Attainment

Tables 2.10.1 and 2.10.2 show the percent distribution of the de facto female and male household population age 6 and older by highest level of education attended or completed, according to background characteristics. The majority of Ethiopians have little or no education, with females even less educated than males. Fifty-two percent of females and 38 percent of males have never attended school. While these percentages are large, they constitute a substantial decrease from the findings of the 2005 EDHS, when 67 percent of females and 52 percent of males had never attended school.

About four in every ten females (39 percent) and half of all males (49 percent) have only some primary education, while 2 percent of females and 3 percent of males completed primary education and did not attend secondary school. Only 3 percent of females and 5 percent of males have attended but not completed secondary education, and an additional 3 percent of females and 5 percent of males have completed secondary or higher education. The gender 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 trends in educational attainment by successive age groups indicate the long-term trend of the country's educational achievement. There has been a marked improvement in the educational attainment of women. For example, the proportion of females with no education has declined significantly, from 98 percent among those age 65 and over to just 17 percent among females

age 10-14 at the time of the survey. Similarly, among males 89 percent of men age 65 and older had no education, compared with 13-19 percent of males age 10-24.

As expected, educational attainment is much higher among the urban population than among the rural population. For example, in urban areas 28 percent of females and 15 percent of males have no education, compared with 58 percent of females and 44 percent of males in rural areas. Among regions, the proportion of females and males with no education is highest in Affar (69 and 53 percent, respectively), followed by Somali for women (68 percent) and Amhara for men (47 percent), and lowest in the capital city, Addis Ababa (23 and 10 percent). The highest percentages of females and males who have completed secondary or more than secondary education live in the urbanized regions, such as Harari, Addis Ababa, and Dire Dawa.

The most substantial variation in educational attainment occurs across the wealth quintiles. Only 27 percent of females in the wealthiest households have no education, compared with 69 percent in the poorest households. Among males 14 percent of those in the wealthiest households have no education, compared with 54 percent in the poorest households.

Table 2.10.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Ethiopia 2011

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Weighted number	Unweighted number	Median years completed
Age											
7-9	47.6	52.2	na	na	na	na	0.2	100.0	3,772	3,688	0.0
10-14	17.2	81.7	0.7	0.1	0.0	0.0	0.2	100.0	5,401	4,982	1.6
15-19	18.4	60.9	8.4	9.9	0.1	2.3	0.1	100.0	4,321	4,110	4.2
20-24	39.3	34.9	4.4	11.6	0.6	9.0	0.1	100.0	3,271	3,356	2.0
25-29	60.2	25.7	2.5	4.9	1.2	5.2	0.2	100.0	3,324	3,362	0.0
30-34	67.7	22.0	2.5	2.1	2.1	3.5	0.1	100.0	2,105	2,158	0.0
35-39	70.7	21.5	1.5	1.6	1.7	2.8	0.1	100.0	2,004	2,052	0.0
40-44	77.4	15.2	1.4	1.7	1.3	2.6	0.5	100.0	1,331	1,340	0.0
45-49	85.0	11.5	1.0	0.4	0.5	1.3	0.3	100.0	1,099	1,007	0.0
50-54	89.6	7.4	1.1	0.3	0.3	0.7	0.7	100.0	1,268	1,253	0.0
55-59	94.8	4.4	0.2	0.2	0.1	0.2	0.0	100.0	1,078	976	0.0
60-64	95.1	2.8	0.3	0.4	0.1	0.2	1.2	100.0	699	762	0.0
65+	97.8	1.4	0.0	0.0	0.1	0.1	0.6	100.0	1,340	1,342	0.0
Residence											
Urban	28.3	41.7	6.6	11.4	2.5	9.4	0.1	100.0	6,510	8,869	3.5
Rural	58.1	38.4	1.3	1.3	0.0	0.6	0.2	100.0	25,926	22,910	0.0
Region											
Tigray	47.3	42.4	3.4	4.6	0.6	1.7	0.1	100.0	2,146	3,306	0.0
Affar	69.3	25.0	1.6	2.2	0.3	1.3	0.3	100.0	265	2,397	0.0
Amhara	56.9	35.5	2.0	3.2	0.2	1.9	0.2	100.0	8,368	3,943	0.0
Oromiya	52.6	39.6	2.5	2.8	0.3	2.0	0.2	100.0	11,976	4,162	0.0
Somali	67.9	28.5	0.8	1.7	0.2	0.6	0.4	100.0	670	1,925	0.0
Benishangul-Gumuz	53.5	38.5	2.0	2.2	0.4	2.8	0.5	100.0	326	2,385	0.0
SNNP	51.4	42.7	1.4	2.5	0.1	1.6	0.3	100.0	6,920	4,353	0.0
Gambela	35.8	52.1	4.2	3.4	0.2	3.8	0.5	100.0	120	2,326	1.0
Harari	40.2	37.7	3.9	6.6	3.4	7.7	0.4	100.0	91	2,077	1.0
Addis Ababa	22.5	40.6	6.5	11.8	6.0	12.5	0.2	100.0	1,427	2,827	5.0
Dire Dawa	43.1	37.1	3.6	6.8	2.2	7.0	0.2	100.0	126	2,078	0.5
Wealth quintile											
Lowest	69.2	29.9	0.4	0.4	0.0	0.0	0.2	100.0	6,245	7,905	0.0
Second	63.0	35.1	0.8	0.7	0.0	0.1	0.3	100.0	6,304	4,968	0.0
Middle	57.7	39.2	1.0	1.5	0.0	0.3	0.3	100.0	6,292	4,635	0.0
Fourth	47.6	46.6	2.6	2.2	0.0	0.7	0.2	100.0	6,473	4,889	0.0
Highest	26.6	43.8	6.4	11.0	2.3	9.7	0.1	100.0	7,122	9,382	3.4
Total	52.1	39.1	2.3	3.4	0.5	2.3	0.2	100.0	31,019	31,779	0.0

Total includes 5 cases with missing information on age.
na = Not applicable
[1] Completed 8th grade at the primary level.
[2] Completed 4th grade at the secondary level.

Table 2.10.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Ethiopia 2011

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Weighted number	Unweighted number	Median years completed
Age											
6-9	44.8	55.1	na	na	na	na	0.1	100.0	3,877	3,716	0.0
10-14	18.1	81.2	0.5	0.2	0.0	0.0	0.1	100.0	5,712	5,437	1.6
15-19	12.6	67.1	8.0	10.3	0.1	1.8	0.1	100.0	3,449	3,164	4.4
20-24	19.3	48.1	6.5	14.8	0.8	10.5	0.1	100.0	2,837	2,709	4.7
25-29	32.0	40.0	5.3	9.4	0.9	12.3	0.1	100.0	2,616	2,578	2.9
30-34	40.6	37.8	4.8	6.0	3.4	7.3	0.1	100.0	1,824	1,948	1.5
35-39	42.2	40.5	4.3	4.4	3.8	4.7	0.1	100.0	1,906	1,751	1.4
40-44	44.9	38.6	4.1	3.6	2.1	6.4	0.2	100.0	1,358	1,382	0.9
45-49	50.5	37.3	2.9	3.2	1.5	4.3	0.3	100.0	1,029	1,039	0.0
50-54	61.4	27.7	1.6	2.3	0.9	5.5	0.5	100.0	792	805	0.0
55-59	72.8	19.6	3.1	1.3	0.9	2.2	0.1	100.0	625	532	0.0
60-64	77.1	18.2	1.3	0.9	0.2	1.5	0.7	100.0	780	775	0.0
65+	88.8	9.3	0.3	0.6	0.3	0.4	0.3	100.0	1,756	1,638	0.0
Residence											
Urban	14.5	45.9	7.0	13.7	3.8	14.9	0.1	100.0	5,442	7,489	5.4
Rural	43.6	50.1	2.2	2.5	0.2	1.2	0.2	100.0	24,468	21,334	0.0
Region											
Tigray	37.9	50.5	2.5	4.2	0.5	4.4	0.0	100.0	1,849	2,858	1.0
Affar	53.4	35.3	3.4	3.5	1.2	3.0	0.3	100.0	257	2,290	0.0
Amhara	47.1	44.6	2.6	3.5	0.3	1.8	0.1	100.0	7,822	3,742	0.0
Oromiya	37.7	50.4	3.5	4.4	0.4	3.4	0.2	100.0	11,531	4,000	0.6
Somali	46.0	43.5	2.4	2.9	1.3	3.3	0.7	100.0	637	1,834	0.0
Benishangul-Gumuz	39.7	48.8	3.0	3.5	0.4	4.0	0.6	100.0	301	2,225	0.4
SNNP	33.3	56.0	2.4	3.9	0.6	3.5	0.2	100.0	6,038	3,810	1.2
Gambela	21.9	51.9	5.7	9.0	2.7	8.4	0.4	100.0	113	2,001	3.2
Harari	22.4	44.9	6.2	10.1	3.9	12.3	0.3	100.0	84	1,925	4.0
Addis Ababa	9.5	41.0	7.6	15.5	8.5	17.5	0.3	100.0	1,166	2,282	6.9
Dire Dawa	24.5	43.3	4.7	11.0	4.3	12.1	0.1	100.0	112	1,856	3.4
Wealth quintile											
Lowest	54.1	44.0	0.7	0.8	0.1	0.2	0.1	100.0	5,592	6,991	0.0
Second	47.9	48.6	1.6	1.5	0.0	0.2	0.2	100.0	5,884	4,545	0.0
Middle	43.5	51.4	2.5	1.5	0.1	0.7	0.2	100.0	6,149	4,454	0.0
Fourth	33.8	55.7	3.3	5.2	0.2	1.6	0.2	100.0	6,197	4,712	1.2
Highest	14.0	46.2	7.3	13.1	3.6	15.6	0.1	100.0	6,088	8,121	5.4
Total	38.3	49.3	3.1	4.5	0.8	3.7	0.2	100.0	29,910	28,823	0.6

Total includes 9 cases with missing information on age.
[1] Completed 8th grade at the primary level.
[2] Completed 4th grade at the secondary level.

2.6.3 School Attendance Ratios

Table 2.11 shows data on net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population by school level and sex, according to residence, region, and wealth index. The NAR for primary school is the total number of students of primary school age (age 7-14) expressed as the percentage of the population of primary school age. The NAR for secondary school is the percentage of the population of secondary school age (age 15-18) that attends secondary school. By definition, the NAR cannot exceed 100 percent.

The GAR for primary school is the total number of primary school students of any age, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students of any age, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent. Persons are considered to be currently attending school if they attended formal academic school at any point during the school year.

It is important to note that in the 2011 EDHS the NAR and GAR are based on the new organisation of education levels, in which primary school covers grades 1-8, while in the 2005 EDHS

survey the NAR and GAR were based on the previous organisation, in which primary school covered grades 1-6. Therefore, comparison of the NAR and GAR between the two surveys is not possible.

As Table 2.11 shows, 65 percent of children of primary school age in Ethiopia attend primary school (64 percent of males and 65 percent of females). At the same time, only 14 percent of young people of secondary school age are attending school (14 percent of males and 13 percent of females). Attendance ratios are much lower in rural areas than in urban areas; they are lowest in Affar and Somali regions.

At the primary level the GAR is higher among females (90) than males (87), and at the secondary level, higher among males (24) than females (21). Although the overall GAR at the primary level is 88, there are significant levels of over-age and/or under-age participation in the urban areas among both females (111) and males (108) as well as in Addis Ababa and Gambela (both 111).

There is a strong relationship between household economic status and schooling at both the primary and secondary levels and among males and females. For example, at the primary education level the NAR increases from 52 percent in the lowest wealth quintile to 84 percent in the highest wealth quintile. Similarly, at the secondary level the NAR rises from 3 percent in the lowest wealth quintile to 37 percent in the highest wealth quintile.

The Gender Parity Index (GPI) measures sex-related differences in school attendance ratios. It is the ratio of female to male attendance. A GPI of 1 indicates parity, or equality, between the school participation ratios for males and females. A GPI lower than 1 indicates a gender disparity in favour of males—that is, a higher proportion of males than females attend that level of schooling. A GPI higher than 1 indicates a gender disparity in favour of females.

In Ethiopia the GPI for primary school attendance is slightly higher than 1 (1.02 for NAR and 1.04 for GAR). For secondary school attendance it is lower than 1 (0.95 for NAR and 0.85 for GAR). These data indicate that the gender gap is smaller at the primary level than at the secondary level of schooling. There are some differences in the GPI for NAR and for GAR by place of residence and by region. For both primary and secondary education, the GPI for both NAR and GAR is higher in rural areas than urban areas. The primary school and secondary school GPI for both NAR and GAR is lowest in Somali region.

Table 2.11 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Ethiopia 2011

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index[3]
	PRIMARY SCHOOL							
Residence								
Urban	85.8	81.5	83.6	0.95	108.4	110.6	109.5	1.02
Rural	60.3	61.9	61.1	1.03	83.1	86.0	84.5	1.04
Region								
Tigray	71.4	79.0	75.3	1.11	96.6	103.6	100.1	1.07
Affar	53.3	50.1	51.9	0.94	78.1	72.4	75.5	0.93
Amhara	65.2	71.9	68.4	1.10	90.2	98.9	94.4	1.10
Oromiya	60.1	60.3	60.2	1.00	82.7	83.7	83.2	1.01
Somali	63.3	50.2	57.3	0.79	86.5	68.8	78.3	0.80
Benishangul-Gumuz	70.1	69.0	69.6	0.98	98.8	94.2	96.4	0.95
SNNP	64.3	61.7	63.0	0.96	84.3	86.1	85.2	1.02
Gambela	82.2	79.6	80.9	0.97	105.1	117.3	111.2	1.12
Harari	79.1	68.5	74.1	0.87	96.4	95.9	96.2	1.00
Addis Ababa	89.6	79.7	84.2	0.89	108.7	113.6	111.3	1.05
Dire Dawa	77.5	72.6	75.2	0.94	97.0	100.6	98.7	1.04
Wealth quintile								
Lowest	51.3	52.7	52.0	1.03	70.2	71.8	71.0	1.02
Second	58.7	57.0	57.9	0.97	80.3	79.5	79.9	0.99
Middle	60.8	62.5	61.7	1.03	86.0	87.2	86.6	1.01
Fourth	68.2	71.9	70.0	1.05	93.5	103.2	98.2	1.10
Highest	85.7	82.2	83.9	0.96	108.4	108.7	108.5	1.00
Total	64.0	65.0	64.5	1.02	86.7	89.8	88.2	1.04
	SECONDARY SCHOOL							
Residence								
Urban	43.6	36.1	39.1	0.83	75.6	54.2	62.7	0.72
Rural	6.6	5.9	6.2	0.90	11.2	9.7	10.4	0.86
Region								
Tigray	15.3	16.6	16.1	1.08	23.6	24.1	23.9	1.02
Affar	11.7	7.9	9.6	0.68	26.6	12.6	18.6	0.47
Amhara	11.6	12.7	12.2	1.10	22.9	18.7	20.6	0.81
Oromiya	13.3	13.3	13.3	1.00	20.4	20.6	20.5	1.01
Somali	11.4	4.8	7.9	0.42	18.3	6.7	12.1	0.37
Benishangul-Gumuz	13.5	11.2	12.4	0.83	20.1	16.0	18.0	0.80
SNNP	14.0	9.7	11.6	0.69	26.7	18.0	21.8	0.67
Gambela	17.1	10.1	13.0	0.59	25.1	15.5	19.4	0.62
Harari	29.4	19.3	23.4	0.66	52.9	29.9	39.3	0.56
Addis Ababa	42.6	30.6	34.7	0.72	69.8	44.7	53.2	0.64
Dire Dawa	32.9	26.4	28.9	0.80	62.7	35.4	45.9	0.56
Wealth quintile								
Lowest	2.9	2.5	2.7	0.88	4.9	3.2	4.0	0.64
Second	2.2	4.0	3.2	1.79	6.2	5.0	5.6	0.81
Middle	4.6	4.3	4.4	0.93	7.6	10.1	8.9	1.34
Fourth	13.5	12.7	13.0	0.94	24.0	17.9	20.6	0.74
Highest	40.5	34.4	36.9	0.85	67.6	53.2	59.3	0.79
Total	14.0	13.4	13.7	0.95	24.2	20.7	22.3	0.85

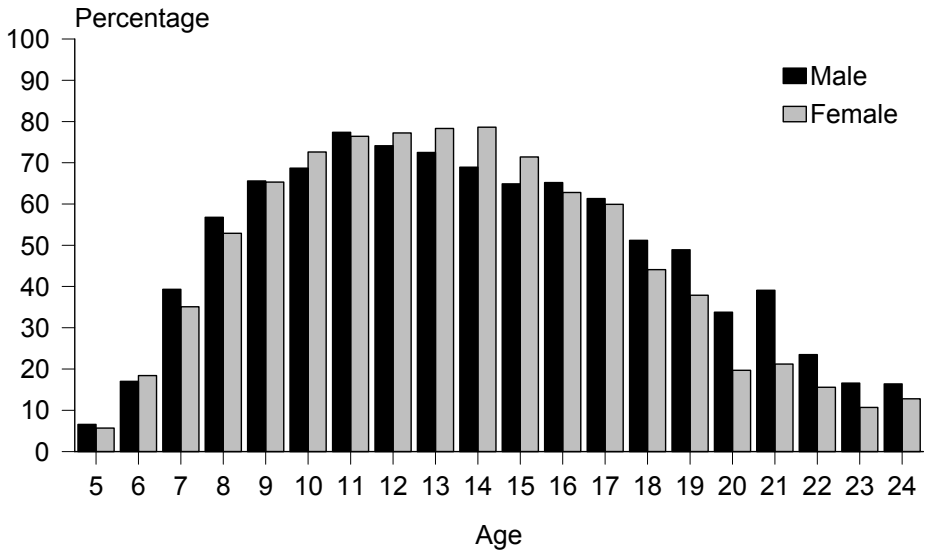
[1] The NAR for primary school is the percentage of the primary-school age (7-14 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age (15-18 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
[3] The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Figure 2.2 shows the age-specific attendance rates (ASARs) for the population age 5 and over, by sex. The ASAR indicates participation in schooling at any level, from primary to higher levels of education. Although the official minimum age for schooling in Ethiopia is age 7, some children are enrolled at younger ages. Nevertheless, only 35-39 percent of children age 7 are attending school, indicating that a large majority of children age 7 in Ethiopia have not entered the school system. However, enrolment at age 7 has improved since the 2000 EDHS, when only 15 percent of

children age 7 were attending school, and since the 2005 EDHS, when 21 percent were attending school.

There are some differences in the proportion of males and females attending school. Between ages 7-9 and 16-24, the proportion of males attending school is somewhat higher than the proportion of females, while for ages 10-15 the proportion of females attending school is either higher than or similar to the proportion of males.

Figure 2.2 **Age-Specific Attendance Rates of the de facto Population 5 to 24 Years**



EDHS 2011

2.7 CHILD LABOUR

Article 32 of the UN Convention on the Rights of the Child recognises the right of children to be protected from economic exploitation and to be protected from performing any work that is hazardous, interferes with their education, or is harmful to their health or physical, mental, spiritual, moral, or social development (UN General Assembly, 1989). Article 32 calls on countries to establish a minimum age for admission to employment and to appropriately regulate work hours of children.

To assess the extent to which children in Ethiopia are working, the 2011 EDHS included a set of questions on the participation by each child age 5-14 in the household in different types of work. The types of work included working for persons other than members of the household, working in a household business or farm, or selling goods in the street, and doing household chores.

The number of hours worked in the seven days preceding the survey was recorded for all children engaged in any type of work. For work that was done for any person not a member of the household, a question was also asked to determine whether the child was paid or not paid for the work. This information was used to calculate the percentage of children age 5-14 engaged in child labour. The definition of child labour includes (a) children age 5-11 who in the seven days preceding the survey worked for someone who is not a member of the household, with or without pay, or

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

Table 2.12 shows the percentage of de jure children age 5-14 engaged in different types of work in the seven days preceding the interview, by background characteristics. Percentages do not add up to the total for child labour, as children may be involved in more than one type of work. Overall, 27 percent of children age 5-14 in Ethiopia are involved in child labour—17 percent of children age 5-11 and 55 percent of children age 12-14. Less than 1 percent of children age 5-11 and 2 percent of children age 12-14 are engaged in paid work; 3 percent and 6 percent, respectively, are engaged in unpaid work for someone who is not a member of their household; and 14 percent and 30 percent, respectively, work for a family business. Furthermore, 18 percent of children age 5-11 and 40 percent of children age 12-14 are engaged in household chores for 28 or more hours in a week.

For all children age 5-14, the percentage engaged in labour is higher among males (31 percent) than females (24 percent). The proportion of children engaged in labour is substantially higher among rural children (30 percent) than urban children (13 percent). Among regions it varies from 7 percent of children in Addis Ababa to 42 percent in Tigray. Child labour decreases steadily with mother's education and household wealth. Only 6 percent of children of mothers who have more than secondary education are engaged in child labour, compared with 29 percent of children whose mothers have no education. Similarly, this proportion decreases from 31 percent for children in the lowest wealth quintile to 15 percent for children in the highest wealth quintile.

Table 2.12 Child labour

Percentage of the de jure children age 5-14 who were engaged in economic activity, in household chores and in child labour during the seven days preceding the survey, by background characteristics, Ethiopia 2011

Background characteristics	Percentage of children 5-11 involved in:									Percentage of children 12-14 involved in:											
	Economic activity			Economic activity[3] for at least one hour per week	House-hold chores for less than 28 hours per week	House-hold chores for 28+ hours per week	Child labour[4]	Weighted number of children age 5-11	Un-weighted number of children age 5-11	Economic activity			Economic activity[3] for less than 14 hours per week	Economic activity[3] for 14 hours or more per week	House-hold chores for less than 28 hours per week	House-hold chores for 28+ hours per week	Child labour[4]	Weighted number of children age 12-14	Un-weighted number of children age 12-14	Total child labour[4]	Weighted number of children age 5-14	Un-weighted number of children age 5-14
	Working outside household[1]		Working for family business[2]							Working outside household[1]		Working for family business[2]									
	Paid work	Unpaid work								Paid work	Unpaid work										
Child's sex																					
Male	0.8	2.6	17.8	20.4	48.7	16.9	20.4	8,632	8,304	2.8	4.9	39.3	12.2	31.1	52.0	35.4	57.1	3,550	3,390	31.1	12,181	11,694
Female	0.4	3.0	9.8	12.7	55.5	18.2	12.7	8,498	8,134	1.8	6.1	20.7	11.2	14.6	51.4	44.7	52.0	3,234	3,022	23.5	11,732	11,156
Residence																					
Urban	0.4	3.9	3.8	8.0	53.4	7.6	8.0	2,296	2,907	2.0	3.0	10.6	6.9	7.6	67.0	19.6	24.1	1,126	1,374	13.3	3,422	4,281
Rural	0.6	2.6	15.3	17.9	51.9	19.1	17.9	14,833	13,531	2.4	6.0	34.4	12.7	26.3	48.7	43.9	60.8	5,658	5,038	29.7	20,492	18,569
Region																					
Tigray	0.6	3.2	34.9	36.6	46.3	7.2	36.6	1,046	1,645	1.8	7.1	52.8	16.6	40.1	65.0	21.9	55.4	445	689	42.2	1,490	2,334
Affar	0.5	1.6	15.9	17.6	33.5	16.9	17.6	155	1,455	0.1	2.5	25.6	2.1	25.3	31.0	39.4	56.8	57	528	28.2	213	1,983
Amhara	0.8	4.9	15.7	20.2	46.8	16.3	20.2	3,853	1,851	2.1	8.4	31.0	10.1	27.2	47.7	39.6	58.1	1,805	864	32.3	5,658	2,715
Oromiya	0.6	2.2	6.7	9.4	49.9	23.3	9.4	6,828	2,366	3.0	4.2	22.1	10.3	15.8	45.2	50.0	56.5	2,468	871	21.9	9,297	3,237
Somali	0.8	1.9	11.8	13.9	41.9	14.4	13.9	466	1,331	2.2	1.5	24.6	5.3	22.1	45.7	31.8	47.7	164	476	22.7	630	1,807
Benishangul-Gumuz	0.4	2.7	9.1	12.0	46.5	9.0	12.0	170	1,282	1.3	6.6	23.7	11.4	18.9	62.5	25.4	39.4	65	491	19.6	235	1,773
SNNP	0.4	1.9	20.1	21.9	64.5	14.2	21.9	4,103	2,611	1.9	4.3	41.8	16.5	28.8	61.6	35.0	55.1	1,522	970	30.9	5,626	3,581
Gambela	0.2	2.1	9.1	11.0	53.9	3.6	11.0	55	1,272	1.5	5.6	21.1	16.5	9.4	64.3	14.9	21.7	20	441	13.8	76	1,713
Harari	0.4	1.0	2.2	3.5	51.0	13.8	3.5	42	955	1.8	1.4	11.4	6.0	8.2	60.7	26.9	31.8	16	368	11.4	58	1,323
Addis Ababa	0.2	2.1	0.4	2.6	47.3	1.0	2.6	355	678	1.5	3.8	3.9	5.0	3.8	68.2	12.2	15.8	201	382	7.4	555	1,060
Dire Dawa	0.8	2.2	8.4	11.1	57.8	5.8	11.1	57	992	1.9	3.8	14.0	9.4	9.4	67.5	12.4	20.7	20	332	13.6	77	1,324
Mother's education																					
No education	0.6	2.6	14.8	17.2	51.4	17.2	17.2	11,225	10,737	2.0	5.5	33.7	12.3	25.4	49.6	42.7	59.0	4,239	3,969	28.7	15,464	14,706
Primary	0.7	2.6	10.6	13.5	54.9	15.6	13.5	3,086	2,750	2.6	4.4	25.8	11.6	18.8	59.3	33.8	46.2	1,063	871	21.8	4,149	3,621
Secondary	0.0	9.3	3.4	12.6	50.9	2.9	12.6	248	351	0.0	2.7	9.7	5.8	5.6	70.2	17.0	20.0	94	120	14.7	342	471
More than secondary	0.0	2.0	0.0	2.0	50.5	3.0	2.0	160	175	0.0	10.9	1.2	6.6	4.3	77.5	13.5	14.3	69	75	5.7	229	250
Missing[5]	0.6	3.6	15.2	18.7	52.1	23.8	18.7	2,410	2,425	3.4	6.1	26.7	10.7	21.9	49.7	38.7	52.3	1,320	1,377	30.6	3,730	3,802
Wealth quintile																					
Lowest	0.6	2.0	17.1	19.1	48.4	17.9	19.1	3,715	4,987	2.2	5.4	36.8	10.7	30.7	45.3	45.8	64.6	1,370	1,798	31.3	5,085	6,785
Second	0.9	3.0	15.9	18.9	50.1	19.8	18.9	3,643	2,879	2.3	5.1	36.5	12.8	27.7	45.4	46.3	64.4	1,287	1,025	30.8	4,930	3,904
Middle	0.6	3.3	15.1	18.2	53.6	18.7	18.2	3,716	2,721	2.9	7.4	31.4	10.9	25.7	47.6	46.4	62.3	1,380	1,011	30.2	5,096	3,732
Fourth	0.4	2.1	13.6	15.6	54.4	19.6	15.6	3,446	2,652	2.3	5.2	33.2	15.8	22.2	53.2	39.4	54.1	1,452	1,077	27.0	4,898	3,729
Highest	0.5	3.9	4.4	8.6	55.0	9.3	8.6	2,609	3,199	2.1	4.1	13.5	8.2	9.2	67.6	20.6	27.0	1,295	1,501	14.7	3,904	4,700
Total	0.6	2.8	13.8	16.5	52.1	17.5	16.5	17,130	16,438	2.3	5.5	30.4	11.7	23.2	51.7	39.9	54.7	6,784	6,412	27.4	23,914	22,850

[1] Any work, paid or unpaid, for someone who is not a member of the household
[2] Includes any work in a family business, on the farm, or selling goods in the street
[3] Economic activity is defined as working, paid or unpaid, for someone who is not a member of the household or working in a family business, on the farm, or selling goods in the street
[4] Child labour includes (a) children 5-11 years who in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, or engaged in any other family work or did household chores for 28 or more hours, and (b) children 12-14 years who in the 7 days preceding the survey, worked for someone who is not a member of the household, with or without pay, or engaged in any other family work for 14 or more hours or did household chores for 28 or more hours
[5] Includes children of mothers whose educational status is missing, unknown, or who do not live in the household.

CHARACTERISTICS OF RESPONDENTS 3

Key Findings

- About half of women 15-49 (51 percent) and one-third of men 15-59 (33 percent) have no formal education. These proportions have decreased since the 2005 EDHS, when 66 percent of women and 43 percent of men had no formal education.
- Thirty-eight percent of women 15-49 and 65 percent of men 15-59 are literate, an increase from 29 percent and 59 percent, respectively, in 2005.
- Sixty-eight percent of women and 53 percent of men age 15-49 are not exposed to any mass media.
- Fifty-eight percent of women were employed in the 12 months preceding the survey. The largest group of these women (46 percent) worked in the agricultural sector.
- Three in every ten working women received no pay of any kind.

This chapter provides a demographic and socioeconomic profile of respondents interviewed in the 2011 EDHS. Such background information is essential to interpreting the findings and understanding the results presented later in this report. Basic characteristics collected include age, level of education, marital status, religion, ethnicity, and wealth status. The EDHS also examined literacy status and exposure to mass media and collected detailed information on employment status, occupation, and earnings. In addition, this chapter includes a discussion of tobacco use, alcohol consumption and chewing *chat*, all of which have important health implications.

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 shows the percent distribution of women and men age 15-49 by their background characteristics. About six in every ten women (61 percent) and men age 15-49 (60 percent) are under age 30. In general, the proportion of women and men in each age group declines as age increases, reflecting the comparatively young age structure of the population in Ethiopia, which is a result of high fertility in the past.

By religious affiliation about half of the respondents (48 percent of both women and men) are Orthodox Christians, and about three in every ten (28 percent of women and 30 percent of men) are Muslims. Protestants account for 22 percent of women and 19 percent of men.

By ethnic composition about one-third of respondents (33 percent of women and 36 percent of men) belong to the Oromo ethnic group, and similar proportions (33 percent of women and 32 percent of men) are Amharas. Tigraways constitute 7 percent of women and 6 percent of men. While there are more than 80 ethnic groups in Ethiopia, most are small in number and, therefore, are not shown separately but are grouped under the category 'Other'.

The majority of respondents (62 percent of women and 54 percent of men) are married or living together. The proportion not currently married varies by gender. A much lower percentage of women (27 percent) than men (44 percent) have never married. Women are more likely than men to be divorced, separated, or widowed (11 percent versus 3 percent).

A person's place of residence, whether rural or urban, determines access to services and information about reproductive health and other aspects of life. Over three-quarters of respondents live in rural areas—76 percent of women and 78 percent of men.

More than eight respondents in every ten (83 percent of women and 84 percent of men) live in three major regions: Amhara, Oromiya, and the Southern Nations, Nationalities, and People's (SNNP) region. Respondents in Tigray (6-7 percent), Addis Ababa (5 percent), and Somali (2 percent) constitute considerably lower proportions of survey respondents.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Ethiopia 2011

	Women			Men		
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	24.3	4,009	3,835	23.5	3,013	2,832
20-24	17.7	2,931	3,022	18.1	2,319	2,330
25-29	19.1	3,147	3,185	17.9	2,297	2,274
30-34	12.4	2,054	2,100	11.6	1,483	1,682
35-39	11.6	1,916	1,958	12.8	1,648	1,579
40-44	7.6	1,261	1,314	8.7	1,121	1,210
45-49	7.2	1,196	1,101	7.4	952	961
Religion						
Orthodox	47.5	7,847	6,995	47.8	6,140	5,514
Catholic	1.1	179	177	0.9	120	125
Protestant	22.0	3,634	2,936	19.2	2,459	2,071
Muslim	27.8	4,588	6,170	29.6	3,796	4,876
Traditional	0.8	128	93	0.8	96	87
Missing	0.1	13	8	0.0	2	2
Ethnicity						
Affar	0.7	110	1,055	0.6	73	699
Amhara	32.5	5,364	4,232	31.7	4,064	3,264
Guragie	3.1	520	692	2.7	345	513
Nuwer	0.1	12	364	0.1	8	219
Oromo	32.5	5,362	3,853	35.9	4,607	3,280
Sidamo	3.6	602	380	3.8	487	336
Somali	1.9	316	969	1.8	225	741
Tigray	6.9	1,134	1,838	6.4	820	1,354
Welaita	3.2	528	344	2.9	368	277
Other	15.1	2,501	2,715	13.9	1,788	2,133
Missing	0.4	66	73	0.4	50	52
Marital status						
Never married	27.1	4,469	4,413	43.6	5,600	5,641
Married	58.1	9,594	9,478	51.5	6,610	6,427
Living together	4.2	694	726	2.0	261	348
Divorced/separated	7.4	1,222	1,317	2.5	322	383
Widowed	3.2	536	581	0.3	41	69
Residence						
Urban	23.9	3,947	5,329	22.5	2,882	3,915
Rural	76.1	12,568	11,186	77.5	9,952	8,953
Region						
Tigray	6.7	1,104	1,728	6.0	770	1,235
Affar	0.9	145	1,291	0.8	101	910
Amhara	26.8	4,433	2,087	27.1	3,481	1,739
Oromiya	36.4	6,011	2,135	38.6	4,957	1,889
Somali	2.0	329	914	1.9	245	653
Benishangul-Gumuz	1.1	174	1,259	1.1	138	1,047
SNNP	19.6	3,236	2,034	18.0	2,307	1,550
Gambela	0.4	69	1,130	0.5	59	865
Harari	0.3	49	1,101	0.3	40	898
Addis Ababa	5.4	896	1,741	5.3	682	1,237
Dire Dawa	0.4	69	1,095	0.4	53	845
Education						
No education	50.8	8,394	8,278	29.5	3,785	3,659
Primary	38.0	6,276	5,858	53.1	6,813	6,334
Secondary	6.8	1,117	1,395	10.1	1,296	1,565
More than secondary	4.4	728	984	7.3	940	1,310
Wealth quintile						
Lowest	18.1	2,986	3,711	16.7	2,141	2,563
Second	18.4	3,041	2,402	18.4	2,362	1,891
Middle	18.4	3,031	2,268	19.1	2,454	1,935
Fourth	19.5	3,215	2,505	20.9	2,683	2,203
Highest	25.7	4,242	5,629	24.9	3,194	4,276
Total 15-49	100.0	16,515	16,515	100.0	12,834	12,868
50-59	na	na	na	na	1,276	1,242
Total 15-59	na	na	na	na	14,110	14,110

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

Education is an important factor influencing an individual's attitudes and opportunities. Generally, educational attainment in Ethiopia is low among both men and women, although women are much more disadvantaged than men. About half of women 15-49 (51 percent) and one-third of men 15-59 (33 percent) have no formal education. The corresponding figures in the 2005 EDHS were 66 percent for women and 43 percent for men, evidence that education has become more widespread over the past six years. A notably higher proportion of men than women have primary education (53 percent of men compared with 38 percent of women) or secondary education and higher (18 percent of men compared with 11 percent of women).

3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Tables 3.2.1 and 3.2.2 show the relationship between respondents' level of education and their other background characteristics. As mentioned, men are better educated than women. The percentage of women with no education decreases steadily by age group, from 85 percent among women age 45-49 to 17 percent among women age 15-19, suggesting an improvement in women's education over time. Six rural women in every ten (60 percent) have no education, compared with about two urban women in every ten (22 percent). The urban-rural difference is also pronounced at the secondary or higher levels. For example, only 4 percent of women in rural areas have secondary or higher education, compared with 35 percent of urban women. Women's educational attainment also differs among regions. The highest proportions of women with no education are in the Affar and Somali regions (75 and 74 percent, respectively), and the lowest is in Addis Ababa (15 percent).

Access to education increases with women's wealth. Seven women in every ten in the lowest wealth quintile (72 percent) have no education, compared with just two women in every ten in the highest wealth quintile (21 percent). Furthermore, women in the highest wealth quintile have had substantially more opportunity to move beyond the primary level of education than other women. More than one-third of women in the highest wealth quintile (35 percent) have attended or completed secondary or higher levels of education, compared with 1-6 percent of women in the lowest four wealth quintiles.

The pattern of educational attainment among men is similar to that of women. At every level of education, however, a higher percentage of men, than women, are educated. This gender disparity is more marked at higher than at lower levels of education, indicating the government's recognition and successful intervention in recent years to address gender disparity in basic education.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, by background characteristics, Ethiopia 2011

Background characteristic	Highest level of schooling						Total	Median years completed	Weighted number of women	Unweighted number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary				
Age										
15-24	26.1	50.5	7.0	10.5	0.4	5.7	100.0	3.6	6,940	6,857
15-19	17.3	61.6	8.6	9.9	0.2	2.4	100.0	4.2	4,009	3,835
20-24	38.0	35.2	4.8	11.3	0.5	10.2	100.0	2.2	2,931	3,022
25-29	60.7	26.9	2.5	4.2	0.9	4.8	100.0	0.0	3,147	3,185
30-34	67.0	22.8	1.6	2.8	1.7	4.1	100.0	0.0	2,054	2,100
35-39	67.4	23.7	2.5	1.5	2.0	2.9	100.0	0.0	1,916	1,958
40-44	78.4	15.8	1.0	1.5	1.2	2.2	100.0	0.0	1,261	1,314
45-49	85.0	11.7	1.0	0.5	0.5	1.3	100.0	0.0	1,196	1,101
Residence										
Urban	22.2	33.2	9.4	16.7	3.5	15.0	100.0	6.3	3,947	5,329
Rural	59.8	34.2	2.3	2.5	0.1	1.1	100.0	0.0	12,568	11,186
Region										
Tigray	49.4	32.3	6.0	8.4	0.8	3.2	100.0	0.0	1,104	1,728
Affar	74.6	15.6	3.0	3.9	0.5	2.4	100.0	0.0	145	1,291
Amhara	61.4	25.9	3.5	4.8	0.4	4.0	100.0	0.0	4,433	2,087
Oromiya	49.4	36.9	4.4	5.1	0.5	3.6	100.0	0.0	6,011	2,135
Somali	74.2	19.3	1.4	3.5	0.4	1.2	100.0	0.0	329	914
Benishangul-Gumuz	57.7	30.0	2.9	3.7	0.4	5.3	100.0	0.0	174	1,259
SNNP	46.6	42.2	2.8	4.9	0.4	3.1	100.0	0.4	3,236	2,034
Gambela	30.7	49.3	6.9	6.1	0.2	6.7	100.0	3.3	69	1,130
Harari	35.6	28.4	5.7	10.4	6.1	13.9	100.0	4.5	49	1,101
Addis Ababa	14.9	34.6	7.1	17.4	7.8	18.3	100.0	7.1	896	1,741
Dire Dawa	37.0	29.7	5.5	12.1	3.7	12.0	100.0	4.2	69	1,095
Wealth quintile										
Lowest	72.4	25.9	0.9	0.8	0.0	0.0	100.0	0.0	2,986	3,711
Second	65.5	31.3	1.7	1.3	0.0	0.2	100.0	0.0	3,041	2,402
Middle	61.7	33.6	1.8	2.4	0.1	0.4	100.0	0.0	3,031	2,268
Fourth	45.9	43.9	4.4	4.4	0.0	1.3	100.0	0.5	3,215	2,505
Highest	21.1	34.3	9.3	16.2	3.4	15.7	100.0	6.3	4,242	5,629
Total	50.8	34.0	4.0	5.9	0.9	4.4	100.0	0.0	16,515	16,515

[1] Completed 8 grades at the primary level
[2] Completed 4 grades at the secondary level

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Ethiopia 2011

Background characteristic	Highest level of schooling						Total	Median years completed	Weighted number of women	Unweighted number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary				
Age										
15-24	15.1	58.2	7.4	13.1	0.2	6.0	100.0	4.6	5,332	5,162
15-19	12.9	66.1	7.8	11.2	0.1	1.9	100.0	4.4	3,013	2,832
20-24	17.8	48.0	6.9	15.7	0.4	11.3	100.0	5.0	2,319	2,330
25-29	32.8	39.2	5.8	8.8	1.0	12.5	100.0	2.8	2,297	2,274
30-34	37.8	39.4	5.6	6.3	2.0	8.9	100.0	1.8	1,483	1,682
35-39	41.8	41.7	4.0	4.0	3.6	4.9	100.0	1.3	1,648	1,579
40-44	44.4	38.8	5.3	4.1	1.9	5.4	100.0	0.9	1,121	1,210
45-49	50.6	36.5	2.2	3.0	1.6	6.1	100.0	0.0	952	961
Residence										
Urban	8.2	32.0	10.1	21.5	4.6	23.6	100.0	8.0	2,882	3,915
Rural	35.7	51.6	4.7	5.2	0.3	2.6	100.0	2.0	9,952	8,953
Region										
Tigray	30.7	45.2	6.1	8.7	0.6	8.7	100.0	2.9	770	1,235
Affar	48.9	27.9	6.2	7.2	2.2	7.5	100.0	0.2	101	910
Amhara	45.1	39.0	4.4	7.0	0.6	3.9	100.0	0.8	3,481	1,739
Oromiya	26.1	51.5	6.7	8.1	0.5	7.0	100.0	3.1	4,957	1,889
Somali	42.4	36.1	5.5	7.7	1.7	6.7	100.0	1.0	245	653
Benishangul-Gumuz	31.6	49.2	5.3	7.1	0.2	6.6	100.0	2.7	138	1,047
SNNP	19.0	58.9	4.9	9.2	1.2	6.8	100.0	4.1	2,307	1,550
Gambela	12.8	44.7	9.4	15.7	3.3	14.1	100.0	6.1	59	865
Harari	13.0	35.4	9.5	16.5	4.3	21.4	100.0	7.2	40	898
Addis Ababa	4.1	28.7	10.0	22.2	10.1	24.9	100.0	9.1	682	1,237
Dire Dawa	16.1	31.6	8.4	14.9	6.1	23.0	100.0	7.3	53	845
Wealth quintile										
Lowest	50.8	44.9	1.7	2.0	0.1	0.4	100.0	0.0	2,141	2,563
Second	40.7	52.0	3.7	3.2	0.0	0.4	100.0	1.1	2,362	1,891
Middle	34.9	54.9	5.2	3.4	0.2	1.4	100.0	1.9	2,454	1,935
Fourth	23.9	55.9	6.1	10.5	0.4	3.2	100.0	3.7	2,683	2,203
Highest	7.5	32.0	10.6	20.4	4.4	25.1	100.0	8.0	3,194	4,276
Total 15-49	29.5	47.2	5.9	8.9	1.3	7.3	100.0	3.2	12,834	12,868
50-59	63.6	28.2	2.0	1.7	0.8	3.7	100.0	0.0	1,276	1,242
Total 15-59	32.6	45.5	5.5	8.2	1.2	7.0	100.0	2.8	14,110	14,110

[1] Completed 8 grades at the primary level
[2] Completed 4 grades at the secondary level

3.3 LITERACY

The ability to read and write is an important asset, enabling individuals to have more opportunities in life. Knowing the distribution of the literate population can help managers of social programmes, including programmes in health and family planning, to decide how to reach women and men with health messages and other information.

In the 2011 EDHS, literacy status was determined by the respondents' ability to read all or part of a sentence. To test respondents' literacy, during data collection interviewers carried a set of cards on which simple sentences were printed in five of the major languages spoken in Ethiopia. Only women and men who had never been to school and those who had not completed primary level education were asked to read the cards, in the language they were most likely able to read; those who had attained middle school or above were assumed to be literate.

As Table 3.3.1 indicates, 38 percent of women are literate, an increase from 29 percent in 2005. Literacy among women varies greatly by age, increasing sharply from 13 percent among women age 45-49 to 64 percent among women age 15-19. Literacy is much higher in urban areas than rural areas. About seven urban women in every ten (69 percent) are literate compared with about three rural women in every ten (29 percent).

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Ethiopia 2011

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	No schooling or primary school: Can read part of a sentence	No schooling or primary school: Cannot read at all	No schooling or primary school: No card with required language	No schooling or primary school: Blind/ visually impaired	Missing	Total	Percentage literate[1]	Weighted number of women	Unweighted number of women
Age											
15-24	16.5	27.7	12.8	39.2	3.2	0.0	0.6	100.0	56.9	6,940	6,857
15-19	12.5	36.9	14.3	31.3	4.0	0.0	1.0	100.0	63.7	4,009	3,835
20-24	21.9	15.1	10.8	50.1	2.0	0.0	0.2	100.0	47.8	2,931	3,022
25-29	9.9	9.5	8.3	70.2	1.8	0.0	0.2	100.0	27.8	3,147	3,185
30-34	8.6	8.9	9.8	72.1	0.7	0.0	0.0	100.0	27.2	2,054	2,100
35-39	6.4	11.0	10.2	71.9	0.4	0.1	0.0	100.0	27.6	1,916	1,958
40-44	4.9	6.8	9.6	78.0	0.2	0.5	0.0	100.0	21.4	1,261	1,314
45-49	2.3	3.5	7.3	86.3	0.1	0.5	0.0	100.0	13.1	1,196	1,101
Residence											
Urban	35.2	24.7	9.2	28.9	1.2	0.0	0.9	100.0	69.0	3,947	5,329
Rural	3.6	14.0	11.1	69.0	2.0	0.1	0.1	100.0	28.8	12,568	11,186
Region											
Tigray	12.3	24.0	8.7	54.7	0.1	0.0	0.2	100.0	45.0	1,104	1,728
Affar	6.8	8.3	5.2	78.5	0.8	0.0	0.4	100.0	20.3	145	1,291
Amhara	9.2	18.8	8.4	62.7	0.1	0.1	0.7	100.0	36.4	4,433	2,087
Oromiya	9.2	15.7	13.0	60.7	1.1	0.1	0.2	100.0	38.0	6,011	2,135
Somali	5.1	7.3	7.4	76.3	3.9	0.0	0.0	100.0	19.8	329	914
Benishangul-Gumuz	9.4	12.3	7.7	65.5	4.7	0.0	0.4	100.0	29.4	174	1,259
SNNP	8.4	11.8	10.8	63.0	5.8	0.1	0.1	100.0	30.9	3,236	2,034
Gambela	13.0	16.1	7.2	47.5	15.7	0.2	0.3	100.0	36.3	69	1,130
Harari	30.3	16.0	7.6	45.6	0.3	0.0	0.1	100.0	54.0	49	1,101
Addis Ababa	43.5	25.9	10.3	19.3	0.6	0.0	0.3	100.0	79.7	896	1,741
Dire Dawa	27.8	13.1	10.0	45.2	3.3	0.0	0.6	100.0	50.8	69	1,095
Wealth quintile											
Lowest	0.8	10.2	7.0	79.7	2.0	0.2	0.1	100.0	18.0	2,986	3,711
Second	1.6	11.7	9.4	75.2	2.0	0.1	0.1	100.0	22.7	3,041	2,402
Middle	2.9	12.9	11.3	70.8	2.0	0.0	0.1	100.0	27.2	3,031	2,268
Fourth	5.7	20.1	15.7	55.6	2.2	0.1	0.5	100.0	41.5	3,215	2,505
Highest	35.4	24.5	9.8	28.5	1.2	0.0	0.6	100.0	69.7	4,242	5,629
Total	11.2	16.6	10.6	59.4	1.8	0.1	0.3	100.0	38.4	16,515	16,515

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

Regional differences in literacy are also marked, with literacy levels highest among women in predominantly urban Addis Ababa (80 percent) and lowest in the predominantly rural Somali and Affar regions (both 20 percent). There is also a marked difference in literacy by women's wealth, ranging from 18 percent among women in the lowest wealth quintile to 70 percent in the highest wealth quintile.

Table 3.3.2 shows that 65 percent of men 15-59 are literate, an increase from 59 percent in 2005. Men age 15-49 are much more likely than women to be literate (67 percent versus 38 percent). Similar to women, men age 15-24 (75 percent), men living in urban areas (90 percent), men residing in Addis Ababa (95 percent), and men in the highest wealth quintile (89 percent) have the highest literacy levels.

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Ethiopia 2011

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	Blind/ visually impaired	Missing	Total	Percentage literate[1]	Weighted number of men	Unweighted number of men
Age											
15-24	19.4	38.9	16.8	22.3	2.0	0.1	0.7	100.0	75.0	5,332	5,162
15-19	13.2	44.4	17.8	21.6	2.1	0.1	0.8	100.0	75.4	3,013	2,832
20-24	27.3	31.7	15.5	23.1	1.8	0.0	0.5	100.0	74.6	2,319	2,330
25-29	22.3	25.2	14.6	35.2	1.9	0.1	0.6	100.0	62.2	2,297	2,274
30-34	17.1	24.8	17.0	39.3	1.3	0.1	0.4	100.0	58.9	1,483	1,682
35-39	12.6	27.7	19.9	39.3	0.4	0.0	0.2	100.0	60.1	1,648	1,579
40-44	11.5	30.6	19.6	37.1	1.1	0.0	0.1	100.0	61.7	1,121	1,210
45-49	10.7	28.1	19.6	40.6	0.7	0.2	0.2	100.0	58.4	952	961
Residence											
Urban	49.7	31.8	8.5	8.8	0.7	0.1	0.5	100.0	90.0	2,882	3,915
Rural	8.1	31.9	19.8	38.0	1.7	0.1	0.5	100.0	59.8	9,952	8,953
Region											
Tigray	18.1	37.6	16.1	27.6	0.4	0.2	0.0	100.0	71.8	770	1,235
Affar	16.9	21.0	14.6	46.5	0.7	0.0	0.2	100.0	52.5	101	910
Amhara	11.5	36.0	14.4	37.2	0.2	0.1	0.6	100.0	61.9	3,481	1,739
Oromiya	15.6	28.4	22.8	31.9	0.7	0.0	0.6	100.0	66.8	4,957	1,889
Somali	16.0	23.4	11.8	38.5	9.6	0.2	0.4	100.0	51.2	245	653
Benishangul-Gumuz	13.9	32.8	15.6	34.4	2.6	0.0	0.7	100.0	62.3	138	1,047
SNNP	17.2	32.5	15.1	29.8	5.0	0.1	0.3	100.0	64.8	2,307	1,550
Gambela	33.1	30.4	9.8	20.2	6.2	0.1	0.3	100.0	73.3	59	865
Harari	42.1	25.8	14.2	17.4	0.0	0.1	0.4	100.0	82.1	40	898
Addis Ababa	57.2	32.1	5.2	5.4	0.0	0.0	0.2	100.0	94.5	682	1,237
Dire Dawa	43.9	28.8	5.9	17.4	2.6	0.0	1.4	100.0	78.6	53	845
Wealth quintile											
Lowest	2.5	24.0	19.1	51.2	2.8	0.2	0.3	100.0	45.6	2,141	2,563
Second	3.6	30.3	18.7	45.4	1.7	0.1	0.3	100.0	52.6	2,362	1,891
Middle	5.0	35.0	21.3	36.6	1.4	0.1	0.6	100.0	61.4	2,454	1,935
Fourth	14.2	38.1	21.0	25.1	1.2	0.0	0.4	100.0	73.2	2,683	2,203
Highest	49.9	30.6	8.9	9.1	0.8	0.1	0.7	100.0	89.3	3,194	4,276
Total 15-49	17.4	31.8	17.3	31.4	1.5	0.1	0.5	100.0	66.5	12,834	12,868
50-59	6.2	21.0	22.2	49.6	0.7	0.1	0.2	100.0	49.4	1,276	1,242
Total 15-59	16.4	30.9	17.7	33.1	1.4	0.1	0.4	100.0	65.0	14,110	14,110

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

3.4 EXPOSURE TO MASS MEDIA

Exposure to information on television and radio and in the print media can increase knowledge and awareness of new ideas, social changes, and opportunities and can affect an individual's perceptions and behaviour, including those about health. The 2011 EDHS assessed exposure to the media by asking how often a respondent reads a newspaper, watches television, or listens to the radio. Tables 3.4.1 and 3.4.2 show the percentage of women and of men who are exposed to different types of media, by their age, urban or rural residence, region, level of education, and wealth quintile.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Ethiopia 2011

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Weighted number of women	Unweighted number of women
Age							
15-19	9.0	17.9	25.8	2.1	61.6	4,009	3,835
20-24	6.5	20.9	25.2	2.3	62.3	2,931	3,022
25-29	3.5	15.5	22.7	1.9	69.3	3,147	3,185
30-34	3.0	14.2	19.5	1.5	72.7	2,054	2,100
35-39	1.7	12.7	18.7	0.9	73.2	1,916	1,958
40-44	1.3	12.2	19.0	0.5	74.6	1,261	1,314
45-49	0.9	9.7	14.7	0.6	79.8	1,196	1,101
Residence							
Urban	10.8	48.3	38.1	6.0	37.8	3,947	5,329
Rural	2.8	5.7	17.2	0.3	77.8	12,568	11,186
Region							
Tigray	5.5	19.3	24.7	2.5	66.1	1,104	1,728
Affar	2.1	16.8	13.4	1.0	74.7	145	1,291
Amhara	1.5	12.1	18.7	0.4	73.6	4,433	2,087
Oromiya	6.4	10.3	23.3	1.4	69.1	6,011	2,135
Somali	1.5	10.4	10.9	0.2	81.8	329	914
Benishangul-Gumuz	2.5	9.6	15.9	0.5	76.8	174	1,259
SNNP	3.4	17.8	19.3	1.1	68.7	3,236	2,034
Gambela	2.7	14.9	8.1	0.9	78.8	69	1,130
Harari	10.7	54.5	35.5	7.1	38.8	49	1,101
Addis Ababa	14.8	59.5	45.3	10.6	31.4	896	1,741
Dire Dawa	11.2	50.1	31.9	6.7	42.6	69	1,095
Education							
No education	0.0	5.6	13.9	0.0	82.3	8,394	8,278
Primary	6.3	18.1	25.8	1.2	61.8	6,276	5,858
Secondary	18.5	50.4	42.3	8.3	31.4	1,117	1,395
More than secondary	24.0	63.4	54.9	14.3	18.3	728	984
Wealth quintile							
Lowest	1.0	3.9	6.0	0.0	89.9	2,986	3,711
Second	2.0	4.5	13.0	0.2	82.0	3,041	2,402
Middle	1.9	4.8	17.9	0.0	77.7	3,031	2,268
Fourth	5.0	6.4	27.5	0.4	67.5	3,215	2,505
Highest	11.0	47.7	39.0	6.0	36.9	4,242	5,629
Total	4.7	15.9	22.2	1.7	68.2	16,515	16,515

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Ethiopia 2011

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Weighted number of men	Unweighted number of men
Age							
15-19	11.5	20.1	32.0	4.0	57.7	3,013	2,832
20-24	14.2	27.4	43.6	7.5	47.2	2,319	2,330
25-29	12.6	21.8	40.6	6.2	50.8	2,297	2,274
30-34	11.7	24.3	41.8	7.0	50.8	1,483	1,682
35-39	8.9	18.8	38.2	5.2	55.6	1,648	1,579
40-44	9.8	18.2	37.2	4.7	55.2	1,121	1,210
45-49	6.9	16.5	36.8	3.6	57.4	952	961
Residence							
Urban	26.8	60.1	59.0	18.8	22.2	2,882	3,915
Rural	6.9	10.5	32.4	1.7	62.3	9,952	8,953
Region							
Tigray	12.2	33.4	38.5	5.0	42.9	770	1,235
Affar	6.0	19.1	28.4	2.1	62.7	101	910
Amhara	5.6	15.8	26.5	1.9	65.8	3,481	1,739
Oromiya	12.6	17.9	44.5	5.2	48.8	4,957	1,889
Somali	9.3	18.3	38.1	2.7	52.3	245	653
Benishangul-Gumuz	7.9	22.2	33.4	3.2	55.0	138	1,047
SNNP	6.8	15.6	30.1	2.2	62.2	2,307	1,550
Gambela	14.8	33.9	29.9	5.5	47.4	59	865
Harari	25.2	59.6	62.6	17.6	19.7	40	898
Addis Ababa	46.1	79.0	82.4	38.3	7.1	682	1,237
Dire Dawa	33.8	66.3	64.7	26.8	19.1	53	845
Education							
No education	1.0	5.3	22.2	0.2	74.9	3,785	3,659
Primary	9.5	19.1	38.9	3.2	52.0	6,813	6,334
Secondary	29.3	50.8	60.2	18.0	26.5	1,296	1,565
More than secondary	41.8	64.7	69.8	27.5	12.4	940	1,310
Wealth quintile							
Lowest	3.8	5.9	20.1	0.6	75.7	2,141	2,563
Second	3.7	8.1	26.8	1.0	68.9	2,362	1,891
Middle	6.9	9.1	32.9	1.5	62.2	2,454	1,935
Fourth	10.7	13.6	42.9	2.7	50.3	2,683	2,203
Highest	26.0	58.5	59.6	17.7	22.3	3,194	4,276
Total 15-49	11.4	21.6	38.4	5.6	53.3	12,834	12,868
50-59	6.6	14.9	32.4	3.1	61.6	1,276	1,242
Total 15-59	10.9	21.0	37.9	5.3	54.0	14,110	14,110

The survey shows that the level of exposure to mass media is low in Ethiopia, especially exposure to the print media. Respondents are more likely to listen to the radio (22 percent of women and 38 percent of men) than to watch television or read newspapers. Men have greater access than women to each of these media.

Women under age 25 are more likely than older women to be exposed to the mass media, primarily because their level of education is higher. There is also a wide gap in exposure to mass media by place of residence, education, and wealth. For example, the proportion of women who read a newspaper at least once a week is highest among urban residents (11 percent), women with some secondary education (19 percent) or more than secondary education (24 percent), and women in the wealthiest quintile (11 percent). Women in Addis Ababa are the most likely to read a newspaper on a weekly basis (15 percent). The patterns of exposure to mass media are similar among men and women.

Exposure to each of the specified media sources has increased since 2005. For example, the proportion of women 15-49 who listen to the radio at least once a week has increased from 16 percent in the 2005 EDHS to 22 percent in 2011, while the proportion among men 15-59 has increased from 31 percent to 38 percent.

3.5 EMPLOYMENT

The 2011 EDHS asked respondents whether they were employed at the time of the survey (that is, had worked in the past seven days) and, if not, whether they had worked any time during the 12 months preceding the survey. Table 3.5.1 and Figure 3.1 show that 38 percent of women are currently employed (worked in the past seven days). The proportion of women currently employed rises from 27 percent among women age 15-19 to a peak of 44 percent among women age 25-29 and then declines slightly for the older age groups. By marital status, women who are divorced, separated, or widowed are most likely to be currently employed (51 percent).

There are notable variations in the proportion currently employed by place of residence and by region. Urban women are more likely to be currently employed than rural women (50 percent compared with 34 percent). Women in Addis Ababa and Gambela are the most likely to be currently employed (52 and 47 percent, respectively), while women in Affar and Somali regions are the least likely (19 and 22 percent, respectively).

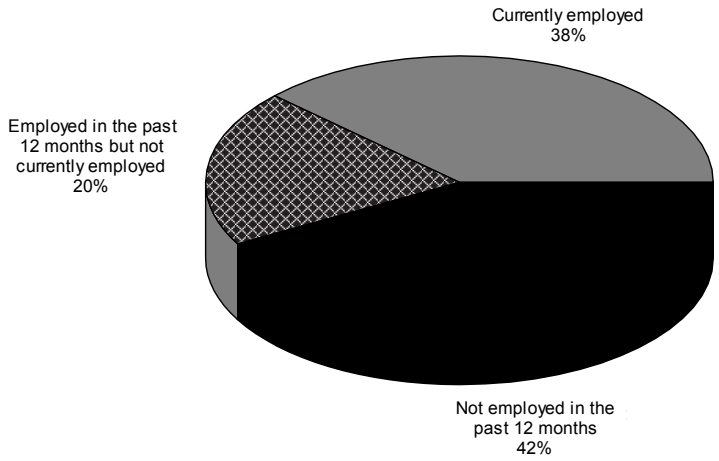
Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Ethiopia 2011

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Weighted number of women	Unweighted number of women
Age							
15-19	27.1	22.3	50.5	0.1	100.0	4,009	3,835
20-24	38.9	19.0	42.2	0.0	100.0	2,931	3,022
25-29	44.0	16.1	39.8	0.1	100.0	3,147	3,185
30-34	42.1	18.6	39.3	0.0	100.0	2,054	2,100
35-39	41.4	20.5	38.1	0.0	100.0	1,916	1,958
40-44	38.9	24.2	36.9	0.0	100.0	1,261	1,314
45-49	38.2	23.9	38.0	0.0	100.0	1,196	1,101
Marital status							
Never married	36.8	17.7	45.4	0.1	100.0	4,469	4,413
Married or living together	35.8	20.8	43.4	0.0	100.0	10,287	10,204
Divorced/separated/widowed	50.8	22.3	26.9	0.0	100.0	1,758	1,898
Number of living children							
0	36.6	19.1	44.2	0.1	100.0	5,708	5,771
1-2	39.4	19.6	40.9	0.0	100.0	3,987	4,257
3-4	40.0	18.9	41.0	0.1	100.0	3,219	3,151
5+	35.2	23.4	41.5	0.0	100.0	3,601	3,336
Residence							
Urban	49.9	7.8	42.3	0.0	100.0	3,947	5,329
Rural	33.8	24.0	42.2	0.1	100.0	12,568	11,186
Region							
Tigray	29.9	45.2	24.8	0.0	100.0	1,104	1,728
Affar	19.0	4.4	76.7	0.0	100.0	145	1,291
Amhara	31.4	30.2	38.4	0.0	100.0	4,433	2,087
Oromiya	41.0	15.1	43.9	0.1	100.0	6,011	2,135
Somali	22.2	3.1	74.5	0.2	100.0	329	914
Benishangul-Gumuz	42.4	12.2	45.2	0.2	100.0	174	1,259
SNNP	40.7	14.5	44.8	0.0	100.0	3,236	2,034
Gambela	46.7	9.1	44.1	0.0	100.0	69	1,130
Harari	40.1	6.1	53.8	0.1	100.0	49	1,101
Addis Ababa	51.5	6.2	42.3	0.0	100.0	896	1,741
Dire Dawa	40.2	2.3	57.4	0.0	100.0	69	1,095
Education							
No education	34.7	22.8	42.4	0.0	100.0	8,394	8,278
Primary	37.8	19.7	42.5	0.0	100.0	6,276	5,858
Secondary	40.5	12.3	46.8	0.5	100.0	1,117	1,395
More than secondary	65.4	4.8	29.9	0.0	100.0	728	984
Wealth quintile							
Lowest	28.1	28.4	43.5	0.0	100.0	2,986	3,711
Second	31.8	25.8	42.4	0.0	100.0	3,041	2,402
Middle	35.7	22.7	41.4	0.2	100.0	3,031	2,268
Fourth	38.8	20.7	40.5	0.1	100.0	3,215	2,505
Highest	49.0	7.9	43.1	0.0	100.0	4,242	5,629
Total	37.6	20.1	42.2	0.1	100.0	16,515	16,515

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

Figure 3.1 Women's Employment Status in the Past 12 Months



EDHS 2011

The percentage of women currently employed increases as their level of education increases; the proportion of women employed rises from 35 percent among uneducated women to 65 percent among women with more than secondary education. There is also an increase in the percentage of women employed by wealth quintile; women in the highest quintile have the highest level of employment (49 percent) when compared with women in the lowest quintiles.

Table 3.5.2 shows that a large majority of men, 80 percent, are currently employed. Men age 15-19 (65 percent), men who have never married (71 percent), men with no living children (73 percent), and urban men (77 percent) are less likely to be currently employed than other men. Men in Addis Ababa and SNNP (both 84 percent) have the highest level of current employment, while men in Harari have the lowest level (58 percent).

Table 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Ethiopia 2011

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Weighted number of men	Unweighted number of men
Age							
15-19	65.2	20.6	14.2	0.0	100.0	3,013	2,832
20-24	75.4	16.9	7.6	0.1	100.0	2,319	2,330
25-29	86.7	11.7	1.6	0.0	100.0	2,297	2,274
30-34	86.6	12.2	1.2	0.0	100.0	1,483	1,682
35-39	87.8	11.8	0.4	0.0	100.0	1,648	1,579
40-44	87.2	11.8	0.9	0.1	100.0	1,121	1,210
45-49	86.3	13.2	0.4	0.0	100.0	952	961
Marital status							
Never married	71.0	17.7	11.3	0.0	100.0	5,600	5,641
Married or living together	86.6	12.8	0.5	0.0	100.0	6,872	6,775
Divorced/separated/widowed	84.5	12.7	2.7	0.0	100.0	363	452
Number of living children							
0	72.9	17.0	10.0	0.0	100.0	6,465	6,534
1-2	86.8	12.8	0.5	0.0	100.0	2,338	2,463
3-4	86.4	13.1	0.5	0.0	100.0	2,038	1,922
5+	86.7	12.7	0.5	0.1	100.0	1,994	1,949
Residence							
Urban	76.6	11.4	12.1	0.0	100.0	2,882	3,915
Rural	80.7	16.0	3.3	0.0	100.0	9,952	8,953
Region							
Tigray	79.3	18.0	2.7	0.0	100.0	770	1,235
Affar	66.8	24.8	8.4	0.0	100.0	101	910
Amhara	76.9	17.0	6.1	0.0	100.0	3,481	1,739
Oromiya	80.3	15.5	4.1	0.0	100.0	4,957	1,889
Somali	64.2	13.8	21.8	0.2	100.0	245	653
Benishangul-Gumuz	81.6	10.9	7.6	0.0	100.0	138	1,047
SNNP	84.2	11.7	4.1	0.1	100.0	2,307	1,550
Gambela	82.8	9.7	7.5	0.0	100.0	59	865
Harari	57.7	24.2	18.0	0.1	100.0	40	898
Addis Ababa	83.9	7.9	8.2	0.0	100.0	682	1,237
Dire Dawa	78.2	10.5	11.3	0.0	100.0	53	845
Education							
No education	83.2	15.6	1.1	0.1	100.0	3,785	3,659
Primary	78.7	15.8	5.5	0.0	100.0	6,813	6,334
Secondary	73.9	14.0	12.1	0.0	100.0	1,296	1,565
More than secondary	81.2	7.0	11.8	0.0	100.0	940	1,310
Wealth quintile							
Lowest	82.9	14.2	2.8	0.1	100.0	2,141	2,563
Second	81.8	15.6	2.6	0.0	100.0	2,362	1,891
Middle	78.3	17.8	3.9	0.1	100.0	2,454	1,935
Fourth	79.9	16.1	4.0	0.0	100.0	2,683	2,203
Highest	77.1	11.7	11.2	0.0	100.0	3,194	4,276
Total 15-49	79.7	14.9	5.3	0.0	100.0	12,834	12,868
50-59	87.3	10.9	1.8	0.0	100.0	1,276	1,242
Total 15-59	80.4	14.6	5.0	0.0	100.0	14,110	14,110

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

There is no clear pattern in the variation of men's employment level by level of education. By wealth status, current employment among men decreases from 83 percent among the poorest men to 77 percent among the wealthiest.

Current employment among women 15-49 increased from 29 percent in 2005 to 38 percent in 2011. In contrast, among men 15-59 it decreased from 86 percent to 80 percent.

3.6 OCCUPATION

The 2011 EDHS asked currently employed respondents to state their occupation. Tables 3.6.1 and 3.6.2, for women and men respectively, show that 46 percent of working women 15-49 and 74 percent of working men 15-59 are in agricultural occupations, a drop from the 52 percent and 84 percent, respectively, reported in 2005. Sales and services account for 33 percent of current employment for women and 10 percent for men. Thirteen percent of employed women and 7 percent of employed men work in skilled manual labour, an increase from six years ago.

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Ethiopia 2011

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Weighted number of women	Unweighted number of women
Age										
15-19	0.1	0.3	34.3	9.0	2.1	52.6	1.6	100.0	1,980	1,611
20-24	6.4	4.2	36.2	12.4	2.4	37.3	1.0	100.0	1,694	1,576
25-29	4.8	2.6	35.8	13.3	1.8	41.0	0.7	100.0	1,892	1,723
30-34	3.0	3.2	34.6	13.8	1.6	43.0	0.7	100.0	1,245	1,131
35-39	3.2	1.7	30.6	14.4	0.5	46.6	3.0	100.0	1,186	1,106
40-44	1.9	1.7	28.2	12.3	0.8	53.1	1.9	100.0	796	748
45-49	1.2	1.5	22.0	17.4	1.2	55.6	1.2	100.0	742	638
Marital status										
Never married	4.1	3.8	40.7	10.0	2.7	37.5	1.1	100.0	2,433	2,203
Married or living together	3.0	1.8	29.2	12.8	1.1	50.6	1.6	100.0	5,817	4,981
Divorced/separated/widowed	1.8	1.2	36.0	17.3	2.3	40.4	1.0	100.0	1,286	1,349
Number of living children										
0	4.3	3.4	37.5	10.3	2.7	40.7	1.1	100.0	3,179	2,929
1-2	5.1	3.3	32.1	13.4	2.0	43.2	0.9	100.0	2,354	2,298
3-4	2.1	0.9	33.0	16.3	0.7	45.5	1.4	100.0	1,895	1,624
5+	0.2	0.5	27.4	12.2	0.5	56.9	2.2	100.0	2,107	1,682
Residence										
Urban	9.1	8.5	52.3	14.2	5.2	9.5	1.2	100.0	2,276	2,919
Rural	1.3	0.3	27.0	12.2	0.5	57.3	1.4	100.0	7,259	5,614
Region										
Tigray	1.8	1.0	25.8	8.4	2.0	59.1	1.9	100.0	830	1,314
Affar	8.2	4.0	44.7	16.3	1.8	22.6	2.4	100.0	34	255
Amhara	2.3	1.2	18.5	10.3	2.1	64.3	1.4	100.0	2,731	1,293
Oromiya	3.0	1.9	33.9	13.0	1.3	45.9	1.0	100.0	3,369	1,186
Somali	1.5	2.7	68.2	19.1	2.1	2.5	3.9	100.0	83	195
Benishangul-Gumuz	3.5	3.1	26.2	19.5	0.7	45.4	1.6	100.0	95	686
SNNP	3.1	1.4	48.3	16.9	0.4	28.7	1.2	100.0	1,786	1,125
Gambela	3.0	7.7	43.3	29.2	0.4	12.2	4.2	100.0	39	513
Harari	10.5	10.3	65.1	8.7	2.2	1.9	1.2	100.0	23	501
Addis Ababa	10.1	13.6	53.6	13.0	5.1	1.8	2.8	100.0	517	1,018
Dire Dawa	8.9	5.3	67.3	11.4	1.2	3.5	2.3	100.0	29	447
Education										
No education	0.1	0.1	27.1	13.7	1.3	56.1	1.6	100.0	4,829	4,032
Primary	0.0	0.6	41.7	12.3	1.8	42.5	1.1	100.0	3,606	3,106
Secondary	5.2	11.4	42.8	15.7	3.6	19.6	1.9	100.0	589	710
More than secondary	51.8	23.8	16.7	2.6	1.4	3.0	0.7	100.0	511	685
Wealth quintile										
Lowest	0.2	0.0	21.7	11.0	1.0	65.0	1.1	100.0	1,688	1,573
Second	0.3	0.3	22.7	10.2	0.5	64.4	1.5	100.0	1,751	1,291
Middle	0.1	0.2	27.2	11.5	0.4	59.3	1.3	100.0	1,771	1,241
Fourth	0.8	0.2	35.4	14.9	1.4	45.5	1.8	100.0	1,911	1,344
Highest	11.4	8.3	50.9	14.9	4.1	9.5	1.1	100.0	2,414	3,084
Total	3.1	2.2	33.0	12.7	1.7	45.9	1.4	100.0	9,535	8,533

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Ethiopia 2011

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Weighted number of men	Unweighted number of men
Age										
15-19	0.9	0.5	9.6	3.6	2.2	76.2	6.9	100.0	2,586	2,277
20-24	4.1	1.4	12.4	6.5	2.5	70.8	2.2	100.0	2,139	2,068
25-29	8.0	1.5	11.7	9.1	1.1	67.7	0.9	100.0	2,260	2,210
30-34	5.0	2.4	10.7	10.0	2.1	68.4	1.4	100.0	1,465	1,651
35-39	3.8	1.2	8.9	9.7	0.6	75.3	0.6	100.0	1,642	1,563
40-44	3.7	1.1	10.2	8.0	1.6	74.9	0.5	100.0	1,110	1,190
45-49	5.0	1.7	7.9	4.7	0.2	79.2	1.3	100.0	948	953
Marital status										
Never married	4.4	1.6	12.4	6.7	2.4	67.8	4.7	100.0	4,965	4,779
Married or living together	4.1	1.1	8.8	7.3	1.0	76.8	0.8	100.0	6,832	6,694
Divorced/separated/widowed	3.7	1.5	14.5	12.9	2.6	63.3	1.4	100.0	353	439
Number of living children										
0	4.8	1.6	12.0	7.3	2.2	67.9	4.2	100.0	5,815	5,650
1-2	5.9	1.8	11.8	11.0	1.6	67.0	1.0	100.0	2,327	2,435
3-4	2.8	0.6	9.7	5.9	1.4	78.9	0.7	100.0	2,027	1,903
5+	2.3	0.7	5.1	3.8	0.1	87.3	0.7	100.0	1,981	1,924
Residence										
Urban	12.9	5.2	29.8	27.1	6.1	15.0	3.9	100.0	2,534	3,398
Rural	2.0	0.3	5.3	2.0	0.5	87.9	2.0	100.0	9,616	8,514
Region										
Tigray	5.5	0.7	9.9	9.1	2.2	71.1	1.5	100.0	749	1,204
Affar	11.4	2.9	16.6	8.3	1.5	57.9	1.4	100.0	93	850
Amhara	1.9	0.7	6.5	6.2	1.1	80.1	3.5	100.0	3,267	1,642
Oromiya	3.7	1.1	9.5	4.6	1.7	77.3	2.0	100.0	4,750	1,805
Somali	12.6	0.5	19.4	6.7	3.6	56.1	1.0	100.0	191	527
Benishangul-Gumuz	3.2	1.7	6.7	4.7	0.6	76.9	6.3	100.0	128	974
SNNP	4.6	1.5	10.5	5.0	0.4	76.6	1.3	100.0	2,211	1,501
Gambela	13.5	8.4	33.8	10.0	1.9	30.6	1.9	100.0	55	783
Harari	12.7	3.2	25.1	16.5	4.2	37.4	0.8	100.0	33	736
Addis Ababa	11.9	4.9	31.8	35.9	7.0	3.4	5.2	100.0	627	1,134
Dire Dawa	13.3	3.9	23.7	23.1	5.6	26.8	3.5	100.0	47	756
Education										
No education	0.4	0.0	5.1	2.9	0.5	90.4	0.6	100.0	3,741	3,581
Primary	0.8	0.4	10.7	7.1	2.2	75.9	2.8	100.0	6,440	5,848
Secondary	5.8	3.2	25.1	17.9	2.3	40.7	5.0	100.0	1,140	1,335
More than secondary	46.6	11.7	12.4	12.6	0.9	12.1	3.7	100.0	829	1,148
Wealth quintile										
Lowest	0.7	0.0	2.9	0.8	0.4	93.8	1.4	100.0	2,078	2,423
Second	0.5	0.1	2.5	1.7	0.2	93.6	1.4	100.0	2,301	1,828
Middle	0.7	0.1	3.6	1.3	0.4	91.4	2.5	100.0	2,358	1,848
Fourth	2.3	0.2	10.2	3.6	1.4	79.7	2.5	100.0	2,576	2,068
Highest	14.5	5.3	28.2	24.6	5.0	18.5	4.0	100.0	2,837	3,745
Total 15-49	4.2	1.3	10.4	7.2	1.6	72.7	2.4	100.0	12,150	11,912
50-59	3.8	0.8	7.4	5.2	1.0	80.7	1.0	100.0	1,253	1,215
Total 15-59	4.2	1.3	10.2	7.0	1.6	73.5	2.3	100.0	13,403	13,127

The proportion of women in sales and services decreases with age and is highest among never-married women, women with no living children, urban women, women with primary or secondary education, and women in the highest wealth quintile. The percentage of women who work in agriculture is highest among the youngest and oldest age groups, currently married women, women with five or more children, rural women, women with no education, and women in the lowest wealth quintile. The patterns among men are similar.

As expected, residence, whether rural or urban, has a significant effect on type of occupation. In rural areas nearly six in every ten employed women (57 percent) and nine in every ten employed men (88 percent) are engaged in agricultural work. Women with secondary or higher education tend to be employed in sales and services and in professional, technical, and managerial occupations, whereas women with little or no education tend to be employed in the agricultural sector. Agriculture is by far the most important occupation for women in all wealth quintiles but the highest. Employment outside the agricultural sector is highest among men with more than secondary education and men in the highest wealth quintile.

3.7 TYPE OF WOMEN'S EMPLOYMENT

Table 3.7 presents the percent distribution of employed women age 15-49 by type of earnings and employer characteristics, according to type of employment (agricultural or non-agricultural). More than half of women (56 percent) engaged in agricultural work are unpaid workers, most likely employed by family members at the peak of the agricultural season. Women are more likely to be paid in cash if they are employed in the nonagricultural sector; 68 percent of women employed in this sector are paid only in cash. Overall, three in every ten employed women (30 percent) are not paid at all, and only about four in every ten (39 percent) are paid only in cash for their work.

Table 3.7 Type of employment: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Ethiopia 2011

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	6.7	67.7	39.3
Cash and in-kind	24.0	23.5	23.8
In-kind only	12.8	1.2	6.7
Not paid	56.4	7.5	30.1
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	65.0	21.9	41.8
Employed by nonfamily member	4.8	21.5	13.7
Self-employed	30.1	56.5	44.4
Total	100.0	100.0	100.0
Continuity of employment			
All year	13.1	61.5	39.2
Seasonal	77.6	16.4	44.6
Occasional	9.3	22.0	16.0
Total	100.0	100.0	100.0
Weighted number of women employed during the last 12 months	4,373	5,033	9,535
Unweighted number of women employed during the last 12 months	3,143	5,227	8,533

Note: Total includes 12 cases with information missing on type of earnings, 12 cases with information missing on type of employer, and 15 cases with information missing on continuity of employment.

More than four in every ten employed women work for a family member (42 percent), and another four in every ten are self-employed (44 percent). Only 14 percent of employed women work for someone outside the family.

Sixty-five percent of women in the agricultural sector are working for a family member, compared with 22 percent in the nonagricultural sector. In addition, the proportion of women employed by someone outside the family is much higher among women in the nonagricultural sector than in the agricultural sector (22 percent versus 5 percent).

Three-quarters of women employed in the agricultural sector are seasonal workers. In contrast, the majority of women in the nonagricultural sector (62 percent) work all year. Sixteen percent of women are also employed occasionally, with more than twice as many women in the nonagricultural sector (22 percent) employed occasionally as women in the agricultural sector (9 percent).

3.8 HEALTH ISSUES

The 2011 EDHS asked women and men about their use of cigarettes or other tobacco, consumption of alcohol, and use of chat. This information is important in helping understand how widespread the use of these substances is among the adult population in Ethiopia. Also, the 2011 EDHS collected data on women's and men's knowledge and attitudes concerning tuberculosis (TB).

3.8.1 Use of Tobacco

Few women smoke cigarettes (35 female respondents) or use tobacco of any kind, according to the 2011 EDHS, and so data for women are not shown here. Table 3.8 shows data for men. Seven percent of men age 15-49 use tobacco products of some kind; 6 percent say that they smoke cigarettes. Men age 40-49 (11-13 percent) and men in Harari (27 percent), Somali and Dire Dawa (both 24 percent), and Affar (20 percent) are the most likely to smoke cigarettes.

Table 3.8 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or use other tobacco products and the percent distribution of cigarette smokers, by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Ethiopia 2011

Background characteristic	Uses tobacco			Weighted number of men	Un-weighted number of men	Percent distribution of men who smoke cigarettes by number of cigarettes smoked in the last 24 hours						Total	Weighted number of cigarette smokers	Un-weighted number of cigarette smokers
	Cigarettes	Other tobacco	Does not use tobacco			0	1-2	3-5	6-9	10+	Don't know/ missing			
Age														
15-19	1.3	0.2	98.5	3,013	2,832	8.2	17.1	39.1	6.3	23.5	5.7	100.0	40	80
20-24	2.7	0.9	96.3	2,319	2,330	9.4	17.1	21.0	22.5	23.7	6.3	100.0	63	183
25-29	6.3	1.8	92.6	2,297	2,274	9.7	28.8	33.5	6.9	20.0	1.2	100.0	146	293
30-34	8.9	2.5	89.6	1,483	1,682	2.5	9.2	33.8	15.3	37.7	1.5	100.0	132	282
35-39	9.0	2.9	89.1	1,648	1,579	4.9	12.4	33.6	20.4	28.8	0.0	100.0	148	247
40-44	12.6	4.4	85.3	1,121	1,210	5.7	12.7	34.0	10.7	36.9	0.0	100.0	142	231
45-49	11.2	5.9	84.0	952	961	3.5	13.0	41.9	14.1	27.5	0.0	100.0	106	146
Residence														
Urban	7.9	1.0	91.4	2,882	3,915	4.7	10.8	29.9	24.0	30.1	0.5	100.0	228	507
Rural	5.5	2.3	92.9	9,952	8,953	6.3	17.7	35.8	9.6	28.9	1.6	100.0	549	955
Region														
Tigray	1.5	0.1	98.4	770	1,235	*	*	*	*	*	*	100.0	12	16
Affar	20.4	17.3	68.5	101	910	2.9	10.3	23.9	9.0	52.8	1.1	100.0	21	197
Amhara	2.0	1.1	97.0	3,481	1,739	(12.8)	(15.9)	(28.9)	(27.0)	(9.6)	(5.7)	100.0	68	30
Oromiya	8.8	2.0	90.2	4,957	1,889	3.7	15.5	37.4	12.1	30.6	0.8	100.0	434	174
Somali	23.9	6.1	73.8	245	653	5.9	8.4	16.0	12.1	57.6	0.0	100.0	58	159
Benishangul-Gumuz	9.5	7.9	85.4	138	1,047	6.6	15.4	34.7	9.3	33.9	0.0	100.0	13	114
SNNP	3.7	2.9	93.9	2,307	1,550	10.1	29.3	42.7	9.6	6.8	1.5	100.0	85	59
Gambela	17.6	5.4	79.1	59	865	5.4	12.9	35.7	14.5	31.5	0.0	100.0	10	164
Harari	26.6	2.8	71.3	40	898	3.2	6.0	15.4	16.9	57.3	1.1	100.0	11	242
Addis Ababa	7.6	0.6	91.9	682	1,237	10.5	12.8	31.2	18.1	26.5	1.0	100.0	52	100
Dire Dawa	23.6	4.7	72.6	53	845	3.5	4.5	23.0	18.0	50.5	0.4	100.0	13	207
Education														
No education	6.7	4.3	90.2	3,785	3,659	6.3	15.5	32.2	14.2	30.3	1.5	100.0	253	495
Primary	5.9	1.2	93.4	6,813	6,334	4.7	17.2	35.3	10.5	30.9	1.4	100.0	405	665
Secondary	5.7	0.4	94.0	1,296	1,565	11.3	3.5	36.3	25.5	22.4	0.8	100.0	74	181
More than secondary	4.7	1.5	94.2	940	1,310	4.9	22.8	29.9	22.6	19.9	0.0	100.0	44	121
Wealth quintile														
Lowest	6.8	4.9	89.6	2,141	2,563	5.3	19.3	40.5	5.8	26.7	2.4	100.0	147	364
Second	5.5	2.5	92.6	2,362	1,891	3.4	15.2	33.6	17.1	30.7	0.1	100.0	130	173
Middle	4.9	1.4	94.1	2,454	1,935	14.3	18.0	34.5	9.0	20.8	3.4	100.0	119	159
Fourth	5.8	1.4	93.7	2,683	2,203	3.4	14.7	41.5	9.9	29.3	1.2	100.0	157	234
Highest	7.0	0.8	92.4	3,194	4,276	4.9	13.1	24.7	22.4	34.6	0.3	100.0	224	532
Total 15-49	6.1	2.0	92.6	12,834	12,868	5.9	15.7	34.1	13.8	29.3	1.3	100.0	777	1,462
50-59	10.8	8.0	84.5	1,276	1,242	9.0	17.1	27.9	9.2	35.3	1.6	100.0	137	192
Total 15-59	6.5	2.6	91.9	14,110	14,110	6.3	15.9	33.1	13.1	30.2	1.4	100.0	914	1,654

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

Among men age 15-49 who smoke cigarettes, the largest proportion (34 percent) had smoked three to five cigarettes in the previous 24 hours, while another 29 percent had smoked 10 or more cigarettes in the previous 24 hours.

3.8.2 Alcohol Consumption

Tables 3.9.1 and 3.9.2 show the percentage of respondents age 15-49 who ever drank alcohol and the percent distribution by the number of days they drank alcohol in the last 30 days, according to respondents' background characteristics. Forty-five percent of women and 53 percent of men reported drinking alcohol at some point in their lives. For both women and men this proportion increases with age, and it is higher among urban residents than rural residents. Among regions the percentage of respondents who ever drank alcohol ranges from 2 percent of women and 5 percent of men in Somali to 86 percent of women and 91 percent of men in Tigray. Alcohol consumption is highest among both women and men with more than secondary education and in the highest wealth quintile, but there is no clear association between alcohol consumption and education and wealth in general.

Table 3.9.1 Alcohol consumption: Women

Percentage of women age 15-49 who ever drank alcohol, and among women who ever drank alcohol, percent distribution by the number of days they drank alcohol in the last 30 days, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage of all women who ever drank alcohol	Weighted number of women	Unweighted number of women	Among women who ever drank alcohol, number of days they drank alcohol in the last 30 days				Weighted number of women who ever drank alcohol	Unweighted number of women who ever drank alcohol
				None	1-5	6+	Total		
Age									
15-19	40.4	4,009	3,835	10.5	50.0	39.4	100.0	1,619	1,333
20-24	44.2	2,931	3,022	9.3	48.2	42.5	100.0	1,296	1,153
25-29	44.5	3,147	3,185	8.3	42.5	49.0	100.0	1,400	1,184
30-34	44.9	2,054	2,100	8.7	37.0	54.0	100.0	922	796
35-39	49.0	1,916	1,958	10.4	35.6	53.9	100.0	940	807
40-44	45.1	1,261	1,314	10.2	37.1	52.4	100.0	569	525
45-49	52.9	1,196	1,101	10.9	34.0	55.1	100.0	633	536
Residence									
Urban	49.5	3,947	5,329	16.7	55.4	27.7	100.0	1,954	2,095
Rural	43.2	12,568	11,186	7.1	37.8	55.0	100.0	5,424	4,239
Region									
Tigray	86.3	1,104	1,728	2.1	54.4	43.3	100.0	952	1,511
Affar	4.0	145	1,291	(6.2)	(67.2)	(26.6)	100.0	6	37
Amhara	78.3	4,433	2,087	4.9	30.7	64.2	100.0	3,469	1,613
Oromiya	28.7	6,011	2,135	11.6	55.3	32.9	100.0	1,722	602
Somali	2.4	329	914	*	*	*	100.0	8	18
Benishangul-Gumuz	42.4	174	1,259	2.4	42.9	54.7	100.0	74	554
SNNP	19.7	3,236	2,034	20.5	46.0	33.5	100.0	637	399
Gambela	41.6	69	1,130	17.8	48.9	33.3	100.0	29	361
Harari	17.2	49	1,101	47.0	45.4	7.7	100.0	8	191
Addis Ababa	51.6	896	1,741	38.3	50.7	10.6	100.0	462	906
Dire Dawa	15.0	69	1,095	10.5	71.8	17.8	100.0	10	142
Education									
No education	47.3	8,394	8,278	6.8	33.2	59.8	100.0	3,972	3,056
Primary	39.9	6,276	5,858	10.8	49.9	39.2	100.0	2,504	2,224
Secondary	46.3	1,117	1,395	15.7	60.2	24.0	100.0	517	586
More than secondary	52.7	728	984	23.7	65.4	10.8	100.0	384	468
Wealth quintile									
Lowest	45.0	2,986	3,711	7.3	39.9	52.8	100.0	1,344	1,229
Second	46.4	3,041	2,402	5.4	37.9	56.6	100.0	1,412	1,055
Middle	44.8	3,031	2,268	5.3	33.6	60.8	100.0	1,358	936
Fourth	39.3	3,215	2,505	10.0	38.6	51.2	100.0	1,264	917
Highest	47.1	4,242	5,629	16.9	55.7	27.2	100.0	2,000	2,197
Total	44.7	16,515	16,515	9.6	42.4	47.8	100.0	7,378	6,334

Table 3.9.2 Alcohol consumption: Men

Percentage of men age 15-49 who ever drank alcohol, and among men who ever drank alcohol, percent distribution by the number of days they drank alcohol in the last 30 days, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage of all men who ever drank alcohol	Weighted number of men	Unweighted number of men	Among men who ever drank alcohol, number of days they drank alcohol in the last 30 days				Weighted number of men who ever drank alcohol	Unweighted number of men who ever drank alcohol
				None	1-5	6+	Total		
Age									
15-19	48.2	3,013	2,832	7.9	50.0	42.1	100.0	1,452	1,240
20-24	51.8	2,319	2,330	10.1	44.8	44.8	100.0	1,200	1,161
25-29	53.6	2,297	2,274	10.1	33.3	56.4	100.0	1,231	1,202
30-34	53.5	1,483	1,682	10.1	32.6	57.1	100.0	794	841
35-39	54.0	1,648	1,579	13.5	30.0	56.4	100.0	890	825
40-44	58.6	1,121	1,210	11.0	25.9	62.8	100.0	657	643
45-49	62.9	952	961	8.8	28.0	62.4	100.0	599	546
Residence									
Urban	60.8	2,882	3,915	15.1	45.2	39.5	100.0	1,753	2,253
Rural	50.9	9,952	8,953	8.3	34.4	57.0	100.0	5,070	4,205
Region									
Tigray	91.3	770	1,235	3.6	36.6	59.7	100.0	703	1,139
Affar	9.8	101	910	8.6	41.4	50.0	100.0	10	66
Amhara	84.2	3,481	1,739	4.4	28.4	66.9	100.0	2,930	1,457
Oromiya	33.9	4,957	1,889	10.1	46.2	43.4	100.0	1,682	627
Somali	4.9	245	653	(19.1)	(53.3)	(27.6)	100.0	12	25
Benishangul-Gumuz	59.6	138	1,047	4.8	46.6	48.4	100.0	82	635
SNNP	35.8	2,307	1,550	25.8	38.4	35.5	100.0	825	560
Gambela	58.4	59	865	9.0	44.1	46.9	100.0	35	493
Harari	26.6	40	898	25.8	48.9	25.3	100.0	11	227
Addis Ababa	75.0	682	1,237	25.2	53.5	21.2	100.0	512	935
Dire Dawa	40.6	53	845	29.4	47.6	23.0	100.0	22	294
Education									
No education	60.8	3,785	3,659	5.5	26.5	67.6	100.0	2,302	1,773
Primary	47.8	6,813	6,334	11.1	38.7	50.1	100.0	3,253	3,012
Secondary	53.2	1,296	1,565	15.5	51.8	32.7	100.0	690	854
More than secondary	61.5	940	1,310	15.5	54.1	29.9	100.0	578	819
Wealth quintile									
Lowest	53.1	2,141	2,563	6.4	32.6	60.7	100.0	1,136	1,127
Second	55.0	2,362	1,891	6.3	36.8	56.8	100.0	1,299	1,009
Middle	52.1	2,454	1,935	8.2	33.1	58.3	100.0	1,279	954
Fourth	47.5	2,683	2,203	10.4	33.4	56.3	100.0	1,275	994
Highest	57.4	3,194	4,276	16.0	45.8	37.8	100.0	1,833	2,374
Total 15-49	53.2	12,834	12,868	10.0	37.2	52.5	100.0	6,823	6,458
50-59	68.8	1,276	1,242	9.3	30.2	60.3	100.0	878	765
Total 15-59	54.6	14,110	14,110	10.0	36.4	53.4	100.0	7,700	7,223

Note: Total includes 15 cases with information missing on the number of days they drank alcohol in the last 30 days. Figures in parentheses are based on 25-49 unweighted cases.

Among respondents who ever drank alcohol, the majority drank on six or more days in the preceding 30 days (48 percent of women and 53 percent of men).

3.8.3 Chewing Chat

Chat is a plant native to the Horn of Africa and the Arabian Peninsula. Chat chewing in communities in these areas is a social custom that dates back thousands of years. However, chat is a strong stimulant that causes mild to moderate psychological dependence, although not as strong as that of alcohol and tobacco, and its consumption can have serious health and economic consequences.

Tables 3.10.1 and 3.10.2 show the percentages of women and men who have ever chewed chat and, among respondents who ever chewed chat, the percent distribution by the number of days that they chewed chat in the last 30 days, according to respondents' background characteristics. Eleven percent of women and 28 percent of men reported that they had ever chewed chat. Among both women and men, this proportion increases with age. Among women, chat consumption is higher in rural areas than in urban areas (12 percent versus 7 percent), while among men there is no marked difference by place of residence. The percentage of respondents who ever chewed chat is lowest in Tigray (1 percent of women and 4 percent of men) and highest in Harari (39 percent of women and 82 percent of men). The percentage who ever chewed chat is highest among women with no education (14 percent) and among men with more than secondary education (32 percent). Women in the highest wealth quintile are the least likely to have ever chewed chat (8 percent). Conversely, men in the highest wealth quintile are the most likely to have chewed chat (31 percent).

Among respondents who have ever chewed chat, most chewed chat on six or more days in the last 30 days (43 percent of women and 57 percent of men).

Table 3.10.1 Chewing chat: Women

Percentage of women age 15-49 who ever chewed chat, and among women who ever chewed chat, percent distribution by the number of days they chewed chat in the last 30 days, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who ever chewed chat	Weighted number of women	Unweighted number of women	Among women who ever chewed chat, number of days they chewed chat in the last 30 days					Weighted number of women who ever chewed chat	Unweighted number of women who ever chewed chat
				None	1-5	6+	Missing	Total		
Age										
15-19	5.6	4,009	3,835	15.1	48.5	36.4	0.1	100.0	224	176
20-24	9.3	2,931	3,022	22.3	48.6	29.1	0.0	100.0	272	269
25-29	12.3	3,147	3,185	15.0	42.3	42.0	0.7	100.0	388	382
30-34	13.0	2,054	2,100	14.2	32.9	51.9	0.9	100.0	268	266
35-39	14.0	1,916	1,958	18.8	29.2	50.8	1.1	100.0	269	292
40-44	17.4	1,261	1,314	16.8	36.9	46.3	0.0	100.0	220	201
45-49	15.0	1,196	1,101	15.1	38.8	46.0	0.0	100.0	180	174
Residence										
Urban	6.8	3,947	5,329	36.8	32.0	31.2	0.0	100.0	269	699
Rural	12.3	12,568	11,186	13.3	41.0	45.1	0.5	100.0	1,551	1,061
Region										
Tigray	0.9	1,104	1,728	*	*	*	0.0	100.0	10	15
Affar	6.9	145	1,291	7.0	52.3	40.7	0.0	100.0	10	74
Amhara	7.6	4,433	2,087	26.7	55.3	18.0	0.0	100.0	336	176
Oromiya	20.0	6,011	2,135	11.0	35.5	52.8	0.7	100.0	1,200	429
Somali	7.3	329	914	13.6	40.6	45.8	0.0	100.0	24	63
Benishangul-Gumuz	3.3	174	1,259	(24.9)	(65.1)	(7.9)	2.1	100.0	6	45
SNNP	4.2	3,236	2,034	26.8	42.6	30.6	0.0	100.0	137	81
Gambela	14.2	69	1,130	43.3	40.6	16.2	0.0	100.0	10	55
Harari	39.2	49	1,101	12.0	25.3	62.3	0.5	100.0	19	433
Addis Ababa	5.7	896	1,741	55.5	31.0	13.5	0.0	100.0	51	96
Dire Dawa	27.1	69	1,095	3.8	33.5	62.7	0.0	100.0	19	293
Education										
No education	13.7	8,394	8,278	11.2	38.2	50.3	0.3	100.0	1,148	919
Primary	9.0	6,276	5,858	22.1	43.0	34.0	0.9	100.0	567	590
Secondary	4.9	1,117	1,395	54.8	40.0	5.3	0.0	100.0	55	150
More than secondary	6.9	728	984	41.9	37.1	21.0	0.0	100.0	50	101
Wealth quintile										
Lowest	10.3	2,986	3,711	12.9	36.8	50.3	0.0	100.0	308	187
Second	12.4	3,041	2,402	14.4	33.8	51.1	0.8	100.0	377	226
Middle	12.9	3,031	2,268	10.9	37.5	50.9	0.7	100.0	392	251
Fourth	12.2	3,215	2,505	15.5	55.4	28.4	0.7	100.0	394	302
Highest	8.2	4,242	5,629	30.8	33.3	35.8	0.0	100.0	350	794
Total	11.0	16,515	16,515	16.8	39.7	43.1	0.5	100.0	1,820	1,760

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.

Table 3.10.2 Chewing chat: Men

Percentage of men age 15-49 who ever chewed chat, and among men who ever chewed chat, percent distribution by the number of days they chewed chat in the last 30 days, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who ever chewed chat	Weighted number of men	Unweighted number of men	Among men who ever chewed chat, number of days they chewed chat in the last 30 days					Weighted number of men who ever chewed chat	Unweighted number of men who ever chewed chat
				None	1-5	6+	Missing	Total		
Age										
15-19	14.9	3,013	2,832	12.9	28.6	58.6	0.0	100.0	448	506
20-24	28.6	2,319	2,330	15.4	30.7	53.8	0.0	100.0	662	803
25-29	32.2	2,297	2,274	18.0	24.2	57.8	0.0	100.0	740	931
30-34	34.5	1,483	1,682	17.7	26.9	55.3	0.1	100.0	511	728
35-39	30.4	1,648	1,579	18.4	25.3	56.3	0.0	100.0	501	620
40-44	34.5	1,121	1,210	18.3	23.4	57.6	0.6	100.0	387	511
45-49	31.0	952	961	21.7	19.7	58.4	0.2	100.0	295	361
Residence										
Urban	28.9	2,882	3,915	31.2	30.2	38.5	0.1	100.0	833	1,782
Rural	27.2	9,952	8,953	12.9	24.8	62.2	0.1	100.0	2,711	2,678
Region										
Tigray	3.7	770	1,235	(40.4)	(41.9)	(17.7)	0.0	100.0	29	46
Affar	33.8	101	910	3.9	32.3	63.9	0.0	100.0	34	310
Amhara	12.6	3,481	1,739	21.2	54.0	24.8	0.0	100.0	440	230
Oromiya	40.6	4,957	1,889	9.3	20.3	70.3	0.1	100.0	2,014	776
Somali	54.1	245	653	7.4	18.6	73.6	0.3	100.0	132	376
Benishangul-Gumuz	18.7	138	1,047	26.5	55.1	18.0	0.4	100.0	26	200
SNNP	20.2	2,307	1,550	28.9	22.2	48.9	0.0	100.0	466	311
Gambela	32.7	59	865	27.9	30.8	41.3	0.0	100.0	19	223
Harari	81.9	40	898	8.8	11.2	79.9	0.0	100.0	33	742
Addis Ababa	45.2	682	1,237	49.2	31.1	19.6	0.2	100.0	308	559
Dire Dawa	79.1	53	845	15.1	15.5	69.2	0.3	100.0	42	687
Education										
No education	27.2	3,785	3,659	10.3	21.9	67.8	0.0	100.0	1,028	1,192
Primary	27.4	6,813	6,334	16.7	26.9	56.2	0.1	100.0	1,870	2,054
Secondary	26.4	1,296	1,565	27.6	26.3	46.1	0.0	100.0	342	639
More than secondary	32.3	940	1,310	32.2	34.4	33.0	0.3	100.0	304	575
Wealth quintile										
Lowest	23.9	2,141	2,563	12.4	23.5	63.6	0.5	100.0	511	635
Second	26.2	2,362	1,891	14.0	24.3	61.7	0.0	100.0	618	512
Middle	27.1	2,454	1,935	13.1	24.6	62.3	0.0	100.0	666	567
Fourth	28.7	2,683	2,203	12.9	24.7	62.4	0.0	100.0	770	754
Highest	30.7	3,194	4,276	27.9	30.6	41.4	0.1	100.0	979	1,992
Total 15-49	27.6	12,834	12,868	17.2	26.1	56.6	0.1	100.0	3,544	4,460
50-59	27.3	1,276	1,242	25.0	25.0	49.9	0.1	100.0	348	424
Total 15-59	27.6	14,110	14,110	17.9	26.0	56.0	0.1	100.0	3,892	4,884

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

3.8.4 Knowledge and Attitudes Concerning Tuberculosis

The 2011 EDHS collected data on women's and men's knowledge and attitudes concerning tuberculosis (TB). Tables 3.11.1 and 3.11.2 show the percentage of women and men who have heard of TB, and, among those who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want a family member's TB to be kept a secret.

Table 3.11.1 Knowledge and attitude concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and, among women who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of all women who have heard of TB	Weighted number of women	Unweighted number of women	Among women who have heard of TB: Percentage who report that TB is spread through the air by coughing	Among women who have heard of TB: Percentage who believe that TB can be cured	Among women who have heard of TB: Percentage who would want a family member's TB kept secret	Weighted number of women who ever heard of TB	Unweighted number of women who ever heard of TB
Age								
15-19	88.4	4,009	3,835	55.3	74.7	29.7	3,544	3,444
20-24	89.9	2,931	3,022	57.2	82.6	26.6	2,635	2,768
25-29	90.0	3,147	3,185	53.9	80.2	24.5	2,833	2,901
30-34	89.3	2,054	2,100	57.1	82.1	24.2	1,835	1,885
35-39	91.5	1,916	1,958	56.9	81.6	23.2	1,754	1,811
40-44	91.1	1,261	1,314	55.9	78.1	24.2	1,149	1,215
45-49	91.6	1,196	1,101	51.8	80.6	22.6	1,096	1,021
Residence								
Urban	97.4	3,947	5,329	69.3	88.5	21.5	3,846	5,192
Rural	87.5	12,568	11,186	50.8	76.5	27.3	11,000	9,853
Region								
Tigray	97.7	1,104	1,728	51.5	93.5	13.6	1,078	1,687
Affar	94.4	145	1,291	58.7	91.5	28.1	137	1,206
Amhara	89.4	4,433	2,087	49.6	81.0	25.7	3,964	1,849
Oromiya	86.3	6,011	2,135	56.8	80.7	17.9	5,189	1,849
Somali	84.4	329	914	48.4	89.6	28.0	278	751
Benishangul-Gumuz	84.5	174	1,259	60.0	85.3	31.2	147	1,040
SNNP	92.5	3,236	2,034	58.9	65.6	45.6	2,993	1,873
Gambela	88.5	69	1,130	47.6	83.0	42.3	61	961
Harari	96.6	49	1,101	72.1	90.4	10.4	47	1,062
Addis Ababa	98.8	896	1,741	68.6	89.4	18.0	885	1,719
Dire Dawa	96.1	69	1,095	67.4	88.2	24.3	66	1,048
Education								
No education	85.8	8,394	8,278	47.5	76.3	24.8	7,202	7,203
Primary	92.6	6,276	5,858	58.7	78.9	29.6	5,814	5,480
Secondary	99.1	1,117	1,395	73.0	93.5	20.4	1,107	1,382
More than secondary	99.2	728	984	83.4	96.4	13.2	723	980
Wealth quintile								
Lowest	84.6	2,986	3,711	47.6	72.5	25.2	2,525	3,165
Second	87.5	3,041	2,402	50.7	76.5	26.1	2,660	2,116
Middle	86.2	3,031	2,268	51.2	76.1	29.3	2,612	1,992
Fourth	90.8	3,215	2,505	53.2	78.5	28.5	2,921	2,290
Highest	97.3	4,242	5,629	67.9	88.9	21.7	4,129	5,482
Total	89.9	16,515	16,515	55.6	79.6	25.8	14,846	15,045

Table 3.11.2 Knowledge and attitude concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who have heard of TB	Weighted number of men	Unweighted number of men	Among men who have heard of TB: Percentage who report that TB is spread through the air by coughing	Among men who have heard of TB: Percentage who believe that TB can be cured	Among men who have heard of TB: Percentage who would want a family member's TB kept secret	Weighted number of men who ever heard of TB	Unweighted number of men who ever heard of TB
Age								
15-19	89.3	3,013	2,832	59.8	82.8	23.7	2,692	2,571
20-24	95.4	2,319	2,330	63.9	89.3	20.3	2,212	2,251
25-29	95.6	2,297	2,274	68.6	91.1	16.6	2,196	2,186
30-34	97.9	1,483	1,682	67.8	92.2	18.0	1,452	1,644
35-39	96.1	1,648	1,579	67.9	91.5	13.1	1,585	1,529
40-44	97.6	1,121	1,210	65.6	93.6	15.5	1,095	1,180
45-49	98.0	952	961	68.2	89.2	14.7	934	943
Residence								
Urban	98.9	2,882	3,915	74.7	93.6	12.3	2,849	3,882
Rural	93.6	9,952	8,953	62.4	87.8	20.2	9,316	8,422
Region								
Tigray	97.6	770	1,235	56.7	94.7	13.0	752	1,204
Affar	97.5	101	910	72.8	93.7	20.6	99	884
Amhara	93.2	3,481	1,739	54.0	88.8	19.0	3,243	1,611
Oromiya	94.7	4,957	1,889	71.6	91.2	11.8	4,694	1,786
Somali	90.8	245	653	49.6	95.1	14.9	222	588
Benishangul-Gumuz	92.6	138	1,047	68.1	89.9	27.1	128	953
SNNP	95.3	2,307	1,550	67.5	81.3	36.6	2,198	1,472
Gambela	98.1	59	865	59.6	91.9	15.6	58	843
Harari	99.1	40	898	83.8	94.7	9.1	40	890
Addis Ababa	99.6	682	1,237	79.5	93.0	7.7	680	1,233
Dire Dawa	99.6	53	845	85.3	97.5	9.2	53	840
Education								
No education	90.8	3,785	3,659	54.0	87.6	17.8	3,436	3,365
Primary	95.5	6,813	6,334	66.4	87.5	20.5	6,504	6,076
Secondary	99.3	1,296	1,565	75.5	95.4	15.3	1,287	1,558
More than secondary	99.8	940	1,310	85.1	98.0	9.1	938	1,305
Wealth quintile								
Lowest	90.4	2,141	2,563	56.7	85.5	21.4	1,936	2,351
Second	93.4	2,362	1,891	61.9	87.8	21.4	2,205	1,771
Middle	93.8	2,454	1,935	60.8	86.9	19.6	2,303	1,821
Fourth	95.6	2,683	2,203	66.7	89.1	19.9	2,565	2,121
Highest	98.8	3,194	4,276	75.2	94.2	12.0	3,157	4,240
Total 15-49	94.8	12,834	12,868	65.3	89.2	18.3	12,166	12,304
50-59	97.8	1,276	1,242	62.1	90.8	13.2	1,247	1,214
Total 15-59	95.1	14,110	14,110	65.0	89.3	17.8	13,413	13,518

Awareness of TB is almost universal in Ethiopia; 90 percent of women and 95 percent of men age 15-49 have heard about TB. Knowledge of other aspects of TB is also widespread. Fifty-six percent of women and 65 percent of men age 15-49 who have heard of TB know that it is spread through the air by coughing, and 80 percent of women and 89 percent of men know that TB can be cured. Finally, there appears to be little stigma attached to TB in Ethiopia. Only 26 percent of women and 18 percent of men say that if a family member had TB they would want to keep it a secret.

Rural women and men are less likely than urban residents to know that TB is spread through the air by coughing and to believe that TB can be cured. Among women who have heard about TB, women in Gambela are the least likely to know that TB is spread through the air by coughing (48 percent), and women in the SNNP region are the least likely to know that TB can be cured (66 percent). Among men, those in the Somali region are the least likely to know that TB is spread through the air by coughing (50 percent), and men in the SNNP region are the least likely to know that TB can be cured (81 percent).

Among both women and men who have heard about TB, the percentages who know that TB is spread through the air by coughing and that it can be cured increases steadily as levels of education and wealth increase.

Rural women and men who have heard of TB are more likely than those in urban areas to want to keep secret a family member's TB infection. Women in SNNP and Gambela and men in SNNP are most likely to report that they would want to keep a family member's TB infection a secret. This proportion decreases with respondent's education and also tends to decrease with wealth, especially among men.

MARRIAGE AND SEXUAL ACTIVITY 4

Key Findings

- The median age at first marriage among women age 25-49 is 16.5 years in 2011. For men age 25-59, the median age at first marriage is 23.1 years.
- There has been a small increase in the age at first marriage among women in the last six years. In contrast, men are marrying slightly earlier now than six years ago.
- The percentage never-married has increased slightly in the last six years, from 25 to 27 percent among women age 15-49 and remained unchanged among men age 15-59.
- The percentage of women who were first married by exact age 15 has declined from 39 percent among women currently age 45-49 to 8 percent among women age 15-19. A similar pattern is seen among men.
- Ethiopian men marry about seven years later than women.
- Ethiopian women generally begin sexual intercourse at the time of their first marriage. In contrast, men initiate sexual intercourse two years before their first marriage.

This chapter addresses the principal factors, other than contraception, that affect a woman's risk of becoming pregnant. These factors are marriage, polygyny, and sexual activity.

4.1 CURRENT MARITAL STATUS

For most women marriage marks the onset of regular exposure to the risk of pregnancy. Therefore, information on age at marriage is important for understanding fertility. Populations in which age at first marriage is low tend to have early childbearing and high fertility.

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

Twenty-seven percent of women age 15-49 have never married, 58 percent are currently married, 4 percent are living together with a man, and 11 percent are divorced, separated, or widowed. The low proportion (less than 1 percent) of women age 45-49 who have never been married indicates that marriage is nearly universal in Ethiopia.

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Ethiopia 2011

Age	Marital status						Total	Percentage of respondents currently in union	Weighted number of respondents	Unweighted number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed				
					WOMEN					
Age										
15-19	77.0	17.6	1.5	3.2	0.7	0.1	100.0	19.1	4,009	3,835
20-24	31.9	55.0	5.1	5.4	2.4	0.2	100.0	60.1	2,931	3,022
25-29	9.7	74.5	5.3	6.3	2.3	2.0	100.0	79.8	3,147	3,185
30-34	4.1	78.7	5.0	5.1	3.4	3.7	100.0	83.7	2,054	2,100
35-39	1.8	77.6	5.4	7.1	2.9	5.1	100.0	83.0	1,916	1,958
40-44	1.4	76.2	5.8	6.1	1.6	8.9	100.0	81.9	1,261	1,314
45-49	0.6	72.3	3.4	6.7	2.1	15.0	100.0	75.7	1,196	1,101
Total 15-49	27.1	58.1	4.2	5.3	2.1	3.2	100.0	62.3	16,515	16,515
					MEN					
Age										
15-19	97.6	1.9	0.3	0.2	0.1	0.0	100.0	2.1	3,013	2,832
20-24	72.5	23.5	1.7	1.8	0.5	0.0	100.0	25.2	2,319	2,330
25-29	31.5	61.1	3.3	2.9	1.2	0.0	100.0	64.5	2,297	2,274
30-34	10.1	82.7	3.2	1.9	1.7	0.4	100.0	85.9	1,483	1,682
35-39	4.3	89.6	2.4	2.5	0.6	0.6	100.0	92.0	1,648	1,579
40-44	1.8	91.3	3.4	1.8	0.6	1.1	100.0	94.7	1,121	1,210
45-49	1.4	92.2	1.5	2.2	1.4	1.3	100.0	93.7	952	961
Total 15-49	43.6	51.5	2.0	1.8	0.8	0.3	100.0	53.5	12,834	12,868
50-59	0.4	92.5	2.9	2.6	0.2	1.3	100.0	95.4	1,276	1,242
Total 15-59	39.7	55.2	2.1	1.8	0.7	0.4	100.0	57.3	14,110	14,110

The proportion age 15-49 who have never been married is notably higher among men than among women (44 percent versus 27 percent). About half the men (52 percent) are currently married, 2 percent are living together with a woman, and 3 percent are either divorced, separated, or widowed. A significant proportion of men marry when they are age 25 or older, in contrast to women, who tend to marry before the age of 25. For example, 60 percent of women age 20-24 are in union, compared with only 25 percent of men in the same age group. Like women, however, virtually all men have married by the time they reach age 50.

Over the past six years the proportion of Ethiopian women who have never married has increased slightly, from 25 percent in 2005 to 27 percent in 2011, and the proportion of women currently married or living together has decreased slightly, from 65 percent in 2005 to 62 percent in 2011. There has been little change in the marital status of men over the same period.

4.2 POLYGYNY

Polygyny, the practice of having more than one wife, has implications for coital frequency and, therefore, fertility. The extent of polygyny is ascertained by asking currently married women whether their husband or partner has other wives and, if so, how many. Similarly, interviewers ask currently married men how many wives or partners they have.

Tables 4.2.1 and 4.2.2 show the proportion of currently married women and men, respectively, who are in polygynous unions, by background characteristics. Eleven percent of married women in Ethiopia are in polygynous unions, with 9 percent having only one co-wife and 2 percent having two or more co-wives. The percentage of women in polygynous unions tends to increase with age, from 3 percent among women age 15-19 to 17 percent among women age 40-49.

The extent of polygyny has declined only slightly over the past six years, from 12 percent in the 2005 EDHS to 11 percent in the 2011 EDHS.

Rural women are more likely to be in polygynous unions (12 percent) than urban women (5 percent). The regional distribution also shows substantial variation. The prevalence of polygyny is lowest in Tigray (1 percent) and highest in Somali (27 percent). Polygyny also is relatively common in Affar (22 percent), Gambela (20 percent), and Benishangul-Gumuz and SNNP (both 18 percent).

There is an inverse relationship between education and polygyny. The proportion of currently married women in a polygynous union decreases from 13 percent among women with no education to less than 1 percent among women with more than secondary education. There also are substantial differences in the prevalence of polygyny among women in different wealth quintiles. Women in the lowest wealth quintile are the most likely to be in a polygynous union (16 percent), compared with just 6 percent of women in the highest wealth quintile.

Table 4.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, Ethiopia 2011

Background characteristic	Number of co-wives				Total	Weighted number of women	Unweighted number of women
	0	1	2+	Don't know			
Age							
15-19	95.9	2.9	0.3	1.0	100.0	765	784
20-24	93.5	4.9	0.5	1.2	100.0	1,762	1,788
25-29	92.3	6.5	0.8	0.5	100.0	2,511	2,480
30-34	88.7	9.0	1.7	0.6	100.0	1,720	1,722
35-39	83.4	13.0	3.0	0.6	100.0	1,591	1,600
40-44	82.0	15.0	2.4	0.6	100.0	1,033	1,047
45-49	82.8	12.7	4.4	0.1	100.0	905	783
Residence							
Urban	92.9	4.5	0.8	1.9	100.0	1,843	2,422
Rural	88.1	9.7	1.9	0.4	100.0	8,444	7,782
Region							
Tigray	98.1	0.7	0.1	1.1	100.0	620	984
Affar	77.9	19.1	2.7	0.2	100.0	104	960
Amhara	96.5	2.1	0.4	0.9	100.0	2,776	1,331
Oromiya	86.6	11.0	1.8	0.6	100.0	3,961	1,403
Somali	72.6	21.9	5.1	0.4	100.0	232	664
Benishangul-Gumuz	81.2	14.6	3.7	0.6	100.0	124	904
SNNP	81.7	14.8	3.3	0.2	100.0	2,022	1,295
Gambela	78.8	13.7	5.8	1.7	100.0	41	768
Harari	94.1	4.8	0.7	0.4	100.0	28	635
Addis Ababa	96.5	1.7	0.2	1.7	100.0	342	634
Dire Dawa	95.9	3.3	0.3	0.5	100.0	38	626
Education							
No education	86.8	10.7	2.0	0.5	100.0	6,735	6,569
Primary	91.8	6.0	1.3	0.8	100.0	2,862	2,739
Secondary	95.2	2.5	0.2	2.1	100.0	378	528
More than secondary	99.1	0.1	0.1	0.7	100.0	313	368
Wealth quintile							
Lowest	84.4	13.5	2.1	0.1	100.0	2,077	2,724
Second	89.5	8.7	1.2	0.6	100.0	2,117	1,676
Middle	89.9	7.2	2.6	0.4	100.0	2,083	1,585
Fourth	88.1	9.7	1.7	0.5	100.0	1,923	1,590
Highest	92.6	4.9	0.8	1.7	100.0	2,087	2,629
Total	88.9	8.8	1.7	0.7	100.0	10,287	10,204

Data on polygynous unions among currently married men are shown in Table 4.2.2. Five percent of men age 15-49 report having two or more wives. Like women, older men, men living in rural areas, those with little or no education, and men in the lowest wealth quintile are more likely to be in polygynous unions than other men. Men in the Somali and Benishangul-Gumuz regions are the most likely to be in polygynous unions (both 14 percent), compared with less than 1 percent of men in Addis Ababa, Tigray, and Amhara regions.

The level of polygyny reported by men age 15-59 has declined only slightly over the past six years, from 7 percent in the 2005 EDHS to 6 percent in the 2011 EDHS.

Table 4.2.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Ethiopia 2011

Background characteristic	Number of wives			Total	Weighted number of men	Unweighted number of men
	1	2+	Missing			
Age						
15-19	100.0	0.0	0.0	100.0	64	66
20-24	99.5	0.1	0.4	100.0	583	575
25-29	98.5	1.3	0.2	100.0	1,481	1,378
30-34	95.6	3.8	0.5	100.0	1,274	1,385
35-39	93.1	6.5	0.4	100.0	1,516	1,377
40-44	91.3	8.3	0.4	100.0	1,061	1,108
45-49	89.8	10.2	0.0	100.0	892	886
Residence						
Urban	97.8	1.8	0.3	100.0	1,235	1,580
Rural	93.9	5.8	0.3	100.0	5,637	5,195
Region						
Tigray	99.6	0.4	0.0	100.0	377	613
Affar	90.0	9.7	0.3	100.0	52	492
Amhara	99.3	0.3	0.4	100.0	1,867	936
Oromiya	93.0	6.6	0.3	100.0	2,738	1,040
Somali	85.6	13.8	0.6	100.0	145	391
Benishangul-Gumuz	86.6	13.3	0.2	100.0	81	614
SNNP	90.3	9.4	0.3	100.0	1,279	870
Gambela	92.6	7.4	0.0	100.0	29	488
Harari	97.6	2.2	0.2	100.0	20	460
Addis Ababa	99.8	0.0	0.2	100.0	259	442
Dire Dawa	97.5	1.5	0.9	100.0	25	429
Education						
No education	94.8	4.8	0.4	100.0	2,906	2,757
Primary	93.8	5.9	0.3	100.0	3,213	2,997
Secondary	96.9	3.1	0.0	100.0	385	525
More than secondary	97.6	1.5	0.9	100.0	368	496
Wealth quintile						
Lowest	91.2	8.7	0.0	100.0	1,344	1,631
Second	95.4	4.5	0.1	100.0	1,404	1,138
Middle	94.0	5.5	0.5	100.0	1,393	1,104
Fourth	94.5	5.2	0.3	100.0	1,339	1,152
Highest	97.8	1.6	0.6	100.0	1,391	1,750
Total 15-49	94.6	5.1	0.3	100.0	6,872	6,775
50-59	92.0	7.8	0.3	100.0	1,217	1,155
Total 15-59	94.2	5.5	0.3	100.0	8,089	7,930

4.3 AGE AT FIRST MARRIAGE

In Ethiopia marriage marks the point in a woman's life when childbearing becomes socially acceptable. Age at first marriage has a major effect on childbearing because women who marry early have on average a longer period of exposure to the risk of pregnancy and give birth to a greater number of children over their lifetimes. Interviewers obtained information on age at first marriage by asking respondents the month and year or the age at which they started living with their first partner.

Table 4.3 shows the percentage of women and men who have married by specific exact ages, according to current age. For women, marriage takes place relatively early in Ethiopia. Among

women age 25-49, 63 percent married by age 18, and 77 percent married by age 20. The median age at first marriage among women age 25-49 is 16.5 years, a slight increase from the 16.1 years reported in the 2005 EDHS. The proportion of women married by age 15 has declined over time, from 39 percent among women currently age 45-49 to 8 percent among women currently age 15-19.

Men tend to marry at much older ages than women. Among men age 25-59, only 13 percent were married by age 18, and 27 percent, by age 20. The median age at marriage for men age 25-49 is 23.2 years, almost seven years older than for women in the same age range, at 16.5 years.

The median age at marriage for men age 25-59 has decreased somewhat, from 23.8 years in 2005 to 23.1 years in 2011.

Table 4.3 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Ethiopia 2011

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Weighted number of respondents	Unweighted number of respondents	Median age at first marriage
				WOMEN					
Age									
15-19	8.0	na	na	na	na	77.0	4,009	3,835	a
20-24	16.3	41.0	58.3	na	na	31.9	2,931	3,022	18.9
25-29	22.7	56.2	71.6	81.8	88.7	9.7	3,147	3,185	17.4
30-34	28.6	62.0	75.8	83.5	90.5	4.1	2,054	2,100	16.6
35-39	31.1	63.9	77.4	86.2	92.4	1.8	1,916	1,958	16.4
40-44	37.1	69.0	82.4	89.2	93.8	1.4	1,261	1,314	15.8
45-49	39.4	73.0	84.5	92.6	96.3	0.6	1,196	1,101	15.6
20-49	26.5	57.7	72.4	na	na	11.1	12,506	12,680	17.1
25-49	29.6	62.8	76.7	85.4	91.4	4.7	9,575	9,658	16.5
				MEN					
Age									
15-19	0.4	na	na	na	na	97.6	3,013	2,832	a
20-24	0.7	7.3	13.9	na	na	72.5	2,319	2,330	a
25-29	2.9	12.0	22.6	37.4	58.4	31.5	2,297	2,274	23.9
30-34	4.3	13.8	26.5	42.0	63.7	10.1	1,483	1,682	23.0
35-39	3.0	14.4	31.4	45.3	64.6	4.3	1,648	1,579	22.6
40-44	3.7	14.6	27.3	43.7	63.7	1.8	1,121	1,210	22.8
45-49	3.1	13.7	29.5	44.2	64.6	1.4	952	961	22.9
20-49	2.7	12.0	23.8	na	na	27.1	9,821	10,036	a
25-49	3.3	13.5	26.9	41.8	62.4	13.0	7,502	7,706	23.2
20-59	2.6	11.9	23.9	na	na	24.0	11,097	11,278	a
25-59	3.1	13.1	26.5	42.2	62.8	11.2	8,778	8,948	23.1

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

Table 4.4 shows the median age at first marriage for women age 20-49 and age 25-49, and for men age 25-59, by background characteristics. Data for women age 15-19 and for men age 15-24 have been omitted because of the small number of married respondents interviewed in these age groups.

Women age 25-49 living in urban areas marry about two years later than rural women (18.1 years compared with 16.3 years). Median age at first marriage is highest in Addis Ababa (21.4 years) and lowest in Amhara (14.7 years). The median age at first marriage for women age 25-49 is higher among the better educated and the wealthier. Variations by background characteristics among men age 25-59 display a pattern like that among women but are not as pronounced.

Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, and median age at first marriage among men age 25-59, according to background characteristics, Ethiopia 2011

Background characteristic	Women age		Men age[1]
	20-49	25-49	25-59
Residence			
Urban	19.3	18.1	a
Rural	16.6	16.3	22.6
Region			
Tigray	17.1	16.6	24.4
Affar	16.8	16.5	24.6
Amhara	15.1	14.7	20.9
Oromiya	17.4	16.9	23.5
Somali	17.6	17.6	24.2
Benishangul-Gumuz	15.9	15.7	21.9
SNNP	18.3	17.9	23.7
Gambela	17.4	17.1	23.9
Harari	18.1	17.7	25.0
Addis Ababa	a	21.4	a
Dire Dawa	19.4	18.9	a
Education			
No education	16.0	15.9	21.9
Primary	18.1	17.5	23.1
Secondary	a	22.8	a
More than secondary	a	23.8	a
Wealth quintile			
Lowest	16.4	16.3	22.7
Second	16.3	16.0	22.3
Middle	16.7	16.3	22.4
Fourth	16.9	16.4	23.2
Highest	19.1	17.9	a
Total	17.1	16.5	23.1

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
a = Omitted because less than 50 percent of the respondents began living with their spouses/partners for the first time before reaching the beginning of the age group
[1] Median age at first marriage for men age 20-59 is not shown because less than 50 percent of men in most sub-groups began living with their spouses/partners for the first time before reaching the beginning of the age group.

4.4 AGE AT FIRST SEXUAL INTERCOURSE

Although age at first marriage is often used as a proxy for first exposure to sexual intercourse, the two events do not necessarily coincide. In the 2011 EDHS interviewers asked women and men how old they were when they first had sexual intercourse.

Table 4.5 shows the percentage of women and men who first had sexual intercourse by specific exact ages. Among women age 25-49, 29 percent first had sexual intercourse before age 15, 62 percent before age 18, and by age 25 the majority of Ethiopian women (88 percent) had had sexual intercourse. The median age at first sexual intercourse for women age 25-49 years is 16.6 years, which is very close to the median age at first marriage of 16.5 years. This suggests that Ethiopian women generally begin sexual intercourse at the time of their first marriage. The median age at first sexual intercourse has increased over the past two decades, from 15.6 years for women currently age 45-49 to 18.8 years for women currently age 20-24.

As is the case with age at first marriage, men tend to initiate sexual activity later in life than women. The median age at first sex for men age 25-49 is 21.2 years, about six years later than for women. The median ages at first intercourse among the different age cohorts suggest no significant change in age at first sexual intercourse for men over the past 20 years. The median age at first sexual intercourse for men age 25-49 years, at 21.2 years, is about two years lower than the median age at first marriage, at 23.2 years.

Table 4.5 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Ethiopia 2011

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had sexual intercourse	Weighted number of respondents	Unweighted number of respondents	Median age at first sexual intercourse
				WOMEN					
Age									
15-19		na	na	na	na	75.8	4,009	3,835	a
20-24	16.0	42.2	60.8	na	na	27.4	2,931	3,022	18.8
25-29	21.8	55.5	70.7	80.7	86.8	7.2	3,147	3,185	17.4
30-34	27.5	60.5	73.8	81.1	86.6	3.3	2,054	2,100	16.7
35-39	31.4	62.9	75.5	84.1	89.2	1.0	1,916	1,958	16.4
40-44	35.7	67.5	79.8	85.6	89.7	0.9	1,261	1,314	15.9
45-49	38.9	71.8	82.2	89.0	91.9	0.2	1,196	1,101	15.6
20-49	25.9	57.1	71.6	na	na	9.0	12,506	12,680	17.1
25-49	28.9	61.7	75.0	83.2	88.2	3.4	9,575	9,658	16.6
15-24	10.9	na	na	na	na	55.4	6,940	6,857	a
				MEN					
Age									
15-19	1.2	na	na	na	na	92.2	3,013	2,832	a
20-24	1.3	14.0	27.5	na	na	55.6	2,319	2,330	a
25-29	3.5	16.9	32.4	51.6	70.5	18.9	2,297	2,274	21.8
30-34	3.8	18.5	36.4	55.6	75.3	4.3	1,483	1,682	21.0
35-39	3.1	18.8	39.2	55.9	72.2	1.5	1,648	1,579	20.9
40-44	2.4	18.7	38.8	57.8	72.4	0.6	1,121	1,210	21.0
45-49	2.9	18.2	39.5	56.9	73.5	0.2	952	961	20.9
20-49	2.8	17.1	34.4	na	na	18.5	9,821	10,036	a
25-49	3.3	18.1	36.5	54.9	72.5	7.1	7,502	7,706	21.2
15-24	1.2	na	na	na	na	76.3	5,332	5,162	a
20-59	2.7	17.3	35.0	na	na	16.4	11,097	11,278	a
25-59	3.1	18.2	36.9	55.6	72.6	6.1	8,778	8,948	21.1

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

Differentials in age at first sex are shown in Table 4.6. Urban women have their first sexual experience at somewhat older ages than rural women. For example, the median age at first intercourse among urban women age 25-49 was 17.8 years, compared with 16.4 years among rural women. Among the regions median age at first intercourse for women age 25-49 is highest in Addis Ababa (19.5 years) and lowest in Amhara (15.1 years). Women's median age at first sexual intercourse rises with levels of education and wealth. Women with more than secondary education initiate sex almost six years later than women with no education (21.8 years versus 16.0 years). Similarly, the median age at first sex is more than one year later among women in the highest wealth quintile than among women in the lowest. In contrast, among men there are no substantial variations in the median age at first sexual intercourse by various background characteristics.

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age25-49, and median age at first sexual intercourse among men age 20-59 and age 25-59 according to background characteristics, Ethiopia 2011

Background characteristic	Women age		Men age[1]
	20-49	25-49	25-59
Residence			
Urban	18.7	17.8	20.9
Rural	16.7	16.4	21.2
Region			
Tigray	16.1	15.7	22.0
Affar	17.1	16.9	20.5
Amhara	15.3	15.1	20.4
Oromiya	17.5	17.0	21.8
Somali	18.0	17.9	23.0
Benishangul-Gumuz	16.3	16.0	20.5
SNNP	18.3	17.9	21.6
Gambela	16.8	16.9	19.6
Harari	18.2	17.9	21.9
Addis Ababa	a	19.5	20.8
Dire Dawa	19.5	19.3	20.9
Education			
No education	16.1	16.0	21.0
Primary	18.0	17.4	21.1
Secondary	a	20.6	21.9
More than secondary	a	21.8	21.3
Wealth quintile			
Lowest	16.5	16.4	21.6
Second	16.4	16.1	21.3
Middle	16.9	16.4	20.9
Fourth	17.1	16.6	21.3
Highest	18.6	17.6	20.9
Total	17.1	16.6	21.1

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group
[1] Median age at first sexual intercourse for men age 20-59 is not shown because less than 50 percent of men in most sub-groups had sexual intercourse for the first time before reaching the beginning of the age group.

4.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the probability of pregnancy is entirely related to coital frequency. Therefore, information on sexual activity can be used to refine measures of exposure to pregnancy. Interviewers asked women and men how long ago their last sexual activity occurred, recording whether they had had a sexual encounter in the preceding four weeks.

Tables 4.7.1 and 4.7.2 show the percent distributions of women and men by recent sexual activity. Fifty-one percent of all women age 15-49 were sexually active in the four weeks before the survey, 14 percent had been sexually active in the year before the survey but not in the four weeks prior to the interview, and 10 percent had been sexually active at some time in their lives but not for the past one or more years. One in every four women had never had sexual intercourse.

The proportion of women who were sexually active during the four weeks before the survey at first increases with age, from 16 percent among those age 15-19 to 70 percent among those age 30-34, and then it decreases to 55 percent among those age 45-49. As expected, women who are currently in union are much more likely to have been sexually active in the four weeks preceding the survey (80 percent) than women who were formerly married (6 percent) or who have never been married (2 percent). Women married for 25 years or more are less likely to have been sexually active in the recent past than women married for shorter durations.

Rural women were more likely to be recently sexually active (55 percent) than urban women (38 percent). Women residing in Benishangul-Gumuz (56 percent), Oromiya (55 percent), and SNNP (53 percent) were more likely than women in other regions to have been sexually active in the past four weeks, while women in Addis Ababa (32 percent) were least likely. Women with no education (65 percent) were substantially more sexually active in the recent past than women with some education (28 to 39 percent). Among wealth quintiles the richest women were the least likely to report being sexually active in the past four weeks (41 percent).

Table 4.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Ethiopia 2011

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Weighted number of women	Unweighted number of women
	Within the past 4 weeks	Within 1 year[1]	One or more years[2]	Missing				
Age								
15-19	15.8	5.8	2.6	0.0	75.8	100.0	4,009	3,835
20-24	51.1	14.2	7.0	0.2	27.4	100.0	2,931	3,022
25-29	67.1	16.8	8.8	0.0	7.2	100.0	3,147	3,185
30-34	70.1	16.3	10.1	0.2	3.3	100.0	2,054	2,100
35-39	65.8	17.5	15.7	0.2	1.0	100.0	1,916	1,958
40-44	64.4	16.1	18.4	0.2	0.9	100.0	1,261	1,314
45-49	55.4	14.4	30.1	0.0	0.2	100.0	1,196	1,101
Marital status								
Never married	2.1	2.4	3.3	0.0	92.1	100.0	4,469	4,413
Married or living together	79.9	16.7	3.1	0.1	0.2	100.0	10,287	10,204
Divorced/separated/widowed	5.9	22.7	69.3	0.1	2.0	100.0	1,758	1,898
Marital duration[3]								
0-4 years	80.7	17.0	1.4	0.2	0.8	100.0	1,792	1,931
5-9 years	81.4	16.1	1.8	0.4	0.3	100.0	1,689	1,790
10-14 years	80.1	17.5	2.4	0.0	0.0	100.0	1,594	1,605
15-19 years	81.1	16.6	2.1	0.3	0.0	100.0	1,088	1,135
20-24 years	79.8	16.4	3.8	0.0	0.0	100.0	853	869
25+ years	73.4	18.5	8.1	0.0	0.0	100.0	963	865
Married more than once	80.3	15.6	4.0	0.1	0.0	100.0	2,308	2,009
Residence								
Urban	38.4	12.9	13.8	0.1	34.8	100.0	3,947	5,329
Rural	54.9	13.6	9.1	0.1	22.2	100.0	12,568	11,186
Region								
Tigray	44.6	16.8	14.0	0.1	24.5	100.0	1,104	1,728
Affar	45.7	22.6	15.4	0.0	16.2	100.0	145	1,291
Amhara	50.2	15.4	12.1	0.2	22.1	100.0	4,433	2,087
Oromiya	54.8	12.1	8.3	0.0	24.7	100.0	6,011	2,135
Somali	44.9	24.0	11.1	0.5	19.5	100.0	329	914
Benishangul-Gumuz	56.1	15.3	10.6	0.2	17.8	100.0	174	1,259
SNNP	53.2	10.6	7.5	0.1	28.6	100.0	3,236	2,034
Gambela	49.3	17.6	21.0	0.1	12.0	100.0	69	1,130
Harari	43.5	16.5	13.5	0.2	26.3	100.0	49	1,101
Addis Ababa	32.0	12.7	16.2	0.1	39.0	100.0	896	1,741
Dire Dawa	41.6	16.6	13.5	0.0	28.4	100.0	69	1,095
Education								
No education	64.5	16.7	12.5	0.2	6.2	100.0	8,394	8,278
Primary	38.7	9.7	7.1	0.1	44.4	100.0	6,276	5,858
Secondary	27.9	8.9	10.4	0.0	52.7	100.0	1,117	1,395
More than secondary	36.2	15.9	10.7	0.0	37.3	100.0	728	984
Wealth quintile								
Lowest	53.3	17.1	11.4	0.1	18.1	100.0	2,986	3,711
Second	57.1	13.6	9.0	0.1	20.2	100.0	3,041	2,402
Middle	56.7	13.1	8.5	0.2	21.5	100.0	3,031	2,268
Fourth	50.5	11.1	8.7	0.1	29.5	100.0	3,215	2,505
Highest	41.2	12.8	12.6	0.1	33.3	100.0	4,242	5,629
Total	51.0	13.5	10.2	0.1	25.2	100.0	16,515	16,515

[1] Excludes women who had sexual intercourse within the past 4 weeks
[2] Excludes women who had sexual intercourse within the past 4 weeks or within 1 year
[3] Excludes women who are not currently married

Among men age 15-49, 47 percent were sexually active in the four weeks preceding the survey, 12 percent had had sexual intercourse in the year before the survey but not in the four weeks prior to the survey, and 5 percent had not been sexually active for one year or more. Thirty-six percent of men said that they had never had sex. As with women, men's recent sexual activity at first increases with age, peaks in the late thirties at 81 percent, and then declines. Men currently in union

are much more likely to have been recently sexually active (84 percent) than those not in union (3 percent among those never married and 9 percent among those divorced, separated, or widowed).

Like women, men in rural areas are more likely to have been sexually active in the recent past than those in urban areas (49 percent versus 39 percent). Regional variation shows patterns similar to those for women. The rate of recent sexual activity is highest among men living in SNNP (51 percent) and Benishangul-Gumuz (50 percent) and lowest in Addis Ababa (32 percent). Men's recent sexual activity, like women's, is inversely related to their level of education. It decreases from 65 percent among men with no education to 42 percent among men with some primary education and to 28 percent among those with some secondary education. Recent sexual activity is least common among the wealthiest men (39 percent).

Table 4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Ethiopia 2011

Background characteristic	Timing of last sexual intercourse				Never had sexual intercourse	Total	Weighted number of men	Unweighted number of men
	Within the past 4weeks	Within 1year[1]	One or more years[2]	Missing				
Age								
15-19	2.5	2.8	2.5	0.1	92.2	100.0	3,013	2,832
20-24	23.9	12.6	7.8	0.1	55.6	100.0	2,319	2,330
25-29	59.1	14.2	7.5	0.3	18.9	100.0	2,297	2,274
30-34	73.2	16.4	5.7	0.3	4.3	100.0	1,483	1,682
35-39	81.0	12.8	4.5	0.1	1.5	100.0	1,648	1,579
40-44	77.0	19.0	3.5	0.0	0.6	100.0	1,121	1,210
45-49	77.1	17.4	4.4	0.9	0.2	100.0	952	961
Marital status								
Never married	3.4	7.4	7.8	0.1	81.3	100.0	5,600	5,641
Married or living together	84.2	14.3	0.8	0.3	0.4	100.0	6,872	6,775
Divorced/separated/widowed	9.1	39.0	47.3	1.0	3.6	100.0	363	452
Marital duration[3]								
0-4 years	83.0	14.8	0.4	0.3	1.5	100.0	1,334	1,357
5-9 years	83.4	14.5	1.4	0.3	0.3	100.0	1,282	1,245
10-14 years	84.5	13.6	1.2	0.2	0.5	100.0	978	966
15-19 years	81.9	16.8	0.9	0.4	0.0	100.0	733	683
20-24 years	80.6	19.0	0.5	0.0	0.0	100.0	405	388
25+ years	85.8	12.2	1.3	0.8	0.0	100.0	228	205
Married more than once	86.8	12.4	0.5	0.3	0.1	100.0	1,912	1,931
Residence								
Urban	38.7	15.4	10.3	0.2	35.4	100.0	2,882	3,915
Rural	49.1	11.0	3.7	0.2	36.0	100.0	9,952	8,953
Region								
Tigray	41.5	16.6	5.4	0.1	36.4	100.0	770	1,235
Affar	45.5	20.1	6.6	0.3	27.5	100.0	101	910
Amhara	45.2	11.6	4.3	0.2	38.6	100.0	3,481	1,739
Oromiya	49.3	10.7	4.3	0.1	35.5	100.0	4,957	1,889
Somali	44.0	16.9	6.4	1.0	31.7	100.0	245	653
Benishangul-Gumuz	50.4	12.4	4.7	0.1	32.4	100.0	138	1,047
SNNP	50.5	8.9	4.9	0.3	35.3	100.0	2,307	1,550
Gambela	40.9	22.2	13.1	0.0	23.8	100.0	59	865
Harari	41.8	17.2	11.2	0.2	29.5	100.0	40	898
Addis Ababa	31.6	23.6	14.6	0.0	30.3	100.0	682	1,237
Dire Dawa	40.6	18.3	12.5	0.0	28.6	100.0	53	845
Education								
No education	65.1	13.0	3.9	0.4	17.6	100.0	3,785	3,659
Primary	41.6	9.9	4.1	0.1	44.4	100.0	6,813	6,334
Secondary	27.7	12.9	8.8	0.0	50.5	100.0	1,296	1,565
More than secondary	37.2	21.9	13.9	0.3	26.7	100.0	940	1,310
Wealth quintile								
Lowest	54.1	11.4	2.7	0.4	31.5	100.0	2,141	2,563
Second	50.8	11.1	2.7	0.3	35.1	100.0	2,362	1,891
Middle	49.3	10.7	3.7	0.1	36.2	100.0	2,454	1,935
Fourth	44.5	9.6	5.3	0.1	40.5	100.0	2,683	2,203
Highest	38.8	16.0	9.9	0.2	35.1	100.0	3,194	4,276
Total 15-49	46.8	12.0	5.2	0.2	35.8	100.0	12,834	12,868
50-59	73.9	17.9	7.9	0.0	0.2	100.0	1,276	1,242
Total 15-59	49.2	12.5	5.4	0.2	32.6	100.0	14,110	14,110

[1] Excludes men who had sexual intercourse within the last 4 weeks
[2] Excludes women who had sexual intercourse within the past 4 weeks or within 1 year
[3] Excludes men who are not currently married

FERTILITY LEVELS, TRENDS, AND DIFFERENTIALS 5

Key Findings

- The total fertility rate for the three years preceding the survey is 4.8 children per women. Rural women are having about twice as many children as urban women.
- Fertility declined only slightly between 2000 and 2005, from 5.5 children per woman to 5.4, and then decreased further to 4.8 children in 2011.
- Childbearing begins early in Ethiopia. More than one-third (34 percent) of women age 20-49 gave birth by age 18, and more than half (54 percent), by age 20.
- More than half (56 percent) of births occur within three years of a previous birth; 20 percent occur within 24 months.
- Twelve percent of adolescent women, age 15-19, are already mothers or pregnant with their first child.

Fertility is one of the three principal components of population dynamics that determine the size and structure of the population of a country. Chapter 5 looks at a number of fertility indicators, including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; the age at which women initiate childbearing; and postpartum insusceptibility. Information on current and cumulative fertility is essential for monitoring population growth. Birth intervals are important because short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the mother and the child.

Data on fertility were collected in several ways. First, each woman was asked the number of sons and daughters who live with her, the number who live elsewhere, and the number born alive and later died. Next, a complete history of all the woman's births was obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question was asked about whether the child was living in the household or away. For dead children, the age at death was recorded. Finally, information was collected on whether a woman was pregnant at the time of the survey.

5.1 CURRENT FERTILITY

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programmes. Current fertility can be measured using the age-specific fertility rate (ASFR), the total fertility rate (TFR), the general fertility rate (GFR), and the crude birth rate (CBR). The ASFR provides the age pattern of fertility, while the TFR refers to the number of live births that a woman would have had if she were subject to the current ASFRs throughout her reproductive years (15-49 years). The GFR is expressed as the number of live births per 1,000 women of reproductive age, and the CBR is expressed as the number of live births per 1,000 persons in the population. The measures of fertility presented in this chapter refer to the three-year period preceding the survey. This time period generates a sufficient number of births to provide reliable, current estimates.

As Table 5.1 shows, the TFR for Ethiopia for the three-year period preceding the survey is 4.8 children per woman. This means that an Ethiopian woman who is at the beginning of her childbearing years would give birth to just under five children by the end of her reproductive period if fertility levels remained constant over the childbearing years. The TFR in rural areas exceeds the TFR in urban areas by almost three children per woman (5.5 and 2.6 children per woman, respectively).

Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Ethiopia 2011

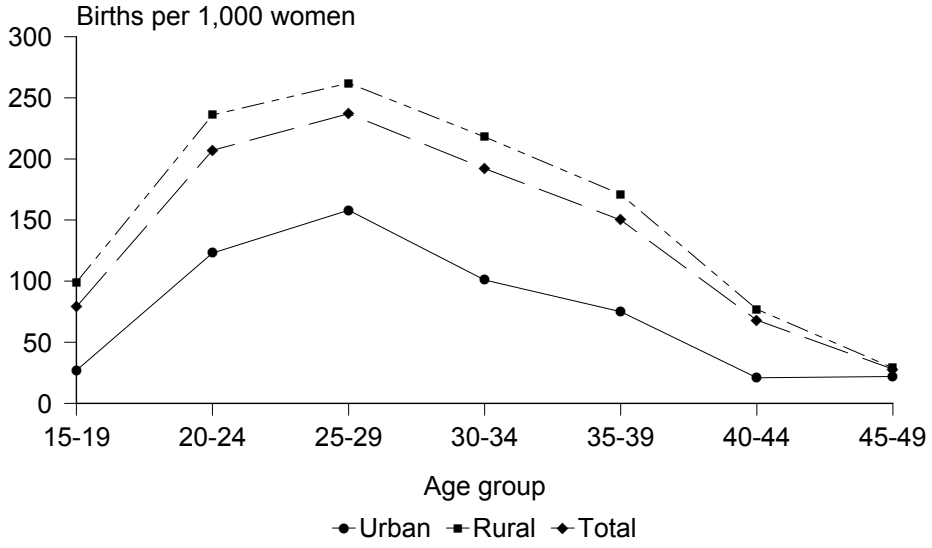
	Residence		
Age group	Urban	Rural	Total
15-19	27	99	79
20-24	123	236	207
25-29	158	262	237
30-34	101	218	192
35-39	75	171	150
40-44	21	77	68
45-49	22	29	28
TFR (15-49)	2.6	5.5	4.8
GFR	89	184	161
CBR	26.4	36.2	34.5

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

The crude birth rate in Ethiopia is 34.5 births per 1,000 population. As is the case with other fertility measures, there is a substantial differential in the CBR by urban-rural residence. The CBR is 37 percent higher in rural areas (36 per 1,000 population) than in urban areas (26 per 1,000 population). The GFR in Ethiopia is 161 live births per 1,000 women of reproductive age. The rate is considerably higher in rural areas (184) than in urban areas (89).

Figure 5.1 presents the age-specific fertility rates for urban and rural areas. The fertility among adolescents age 15-19 in Ethiopia is 79 births per 1,000 women. Fertility peaks at age 25-29 in both rural and urban areas. For the country as a whole, the age-specific fertility rates rise from 79 births per 1,000 women age 15-19 to 207 births among women age 20-24, reach a peak of 237 births for women age 25-29, and then fall steadily to 28 births among women age 45-49.

Figure 5.1 Age-Specific Fertility Rates by Urban-Rural Residence



EDHS 2011

5.2 FERTILITY DIFFERENTIALS BY BACKGROUND CHARACTERISTICS

Table 5.2 presents differentials in the total fertility rates, the percentage of women who are currently pregnant, and the mean number of children ever born (CEB) to women age 40-49, by residence, region, education, and wealth quintiles.

There are substantial differentials in the TFR among the regions, ranging from 1.5 children per woman in Addis Ababa (below the replacement level of fertility) to 7.1 children per woman in Somali. Fertility levels are higher than the national average in Somali, Oromiya, Benishangul-Gumuz, Affar, and SNNP and lower than the national average in the other six regions. The level of fertility is inversely related to women's educational attainment, decreasing sharply from 5.8 children among women with no education to 1.3 children among women who have more than secondary education. Fertility is also strongly associated with wealth

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Ethiopia 2011

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	2.6	3.8	5.0
Rural	5.5	8.4	7.3
Region			
Tigray	4.6	7.2	6.4
Affar	5.0	9.9	7.3
Amhara	4.2	4.7	6.9
Oromiya	5.6	8.3	7.1
Somali	7.1	12.4	7.9
Benishangul-Gumuz	5.2	10.2	6.6
SNNP	4.9	9.3	7.3
Gambela	4.0	5.7	5.6
Harari	3.8	6.7	5.5
Addis Ababa	1.5	3.6	3.3
Dire Dawa	3.4	7.2	4.8
Education			
No education	5.8	8.8	7.2
Primary	4.6	6.5	6.3
Secondary	1.9	3.0	2.4
More than secondary	1.3	3.4	2.8
Wealth quintile			
Lowest	6.0	9.8	7.2
Second	5.7	8.5	7.2
Middle	5.3	7.5	7.3
Fourth	5.0	7.3	7.3
Highest	2.8	4.5	5.3
Total	4.8	7.3	6.9

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

quintiles. Women in the lowest wealth quintile have a TFR of 6.0, more than twice as high as women in the highest wealth quintile, at 2.8.

Table 5.2 also presents a crude assessment of trends in the various subgroups by comparing current fertility with a measure of completed fertility—the mean number of children ever born to women age 40-49. The mean number of children ever born to older women, who are nearing the end of their reproductive period, is an indicator of average completed fertility of women who began childbearing over the three decades preceding the survey. If fertility remained constant over time and the reported data on both children ever born and births during the three years preceding the survey are reasonably accurate, the TFR and the mean number of children ever born for women age 40-49 would be expected to be similar. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children ever born to women age 40-49. The comparison of current fertility at the country level with completed fertility suggests that fertility has fallen by over two children per woman during the past few decades, from 6.9 children to 4.8. The table also reveals that substantial declines in fertility have taken place in both rural areas (from 7.3 to 5.5) and urban areas (from 5.0 to 2.6). The differences between the levels of current and completed fertility are highest in Amhara (2.7 children), in urban areas (2.4 children), and among women in the highest wealth quintile (2.5 children).

The percentage of women currently pregnant is a useful measure of current fertility, although not all women who are pregnant are likely to be included because they may not be aware that they are pregnant or may be reluctant to disclose a pregnancy in the early stages. Seven percent of women reported that they were pregnant at the time of the survey. Rural women were much more likely to be pregnant (8 percent) than urban women (4 percent). The highest proportion of women who were pregnant is in Somali (12 percent), while the lowest proportion was in Addis Ababa (4 percent). The percentage of women currently pregnant decreases with increasing level of education, from 9 percent among women with no education to 3 percent among those with secondary or higher education. Similarly, there are more currently pregnant women in the two lowest wealth quintiles (9-10 percent) than in the highest wealth quintile (5 percent).

5.3 FERTILITY TRENDS

Table 5.3.1 uses information from the retrospective birth histories obtained from the 2011 EDHS respondents to examine trends in age-specific fertility rates for successive five-year periods before the survey. To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother's age at the time of birth. Because birth histories have not been collected for women age 50 and over, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the periods 5-9 years or more prior to the survey because women in those age groups would have been 50 years or older at the time of the survey.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Ethiopia 2011

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	87	143	169	174
20-24	227	266	296	278
25-29	248	293	298	304
30-34	206	257	288	[302]
35-39	157	205	[271]	
40-44	72	[145]		
45-49	[31]			

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

Table 5.3.1 shows that there was no consistent change in fertility from 15-19 years preceding the survey to 10-14 years preceding the survey. However, there has been a fertility decline in every age group in the subsequent two periods. The decline has been particularly rapid between the periods 5-9 years and 0-4 years preceding the survey.

Another way to examine fertility trends is to compare current estimates with estimates from earlier surveys. Estimates of the TFR and ASFR are available from the two previous EDHS surveys (2000 and 2005). These estimates (shown in Table 5.3.2) offer an opportunity to assess fertility trends over the last decade. These data show that the TFR decreased only slightly from 5.5 children in 2000 to 5.4 children in 2005, and then decreased further to 4.8 children in 2011. Although the level of fertility decreased over time, the age pattern of fertility was similar in all four surveys, with fertility increasing from age 15-19 to age 25-29 and decreasing thereafter.

Table 5.3.2 Trends in age-specific and total fertility rates

Trends in age-specific and total fertility rates, Ethiopia 2011

Age group	EDHS 2000[1]	EDHS 2005[2]	EDHS 2011
15-19	100	104	79
20-24	235	228	207
25-29	251	241	237
30-34	243	231	192
35-39	168	160	150
40-44	89	84	68
45-49	19	34	28
TFR	5.5	5.4	4.8

Note: Age-specific fertility rates are per 1,000 women; rate for 2000 EDHS is for the three years preceding the survey.
[1] CSA and ORC Macro, 2001
[2] CSA and ORC Macro, 2006

5.4 CHILDREN EVER BORN AND LIVING

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

The results show that 90 percent of women age 15-19 have never given birth. This proportion declines rapidly to 14 percent for women age 25-29 and to 7 percent or lower for women age 30 and older. On average, Ethiopian women attain a parity of 7.3 children per woman by the end of their childbearing years. This number is higher than the TFR of 4.8 per woman, a difference that is attributable to the decrease in fertility.

Women age 40 or older have much higher parities, with substantial proportions having 10 or more births each by the end of their childbearing years. For example, 54 percent of women age 45-49 have given birth to eight or more children.

A similar pattern is observed for currently married women, except that the mean number of children ever born is higher for currently married women (4.1 children) than for all women (2.9 children).

As expected, the mean number of children ever born and mean number of children surviving rise monotonically with increasing age of women. A comparison of the mean number of living children with the mean number of children ever born shows that, by the end of their childbearing years, women have lost an average of 1.7 children.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Ethiopia 2011

Age	Number of children ever born											Total	Weighted number of women	Unweighted number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+					
ALL WOMEN																
15-19	89.9	7.9	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4,009	3,835	0.13	0.11
20-24	43.2	25.4	20.4	7.6	2.6	0.5	0.1	0.2	0.0	0.0	0.0	100.0	2,931	3,022	1.04	0.95
25-29	13.6	14.7	20.5	21.3	16.1	8.6	3.5	1.1	0.4	0.1	0.0	100.0	3,147	3,185	2.60	2.34
30-34	6.7	6.9	10.4	12.4	18.5	18.0	13.5	8.4	3.5	1.3	0.4	100.0	2,054	2,100	4.12	3.56
35-39	4.1	3.9	6.2	8.4	11.3	12.6	17.4	15.7	10.1	6.0	4.3	100.0	1,916	1,958	5.43	4.54
40-44	2.8	3.3	5.1	5.7	8.0	9.3	11.1	15.8	13.5	8.7	16.4	100.0	1,261	1,314	6.50	5.26
45-49	1.9	2.5	4.1	3.4	5.3	6.8	10.5	12.0	13.9	16.2	23.4	100.0	1,196	1,101	7.34	5.65
Total	33.7	11.0	10.7	8.7	8.2	6.6	6.0	5.2	3.7	2.7	3.5	100.0	16,515	16,515	2.88	2.42
CURRENTLY MARRIED WOMEN																
15-19	53.1	36.3	9.5	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	100.0	765	784	0.59	0.53
20-24	15.2	35.0	31.8	12.3	4.3	0.8	0.2	0.3	0.0	0.0	0.0	100.0	1,762	1,788	1.60	1.46
25-29	4.7	12.6	22.0	24.4	19.1	10.8	4.3	1.4	0.5	0.1	0.0	100.0	2,511	2,480	3.01	2.71
30-34	2.9	4.9	9.4	11.8	20.3	20.0	15.0	9.8	3.9	1.5	0.4	100.0	1,720	1,722	4.49	3.88
35-39	2.7	2.4	5.2	7.7	10.3	13.3	18.3	17.1	11.5	6.5	5.0	100.0	1,591	1,600	5.75	4.83
40-44	1.7	2.6	3.8	5.2	7.3	8.3	10.3	16.7	14.9	9.8	19.3	100.0	1,033	1,047	6.91	5.62
45-49	1.5	1.4	2.9	2.2	4.2	5.2	9.1	11.7	15.6	18.8	27.4	100.0	905	783	7.84	6.07
Total	8.9	13.4	14.5	12.0	11.5	9.5	8.3	7.4	5.4	3.9	5.2	100.0	10,287	10,204	4.08	3.44

5.5 BIRTH INTERVALS

A birth interval is defined as the length of time between two successive live births. The study of birth intervals is important in understanding the health status of young children. Research has shown that short birth intervals are closely associated with poor health of children, especially during infancy. Children born too soon after a previous birth, especially if the interval between the births is less than two years, are at increased risk for health problems and death at a young age. Longer birth intervals improve the health status of both mother and child.

Table 5.5 presents the distribution of second and higher-order births in the five years preceding the survey by the number of months since the previous birth, according to background characteristics. The table also presents the median number of months since the preceding birth.

The median birth interval is 34 months, implying that half of non-first births to women in Ethiopia occur less than three years after a previous birth. Twenty percent have an interval of less than two years, and 9 percent of births are less than 18 months apart. Thirty-six percent of births occur 24-35 months after the previous birth and 44 percent are at least three years apart.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Ethiopia 2011

Background characteristic	Months since preceding birth						Total	Weighted number of non-first births	Unweighted number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+				
Age										
15-19	7.0	13.4	51.1	26.9	1.1	0.5	100.0	98	109	28.5
20-29	10.2	14.0	38.0	21.3	8.7	7.7	100.0	4,401	4,229	32.0
30-39	7.5	10.6	34.4	23.9	10.7	13.0	100.0	4,052	4,001	35.1
40-49	5.4	8.4	27.9	26.7	12.6	18.9	100.0	1,048	992	38.7
Sex of preceding birth										
Male	8.7	11.9	35.4	23.9	9.7	10.5	100.0	4,920	4,757	33.8
Female	8.3	12.0	35.7	22.2	10.1	11.7	100.0	4,679	4,574	33.9
Survival of preceding birth										
Living	6.8	11.5	36.7	23.8	10.2	11.1	100.0	8,649	8,361	34.3
Dead	24.5	16.0	25.2	16.2	7.1	11.0	100.0	950	970	28.1
Birth order										
2-3	9.5	12.5	34.3	21.6	9.6	12.4	100.0	3,682	3,697	33.8
4-6	7.5	11.3	36.3	23.7	10.0	11.2	100.0	3,791	3,663	34.0
7+	8.6	12.0	36.2	24.3	10.2	8.7	100.0	2,125	1,971	33.7
Residence										
Urban	7.0	9.8	24.1	16.2	12.1	30.7	100.0	1,058	1,332	41.5
Rural	8.7	12.2	36.9	23.9	9.6	8.7	100.0	8,541	7,999	33.4
Region										
Tigray	3.7	8.4	37.6	26.4	10.5	13.4	100.0	599	962	36.1
Affar	14.5	16.0	31.9	17.7	9.5	10.5	100.0	98	915	30.2
Amhara	4.4	8.5	28.6	24.6	14.7	19.2	100.0	2,110	1,038	39.1
Oromiya	10.5	13.7	39.4	21.9	6.7	7.8	100.0	4,093	1,439	31.5
Somali	20.5	19.6	32.1	18.6	5.4	3.7	100.0	319	899	26.7
Benishangul-Gumuz	10.6	14.8	33.3	19.2	11.2	11.0	100.0	112	825	33.0
SNNP	8.2	11.9	36.5	24.2	11.5	7.8	100.0	2,070	1,352	34.0
Gambela	6.0	9.7	28.3	24.4	13.5	18.2	100.0	29	665	39.2
Harari	12.1	16.4	34.9	16.6	7.2	12.8	100.0	22	495	30.9
Addis Ababa	5.8	3.4	16.1	15.3	14.3	45.1	100.0	117	208	53.0
Dire Dawa	7.5	17.8	31.9	19.2	9.1	14.5	100.0	29	533	33.3
Education										
No education	8.7	12.6	36.5	23.1	9.6	9.4	100.0	7,100	7,041	33.3
Primary	8.2	9.9	33.8	23.4	10.7	13.9	100.0	2,310	2,024	35.3
Secondary	3.6	5.2	20.9	11.9	11.6	46.8	100.0	117	187	53.8
More than secondary	5.3	19.1	12.3	17.9	10.0	35.4	100.0	72	79	44.3
Wealth quintile										
Lowest	8.6	13.3	35.8	25.4	9.0	7.9	100.0	2,263	3,051	33.4
Second	7.9	12.5	38.5	24.1	9.6	7.5	100.0	2,179	1,750	33.2
Middle	8.8	11.4	34.0	25.1	11.3	9.3	100.0	2,028	1,553	34.5
Fourth	9.3	10.8	40.0	20.4	8.8	10.7	100.0	1,860	1,506	33.0
Highest	7.7	11.1	25.7	17.5	11.4	26.6	100.0	1,269	1,471	38.9
Total	8.5	11.9	35.5	23.0	9.9	11.1	100.0	9,599	9,331	33.9

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.

The median birth interval increases with age, ranging from 28.5 months for births to women age 15-19 to 38.7 months for births to women age 40-49. The longer birth interval among older women may be attributed in part to a decrease in fecundity as women grow older. There are no substantial differences in the median birth interval by the child's sex or birth order. However, the median birth interval is 6 months shorter if the previous child died than if the previous child is still alive. The median interval for births to urban women is 8 months longer than for rural women (41.5 and 33.4 months, respectively). The median birth interval ranges from 26.7 months in Somali to 53.0 months in Addis Ababa. The median number of months since the preceding birth among non-first births is longest for births to women who have gone to secondary school but do not have more than a secondary education (53.8 months). The shortest median birth interval is for births to women with no education (33.3 months). There is no substantial difference in the median birth interval by wealth quintiles, although births to women in the highest wealth quintile have the longest median birth interval (38.9 months).

5.6 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhoea refers to the interval between childbirth and the return of menstruation. The length and intensity of breastfeeding influence the duration of amenorrhoea, which offers protection from conception. Postpartum abstinence refers to the period between childbirth and the time when a woman resumes sexual activity. Delaying the resumption of sexual relations can also prolong protection from conception. Women are considered to be insusceptible to pregnancy if they are not exposed to the risk of conception, either because their menstrual period has not resumed since giving birth or because they are abstaining from intercourse after childbirth.

As Table 5.6 shows, the median duration of amenorrhoea among women who gave birth in the three years preceding the survey is 15.6 months. The median duration of postpartum abstinence is much shorter, at just over 2 months. Taken together, these two factors show that the median duration of postpartum insusceptibility to pregnancy is 16.6 months. During the first two months after childbirth, almost all women (99.6 percent) are insusceptible to pregnancy. Amenorrhoea and abstinence both play important roles in insusceptibility. During the second and third months after giving birth, 88 percent of women are still insusceptible to pregnancy, but the percentage of women receiving protection from postpartum abstinence drops to 40 percent, whereas 85 percent are amenorrhoeic. By 12-13 months after childbirth, 61 percent of women are insusceptible to pregnancy and 60 percent remain amenorrhoeic, but only 4 percent are abstaining from sexual relations.

Table 5.6 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Ethiopia 2011

Months since birth	Percentage of births for which the mother is:			Weighted number of births	Unweighted number of births
	Amenorrhoeic	Abstaining	Insusceptible[1]		
< 2	98.8	88.1	99.6	387	351
2-3	84.7	39.7	87.9	514	483
4-5	80.0	16.1	81.5	432	421
6-7	76.4	11.4	78.5	430	422
8-9	70.4	10.5	72.1	389	372
10-11	67.2	10.4	69.2	357	310
12-13	60.4	3.7	61.4	416	383
14-15	53.7	10.4	57.7	317	350
16-17	45.9	9.8	49.9	358	407
18-19	42.6	4.1	45.4	356	333
20-21	24.6	3.1	25.8	321	290
22-23	30.3	3.4	31.3	286	264
24-25	17.6	2.8	19.7	393	424
26-27	12.3	4.7	15.1	337	397
28-29	14.9	3.1	16.8	314	386
30-31	13.0	2.4	13.8	372	344
32-33	9.0	3.3	12.3	346	326
34-35	4.7	2.4	6.5	419	341
Total	46.9	13.7	49.0	6,743	6,604
Median	15.6	2.3	16.6	na	na
Mean	16.4	4.9	17.1	na	na

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

A comparison of data from the 2000 and 2005 EDHS surveys indicates that there was no change in the median duration of postpartum abstinence, but the median duration of amenorrhoea and insusceptibility decreased by three months from 2000 to 2005. Between the 2005 EDHS and the 2011 EDHS, there was almost no change in the median durations of postpartum amenorrhoea, abstinence and insusceptibility.

Table 5.7 shows that the median duration of postpartum amenorrhoea is longer among women age 30-49 (16.8 months) than among women age 15-29 (14.1 months). The duration of post-partum insusceptibility is also longer among older women (17.3 months) than younger women (15.2 months). However, the median length of postpartum abstinence is about the same for younger and older women.

Rural women have a much longer period of postpartum amenorrhoea than urban women (16.6 and 10.9 months, respectively) and a longer median period of postpartum insusceptibility than urban women (17.1 and 11.8 months, respectively). However, the median length of postpartum abstinence is almost the same.

There are considerable regional variations in postpartum amenorrhoea and insusceptibility. The median duration of postpartum amenorrhoea ranges from 8.2 months in Somali to 19.0 months in Tigray, and the median duration of postpartum abstinence ranges from 2.0 months in Somali to 12.7 months in Gambela. The median duration of insusceptibility ranges from 8.6 months in Somali to 23.0 months in Gambela.

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

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	14.1	2.4	15.2
30-49	16.8	2.3	17.3
Residence			
Urban	10.9	2.5	11.8
Rural	16.6	2.3	17.1
Region			
Tigray	19.0	2.2	19.8
Affar	11.3	2.7	13.6
Amhara	18.4	2.7	19.0
Oromiya	14.4	2.2	14.9
Somali	8.2	2.0	8.6
Benishangul-Gumuz	12.5	2.3	13.7
SNNP	15.9	2.2	16.9
Gambela	16.1	12.7	23.0
Harari	8.4	2.7	8.9
Addis Ababa	(3.7)	(3.0)	(5.1)
Dire Dawa	12.9	3.5	13.3
Education			
No education	17.2	2.5	17.6
Primary	12.0	2.0	12.8
Secondary	3.8	2.9	5.3
More than secondary	*	*	8.3
Wealth quintile			
Lowest	18.1	2.8	18.9
Second	16.6	2.3	16.8
Middle	17.2	2.4	17.6
Fourth	12.5	2.2	14.7
Highest	10.2	2.2	10.4
Total	15.6	2.3	16.6

Note: Medians are based on the status at the time of the survey (current status). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) following birth.

The median durations of amenorrhoea, abstinence and insusceptibility decline as household wealth increases. This pattern is similar for women with little or no education but less obvious among women with secondary and higher education because of the small numbers of women in these two categories.

5.7 MENOPAUSE

Another factor influencing the risk of pregnancy is menopause. In the context of available survey data, women are considered menopausal if they are neither pregnant nor postpartum amenorrhoeic and they have not had a menstrual period in the six months preceding the survey (Table 5.8). As expected, the proportion of women who are menopausal increases with age, ranging from 9 percent of women age 30-34 to 62 percent of women age 48-49. Less than 10 percent of both women age 30-34 and women age 35-39 and only 18-21 percent of women age 40-43 are menopausal.

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Ethiopia 2011

Age	Percentage menopausal[1]	Weighted number of women	Unweighted number of women
Age			
30-34	8.6	2,054	2,100
35-39	9.4	1,916	1,958
40-41	17.6	692	776
42-43	20.8	412	394
44-45	38.7	586	579
46-47	41.7	360	319
48-49	62.0	408	347
Total	18.6	6,428	6,473

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

A large increase is observed among women at age 44-45, 39 percent of whom are menopausal. By age 48-49, 62 percent of women are menopausal. Overall, 19 percent of women age 30-49 in Ethiopia are menopausal, an increase of three percentage points since the 2005 EDHS.

5.8 AGE AT FIRST BIRTH

The age at which childbearing commences is an important determinant of the overall level of fertility as well as of the health and welfare of the mother and the child. In some societies, postponement of first births due to an increase in age at marriage has contributed to overall fertility decline. Table 5.9 shows the percentage of women in Ethiopia who have given birth by specific ages, according to age at the time of the survey.

Overall, 9 percent of women age 25-49 have given birth by exact age 15, and 38 percent have given birth by exact age 18. More than half (58 percent) of women have become mothers by exact age 20. Whereas only 1 percent of women currently age 15-19 gave birth by exact age 15, the corresponding proportion for women currently age 45-49 is 12 percent. The percentage of women who gave birth by exact age 18 is almost half as high for women age 20-24 as for women age 40-49.

Table 5.9 Age at first birth

Percentage of women age 15-49 who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, Ethiopia 2011

	Percentage who gave birth by exact age					Percentage who have never given birth	Weighted number of women	Unweighted number of women	Median age at first birth
Current age	15	18	20	22	25				
Age									
15-19	1.0	na	na	na	na	89.9	4,009	3,835	a
20-24	3.0	22.2	40.3	na	na	43.2	2,931	3,022	a
25-29	6.1	32.8	54.5	69.3	82.6	13.6	3,147	3,185	19.6
30-34	9.5	40.0	58.7	73.3	85.4	6.7	2,054	2,100	19.0
35-39	10.2	38.2	57.4	72.4	86.0	4.1	1,916	1,958	19.2
40-44	12.6	43.0	60.4	77.4	87.2	2.8	1,261	1,314	18.7
45-49	12.3	42.9	62.6	77.4	88.0	1.9	1,196	1,101	18.8
20-49	7.8	34.3	53.7	na	na	15.7	12,506	12,680	19.6
25-49	9.3	38.0	57.8	72.9	85.1	7.3	9,575	9,658	19.2

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

Table 5.10 presents the median age at first birth across age cohorts for key subgroups of women. The summary measures are presented for women age 25-49 to ensure that half of the women in every group have already had a birth. The summary measure is also presented for women age 20-49 for groups of women in which at least half of women have had a birth by age 20.

In Ethiopia the median age at first birth for women age 25-49 is 19.2 years. The median age at first birth for women age 25-49 in urban areas (20.5) is 1.5 months longer than the median age at first birth in rural areas (19.0 months). The median age at first birth ranges from 18.1 years in Amhara to 23.0 years in the Addis Ababa.

Table 5.10 Median age at first birth

Median age at first birth among women age 20-49 and 25-49 years, according to background characteristics, Ethiopia 2011

Background characteristic	Women age	
	20-49	25-49
Residence		
Urban	a	20.5
Rural	19.2	19.0
Region		
Tigray	19.3	19.0
Affar	19.2	19.0
Amhara	18.7	18.1
Oromiya	19.5	19.2
Somali	a	20.2
Benishangul-Gumuz	18.7	18.5
SNNP	a	19.9
Gambela	19.7	19.4
Harari	a	20.3
Addis Ababa	a	23.0
Dire Dawa	a	21.6
Education		
No education	18.9	18.8
Primary	a	19.6
Secondary or higher	a	24.1
Wealth quintile		
Lowest	19.2	19.2
Second	19.1	18.9
Middle	19.3	19.0
Fourth	19.3	18.8
Highest	a	20.2
Total	19.6	19.2

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

The level of education for women age 25-49 is positively related to the median age at first birth, ranging from a median age of 18.8 years for women with no education to 24.1 years for women with secondary or higher education. Similarly, women in the highest wealth quintile delay the onset of their childbearing by about one year relative to women in the lowest wealth quintile.

5.9 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both mother and child. Childbearing during the teenage years frequently has adverse social consequences as well, particularly on educational attainment, because women who become mothers in their teens are more likely to curtail their education.

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of women age 15-19 who:		Percentage who have begun childbearing	Weighted number of women	Unweighted number of women
	Have had a live birth	Are pregnant with first child			
Age					
15	0.4	0.5	1.0	1,006	902
16	3.8	1.1	4.9	821	773
17	7.1	2.1	9.2	627	666
18	15.6	4.3	19.9	977	925
19	29.7	3.9	33.6	578	569
Residence					
Urban	3.6	0.6	4.1	1,042	1,297
Rural	12.4	2.9	15.3	2,968	2,538
Region					
Tigray	11.0	1.0	12.0	294	458
Affar	11.5	3.6	15.1	30	268
Amhara	10.2	1.4	11.6	1,123	528
Oromiya	12.7	3.1	15.8	1,489	531
Somali	14.8	4.4	19.2	70	193
Benishangul-Gumuz	16.9	2.4	19.3	39	286
SNNP	5.7	2.5	8.2	710	440
Gambela	17.0	3.5	20.5	18	245
Harari	12.7	1.8	14.5	11	243
Addis Ababa	1.1	1.5	2.6	210	406
Dire Dawa	6.9	0.8	7.6	15	237
Education					
No education	28.7	4.1	32.8	695	783
Primary	6.7	2.1	8.8	2,813	2,497
Secondary	3.9	1.3	5.2	406	429
More than secondary	0.0	0.0	0.0	95	126
Wealth quintile					
Lowest	16.2	4.4	20.6	686	777
Second	12.2	1.8	14.0	696	540
Middle	14.4	2.7	17.2	687	523
Fourth	6.6	2.6	9.2	889	640
Highest	4.8	0.7	5.5	1,051	1,355
Total	10.1	2.3	12.4	4,009	3,835

Table 5.11 shows that 12 percent of women age 15-19 have already started childbearing; 10 percent have had a live birth, and 2 percent are pregnant with their first child. While only 1 percent of women age 15 have started childbearing, 34 percent of women are either mothers or are pregnant with their first child by age 19.

Teenagers in rural areas are much more likely to have started childbearing than their urban counterparts (15 and 4 percent, respectively), due mainly to the high prevalence of early marriage in rural Ethiopia. Among regions the percentage of women age 15-19 who have begun childbearing ranges from 3 percent in Addis Ababa to 21 percent in Gambela.

There is a strong inverse relationship between early childbearing and women's education; teenagers with less education are much more likely to have started childbearing than those who are better educated. Thirty-three percent of teenagers with no education have begun childbearing, but no teenagers with more than a secondary education in the 2011 EDHS sample have begun childbearing. Teenagers in the lowest wealth quintile are almost four times as likely to start childbearing early as women in the highest wealth quintile (21 percent and 6 percent, respectively).

FERTILITY PREFERENCES 6

Key Findings

- Thirty-seven percent of currently married women age 15-49 and 29 percent of men want no more children or are sterilized.
- The desire to stop childbearing increased from 32 percent in 2000 to 42 percent in 2005 and then declined to 37 percent in 2011.
- Women prefer a family size of 4.3 children, and men prefer 4.8 children. Women's ideal family size has declined in the last ten years, from 5.3 children in 2000 to 4.5 children in 2005 and 4.3 children in 2011.
- Overall, the total wanted fertility rate (TWFR) in Ethiopia is 3.0 children per woman, 1.8 fewer than the total fertility rate (TFR) of 4.8. This suggests that the TFR is 60 percent higher than it would be if unwanted births were avoided.

Information on fertility preferences provides family planning programmes with an understanding of the potential demand for family planning in a given population. The 2011 EDHS asked women and men a series of questions to ascertain their fertility preferences, including the desire to have another child, the length of time they would like to wait before having another child, and what they would consider to be the ideal number of children. Interpretation of responses to these questions is subject to some degree of error because in most cases respondents' reported preferences are hypothetical and thus subject to change and rationalisation. Nonetheless, these data are useful in assessing future fertility trends. In combination with data on contraceptive use, they also allow estimation of the need for family planning, both for spacing and limiting births.

6.1 DESIRE FOR MORE CHILDREN

Table 6.1 and Figure 6.1 present data concerning future reproductive preferences among currently married women and men. The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For a pregnant woman the question about desiring more children is rephrased to refer to wanting another child after the one that she is currently expecting. To take into account the way in which the preference variable is defined for pregnant women, the results are classified by number of living children, with the current pregnancy categorised as equivalent to a living child.

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Ethiopia 2011

Desire for children	Number of living children							Total 15-49	Total 15-59
	0	1	2	3	4	5	6+		
				WOMEN[1]					
Have another soon[2]	55.4	23.9	17.1	14.9	12.1	8.2	6.7	16.9	na
Have another later[3]	34.1	61.2	53.8	44.6	37.9	27.5	13.7	38.2	na
Have another, undecided when	4.0	2.4	3.0	2.1	2.2	1.7	1.7	2.3	na
Undecided	1.0	2.9	3.1	3.9	3.7	4.8	4.3	3.5	na
Want no more	3.4	9.1	21.4	31.9	41.4	55.8	68.6	36.5	na
Sterilised[4]	0.0	0.0	0.5	0.4	0.7	0.5	0.7	0.5	na
Declared infecund	2.1	0.4	0.9	2.1	1.5	1.5	4.0	1.9	na
Missing	0.0	0.0	0.3	0.0	0.4	0.0	0.2	0.2	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Weighted number	806	1,490	1,746	1,529	1,302	1,164	2,251	10,287	na
Unweighted number	878	1,658	1,772	1,462	1,287	1,137	2,010	10,204	na
				MEN[5]					
Have another soon[2]	55.6	21.0	15.9	14.3	15.6	7.5	10.8	17.7	17.4
Have another later[3]	35.8	69.9	63.3	52.2	42.7	40.5	31.8	48.9	43.3
Have another, undecided when	3.2	1.6	1.5	2.7	1.8	2.5	1.7	2.0	2.0
Undecided	0.8	2.1	2.5	2.1	2.3	2.1	1.1	1.9	1.9
Want no more	3.2	5.2	15.7	27.7	36.6	46.0	53.1	28.4	32.8
Sterilised[4]	0.0	0.0	0.4	0.3	0.1	1.0	1.0	0.4	1.0
Declared infecund	0.5	0.3	0.7	0.4	0.7	0.4	0.5	0.5	1.6
Missing	1.0	0.1	0.0	0.2	0.2	0.1	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number	554	1,024	1,219	1,051	934	714	1,375	6,872	8,089
Unweighted number	567	1,117	1,180	1,019	855	688	1,349	6,775	7,930

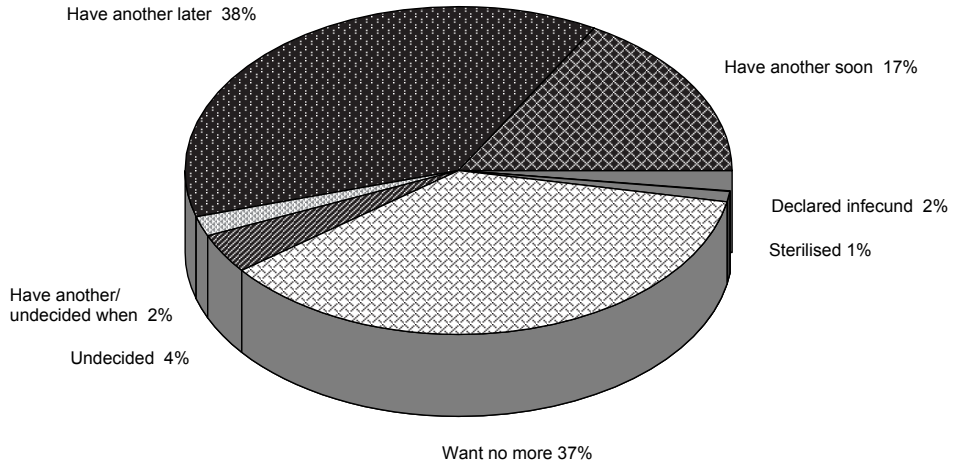
na = Not applicable
[1] The number of living children includes current pregnancy for women
[2] Wants next birth within two years
[3] Wants to delay next birth for two or more years
[4] Includes both female and male sterilisation
[5] The number of living children includes one additional child if respondent's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

Although more than half of currently married women age 15-49 (57 percent) say that they want more children, 38 percent say that they want to wait for two years or more before having their next child. These women can be considered potential contraceptive users for spacing births. Seventeen percent of women say they want another child soon (within the next two years), while 2 percent want another child but are undecided about the timing of the next birth. Four percent are unsure whether they want another child. Overall, 37 percent of married women want no more children, including 1 percent who have been sterilised. Two percent of women consider themselves to be infecund.

The desire for more children is related to the number of living children women already have. More than nine in every ten currently married women with no children want to have a child, with 55 percent expressing the desire to have a child soon and 34 percent wanting to delay having a child for at least two years. For women with one or more living children, the desire to stop childbearing altogether increases with the number of children. For example, 9 percent of currently married women with one child report that they want no more children compared with 69 percent of women with six or more children. Nevertheless, significant percentages of women with five children (37 percent), or six or more children (22 percent), want to have another child.

Among currently married women of reproductive age, the desire to space births has not changed considerably over time. According to the 2000 EDHS, 36 percent of women age 15-49 wanted to wait at least two years before having another child compared with 35 percent of women in 2005 and 38 percent in 2011. Conversely, the proportion of women who want no more births increased from 32 percent in 2000 to 42 percent in 2005 and then declined to 37 percent in 2011.

Figure 6.1 Desire for More Children Among Currently Married Women



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

EDHS 2011

Overall, the percentage of men age 15-49 who want no more children or are sterilised (29 percent) is lower than among women age 15-49 (37 percent). Conversely, a higher percentage of men than women want to have another child (69 versus 57 percent). Men's reported desire to have another child decreases as their number of living children increases, as in the case among women.

6.2 Desire to Limit Childbearing by Background Characteristics

Tables 6.2.1 and 6.2.2 present the percentages of currently married women and men who want no more children (or are sterilised), by number of living children. The data provide information about variations in the potential demand for family planning among women and men.

Table 6.2.1 shows that overall the proportion of currently married women who desire to limit childbearing is the same in urban areas as in rural areas (37 percent). However, when the number of children is held constant, urban women are more likely than rural women to want to limit childbearing, with the largest difference among women with two living children (41 percent among urban women and 15 percent among rural women).

There is significant regional variation in the desire to limit childbearing, ranging from 11 percent in the Somali region to 41 percent in the SNNP region. As women's education increases, their reported desire to have no more children decreases. For example, 41 percent of women with no education desire to limit childbearing compared with 32 percent of women with primary education. Currently married women in the middle wealth quintile are most likely to want to limit childbearing (40 percent).

Table 6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Ethiopia 2011

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	7.5	9.2	41.2	45.1	60.9	61.9	70.7	37.1
Rural	1.9	9.1	15.0	29.2	39.1	55.7	69.2	36.9
Region								
Tigray	0.9	2.3	11.8	17.1	26.7	42.4	59.6	26.3
Affar	2.6	6.1	15.4	13.0	16.5	21.1	24.9	15.1
Amhara	5.0	13.4	29.6	33.4	42.4	61.1	74.9	39.6
Oromiya	2.2	7.6	18.8	33.0	42.2	62.2	67.5	37.1
Somali	(3.6)	3.2	8.6	7.5	5.0	11.6	18.5	10.7
Benishangul-Gumuz	10.9	10.2	22.8	29.5	49.6	50.4	64.5	34.4
SNNP	2.6	6.1	15.7	33.8	47.0	51.2	77.9	41.3
Gambela	2.9	21.8	32.9	34.3	43.5	50.8	52.5	30.0
Harari	0.0	10.9	35.0	39.2	42.0	54.0	78.2	35.9
Addis Ababa	2.7	15.2	35.3	51.2	79.0	*	(81.7)	34.4
Dire Dawa	0.0	11.2	41.7	41.5	43.5	64.3	73.9	37.2
Education								
No education	1.3	11.1	19.2	31.8	40.9	55.0	68.2	40.6
Primary	5.5	9.0	23.2	31.0	43.9	61.4	73.8	32.2
Secondary	7.9	4.7	32.2	35.9	(77.3)	*	*	21.8
More than secondary	0.0	2.8	31.3	(54.8)	*	*	*	20.5
Wealth quintile								
Lowest	3.6	8.3	19.2	31.0	35.4	50.9	64.2	35.9
Second	2.1	8.3	13.1	28.5	43.0	55.1	71.5	36.4
Middle	0.1	13.1	19.8	32.9	42.2	53.9	73.6	40.2
Fourth	9.2	9.2	13.0	28.7	36.4	66.8	67.0	37.9
Highest	2.8	8.0	37.4	39.4	57.5	56.6	71.4	34.6
Total	3.4	9.2	21.9	32.3	42.1	56.3	69.3	37.0

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

Table 6.2.2 shows that urban, educated, and wealthy men are more likely to want to limit childbearing than men in rural areas and those with less education or wealth. Among men the desire to limit childbearing is greatest in Amhara region and least in Somali.

Table 6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, Ethiopia 2011

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	3.7	11.6	29.4	44.4	53.7	68.2	58.4	32.7
Rural	3.0	3.1	11.2	24.4	34.4	44.0	53.7	28.0
Region								
Tigray	3.4	2.6	7.8	16.5	21.0	36.4	56.2	22.4
Affar	3.5	3.9	5.4	8.4	11.7	(3.3)	14.6	8.0
Amhara	4.9	9.1	19.5	40.7	50.2	58.9	65.5	34.8
Oromiya	0.0	3.4	11.9	26.0	33.9	(41.0)	50.0	26.3
Somali	(0.0)	(6.4)	(1.7)	6.0	1.0	0.0	6.5	4.0
Benishangul-Gumuz	9.3	4.0	20.6	19.0	39.8	46.2	45.3	26.5
SNNP	(6.1)	1.6	14.8	20.1	28.2	53.6	57.8	31.4
Gambela	8.4	3.0	30.1	16.5	18.5	(30.9)	36.3	17.8
Harari	(3.5)	8.1	17.1	28.0	(34.8)	(47.4)	67.9	28.0
Addis Ababa	1.8	11.8	35.7	45.9	(75.0)	*	*	31.4
Dire Dawa	(6.3)	3.1	24.4	37.7	31.9	37.8	48.5	25.5
Education								
No education	2.7	3.9	12.7	24.4	31.5	38.1	48.4	26.7
Primary	3.2	5.9	13.2	26.9	40.7	51.9	59.2	30.3
Secondary	3.6	3.9	42.3	48.8	(54.1)	(58.4)	(74.5)	36.4
More than secondary	4.4	6.7	26.1	48.9	(57.3)	(90.5)	(29.2)	25.7
Wealth quintile								
Lowest	5.3	2.5	11.9	19.9	23.0	35.4	46.4	24.1
Second	2.0	3.3	11.4	22.3	33.9	44.8	58.1	27.5
Middle	1.7	3.1	11.8	28.9	41.4	43.8	54.8	30.9
Fourth	3.9	3.0	14.2	27.4	36.6	54.7	54.6	30.4
Highest	3.6	10.4	25.4	41.2	60.6	62.8	60.8	31.4
Total 15-49	3.2	5.2	16.1	28.0	36.7	46.9	54.1	28.9
50-59	*	*	40.0	61.5	64.3	49.2	65.8	61.2
Total 15-59	4.5	5.4	17.0	30.0	39.7	47.4	58.4	33.8

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

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

6.3 IDEAL NUMBER OF CHILDREN

This section discusses survey responses of women and men concerning their ideal number of children. Respondents who had no children were asked how many children they would like to have if they could choose the number of children to have over their entire lifetime. Those who had living children were asked the number of children they would choose if they could start their childbearing again. Responses to both questions provide an indication of future fertility, while responses to the latter question also contribute to a measure of unwanted fertility.

Table 6.3 shows the distribution of respondents by ideal number of children and the mean ideal number of children. In general, a large proportion of Ethiopians, regardless of their number of living children, consider four or more children to be ideal. The mean ideal number of children is 4.3 for all women and 4.9 for currently married women. Among all women, the mean ideal number of children increases with their number of living children, from 3.3 for women with no children to 6.2 for women with six or more children.

Ethiopian men, on average, prefer to have larger families than women consider ideal. Among all men, ideal family size is 4.8 children, and among married men, 5.9 children. Similarly, currently married men with six or more children want more children (8.6 children) than the number that married women want (6.2 children).

There has been a steady decline in women's ideal family size in Ethiopia in the last eleven years, from 5.3 children in 2000 to 4.5 children in 2005 and 4.3 children in 2011 (Figure 6.2). Similarly, ideal family size among men declined from 6.4 children in 2000 to 5.2 children in 2005 and 4.8 children in 2011.

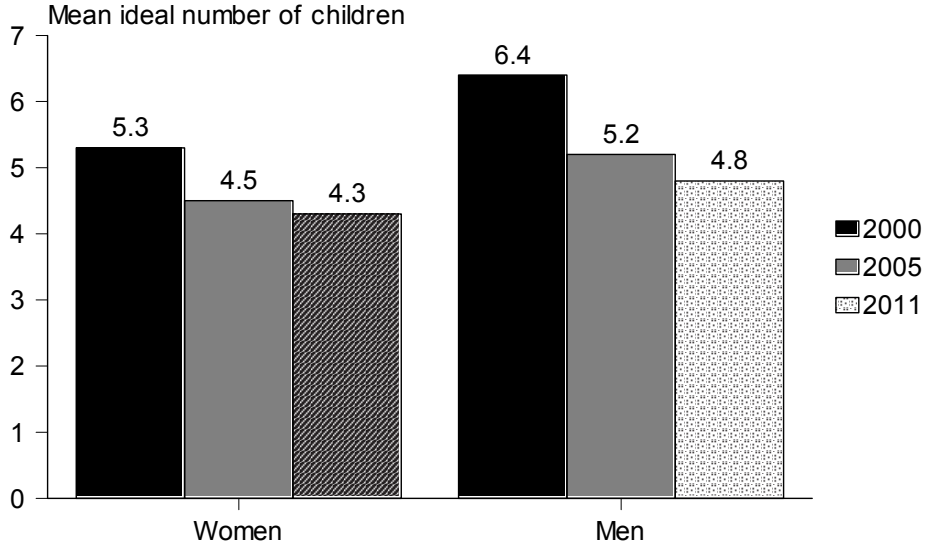
Table 6.3 Ideal number of children

Percent distribution of women and men 15-49 by ideal number of children and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Ethiopia 2011

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	7.6	3.7	6.7	8.5	8.8	9.2	10.8	7.8
1	1.7	1.8	0.4	0.4	0.4	0.1	0.2	0.9
2	25.8	13.6	8.2	3.2	3.3	2.4	1.2	12.2
3	13.1	15.2	5.1	5.2	2.2	2.4	2.2	8.1
4	33.4	38.3	43.2	31.1	26.4	19.4	14.3	30.4
5	6.6	8.6	9.1	13.1	7.5	9.4	5.2	7.9
6+	7.6	12.5	18.3	26.4	36.7	42.0	42.2	22.0
Non-numeric responses	4.2	6.4	9.0	12.2	14.7	15.1	24.0	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number of women	5,488	1,959	2,074	1,750	1,494	1,301	2,449	16,515
Unweighted number of women	5,532	2,191	2,120	1,702	1,486	1,281	2,203	16,515
Mean ideal number of children for:[2]								
All women	3.3	3.9	4.2	4.6	5.1	5.6	6.2	4.3
Weighted number of women	5,258	1,834	1,886	1,537	1,275	1,105	1,862	14,757
Unweighted number of women	5,233	2,034	1,943	1,514	1,277	1,082	1,712	14,795
Currently married women	3.9	3.9	4.3	4.7	5.2	5.5	6.2	4.9
Weighted number of currently married women	760	1,390	1,591	1,342	1,115	982	1,714	8,894
Unweighted number of currently married women	816	1,532	1,618	1,299	1,110	954	1,563	8,892
				MEN[3]				
0	2.4	1.4	2.3	1.6	1.1	1.8	2.5	2.1
1	1.0	0.7	0.6	0.4	0.2	0.0	0.0	0.7
2	26.0	13.0	6.3	3.4	4.2	3.0	2.2	15.5
3	19.6	16.5	9.7	9.2	3.1	2.7	2.4	13.4
4	30.1	39.8	37.0	26.5	24.2	16.2	13.8	28.3
5	7.0	8.4	10.4	16.5	10.4	11.7	5.0	8.5
6+	10.1	16.1	25.9	35.8	48.5	54.0	62.9	25.4
Non-numeric responses	3.8	4.1	7.9	6.5	8.2	10.6	11.2	6.0
Total men	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number of men	6,284	1,115	1,271	1,082	970	727	1,385	12,834
Unweighted number of men	6,357	1,246	1,255	1,055	886	704	1,365	12,868
Mean ideal number of children for:[2]								
All men	3.6	4.1	4.8	5.5	6.3	7.1	8.6	4.8
Weighted number of men	6,047	1,069	1,171	1,012	890	650	1,230	12,068
Unweighted number of men	6,047	1,183	1,166	970	793	608	1,173	11,940
Currently married men	3.8	4.2	4.8	5.6	6.3	7.1	8.6	5.9
Weighted number of currently married men	535	984	1,127	987	857	639	1,220	6,350
Unweighted number of currently married men	538	1,063	1,095	937	767	594	1,158	6,152

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

Figure 6.2 **Trends in Mean Ideal Family Size Among All Women and Men, EDHS 2000, 2005, and 2011**



6.4 MEAN IDEAL NUMBER OF CHILDREN BY WOMEN'S BACKGROUND CHARACTERISTICS

There are significant variations in the mean ideal number of children by background characteristics among all women age 15-49 (Table 6.4). The older the respondent, the more children that she considers ideal; women age 15-19 respond that the ideal family size is 3.3 children, while women age 45-49 say it is 5.7. The ideal number of children among rural women is almost one child more than among urban women (4.5 versus 3.7 children). Among regions the range is from 3.3 children in Addis Ababa to 9.7 children in the Somali region.

The ideal number of children declines as women's level of education and wealth quintile increase. For example, the mean ideal number of children among women who have completed primary school is 3.8 children, compared with 5.0 children among women with no education. Similarly, women in the lowest wealth quintile consider 5.0 children to be ideal, compared with 3.7 children among women in the highest wealth quintile. These patterns are similar to those in the 2000 and 2005 EDHS.

Table 6.4 Mean ideal number of children by background characteristics

Mean ideal number of children for all women age 15-49 by background characteristics, Ethiopia 2011

Background characteristic	Mean	Weighted number of women[1]	Unweighted number of women[1]
Age			
15-19	3.3	3,829	3,615
20-24	3.9	2,716	2,806
25-29	4.3	2,852	2,896
30-34	5.0	1,811	1,834
35-39	5.3	1,588	1,643
40-44	5.5	1,012	1,093
45-49	5.7	948	908
Residence			
Urban	3.7	3,708	4,985
Rural	4.5	11,049	9,810
Region			
Tigray	4.8	973	1,519
Affar	7.4	127	1,118
Amhara	4.0	3,968	1,860
Oromiya	4.3	5,342	1,893
Somali	9.7	217	619
Benishangul-Gumuz	4.9	160	1,146
SNNP	4.4	2,932	1,834
Gambela	4.4	67	1,090
Harari	4.7	47	1,070
Addis Ababa	3.3	861	1,673
Dire Dawa	4.6	62	973
Education			
No education	5.0	7,067	6,960
Primary	3.8	5,866	5,507
Secondary	3.4	1,102	1,365
More than secondary	3.3	721	963
Wealth quintile			
Lowest	5.0	2,519	3,110
Second	4.6	2,622	2,089
Middle	4.5	2,704	2,023
Fourth	4.2	2,948	2,288
Highest	3.7	3,965	5,285
Total	4.3	14,757	14,795

[1] Number of women who gave a numeric response

6.5 FERTILITY PLANNING STATUS

The level of unwanted fertility among women age 15-49 can be assessed through a series of survey questions asked about each of the children born to them in the preceding five years (including current pregnancy). If the birth or pregnancy was wanted then, it is considered to be planned. It is considered to be mistimed if it was wanted but at a later time, and considered to be unwanted if it was not wanted at the time of conception. In the interpretation of these results, it is important to consider that a woman may declare a birth (or pregnancy) as wanted once the child is born even if that was not her feeling during pregnancy, and this rationalisation would result in an underestimation of the true extent of unwanted births. Nevertheless, these results provide some insight into the degree to which couples are able to control their fertility.

Table 6.5 shows the percent distribution of births (including current pregnancy), by fertility planning status, in the five years preceding the survey, according to birth order and mother's age at birth. Nearly three births of every four (72 percent) were wanted at the time, 20 percent were wanted but later, and 9 percent were unwanted. The proportion of births wanted at the time of conception generally declines with both increasing birth order and mother's age.

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Ethiopia 2011

Birth order and mother's age at birth	Planning status of birth				Total	Weighted number of births	Unweighted number of births
	Wanted then	Wanted later	Wanted no more	Missing			
Birth order							
1	77.5	18.6	3.5	0.3	100.0	2,462	2,516
2	73.5	23.6	2.8	0.1	100.0	2,230	2,266
3	73.2	22.2	4.6	0.0	100.0	1,844	1,858
4+	68.1	17.7	13.9	0.2	100.0	6,542	6,291
Mother's age at birth							
<20	71.8	24.2	3.6	0.4	100.0	1,654	1,767
20-24	75.4	21.4	3.0	0.2	100.0	3,774	3,639
25-29	71.5	21.7	6.7	0.0	100.0	3,481	3,443
30-34	71.4	15.4	13.0	0.2	100.0	2,282	2,267
35-39	67.5	12.7	19.7	0.1	100.0	1,328	1,302
40-44	53.7	12.6	33.2	0.4	100.0	474	450
45-49	58.6	12.2	29.1	0.0	100.0	85	63
Total	71.5	19.5	8.8	0.2	100.0	13,078	12,931

Some changes in women's fertility planning status have occurred over the past decade. The percentage of births that were wanted at the time of conception increased from 63 percent in the 2000 EDHS to 65 percent in 2005 and to 72 percent in 2011. The percentage of births that were wanted later stayed more or less the same, at 19-20 percent, while the percentage of unwanted births decreased from 17 percent in 2000 to 16 percent in 2005 and 9 percent in the 2011 EDHS.

6.6 WANTED FERTILITY RATES

Table 6.6 compares wanted fertility with actual fertility for the three years preceding the survey, by selected background characteristics of women. The total wanted fertility rate (TWFR) is calculated in the same manner as the total fertility rate (TFR) but excludes unwanted births from the numerator. For this purpose unwanted births are defined as those that exceed the number considered ideal by the respondent. Women who do not report a numeric ideal family size are assumed to want all their births. The TWFR represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births were prevented. A comparison of the TWFR with the TFR suggests the potential impact on fertility rates of avoiding unwanted births.

As measured in the 2011 EDHS, the TWFR is 3.0 children per woman, 1.8 fewer than the TFR of 4.8 children per woman, suggesting that Ethiopian women have not been very successful in achieving their reproductive intentions. The total wanted fertility rate has decreased by one child since the 2005 EDHS (4.0).

Urban women are relatively closer to achieving their wanted fertility than rural women. The difference between wanted and actual fertility is 0.8 children in urban areas and 2.1 children in rural areas. Among regions the gap between wanted fertility and actual fertility is highest in Somali (2.9) and lowest in Addis Ababa (0.2). The TWFR varies inversely with education and wealth, as does the TFR, declining as education and wealth increase. Also, the gap between wanted and actual fertility narrows as women's education and wealth increase.

Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.8	2.6
Rural	3.4	5.5
Region		
Tigray	3.3	4.6
Affar	3.7	5.0
Amhara	2.7	4.2
Oromiya	3.3	5.6
Somali	4.2	7.1
Benishangul-Gumuz	3.8	5.2
SNNP	3.0	4.9
Gambela	3.2	4.0
Harari	3.2	3.8
Addis Ababa	1.3	1.5
Dire Dawa	2.4	3.4
Education		
No education	3.7	5.8
Primary	2.8	4.6
Secondary	1.8	1.9
More than secondary	1.2	1.3
Wealth quintile		
Lowest	3.7	6.0
Second	3.6	5.7
Middle	3.3	5.3
Fourth	3.1	5.0
Highest	1.9	2.8
Total	3.0	4.8

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

FAMILY PLANNING 7

Key Findings

- Knowledge of contraception is nearly universal in Ethiopia.
- Three in every ten currently married women (29 percent) are using a method of contraception, mostly modern methods (27 percent).
- By far the most popular modern method, used by 21 percent of currently married women, is injectables.
- Use of modern methods among currently married women has increased from 6 percent in the 2000 EDHS to 27 percent in the 2011 EDHS—largely due to the sharp increase in the use of injectables, from 3 percent in 2000 to 21 percent in 2011.
- The government sector is the major provider of contraceptive methods, catering to more than eight in every ten users of modern contraceptive methods (82 percent).
- Twenty-five percent of currently married women have an unmet need for family planning services; 16 percent have a need for spacing, and 9 percent have a need for limiting.
- The 12-month contraceptive discontinuation rate for all methods is 37 percent. The highest discontinuation rate is for the pill (70 percent), followed by the male condom (62 percent).

One of targets of the Ministry of Health, with respect to improving maternal and child health, is to increase the contraceptive prevalence rate (CPR) to 66 percent by 2015. In order to achieve this target, the Ministry has given priority to the provision of safe motherhood services such as family planning in the community (MOH, 2010).

This chapter presents information from the 2011 EDHS on contraceptive knowledge, attitudes, and behaviour. Information on women's and men's 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 programmes. In addition, knowledge of at least one family planning method and a positive attitude toward contraception are prerequisites for the use of contraception.

Although the focus here is on women, some results from the male survey are also presented because men play an important role in the realisation of reproductive goals. Comparisons are made, where feasible, with findings from previous EDHS surveys to evaluate trends in Ethiopia over the last decade.

7.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Knowledge of family planning is a prerequisite to obtaining access to and using a suitable contraceptive method in a timely and effective manner. Interviewers collected information regarding knowledge of contraceptive methods by describing each method and asking female and male respondents if she/he had heard of it. Using this approach, interviewers collected information about 11 modern family planning methods: female and male sterilisation, the pill, the IUD, injectables, implants, male and female condoms, lactational amenorrhea method, emergency contraception, and the standard days method. Two traditional methods were also included in the survey: periodic abstinence (or rhythm) and withdrawal. Interviewers recorded any other traditional methods that respondents mentioned spontaneously.

Table 7.1 shows the percentage of all respondents, currently married respondents, and sexually active unmarried respondents, age 15-49, who know any contraceptive method, by specific type. Knowledge of at least one method of contraception is nearly universal among both women and men in Ethiopia, regardless of marital status and sexual experience. Men and women are almost equally likely to have heard of a modern method (98 and 97 percent, respectively). Both women and men are more familiar with modern methods of contraceptive than with traditional methods. A higher proportion of men than women have heard of a traditional contraceptive method (64 and 50 percent, respectively). Unmarried sexually active women and men know of more methods than their married counterparts.

More than nine women in every ten have heard about the pill and injectables. More than nine men in every ten know about the male condom as well as about the pill and injectables. LAM is the least known modern method. Only 3 percent of all women and of all men interviewed have heard of this method.

Table 7.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who have heard of any contraceptive method, by specific method, Ethiopia 2011

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men[1]
Any method	97.2	97.6	99.8	98.4	99.2	99.9
Any modern method	97.1	97.4	99.7	98.4	99.1	99.9
Female sterilisation	38.7	39.8	50.8	42.5	46.8	51.9
Male sterilisation	11.2	10.8	21.4	18.0	17.6	37.7
Pill	91.3	92.6	96.4	91.1	94.1	96.2
IUD	26.3	26.4	36.7	27.8	27.5	45.4
Injectables	94.9	96.1	98.3	91.8	95.2	97.3
Implants	67.8	69.2	81.9	59.2	63.5	69.7
Male condom	80.4	78.1	92.3	95.8	96.8	99.9
Female condom	31.9	27.3	54.9	39.8	36.4	73.4
Lactational amenorrhea (LAM)	2.9	2.6	3.5	2.8	2.5	8.3
Emergency contraception	19.0	16.0	41.0	27.4	26.2	53.6
Standard days method	11.6	10.8	14.3	19.8	20.5	30.1
Any traditional method	49.6	47.4	77.3	64.0	67.1	84.8
Rhythm	43.3	41.0	70.3	57.4	60.6	76.5
Withdrawal	26.8	24.5	47.5	42.4	42.0	69.4
Other	0.9	0.9	1.6	1.1	1.1	2.9
Mean number of methods known by respondents age 15-49	5.5	5.4	7.1	6.2	6.3	8.1
Weighted number of respondents	16,515	10,287	197	12,834	6,872	222
Unweighted number of respondents	16,515	10,204	268	12,868	6,775	366
Mean number of methods known by respondents 15-59	na	na	na	6.1	6.2	8.1
Weighted number of respondents	na	na	na	14,110	8,089	224
Unweighted number of respondents	na	na	na	14,110	7,930	373

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

7.2 CURRENT USE OF CONTRACEPTIVE METHODS

Current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning programmes. This section focuses on the levels, trends, and differentials in current use of family planning.

7.2.1 Current Use of Contraceptive Methods By Age

Table 7.2 presents current use of contraceptive methods among all women, currently married women, and sexually active unmarried women, by age group. The contraceptive prevalence rate for all Ethiopian women age 15-49 is 20 percent. The contraceptive prevalence rate is 29 percent for currently married women, and 57 percent for sexually active unmarried women.

Modern methods of contraception are more commonly used by the interviewed women. Table 7.2 shows that 29 percent of currently married women report use of a contraceptive method, with 27 percent using a modern method. The same pattern is observed among all women and unmarried sexually active women. The most common modern method used by each group of women is injectables, currently used by 14 percent of all women, 21 percent of currently married women, and 32 percent of unmarried sexually active women.

Current contraceptive use is lower among young women and among older women (some of whom are no longer fecund) than among those at the intermediate age groups. For example, 5 percent of all women age 15-19 report current use of any contraceptive method. This proportion increases until it peaks at 29 percent in the 30-34 age group, after which it decreases steadily to 11 percent among women age 45-49. A similar pattern is observed among currently married women.

Table 7.2 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Ethiopia 2011

Age	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total	Weighted number of women	Unweighted number of women
			Female sterilisation	Pill	IUD	Injectables	Implants	Male condom	Other		Rhythm	Withdrawal	Other				
ALL WOMEN																	
15-19	5.3	5.2	0.0	0.6	0.0	4.1	0.4	0.1	0.0	0.1	0.1	0.0	0.0	94.7	100.0	4,009	3,835
20-24	23.3	22.2	0.1	1.4	0.1	18.5	1.8	0.3	0.0	1.1	0.9	0.2	0.0	76.7	100.0	2,931	3,022
25-29	26.5	25.6	0.2	2.1	0.4	18.9	3.5	0.5	0.0	0.9	0.7	0.2	0.0	73.5	100.0	3,147	3,185
30-34	29.3	27.7	0.1	2.3	0.2	21.2	3.4	0.5	0.0	1.7	1.3	0.1	0.2	70.7	100.0	2,054	2,100
35-39	26.7	25.8	1.0	1.9	0.7	18.3	3.7	0.2	0.0	1.0	0.8	0.1	0.1	73.3	100.0	1,916	1,958
40-44	20.3	18.8	1.3	2.0	0.4	11.2	3.4	0.3	0.2	1.5	0.6	0.8	0.0	79.7	100.0	1,261	1,314
45-49	10.9	10.4	1.0	0.3	0.1	7.5	1.5	0.2	0.0	0.5	0.3	0.2	0.0	89.1	100.0	1,196	1,101
Total	19.6	18.7	0.4	1.5	0.2	14.0	2.3	0.3	0.0	0.9	0.7	0.2	0.0	80.4	100.0	16,515	16,515
CURRENTLY MARRIED WOMEN																	
15-19	23.8	23.0	0.0	2.5	0.0	18.9	1.6	0.0	0.0	0.8	0.8	0.0	0.0	76.2	100.0	765	784
20-24	34.8	33.4	0.0	1.9	0.1	28.5	2.9	0.0	0.0	1.4	1.1	0.3	0.0	65.2	100.0	1,762	1,788
25-29	29.9	28.9	0.1	2.2	0.5	21.7	4.2	0.2	0.0	1.1	0.8	0.3	0.0	70.1	100.0	2,511	2,480
30-34	33.1	31.2	0.1	2.7	0.2	23.9	3.8	0.5	0.0	1.9	1.5	0.2	0.3	66.9	100.0	1,720	1,722
35-39	29.1	28.0	1.1	2.2	0.8	19.7	4.1	0.1	0.0	1.1	0.9	0.1	0.0	70.9	100.0	1,591	1,600
40-44	23.9	22.1	1.6	2.3	0.5	13.5	3.6	0.4	0.2	1.8	0.8	1.0	0.0	76.1	100.0	1,033	1,047
45-49	13.1	12.5	1.0	0.3	0.1	9.2	2.0	0.0	0.0	0.6	0.3	0.2	0.0	86.9	100.0	905	783
Total	28.6	27.3	0.5	2.1	0.3	20.8	3.4	0.2	0.0	1.3	0.9	0.3	0.1	71.4	100.0	10,287	10,204
SEXUALLY ACTIVE UNMARRIED WOMEN[1]																	
15-19	52.0	52.0	0.0	1.0	0.0	32.5	6.7	11.9	0.0	0.0	0.0	0.0	0.0	48.0	100.0	34	62
20-24	64.9	55.7	3.7	6.7	0.6	32.1	0.9	11.0	0.8	9.3	9.3	0.0	0.0	35.1	100.0	67	87
25-29	57.5	57.4	0.0	7.3	0.0	31.2	1.7	17.0	0.2	0.1	0.1	0.0	0.0	42.5	100.0	43	62
30-34	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	18	21
35-39	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	25	24
40-44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	2	5
45-49	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	7	7
Total	56.7	52.3	1.3	5.4	0.2	32.0	2.4	10.8	0.3	4.4	3.7	0.5	0.2	43.3	100.0	197	268

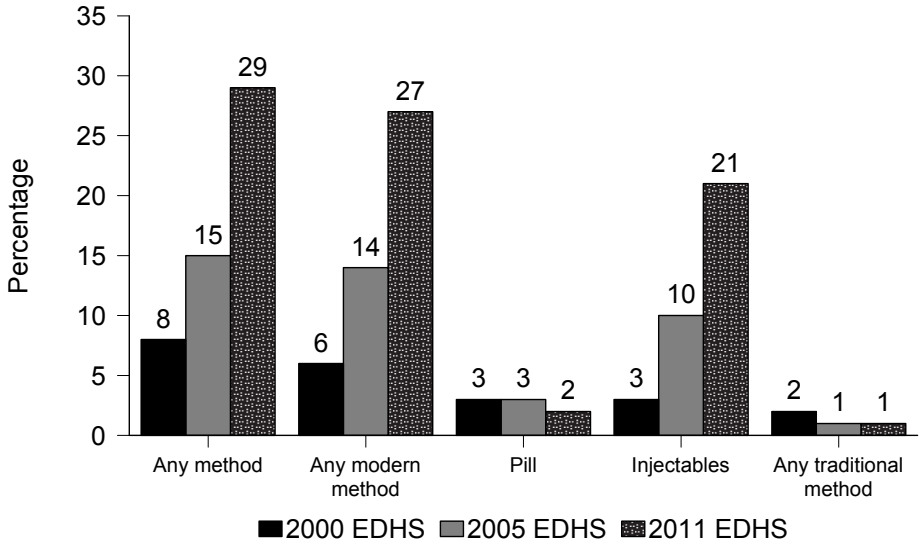
Note: If more than one method is used, only the most effective method is considered in this tabulation. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Women who have had sexual intercourse within the 30 days preceding the survey

7.2.2 Trends in Contraceptive Use

Figure 7.1 shows trends in contraceptive use since the 2000 Ethiopia DHS. Use of any contraceptive methods among currently married women has increased nearly six fold in the last 20 years, from 5 percent in the 1990 NFFS to 29 percent in the 2011 EDHS. The increase is especially pronounced for the use of modern methods between 2000 and 2011. The increase in modern method use is attributed primarily to the sharp increase in the use of injectables, from 3 percent in 2000 to 21 percent in 2011.

Figure 7.1 **Trends in Current Use of Contraceptives Among Currently Married Women, 2000-2011**



7.3 Current Use of Contraception by Background Characteristics

Table 7.3 shows a substantial variation according to background characteristics in the current use of contraceptive methods among currently married women. Currently married women in urban areas are twice as likely as their rural counterparts to use any contraceptive method (53 and 23 percent, respectively), to use any modern method (50 and 23 percent, respectively), and to use any traditional method (3 and 1 percent, respectively).

Use of any contraceptive method varies notably by region, ranging from 63 percent in Addis Ababa to 4 percent in the Somali region. Use of any modern contraceptive methods is highest in Addis Ababa (56 percent) and lowest in the Somali and Affar regions (4 and 9 percent, respectively).

Current contraceptive use increases with women's education. Twenty-two percent of women with no education report current use of any method, compared with 68 percent of women with more than secondary education. Similarly, current use of any contraceptive method increases with wealth, from 13 percent of women in the lowest quintile to 52 percent of women in the highest quintile.

Table 7.3 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Ethiopia 2011

Background characteristic	Any method	Any modern method	Modern method						Any traditional method	Traditional method			Not currently using	Total	Weighted number of women	Unweighted number of women
			Female sterilisation	Pill	IUD	Injectables	Implants	Male condom		Rhythm	Withdrawal	Other				
Number of living children																
0	23.4	21.1	0.0	3.0	0.0	16.9	0.9	0.3	2.4	2.2	0.1	0.0	76.6	100.0	1,018	1,104
1-2	35.3	33.9	0.3	2.7	0.4	27.2	3.0	0.3	1.3	0.9	0.4	0.0	64.7	100.0	3,193	3,381
3-4	29.7	28.4	0.5	2.2	0.5	20.8	4.1	0.2	1.4	0.8	0.4	0.2	70.3	100.0	2,809	2,718
5+	22.8	22.0	0.7	1.2	0.3	15.6	4.1	0.0	0.8	0.6	0.2	0.0	77.2	100.0	3,267	3,001
Residence																
Urban	52.5	49.5	1.5	6.7	0.9	35.4	3.8	1.0	3.0	2.4	0.6	0.0	47.5	100.0	1,843	2,422
Rural	23.4	22.5	0.2	1.1	0.2	17.6	3.3	0.0	0.9	0.6	0.2	0.1	76.6	100.0	8,444	7,782
Region																
Tigray	22.2	21.2	0.3	2.1	0.0	12.8	5.6	0.5	1.0	0.8	0.1	0.1	77.8	100.0	620	984
Affar	9.5	9.1	0.0	1.3	0.0	7.6	0.2	0.0	0.4	0.2	0.2	0.1	90.5	100.0	104	960
Amhara	33.9	33.0	0.6	1.5	0.3	26.5	4.0	0.0	0.9	0.5	0.3	0.1	66.1	100.0	2,776	1,331
Oromiya	26.2	24.9	0.2	2.2	0.3	18.8	3.4	0.1	1.3	1.1	0.2	0.0	73.8	100.0	3,961	1,403
Somali	4.3	3.8	0.0	0.8	0.0	2.0	0.5	0.4	0.5	0.5	0.0	0.0	95.7	100.0	232	664
Benishangul-Gumuz	27.0	26.3	0.6	2.7	0.0	21.2	1.5	0.3	0.7	0.6	0.1	0.0	73.0	100.0	124	904
SNNP	25.8	24.7	0.5	1.4	0.3	19.5	2.9	0.1	1.1	0.7	0.4	0.1	74.2	100.0	2,022	1,295
Gambela	33.8	33.2	0.5	4.4	0.7	26.4	0.4	0.8	0.6	0.6	0.0	0.0	66.2	100.0	41	768
Harari	34.7	31.5	0.3	6.7	1.2	19.2	3.0	1.0	3.3	2.9	0.3	0.0	65.3	100.0	28	635
Addis Ababa	62.5	56.3	2.3	10.9	2.6	35.8	2.8	2.0	6.1	5.1	0.9	0.1	37.5	100.0	342	634
Dire Dawa	33.9	31.7	0.2	4.7	1.1	15.3	8.0	2.1	2.2	2.0	0.1	0.0	66.1	100.0	38	626
Education																
No education	22.2	21.8	0.4	0.9	0.1	16.9	3.4	0.0	0.4	0.2	0.1	0.1	77.8	100.0	6,735	6,569
Primary	35.7	33.7	0.4	2.8	0.6	26.5	3.2	0.1	2.0	1.4	0.6	0.0	64.3	100.0	2,862	2,739
Secondary	57.6	53.4	0.8	9.1	0.7	36.0	5.1	1.8	4.1	3.3	0.9	0.0	42.4	100.0	378	528
More than secondary	67.8	57.2	1.3	12.7	1.9	34.2	4.4	2.0	10.6	8.9	1.6	0.2	32.2	100.0	313	368
Wealth quintile																
Lowest	13.3	13.0	0.1	0.4	0.1	10.6	1.8	0.0	0.4	0.3	0.0	0.1	86.7	100.0	2,077	2,724
Second	22.2	21.5	0.6	0.6	0.2	16.3	3.8	0.0	0.7	0.4	0.1	0.1	77.8	100.0	2,117	1,676
Middle	24.4	24.0	0.1	1.4	0.3	18.8	3.5	0.0	0.3	0.2	0.1	0.0	75.6	100.0	2,083	1,585
Fourth	31.7	30.3	0.8	1.5	0.2	23.9	3.8	0.0	1.5	1.0	0.4	0.1	68.3	100.0	1,923	1,590
Highest	51.8	48.2	0.8	6.7	0.9	34.6	4.2	0.9	3.6	2.6	0.9	0.0	48.2	100.0	2,087	2,629
Total	28.6	27.3	0.5	2.1	0.3	20.8	3.4	0.2	1.3	0.9	0.3	0.1	71.4	100.0	10,287	10,204

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

7.4 SOURCE OF MODERN CONTRACEPTIVE METHODS

Information on where women obtain their contraceptive methods is important for family planning programme managers and implementers. Interviewers asked women who reported using a modern method of contraception at the time of the survey where they had obtained the method. The results are shown in Table 7.4.

Table 7.4 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Ethiopia 2011

Source	Pill	Injectables	Implants	Male condom	Total
Public sector	67.2	85.6	92.3	11.7	82.0
Government hospital	4.6	1.8	3.7	1.8	2.3
Government health centre	39.4	48.0	59.4	7.9	47.3
Government health station/clinic	4.3	5.1	4.3	0.6	4.7
Government health post/HEW	18.9	30.5	22.4	1.4	27.3
Other public	0.0	0.1	2.6	0.0	0.4
Private medical sector	30.2	13.1	3.5	29.6	13.4
Private hospital	0.2	0.5	1.0	0.0	0.6
Private clinic	11.8	10.7	0.8	2.3	9.2
Pharmacy	13.9	0.4	0.0	27.3	1.8
NGO health facility	4.2	1.2	1.7	0.0	1.6
Voluntary community health workers	0.0	0.3	0.0	0.0	0.2
Other source	2.4	0.3	0.1	57.8	1.3
Drug vendor/store	1.8	0.2	0.0	5.7	0.3
Shop	0.6	0.1	0.0	51.4	0.9
Friend/relative	0.1	0.0	0.1	0.7	0.0
Other	0.0	0.2	0.0	0.9	0.1
Missing	0.2	0.8	4.0	0.0	3.2
Total	100.0	100.0	100.0	100.0	100.0
Weighted number of women	245	2,317	381	48	3,086
Unweighted number of women	301	1,962	326	107	2,794

Note: Total includes other modern methods but excludes lactational amenorrhea method (LAM) and standard days method.
HEW = Health Extension Worker

Table 7.4 shows that the public sector is the major source of modern contraceptive methods in Ethiopia, serving 82 percent of users. By comparison, 13 percent of current users reported that their modern method of contraceptive was obtained from the private sector. Forty-seven percent of users obtained contraceptive methods from a government health centre, and 27 percent, from a government health post or Health Extension Worker (HEW).

7.5 INFORMED CHOICE

Informed choice is an important principle in the delivery of family planning services. As an aspect of informed choice, it is required that all family planning providers inform users about potential side effects of the method and what they should do if they encounter such side effects. This information assists the user in coping with side effects and thus decreases discontinuation of temporary methods. Contraceptive users should also be informed of the other methods available to them. Table 7.5 shows the percentage of current users of modern methods who reported that they were informed about side effects or problems of the method used and who reported that they were informed of other methods. These are broken down by method type, initial source, and background characteristics.

Overall, 28 percent of current users of the pill, IUD, injectables, or implants were informed about potential side effects of their method, 24 percent were told what to do if they experienced side effects, and 37 percent were given information about other methods.

Table 7.5 Informed choice

Among current users of selected modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and initial source, Ethiopia 2011

	Among women who started last episode of modern contraceptive method within five years preceding the survey:				
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if side effects occur	Percentage who were informed by a health or family planning worker of other methods that could be used	Weighted number of women	Unweighted number of women
Method					
Pill	35.3	28.9	48.4	223	276
IUD	(65.7)	(56.8)	(46.0)	31	42
Injectables	23.9	19.8	34.1	2,127	1,786
Implants	44.4	44.6	48.1	365	315
Initial source of method[1]					
Public sector	27.6	24.1	37.4	2,397	1,957
Government hospital	41.6	47.7	49.5	73	164
Government health centre	29.2	24.5	38.8	1,438	1,194
Government health station/clinic	33.4	28.0	30.8	154	120
Government health post/hew	22.2	20.3	35.4	722	477
Private medical sector	32.6	26.8	36.6	321	436
Private clinic	28.4	22.8	29.7	214	245
Pharmacy	14.8	22.2	20.6	38	62
NGO health facility	57.6	44.0	70.0	43	100
Total	28.1	24.4	37.1	2,769	2,438

Note: Table includes users of only the methods listed individually. Figures in parentheses are based on 25-49 unweighted cases.
[1] Source at start of current episode of use

7.6 KNOWLEDGE OF THE FERTILE PERIOD

A basic knowledge of the physiology of reproduction is especially useful for the successful practice of coitus-related method such as periodic abstinence. The successful use of such methods depends in a large part on understanding when during the ovulatory cycle a woman is most likely to conceive. All women in the survey were asked about their knowledge of women's fertile period. Specifically, they were asked whether there are certain days between two menstrual periods when a woman is more likely to become pregnant if she has sexual intercourse. Those who answered in the affirmative were further asked if this time is just before the period begins, during the period, right after the period ends, or half way between the two periods.

Results are shown in Table 7.6. Overall, only 18 percent of all women interviewed reported the correct timing of the fertile period, that is, halfway between the two menstrual periods. The percentage of women with knowledge of the correct timing of the fertile period has increased from 11 percent in the 2005 EDHS to 18 percent in 2011. To use the rhythm method effectively, correct knowledge of the fertile period is critical. Of those who use the rhythm method, 65 percent reported the correct timing of the fertile period. This proportion is only slightly higher than that reported in the 2005 EDHS (62 percent).

Table 7.6 Knowledge of fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Ethiopia 2011

Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women
Just before her menstrual period begins	4.3	4.2	4.2
During her menstrual period	1.3	3.6	3.6
Right after her menstrual period has ended	25.6	27.0	27.0
Halfway between two menstrual periods	65.1	17.5	17.8
Other	0.0	0.1	0.1
No specific time	0.7	20.9	20.7
Don't know	3.0	26.6	26.5
Total	100.0	100.0	100.0
Weighted number of women	107	16,408	16,515
Unweighted number of women	129	16,386	16,515

7.7 NEED AND DEMAND FOR FAMILY PLANNING

Women who say they are not using contraception and who say either that they do not want any more children or that they want to wait two or more years before having another child are considered to have an unmet need for family planning. Conversely, women using a family planning method are said to have a met need for family planning. Both unmet need and met need can be categorized as such based on whether the need is for spacing or limiting births. The combination of women with unmet need and women with met need for family planning constitutes the total demand for family planning.

Table 7.7 presents estimates for unmet need, met need, and total demand for family planning among currently married Ethiopian women, by background characteristics. Twenty-five percent of currently married women have an unmet need for family planning—16 percent for spacing and 9 percent for limiting. Almost one in every three Ethiopian women (29 percent) has a met need for family planning—16 percent for spacing and 12 percent for limiting. The total demand for family planning among currently married women is 54 percent, A little more than half (53 percent) of this demand is satisfied. Of the total demand for family planning, the demand for spacing is one and a half times as great as the demand for limiting (33 and 21 percent, respectively).

Table 7.7 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Ethiopia 2011

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Percentage of demand satisfied by modern methods	Weighted number of women	Unweighted number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total				
Age													
15-19	30.3	2.4	32.8	22.5	1.2	23.8	52.9	3.6	56.5	42.0	40.6	765	784
20-24	20.3	1.5	21.8	29.6	5.3	34.8	49.8	6.8	56.6	61.6	59.0	1,762	1,788
25-29	21.5	5.1	26.6	20.6	9.3	29.9	42.1	14.4	56.5	53.0	51.1	2,511	2,480
30-34	15.8	9.8	25.6	16.1	16.9	33.1	31.9	26.8	58.7	56.4	53.1	1,720	1,722
35-39	11.6	15.8	27.4	9.3	19.8	29.1	20.9	35.6	56.4	51.5	49.6	1,591	1,600
40-44	7.8	19.9	27.7	3.5	20.5	23.9	11.2	40.4	51.6	46.4	42.9	1,033	1,047
45-49	1.5	13.7	15.2	1.4	11.7	13.1	3.0	25.3	28.3	46.3	44.3	905	783
Residence													
Urban	8.1	6.9	15.0	31.3	21.2	52.5	39.4	28.1	67.5	77.8	73.3	1,843	2,422
Rural	18.1	9.4	27.5	13.1	10.3	23.4	31.2	19.7	50.9	46.0	44.2	8,444	7,782
Region													
Tigray	15.0	7.0	22.0	15.1	7.1	22.2	30.1	14.1	44.2	50.3	48.0	620	984
Affar	12.4	3.7	16.0	6.9	2.6	9.5	19.2	6.3	25.5	37.2	35.5	104	960
Amhara	12.4	9.7	22.1	19.4	14.5	33.9	31.8	24.2	56.0	60.6	58.9	2,776	1,331
Oromiya	20.7	9.2	29.9	15.2	11.0	26.2	35.9	20.2	56.1	46.7	44.4	3,961	1,403
Somali	20.9	3.1	24.0	3.3	1.0	4.3	24.2	4.1	28.3	15.3	13.5	232	664
Benishangul-Gumuz	15.3	9.2	24.5	16.3	10.7	27.0	31.6	19.9	51.5	52.5	51.1	124	904
SNNP	15.2	9.8	25.0	12.7	13.1	25.8	27.9	22.9	50.8	50.9	48.6	2,022	1,295
Gambela	12.9	5.8	18.8	21.4	12.3	33.8	34.4	18.2	52.6	64.3	63.1	41	768
Harari	14.8	9.3	24.1	20.4	14.3	34.7	35.2	23.6	58.8	59.0	53.5	28	635
Addis Ababa	5.3	5.3	10.6	39.8	22.7	62.5	45.1	28.0	73.1	85.5	77.1	342	634
Dire Dawa	16.4	5.0	21.3	21.0	12.9	33.9	37.3	17.9	55.2	61.4	57.4	38	626
Education													
No education	16.3	10.0	26.3	10.8	11.4	22.2	27.1	21.4	48.4	45.8	45.0	6,735	6,569
Primary	18.5	8.2	26.7	22.3	13.4	35.7	40.8	21.5	62.3	57.2	54.1	2,862	2,739
Secondary	9.7	3.0	12.7	42.0	15.6	57.6	51.7	18.5	70.2	82.0	76.1	378	528
More than secondary	5.5	1.5	7.0	51.0	16.8	67.8	56.5	18.3	74.8	90.6	76.5	313	368
Wealth quintile													
Lowest	19.6	10.9	30.5	7.2	6.1	13.3	26.8	17.0	43.8	30.4	29.6	2,077	2,724
Second	17.6	8.9	26.5	10.9	11.2	22.2	28.5	20.2	48.7	45.5	44.2	2,117	1,676
Middle	17.8	10.3	28.1	13.0	11.3	24.4	30.8	21.6	52.4	46.4	45.8	2,083	1,585
Fourth	18.5	8.3	26.8	18.3	13.5	31.7	36.8	21.7	58.5	54.2	51.7	1,923	1,590
Highest	8.3	6.4	14.7	32.5	19.2	51.8	40.9	25.6	66.5	77.9	72.5	2,087	2,629
Total	16.3	9.0	25.3	16.4	12.2	28.6	32.7	21.2	53.9	53.1	50.7	10,287	10,204

[1] *Unmet need for spacing*: Includes women who are fecund and not using family planning and who say they want to wait two or more years for their next birth, or who say they are unsure whether they want another child, or who want another child but are unsure when to have the child. In addition, unmet need for spacing includes pregnant women whose current pregnancy was mistimed, or whose last pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrheic women whose last birth was mistimed, or whose last birth was unwanted but who now say they want more children.
Unmet need for limiting: Includes women who are fecund and not using family planning and who say they do not want another child. In addition, unmet need for limiting includes pregnant women whose current pregnancy was unwanted but who now say they do not want more children or who are undecided whether they want another child. Unmet need for limiting also includes amenorrheic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child.
[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 that the specific methods used are not taken into account here.

The total unmet need for family planning does not vary much by women's 5-year age groups from ages 15 to 44. However, the proportion of women with unmet need is lowest (15 percent) for those in the oldest age group. When unmet need is categorized by unmet need for spacing or limiting, an interesting age pattern is presented. Women younger than 35 years have a higher unmet need for spacing, while older women age 35 or older have a higher unmet need for limiting. Unmet need is almost twice as high among rural women as among urban women (28 percent versus 15 percent). Women with no education (16 percent) or primary education (19 percent) are much more likely to have an unmet need for spacing than those with secondary or higher education (10 and 6 percent, respectively). Unmet need is lowest among women in the wealthiest households.

The share of unmet need for spacing is much higher than the one for limiting in all regions except in Addis Ababa, where they are the same. The unmet need for contraception is highest in the Oromiya region (30 percent) and lowest in Addis Ababa (11 percent).

7.8 FUTURE USE OF CONTRACEPTION

Future demand for specific methods of family planning can be assessed by asking nonusers who intend to use contraception in the future which methods they prefer to use. Table 7.8 presents the results.

More than half (56 percent) of currently married female nonusers intend to use family planning in the future, while 41 percent do not. The proportion of women intending to use contraception increases from 52 percent for those with no child to peak at 65 percent for those with one child and declines subsequently to 50 percent for those with four or more children. The data reflect a gradual increase in the percentage of currently married female nonusers who intend to use family planning in the future, from 46 percent in 2000 to 52 percent in 2005 and now to 56 percent in 2011.

Table 7.8 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Ethiopia 2011

	Number of living children[1]					
Intention to use in the future	0	1	2	3	4+	Total
Intends to use	51.8	65.2	62.6	60.2	50.2	55.7
Unsure	2.8	1.9	4.4	3.0	2.8	3.0
Does not intend to use	45.3	32.8	32.5	36.5	46.8	41.1
Missing	0.0	0.2	0.4	0.3	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number of women	568	978	1,131	1,066	3,601	7,344
Unweighted number of women	641	1,092	1,191	1,078	3,587	7,589

[1] Includes current pregnancy

7.9 EXPOSURE TO FAMILY PLANNING MESSAGES

The mass media and interpersonal communication can be major sources of family planning messages. Information about public exposure to messages through a particular medium allows policymakers to ensure the use of the most effective means of communication for various target groups in the population. To assess the effectiveness of the dissemination of family planning information through different media, interviewers asked respondents in the 2011 EDHS whether they had been exposed to any family planning messages in the past few months preceding the survey. Interviewers asked about family planning messages on the radio or television; in a newspaper,

magazine, pamphlet, poster, or leaflet; at a community event, and from a doctor, nurse, or other health worker. Table 7.9 presents the findings.

Among women age 15-49 community events are the most common source of family planning messages, at 37 percent. Radio is the second most common at 34 percent. Another common source is television, with 18 percent of women reporting exposure to family planning messages via television. Ethiopian women do not have high exposure to written sources of family planning messages. Only 8 percent of women report seeing family planning messages in a newspaper or magazine or in a pamphlet, poster, or leaflet.

In general, a higher proportion of Ethiopian men are exposed to family planning messages than women. As for women the most common sources of family planning messages for men age 15-49 are the radio or community events (51 and 44 percent, respectively). Twenty-five percent of men report exposure to family planning messages on television, while 18 percent report exposure to messages from a pamphlet, poster, or leaflet. The least common source of family planning messages for men is a newspaper or magazine, at 15 percent.

Among women, there is a slight variation in exposure to printed family planning messages by their background characteristics. Women in the two lowest age categories, age 15-24, have higher levels of exposure to family planning messages in a newspaper or magazine or in pamphlets, posters, or leaflets than women in upper categories. A higher proportion of urban women than rural women are exposed to messages from each source. Especially pronounced gaps between urban and rural women are observed in their exposure to family planning messages on television (55 and 7 percent, respectively), in a newspaper or magazine (21 and 4 percent, respectively), and in a pamphlet, poster, or leaflet (23 and 3 percent, respectively). Similar urban-rural variations in exposure to printed family planning messages are observed among men. Urban women are more exposed to family planning messages at community events than rural women (40 and 36 percent, respectively), whereas rural men are more exposed than urban men (45 and 42 percent, respectively) to these messages. Regional differentials also suggest that women and men in relatively urbanized areas, namely Addis Ababa, Dire Dawa, and Harari, are more likely than other respondents to be exposed to family planning messages from all specified media sources. Exposure to family planning messages at community events is the exception to this pattern. Women in Tigray and Amhara are more likely to be exposed to family planning messages at community events (65 percent and 46 percent, respectively) than women from other regions including the more urbanized areas.

There is a marked difference by women's level of education in exposure to family planning messages from all media sources; 72 percent of women with more than secondary education are exposed to family planning messages through the television, whereas only 6 percent of women with no education are. Similar patterns are true for men. Both female and male respondents in the lowest wealth quintile are the least likely to be exposed to family planning messages through any of the specified sources when compared with respondents in higher quintiles.

Table 7.9 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio; on television; in a newspaper; in a pamphlet, poster, or leaflet; or at a community event in the past few months, according to background characteristics, Ethiopia 2011

	Women								Men							
Background characteristic	Radio	Television	Newspaper/ magazine	Pamphlet/ poster/ leaflet	Community event	None of these five media sources	Weighted number of women	Unweighted number of women	Radio	Television	Newspaper/ magazine	Pamphlet/ poster/ leaflet	Community event	None of these five media sources	Weighted number of men	Unweighted number of men
Age																
15-19	34.8	18.4	12.7	10.3	31.8	42.6	4,009	3,835	40.3	21.1	12.6	14.3	28.2	39.7	3,013	2,832
20-24	37.6	24.4	11.3	13.3	33.7	40.7	2,931	3,022	53.7	27.0	17.2	22.2	42.6	28.2	2,319	2,330
25-29	34.5	18.7	6.2	6.2	37.7	42.9	3,147	3,185	54.1	25.5	19.6	21.2	46.4	26.7	2,297	2,274
30-34	32.2	15.7	5.7	5.4	40.9	44.3	2,054	2,100	55.8	29.6	14.9	19.8	51.2	23.4	1,483	1,682
35-39	31.9	15.5	4.7	5.0	42.1	42.8	1,916	1,958	52.3	25.2	14.4	17.7	51.9	25.3	1,648	1,579
40-44	32.0	15.5	3.7	4.8	40.9	42.9	1,261	1,314	54.0	25.9	13.4	14.8	54.6	24.4	1,121	1,210
45-49	26.2	11.5	2.0	3.8	37.1	50.2	1,196	1,101	51.2	22.7	10.7	13.1	57.7	25.4	952	961
Residence																
Urban	57.3	55.1	21.2	22.7	39.8	20.1	3,947	5,329	65.8	62.6	29.2	40.0	41.5	13.0	2,882	3,915
Rural	26.3	6.5	3.8	3.3	35.7	50.4	12,568	11,186	46.1	14.1	11.0	11.6	45.0	33.8	9,952	8,953
Region																
Tigray	34.2	22.6	11.9	12.4	64.9	23.2	1,104	1,728	42.1	29.7	19.6	20.3	40.9	32.5	770	1,235
Affar	21.8	19.2	6.9	6.0	10.7	69.7	145	1,291	54.9	40.4	21.7	21.5	26.7	35.2	101	910
Amhara	28.8	14.0	6.9	5.9	46.4	40.2	4,433	2,087	40.7	18.8	13.5	18.0	51.3	32.0	3,481	1,739
Oromiya	37.4	14.0	6.6	5.6	27.2	48.9	6,011	2,135	59.4	22.5	14.0	11.8	42.4	27.9	4,957	1,889
Somali	21.5	11.2	4.2	2.9	31.6	55.6	329	914	41.8	18.9	11.3	14.5	16.9	48.6	245	653
Benishangul-Gumuz	25.9	13.0	6.3	5.2	33.6	52.1	174	1,259	53.1	26.8	11.4	17.2	40.6	33.4	138	1,047
SNNP	26.0	14.8	5.7	7.7	36.6	49.2	3,236	2,034	40.1	21.4	11.8	21.3	48.6	31.4	2,307	1,550
Gambela	26.6	27.9	9.6	11.7	26.9	52.1	69	1,130	51.8	46.4	27.9	41.6	38.0	26.9	59	865
Harari	51.1	57.5	18.2	19.5	25.4	30.4	49	1,101	75.0	67.6	32.9	31.9	45.9	11.3	40	898
Addis Ababa	67.3	71.2	25.5	29.7	25.5	11.8	896	1,741	80.0	74.5	34.6	44.6	23.3	6.4	682	1,237
Dire Dawa	50.1	53.8	23.3	25.9	40.2	28.5	69	1,095	72.8	64.9	37.0	52.7	57.2	9.2	53	845
Education																
No education	22.0	6.1	0.3	0.5	34.6	53.6	8,394	8,278	36.7	9.1	2.5	3.6	44.9	40.1	3,785	3,659
Primary	38.2	21.1	9.7	8.9	36.5	38.4	6,276	5,858	51.3	21.9	13.5	15.6	42.5	29.4	6,813	6,334
Secondary	66.7	56.7	31.5	32.8	46.2	14.6	1,117	1,395	70.0	56.8	35.4	41.8	45.1	12.3	1,296	1,565
More than secondary	79.4	71.8	44.8	48.0	47.7	6.3	728	984	73.5	68.0	49.9	60.3	52.7	6.7	940	1,310
Wealth quintile																
Lowest	15.1	3.5	2.2	1.2	35.3	56.6	2,986	3,711	34.5	9.4	5.3	6.6	41.5	43.3	2,141	2,563
Second	21.5	4.3	2.7	2.0	37.5	51.7	3,041	2,402	40.9	9.9	6.4	7.9	44.6	38.1	2,362	1,891
Middle	26.1	6.1	3.1	3.2	34.5	51.8	3,031	2,268	48.3	12.2	10.3	10.8	46.0	32.7	2,454	1,935
Fourth	37.0	7.9	6.1	4.3	34.7	45.1	3,215	2,505	54.8	19.9	17.9	14.9	45.9	26.5	2,683	2,203
Highest	58.6	54.7	20.6	23.1	40.2	19.8	4,242	5,629	66.6	60.8	29.5	41.1	43.1	12.7	3,194	4,276
Total 15-49	33.7	18.1	7.9	8.0	36.7	43.1	16,515	16,515	50.5	25.0	15.1	18.0	44.2	29.2	12,834	12,868
50-59	na	na	na	na	na	na	na	na	45.7	21.1	9.9	10.7	53.5	29.3	1,276	1,242
Total 15-59	na	na	na	na	na	na	na	na	50.1	24.7	14.6	17.3	45.1	29.2	14,110	14,110

na = Not applicable

7.10 EXPOSURE TO SPECIFIC TYPE OF FAMILY PLANNING MESSAGES

Respondents in the 2011 EDHS were asked if they had heard or seen specific family planning or health messages in the past few months. Table 7.10 shows the percent distribution of women and men age 15-49 who heard or saw specific messages, by background characteristics.

The most common message reported by women is 'Birth spacing makes for a loving, caring, and healthy family', with 44 percent women reporting having seen or heard this specific message. Thirty-two percent of women reported having heard or seen 'It is wise to have a balanced family life' or 'Your family's happiness is in your hand'. 'Children by choice, not by chance' was the message least seen or heard by women, at 26 percent. In general, Ethiopian men have higher exposure levels to each specific message than women.

Women age 45-49 and men age 15-19 have the lowest levels of exposure to all of the specified messages, while women age 20-24 and men age 30-34 have the highest exposure levels. Urban respondents, those with higher education, and those in the richest wealth quintiles are the more likely to have been exposed to specific family planning messages than those in rural areas, respondents with little or no education, and poorer respondents, respectively.

The regional differentials also show that women and men in more urbanized regions such as Addis Ababa, Dire Dawa, and Harari are more likely than respondents in more rural regions to be exposed to specific family planning messages.

Table 7.10 Exposure to specific family planning messages

Percentage of all women and all men who have heard or seen specific media messages about family planning and health, in the past few months, according to background characteristics, Ethiopia 2011

Background characteristic	Women						Men					
	It's wise to have a balanced family life	Your family's happiness is in your hands	Birth spacing makes for a loving, caring, and healthy family	Children by choice, not by chance	Weighted number of women	Unweighted number of women	It's wise to have a balanced family life	Your family's happiness is in your hands	Birth spacing makes for a loving, caring and healthy family	Children by choice, not by chance	Weighted number of men	Unweighted number of men
Age												
15-19	33.6	33.6	45.9	26.4	4,009	3,835	40.0	37.9	51.1	29.6	3,013	2,832
20-24	37.5	38.2	50.8	31.3	2,931	3,022	53.9	52.8	65.2	42.9	2,319	2,330
25-29	32.3	32.9	44.8	25.9	3,147	3,185	52.9	55.3	67.8	47.5	2,297	2,274
30-34	30.8	31.7	41.8	26.1	2,054	2,100	56.0	56.7	71.3	48.6	1,483	1,682
35-39	31.6	31.3	42.2	25.7	1,916	1,958	55.4	52.3	67.0	43.7	1,648	1,579
40-44	27.2	28.6	37.3	20.4	1,261	1,314	52.7	53.7	67.9	44.3	1,121	1,210
45-49	20.9	19.6	31.9	15.6	1,196	1,101	50.6	51.6	63.8	40.0	952	961
Residence												
Urban	64.2	66.0	70.9	53.0	3,947	5,329	76.6	76.4	82.1	59.2	2,882	3,915
Rural	21.9	21.8	35.5	17.3	12,568	11,186	43.0	42.5	58.0	36.1	9,952	8,953
Region												
Tigray	36.9	35.9	46.0	32.4	1,104	1,728	48.0	47.8	61.0	52.9	770	1,235
Affar	23.3	23.0	27.6	17.9	145	1,291	46.9	52.8	45.6	36.0	101	910
Amhara	31.2	26.0	45.0	20.2	4,433	2,087	46.6	36.4	57.3	27.7	3,481	1,739
Oromiya	28.3	30.7	46.8	27.2	6,011	2,135	50.1	56.2	66.9	51.4	4,957	1,889
Somali	21.6	22.0	22.2	12.0	329	914	41.3	42.8	44.8	23.4	245	653
Benishangul-Gumuz	27.4	29.6	39.8	19.3	174	1,259	55.1	57.3	64.7	39.0	138	1,047
SNNP	24.6	29.3	28.4	18.3	3,236	2,034	47.2	46.5	62.2	31.9	2,307	1,550
Gambela	28.3	36.0	35.8	24.3	69	1,130	55.5	66.2	68.3	50.7	59	865
Harari	59.1	66.6	60.3	51.7	49	1,101	77.1	89.4	91.9	72.8	40	898
Addis Ababa	84.2	83.8	82.7	67.5	896	1,741	86.9	85.1	80.2	57.6	682	1,237
Dire Dawa	67.8	66.5	70.4	58.3	69	1,095	79.9	83.3	89.1	74.6	53	845
Education												
No education	18.3	17.4	30.0	13.5	8,394	8,278	36.0	32.0	50.1	25.0	3,785	3,659
Primary	36.8	38.8	51.2	29.9	6,276	5,858	49.3	49.6	63.5	40.7	6,813	6,334
Secondary	73.1	72.5	78.9	60.6	1,117	1,395	76.0	78.0	83.5	63.0	1,296	1,565
More than secondary	86.8	89.3	88.9	79.2	728	984	83.3	88.5	88.3	80.9	940	1,310
Wealth quintile												
Lowest	14.1	13.5	26.7	10.5	2,986	3,711	36.2	31.5	48.7	25.7	2,141	2,563
Second	19.4	19.1	31.9	14.2	3,041	2,402	38.4	36.5	54.4	31.5	2,362	1,891
Middle	21.6	20.3	37.0	16.5	3,031	2,268	41.7	41.9	59.2	37.3	2,454	1,935
Fourth	27.5	28.5	42.1	22.6	3,215	2,505	50.9	52.6	65.3	43.4	2,683	2,203
Highest	64.7	66.8	71.2	54.0	4,242	5,629	75.7	77.0	81.6	60.3	3,194	4,276
Total 15-49	32.0	32.4	44.0	25.8	16,515	16,515	50.5	50.1	63.4	41.3	12,834	12,868
50-59	na	na	na	na	na	na	47.3	43.4	58.3	34.5	1,276	1,242
Total 15-59	na	na	na	na	na	na	50.2	49.5	62.9	40.7	14,110	14,110

na = Not applicable

7.11 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

Interviewers asked women who were not using any contraception at the time of the survey whether a family planning worker had visited and talked to them in the past 12 months. Interviewers also asked whether they had attended a health facility during the past year and, if so, whether a staff person at that facility spoke to them about family planning methods. This information, presented in Table 7.11, is important for determining whether family planning initiatives in Ethiopia are reaching nonusers of family planning.

Only 15 percent of nonusers reported being visited by a health services provider at home who engaged them in a discussion of family planning. Among female nonusers 22 percent had visited a health facility in the past 12 months but did not discuss family planning with a provider, while 7 percent did discuss family planning. The majority of women who are nonusers (81 percent) neither discussed family planning with a fieldworker nor discussed family planning at a health facility.

An interesting age pattern is observed for women who were visited by a fieldworker who discussed family planning, as well as for those women who visited a health facility in the past 12 months and discussed family planning. For both groups of women, the percentage that discussed family planning is lowest in the youngest age cohort, age 15-19, but steadily increases and peaks in the 35-39 age cohort before declining in the oldest age groups. For example, only 10 percent of women age 15-19 reported being visited by a fieldworker who discussed family planning, compared with 22 percent of those age 35-39.

The percentage of nonusers who were visited by a fieldworker and who discussed family planning varies notably by region. The highest percentage is in Tigray (28 percent) and the lowest percentages are observed in Somali (7 percent), Affar (8 percent), and Gambela (9 percent).

Table 7.11 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who did not discuss family planning either with a fieldworker or at a health facility, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of women who were visited by a fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with a fieldworker or at a health facility	Weighted number of women	Unweighted number of women
		Discussed family planning	Did not discuss family planning			
Age						
15-19	9.6	2.6	13.1	88.6	3,795	3,611
20-24	14.0	6.6	26.0	82.2	2,247	2,380
25-29	16.8	9.3	26.7	78.2	2,312	2,398
30-34	16.7	8.0	24.9	79.7	1,451	1,576
35-39	22.3	13.0	25.9	72.7	1,404	1,485
40-44	21.1	9.0	22.3	74.7	1,005	1,095
45-49	16.5	5.4	19.6	81.0	1,066	1,009
Residence						
Urban	14.3	9.3	28.6	80.4	2,877	3,956
Rural	15.4	6.2	19.6	81.7	10,404	9,598
Region						
Tigray	28.1	20.6	23.6	64.4	925	1,450
Affar	7.8	2.3	23.3	91.2	133	1,217
Amhara	18.8	7.3	17.8	77.5	3,404	1,615
Oromiya	12.7	5.4	22.1	84.4	4,895	1,738
Somali	6.9	2.1	17.0	92.0	318	883
Benishangul-Gumuz	16.1	4.9	27.8	81.8	138	1,026
SNNP	12.8	4.5	20.9	84.6	2,679	1,702
Gambela	9.1	6.0	32.8	87.8	46	897
Harari	13.4	5.6	26.5	82.7	38	856
Addis Ababa	11.1	9.0	35.0	82.8	650	1,285
Dire Dawa	19.3	8.7	29.3	76.9	54	885
Education						
No education	15.8	7.0	21.1	80.8	6,789	7,050
Primary	13.9	5.7	20.3	83.2	5,132	4,734
Secondary	16.3	8.3	30.1	79.5	875	1,059
More than secondary	16.7	14.9	23.6	73.5	485	711
Wealth quintile						
Lowest	13.3	5.1	17.4	83.9	2,674	3,463
Second	15.4	5.8	19.2	82.0	2,530	2,065
Middle	14.7	5.5	19.3	82.6	2,482	1,899
Fourth	17.8	6.6	22.6	79.2	2,542	1,998
Highest	14.7	10.6	27.9	79.5	3,054	4,129
Total	15.2	6.9	21.5	81.4	13,281	13,554

7.12 CONTRACEPTIVE DISCONTINUATION RATE

Table 7.12 shows, among women age 15-49 who started an episode of contraceptive use within the five-year period preceding the survey, the percentage of episodes discontinued within 12 months, by specific method.

The 12-month contraceptive discontinuation rate for all methods is 37 percent. Among the major methods, the highest discontinuation rate is for the pill (70 percent), followed by the male condom (62 percent). In contrast, implants have a discontinuation rate of just 5 percent.

Table 7.12 Contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by specific method, Ethiopia, 2011

Method	Percentage who discontinued within 12 months
Pill	69.9
Injectables	34.2
Implants	4.5
Male condom	62.4
Rhythm	23.6
All methods[1]	37.1
Number of episodes of use	1,790

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months prior to the survey.
[1] All methods are included in the discontinuation rate shown for all methods, but only selected methods are shown separately.

INFANT AND CHILD MORTALITY 8

Key Findings

- One in every 17 Ethiopian children dies before the first birthday, and one in every 11 children dies before the fifth birthday.
- Infant mortality declined by 39 percent over the 15-year period between the 2000 EDHS and the 2011 EDHS, from 97 deaths per 1,000 live births to 59 deaths per 1,000 live births.
- Under-five mortality declined by 47 percent over the same period, from 166 deaths per 1,000 live births to 88 deaths per 1,000 live births.
- Childhood mortality is higher in rural areas than in urban areas. These rates were highest in Benishangul-Gumuz and lowest in Addis Ababa.
- The neonatal mortality rate was 37 deaths per 1,000 live births, the post-neonatal mortality rate was 22 deaths per 1,000 live births, and the perinatal mortality rate was 46 per 1,000 pregnancies.

This chapter presents levels, trends, and differentials in perinatal, neonatal, postneonatal, infant, child, and under-five mortality in Ethiopia. The information enhances understanding of population dynamics and will assist in the planning and evaluation of health policies and programmes. Estimates of infant and child mortality rates can be used to develop population projections. Information on childhood mortality also serves the need of the health sector to identify population groups that are at high risk.

One of the targets of the Millennium Development Goals (MDGs) is to reduce the under-five mortality rate by two-thirds between 1990 and 2015. Programmes to increase the proportion of births attended by skilled health personnel, to increase immunisations against the vaccine-preventable diseases, to provide early care and treatment to sick children, and to upgrade the status of women through education and enhanced participation in the labour force can all help to improve the probability of survival of young children. Results from the 2011 EDHS are timely in evaluating the impact on the achievement of this MDG goal of some major national policies, such as the National Population Policy, the National Policy on Ethiopian Women, and the National Health Policy.

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

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the probability of dying after the first month of life but before the first birthday (the difference between infant and neonatal mortality)
- Infant mortality ($_1q_0$): the probability of dying before the first birthday
- Child mortality ($_4q_1$): the probability of dying between the first and the fifth birthdays

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

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

8.1 DATA QUALITY

Estimates of infant and child mortality that are based on retrospective birth histories are subject to possible reporting errors that may adversely affect the quality of the data. The estimates may be affected by the completeness with which births and deaths are reported and recorded, as well as the accuracy of information on current age and the age at death for children who died. A lack of accurate information on the age at death may distort the age pattern of mortality. If age at death is misreported and the net effect of this age misreporting results in transference from one age bracket to another, it will bias the estimates. For example, a net transfer of deaths from an age of under 1 month to a higher age will affect the estimates of neonatal and postneonatal mortality. To minimise errors in reporting age at death, interviewers were instructed to record age at death in days if the death took place in the month following the birth, in months if the child died before 2 years of age, and in years if the child died at age 2 years or above. Interviewers were also asked to probe for deaths reported at 1 year of age to determine a more precise age at death in terms of months. Despite the emphasis during interviewer training and fieldwork monitoring on probing for accurate age at death, Appendix Table C.6 shows that, for the five years preceding the survey, there is considerable heaping of deaths at 6 and 12 months of age. However, only the heaping at 12 months of age can potentially bias the mortality rates reported in the tables in this chapter. Age heaping at 12 months to the extent shown in Appendix Table C.6 is likely to have only a negligible effect on the estimates of infant mortality, but it is likely to lead to some overestimation of child mortality, especially for the earlier five-year periods.

Another potential data quality problem is the selective omission from the birth histories of births that did not survive, which can lead to underestimation of mortality rates. When selective omission of childhood deaths occurs, it is usually most severe for deaths occurring early in infancy. One way that such omissions can be detected is by examining the proportion of infant deaths that are neonatal deaths. Generally, if there is substantial underreporting of deaths, the result is an abnormally low ratio of neonatal deaths to infant deaths. In the 2011 EDHS the proportion of infant deaths occurring in the first month of life is 65 percent in the period 0-4 years preceding the survey (Appendix Table C.6), which is within the normal range. Furthermore, it appears that early neonatal deaths among births that occurred in the first month of life have not been underreported, since 79 percent of neonatal deaths were early neonatal deaths (Appendix Table C.5). The proportion is slightly lower for deaths occurring 15-19 years before the survey, which is not surprising given the greater likelihood of recall errors for deaths occurring further in the past.

Displacement of birth dates may cause a distortion of mortality trends. This can occur if an interviewer knowingly records a death as occurring in an earlier year, which would happen if an interviewer is trying to cut down on the overall workload, because a lengthy set of additional questions is asked about live births occurring during the five years preceding the interview. Appendix Table C.4 shows considerable year-of-birth transference for deceased children from 1998 to 1997, but relatively little transference for living children. This suggests that under-five mortality is likely to be underestimated to some extent for the five-year period before the survey.

8.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

8.2.1 Early Childhood Mortality Rates

Table 8.1 shows neonatal, postneonatal, infant, child, and under-five mortality rates for successive five-year periods before the survey. For the five years preceding the survey, the infant mortality rate was 59 per 1,000 live births, the child mortality rate was 31 per 1,000 children surviving to age 1 year, and the under-five mortality rate was 88 per 1,000 live births. This implies that one in 17 Ethiopian children dies before the first birthday and one in 11 Ethiopian children dies before the fifth birthday. During the same five-year period, neonatal mortality was 37 deaths per 1,000 live births, and postneonatal mortality was 22 deaths per 1,000 live births.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Ethiopia 2011

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	37	22	59	31	88
5-9	48	40	88	49	133
10-14	54	47	101	72	166

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

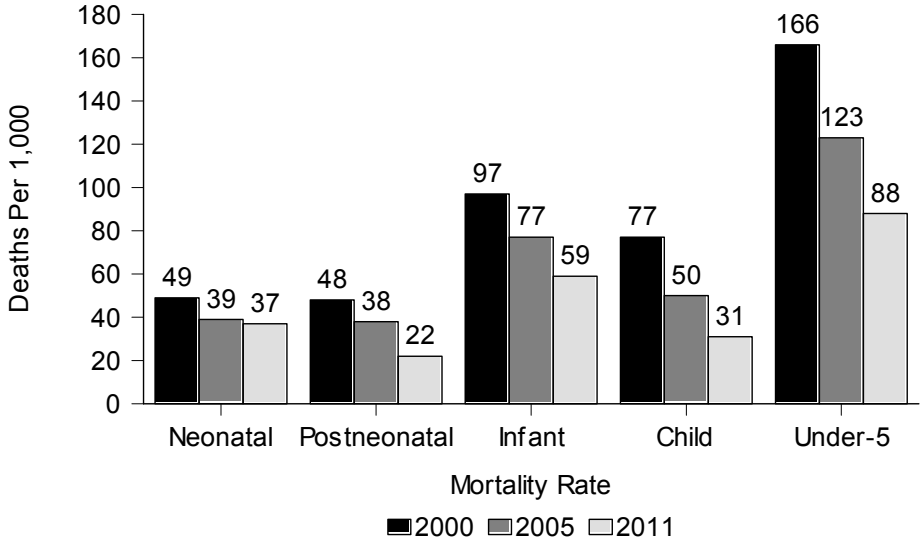
8.2.2 Trends in Early Childhood Mortality

Mortality trends can be examined in two ways: by comparing mortality rates for the three five-year periods preceding a single survey or by comparing mortality estimates obtained from several surveys over time. It should be noted that sampling errors associated with mortality estimates are large and should be taken into account when examining trends between surveys.

Results from the 2011 EDHS data show a remarkable decline in all levels of childhood mortality. Infant mortality has declined by 42 percent over the 15-year period preceding the survey from 101 deaths per 1,000 live births to 59 deaths per 1,000 live births. Furthermore, under-five mortality has declined by 47 percent over the same period from 166 deaths per 1,000 live births to 88 deaths per 1,000 live births. Even though not to the same extent, the neonatal mortality has also decreased over the 15-year period preceding the survey by 31 percent from 54 deaths per 1,000 live births to 37 deaths per 1,000 live births.

Mortality trends can also be examined by comparing data from DHS surveys conducted in 2000, 2005, and 2011. Infant and under-five mortality rates obtained by these surveys evidence a continuous declining trend in mortality. Under-five mortality decreased from 166 deaths per 1,000 live births in the 2000 survey to 88 in 2011, while infant mortality decreased from 97 deaths per 1,000 live births in the 2000 survey to 59 in the 2011 survey. On the other hand, even though neonatal mortality rate decreased from 49 deaths per 1,000 live births in 2000 to 39 deaths per 1,000 live births in 2005, it has since remained stable at 37 deaths per 1,000, as reported in the 2011 EDHS (Figure 8.1).

Figure 8.1 **Trends in Early Childhood Mortality, EDHS 2000, 2005, and 2011**



8.3 EARLY CHILDHOOD MORTALITY RATES BY SOCIOECONOMIC CHARACTERISTICS

Mortality differences by place of residence, region, education of the mother, and household wealth are presented in Table 8.2. To have a sufficient number of births to study mortality differentials across population subgroups, mortality rates are presented for the 10-year period preceding the survey. The table shows that infant and child survival are strongly influenced by these socioeconomic characteristics. Mortality rates in urban areas are consistently lower than in rural areas, although the difference is quite small for neonatal mortality. Infant mortality is 29 percent higher in rural areas (76 deaths per 1,000 live births) than in urban areas (59 deaths per 1,000 live births). The urban-rural difference is even more pronounced in the case of under-five mortality. Wide regional differences in infant and under-five mortality are observed, as well. Under-five mortality rates range from a low of 53 per 1,000 live births in Addis Ababa to a high of 169 per 1,000 live births in Benishangul-Gumuz. Under-five mortality is also relatively high in Affar, Gambela, and Somali (Table 8.2 and Figure 8.2).

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

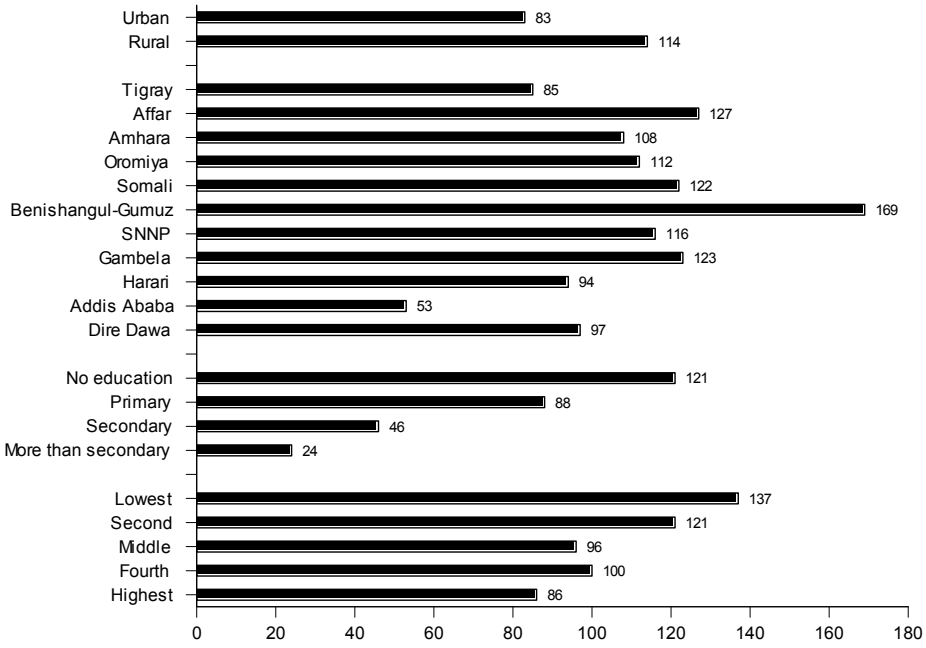
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	41	19	59	25	83
Rural	43	33	76	42	114
Region					
Tigray	44	20	64	23	85
Affar	33	30	64	67	127
Amhara	54	23	76	34	108
Oromiya	40	32	73	42	112
Somali	34	36	71	56	122
Benishangul-Gumuz	62	39	101	76	169
SNNP	38	41	78	41	116
Gambela	39	36	76	51	123
Harari	35	29	64	32	94
Addis Ababa	21	19	40	14	53
Dire Dawa	30	30	60	39	97
Mother's education					
No education	46	35	81	43	121
Primary	35	23	58	32	88
Secondary	31	12	42	4	46
More than secondary	8	14	22	2	24
Wealth quintile					
Lowest	50	41	91	51	137
Second	48	36	84	41	121
Middle	35	25	60	38	96
Fourth	39	27	66	36	100
Highest	37	23	60	27	86

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

As expected, mother's education is inversely related to a child's risk of dying. Under-five mortality among children born to mothers with no education (121 per 1,000 live births) is 2.6 times as high as that of children born to mothers with secondary education (46 per 1,000 live births) and more than five times as high as that of mothers with more than a secondary education (24 per 1,000 live births). The beneficial effect of educating mothers is evident for all childhood mortality rates. Also, childhood mortality generally decreases as wealth increases, although the differences are relatively small in the three highest wealth quintiles.

Figure 8.2 Under-Five Mortality by Socioeconomic Characteristics, Ethiopia 2011



8.4 DEMOGRAPHIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

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

Table 8.3 Early childhood mortality rates, by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Ethiopia 2011

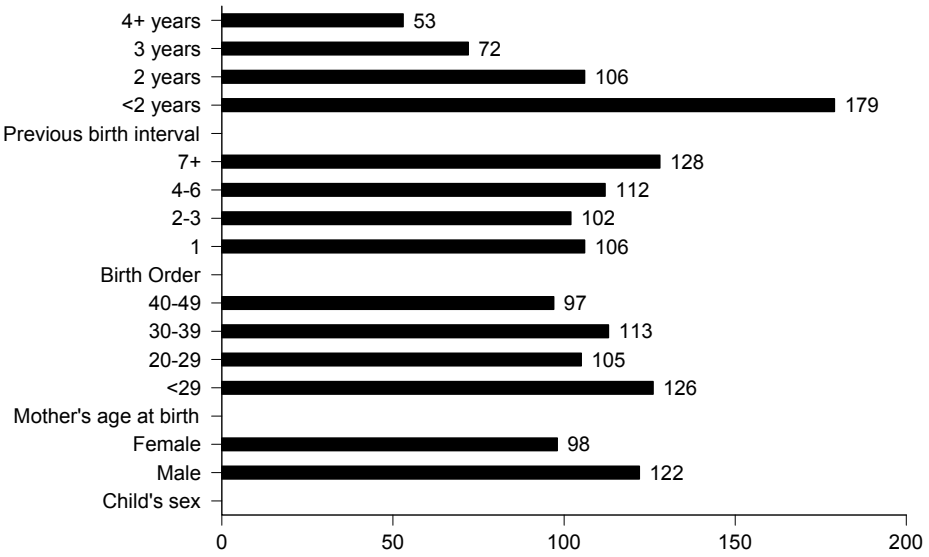
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	51	34	84	41	122
Female	34	29	63	38	98
Mother's age at birth					
<20	61	35	96	33	126
20-29	37	32	69	38	105
30-39	43	27	70	46	113
40-49	42	25	67	33	97
Birth order					
1	54	24	79	30	106
2-3	36	33	70	34	102
4-6	40	30	70	45	112
7+	46	37	82	49	128
Previous birth interval[2]					
<2 years	58	64	122	64	179
2 years	39	26	65	45	106
3 years	30	19	49	24	72
4+ years	24	13	37	17	53
Birth size[3]					
Small/very small	33	17	50	na	na
Average or larger	37	23	61	na	na

na = Not applicable
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

As noted in earlier DHS surveys, male children in general experience a higher mortality than female children. This is true for all mortality rates. Infant mortality is higher for births to mothers under age 20 than for mothers in the older age groups. Infant mortality is also higher for first births and 7th and higher-order births than for births of orders 2-6. Short birth intervals substantially reduce children's chances of survival, especially intervals of less than two years. For example, children born less than two years after the preceding birth are 2.5 times as likely to die within the first year of life and within the first five years of life as children born three years after the preceding birth (Figure 8.3).

Since most births in Ethiopia occur at home, where children often are not weighed at birth, data on birth weight is available for only a few children. However, in the Ethiopia DHS survey, mothers were asked whether their children born in the past five years were very large, larger than average, average, smaller than average, or very small at birth, since this has been found to be a good proxy for the child's weight. The data show little variation in mortality by size of child at birth.

Figure 8.3 Infant and Under-five Mortality Rate by Selected Demographic Characteristics, Ethiopia 2011



8.5 PERINATAL MORTALITY

The 2011 EDHS asked women to report any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of the pregnancy was recorded. Pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths to live births within the first seven days of life (early neonatal deaths) are defined as perinatal deaths. The distinction between a stillbirth and an early neonatal death may be a fine one, often depending on observing and sometimes remembering faint signs of life after delivery. The causes of stillbirths and early neonatal deaths are closely linked, and examining just one or the other can understate the true level of mortality around the time of delivery. The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of stillbirths and live births, expressed per 1,000 pregnancies that lasted seven or more months.

Table 8.4 presents the number of stillbirths and early neonatal deaths and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics. Since the rates are subject to a high degree of sampling variation, differences by background characteristics should be interpreted with caution. The perinatal mortality rate is 46 per 1,000 pregnancies of seven or more months of gestation. The perinatal mortality rate is higher among births to young mothers (less than 20 years of age) as well as among births that occur less than 15 months after the previous birth. Perinatal mortality generally decreases with an increase in the levels of education and of household wealth.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Weighted number of pregnancies of 7+ months duration	Unweighted number of pregnancies of 7+ months duration
Mother's age at birth					
<20	30	66	61	1,568	1,673
20-29	96	155	37	6,712	6,485
30-39	54	111	50	3,278	3,201
40-49	(24)	(15)	(75)	518	460
Previous pregnancy interval in months[4]					
First pregnancy	47	81	58	2,219	2,270
<15	19	29	71	674	756
15-26	47	70	44	2,637	2,686
27-38	33	76	34	3,235	2,928
39+	58	91	45	3,311	3,179
Residence					
Urban	14	57	46	1,543	2,012
Rural	190	290	46	10,534	9,807
Region					
Tigray	13	26	51	766	1,223
Affar	1	2	20	122	1,135
Amhara	62	87	55	2,718	1,325
Oromiya	86	142	45	5,100	1,791
Somali	7	8	42	372	1,045
Benishangul-Gumuz	3	5	58	143	1,039
SNNP	29	70	39	2,523	1,633
Gambela	1	1	40	41	861
Harari	0	1	40	29	661
Addis Ababa	(2)	(5)	(30)	223	404
Dire Dawa	0	1	23	39	702
Mother's education					
No education	150	237	46	8,377	8,265
Primary	47	97	44	3,258	2,963
Secondary	(3)	(13)	(61)	269	392
More than secondary	*	*	*	172	199
Wealth quintile					
Lowest	49	94	52	2,759	3,673
Second	49	89	51	2,708	2,142
Middle	62	53	46	2,499	1,910
Fourth	29	45	32	2,301	1,894
Highest	15	66	45	1,810	2,200
Total	204	347	46	12,076	11,819

[1] Stillbirths are foetal deaths in pregnancies lasting seven or more months. Figures in parentheses are based on 250-499 unweighted cases. An asterisk indicates that a figure is based on fewer than 250 unweighted cases and has been suppressed.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

8.6 HIGH-RISK FERTILITY BEHAVIOUR

Findings from scientific studies have confirmed a strong relationship between a child's chance of dying and specific fertility behaviours. Typically, the probability of dying in early childhood is much greater for children born to mothers who are young or old, born after a short birth interval, or born to women who have had more than three births. Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Older women may experience age-related problems during pregnancy and delivery. In this analysis a mother is considered to be 'too young' if she is less than age 18 and 'too old' if she is more than age 34 at the time of delivery. A 'short birth interval' characterises a birth occurring within 24 months of a previous birth.

The first column in Table 8.5 shows the percentage of children born in the five years preceding the survey that fall into different categories: 62 percent of births have high mortality risks that are avoidable; 41 percent fall into a single high-risk category, and 22 percent are in a multiple high-risk category. Only 23 percent of births are not in any high-risk category.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Ethiopia 2011

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	23.3	1.00	16.3[a]
Unavoidable risk category			
First-order births between ages 18 and 34 years	14.4	0.98	6.8
Single high-risk category			
Mother's age <18	5.1	1.47	1.4
Mother's age >34	0.6	1.12	3.0
Birth interval <24 months	6.4	1.34	9.1
Birth order >3	28.5	0.94	17.5
Subtotal	40.6	1.07	31.0
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.4	3.31	0.3
Age >34 and birth interval <24 months	0.0	*	0.2
Age >34 and birth order >3	11.7	1.13	26.8
Age >34 and birth interval <24 months and birth order >3	1.7	1.66	5.7
Birth interval <24 months and birth order >3	8.0	2.25	12.8
Subtotal	21.8	1.62	45.8
In any avoidable high-risk category	62.4	1.26	76.8
Total	100.0	na	100.0
Weighted number of births/women	11,872	na	10,287
Unweighted number of births/women	11,654	na	10,204

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

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. The most vulnerable births are those to women age less than 18 years with a birth interval less than 24 months. These children are more than three times as likely to die as children not in any high-risk category. Fortunately, less than 1 percent of births fall into this category.

The last column of Table 8.5 shows the distribution of currently married women by the risk category into which a birth would fall if conceived at the time of the survey. This column is purely hypothetical and does not take into consideration the protection provided by postpartum insusceptibility, prolonged abstinence, or family planning methods other than sterilisation. However, it provides an insight into the potential magnitude of high-risk births. Overall, 77 percent of currently married women have the potential for having a high-risk birth, with 31 percent falling into a single high-risk category and 46 percent falling into a multiple high-risk category.

MATERNAL HEALTH 9

Key Findings

- Thirty-four percent of women who gave birth in the five years preceding the survey received antenatal care from a skilled provider, that is, from a doctor, nurse, or midwife, for their most recent birth. This is a marked improvement from 28 percent in 2005.
- One woman in every five (19 percent) made four or more antenatal care visits during the course of her pregnancy, up from 12 percent in 2005. The median duration of pregnancy at the time of the first antenatal visit is 5.2 months.
- About half of mothers (48 percent) had their last live birth protected against neonatal tetanus.
- Only 10 percent of births in the past five years were delivered by a skilled provider.
- More than six women in every ten (61 percent) stated that a health facility delivery was not necessary, and three in every ten (30 percent) stated that it was not customary.
- Just 7 percent of women received postnatal care in the first two days after their last delivery in the two years before the survey.
- The most important barrier to access to health services that women mention is taking transport to a facility (71 percent), followed by lack of money (68 percent) and distance to a health facility (66 percent).

The Government of Ethiopia is committed to achieving Millennium Development Goal 5 (MDG5), to improve maternal health, with a target of reducing the maternal mortality ratio (MMR) by three-quarters over the period 1990 to 2015. Accordingly, the Federal Ministry of Health (FMOH) has applied multi-pronged approaches to reducing maternal and newborn morbidity and mortality. Improving access to and strengthening facility-based maternal and newborn services is one such approach, and is also a Health Sector Development Plan (HSDP) strategic objective.

This chapter presents findings from several areas of importance to maternal health, including antenatal, delivery, and postnatal care. The data presented in this chapter provide an opportunity to identify critical issues affecting the health status of Ethiopian women. This information will assist policymakers, planners, and other collaborators in the health sector to formulate appropriate strategies and interventions to provide quality reproductive health services and a series of well-timed interventions to improve maternal health.

9.1 ANTENATAL CARE

The quality of antenatal care (ANC) can be measured by the qualifications of the provider and the number and frequency of ANC visits. Antenatal care quality can also be monitored through the content of services received and the kinds of information given to women during their visits. These services raise awareness of the danger signs during pregnancy, delivery, and the postnatal period. They also improve the health-seeking behaviour of the client, orient the client to birth preparedness issues, and provide basic preventive and therapeutic care. The 2011 EDHS obtained information on ANC coverage from responses of 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, the EDHS data refer to the most recent birth only.

9.1.1 Coverage of Antenatal Care

Table 9.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy, according to selected characteristics of the women. For women who reported receiving antenatal care from more than one provider, only the provider with the highest qualification is considered.

Thirty-four percent of pregnant mothers who gave birth in the five years preceding the survey received antenatal care from a skilled provider, that is, from a doctor, nurse, or midwife, for their most recent birth—28 percent from a nurse or midwife and 5 percent from a doctor. Another 9 percent of women received ANC from a health extension worker (HEW). By comparison, in 2005 28 percent received antenatal care from a skilled provider. This improvement in the last five years is impressive, particularly since between 2000 and 2005 there was hardly any improvement in antenatal coverage.

About six in every ten Ethiopian women (57 percent) did not receive any antenatal care for their last birth in the five years preceding the survey. While this percentage is still substantial, it represents a marked decrease from 2005, when 72 percent did not receive any antenatal care.

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Ethiopia 2011

Background characteristic	Antenatal care provider							No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Weighted number of women	Un-weighted number of women
	Doctor	Nurse/ midwife	Other health worker	HEW	Traditional birth attendant	Voluntary community health worker (VCHW)	Missing					
Mother's age at birth												
<20	4.4	29.1	0.1	9.4	0.0	0.0	0.2	56.8	100.0	33.5	954	1,028
20-34	6.1	29.4	0.1	8.3	0.2	0.0	0.3	55.7	100.0	35.5	5,630	5,484
35-49	3.2	23.8	0.0	10.2	0.0	0.2	0.2	62.4	100.0	27.0	1,324	1,252
Birth order												
1	9.6	36.2	0.1	7.9	0.2	0.0	0.3	45.7	100.0	45.9	1,399	1,477
2-3	6.5	30.6	0.0	7.0	0.1	0.0	0.4	55.4	100.0	37.0	2,462	2,419
4-5	4.1	29.3	0.0	9.8	0.2	0.1	0.1	56.4	100.0	33.4	1,814	1,778
6+	2.6	20.4	0.2	10.3	0.0	0.1	0.2	66.3	100.0	23.2	2,233	2,090
Residence												
Urban	21.1	54.9	0.0	0.8	0.1	0.0	0.1	23.0	100.0	76.0	1,188	1,513
Rural	2.6	23.7	0.1	10.1	0.1	0.1	0.3	63.0	100.0	26.4	6,720	6,251
Region												
Tigray	4.3	45.6	0.1	14.4	0.0	0.0	0.5	35.0	100.0	50.1	530	847
Affar	11.2	21.1	0.0	2.5	0.2	0.0	0.3	64.7	100.0	32.3	78	714
Amhara	2.9	30.7	0.0	7.0	0.0	0.0	0.4	59.1	100.0	33.6	1,991	965
Oromiya	5.4	25.9	0.1	7.7	0.3	0.2	0.1	60.5	100.0	31.3	3,116	1,100
Somali	7.3	14.1	0.1	3.8	0.0	0.0	0.0	74.7	100.0	21.5	198	559
Benishangul-Gumuz	4.6	30.0	0.4	4.3	1.1	0.2	0.4	59.0	100.0	35.1	92	674
SNNP	2.1	25.2	0.0	13.3	0.0	0.0	0.2	59.2	100.0	27.3	1,634	1,053
Gambela	11.2	43.3	0.0	1.4	0.0	0.7	0.2	42.3	100.0	54.5	31	608
Harari	22.6	33.0	0.3	3.6	0.0	0.0	0.0	40.5	100.0	55.9	19	440
Addis Ababa	55.1	38.6	0.0	0.7	0.0	0.0	0.2	5.4	100.0	93.6	193	348
Dire Dawa	20.7	36.5	0.0	3.7	0.0	0.0	0.4	38.7	100.0	57.2	26	456
Education												
No education	2.4	22.6	0.1	8.8	0.1	0.1	0.3	65.7	100.0	25.1	5,270	5,184
Primary	7.6	37.9	0.0	9.5	0.1	0.0	0.1	44.6	100.0	45.5	2,270	2,095
Secondary	31.3	54.2	0.0	3.0	1.1	0.0	0.0	10.5	100.0	85.5	226	312
More than secondary	38.4	52.4	0.0	3.0	0.0	0.0	0.0	6.2	100.0	90.9	142	173
Wealth quintile												
Lowest	1.0	15.9	0.0	8.1	0.0	0.0	0.4	74.4	100.0	17.0	1,739	2,279
Second	1.5	22.3	0.0	10.7	0.2	0.3	0.2	64.9	100.0	23.7	1,696	1,354
Middle	2.3	24.5	0.2	10.9	0.0	0.0	0.0	62.0	100.0	27.0	1,628	1,241
Fourth	5.1	30.2	0.0	10.9	0.4	0.0	0.5	52.8	100.0	35.4	1,493	1,229
Highest	20.0	54.9	0.0	1.8	0.0	0.0	0.0	23.2	100.0	74.9	1,351	1,661
Total	5.4	28.4	0.1	8.7	0.1	0.1	0.2	57.0	100.0	33.9	7,908	7,764

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
HEW = Health Extension Worker
[1] Skilled provider includes doctor, nurse, or midwife

Antenatal care from a skilled provider is more common among women age 34 and younger (34-36 percent) than among women age 35-49 (27 percent). Women are almost twice as likely to receive antenatal care from a skilled provider for first births (46 percent) than for birth orders six and higher (23 percent). The relationship is the opposite for women who received antenatal care from a HEW: 10 percent of women with birth orders six or higher received antenatal care from a HEW compared with 8 percent of women pregnant with their first child. The proportion of women who did not receive any antenatal care increases with the child's birth order.

Urban women are almost three times more likely than rural women to receive ANC from a skilled provider. Seventy-six percent of women residing in urban areas received ANC services from a skilled provider for their last birth compared with 26 percent of women in rural areas. Urban women are seven times more likely, at 21 percent, than rural women, at 3 percent, to receive antenatal care from a doctor. Similarly, a higher proportion of urban women (55 percent) received ANC from a nurse or midwife compared with rural women (24 percent). Conversely, 10 percent of rural women received antenatal care from a HEW compared with less than 1 percent of urban woman. There is a direct relationship between a woman's education level and whether she is likely to receive ANC from a skilled provider. For example, 91 percent of women with more than secondary education received ANC from a skilled provider compared with 25 percent of women with no education. Similarly, the proportion of women who received ANC is greatest among those in the highest wealth quintile (75 percent), and decreases with each wealth quintile to a low of 17 percent among women in the lowest wealth quintile.

9.1.2 Number of ANC Visits, Timing of First Visit, and Source Where ANC Was Received

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when received early in the pregnancy and continued through delivery. Early detection of problems in pregnancy leads to more timely referrals for women in high-risk categories or with complications; this is particularly true in Ethiopia, where three-quarters of the population live in rural areas and where physical barriers pose a challenge to providing health care. Under normal circumstances, the World Health Organization (WHO) recommends that a woman without complications should have at least four antenatal care visits, the first of which should take place during the first trimester. Table 9.2 presents information on the number of visits and the timing of the first visit.

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

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Ethiopia 2011

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	23.1	63.1	57.1
1	2.8	4.8	4.5
2-3	26.9	17.6	19.0
4+	45.5	14.4	19.1
Don't know/missing	1.8	0.1	0.3
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	23.1	63.1	57.1
<4	31.0	7.7	11.2
4-5	31.5	13.8	16.5
6-7	11.6	12.2	12.1
8+	2.3	2.9	2.8
Don't know/missing	0.6	0.2	0.3
Total	100.0	100.0	100.0
Weighted number of women	1,188	6,720	7,908
Unweighted number of women	1,513	6,251	7,764
Median months pregnant at first visit (for those with ANC)	4.4	5.5	5.2
Weighted number of women with ANC	914	2,477	3,391
Unweighted number of women with ANC	1,203	2,295	3,498

Nineteen percent of women with a live birth in the five years before the survey made four or more ANC visits during the length of their pregnancy, a marked improvement from 12 percent reported in the 2005 EDHS. Urban women are more likely than rural women to have made four or more visits (46 percent versus 14 percent).

Eleven percent of women made their first ANC visit before the fourth month of pregnancy, an almost two-fold increase from 6 percent in the 2005 EDHS. The median duration of pregnancy at the first visit is 5.2 months, while urban women made the first ANC visit earlier (4.4 months) than rural women (5.5 months).

9.1.3 Components of Antenatal Care

Measuring the components of antenatal care is essential for assessing the quality of ANC services. Pregnancy complications are a primary source of maternal and child morbidity and mortality. Therefore, pregnant women should routinely receive information on the signs of complications and be tested for them at all antenatal care visits. To help assess the quality of antenatal services, respondents were asked whether they had been advised of complications or received certain screening tests during at least one of their antenatal care visits. Table 9.3 shows the percentage of women who took iron tablets or syrup, who took medicine for intestinal parasites, who were informed of the signs of pregnancy complications, and who received selected services during ANC visits for their most recent birth in the last five years.

Among women with a live birth in the five years preceding the survey, 17 percent took iron tablets during their last pregnancy. There are substantial variations by women's background characteristics. Twelve percent of women under age 20 took iron tablets or syrup compared with 18 percent among women age 25-34 and 17 percent among women age 35-49. The usage of iron tablets is much higher among urban women, at 27 percent, than among rural women, at 15 percent. Also, the use of iron tablets increases with levels of education and household wealth. The percentage of women who took iron tablets ranges from 12 percent in Oromiya region to 39 percent in Addis Ababa.

About 6 percent of women took intestinal parasite drugs during their last pregnancy. Use of drugs to control intestinal parasites during pregnancy is least common among women under age 20, rural women, women with no education, and women in households in the lowest and middle wealth quintile. Deworming is part of the ANC in only a few regions. This explains the wide variation in the percentage of women who took intestinal parasite drugs during their last pregnancy from 3 percent in Somali, Dire Dawa, and Affar regions to 12 percent in Gambela.

One in every five women who received ANC reported that they were informed of signs of pregnancy complications during their ANC visit. Women are more likely to be informed of signs of pregnancy complications while pregnant with their first birth compared with pregnancies of birth orders six or higher. A notably higher proportion of urban women (34 percent) than rural women (15 percent) reported that they were informed of signs of pregnancy complications. The proportion ranges from 16 percent of women in Amhara to 49 percent in Addis Ababa. Women with at least a secondary education and those in the highest wealth quintile were more likely to be informed of the signs of pregnancy complications than other women.

Among the various ANC components, 72 percent of women had their blood pressure measured, 54 percent had a blood sample taken, and 41 percent had a urine sample taken. For all three services, women age 20-34, women having their first birth, urban residents, highly educated women, and women in the highest wealth quintiles were more likely than other women to have received each of the specified services.

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Ethiopia 2011

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:		Weighted number of women with a live birth in the past five years	Unweighted number of women with a live birth in the past five years	Among women who received antenatal care for their most recent birth in the past five years, the percentage with selected services				Weighted number of women with ANC for their most recent birth	Unweighted number of women with ANC for their most recent birth
	Took iron tablets	Took intestinal parasite drugs			Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken		
Mother's age at birth										
<20	12.0	4.5	954	1,028	23.4	64.2	39.0	47.6	412	470
20-34	17.8	5.5	5,630	5,484	19.7	72.8	43.0	56.0	2,484	2,555
35-49	17.2	6.1	1,324	1,252	19.0	71.4	34.2	49.4	495	473
Birth order										
1	18.0	5.6	1,399	1,477	28.2	76.9	54.6	64.7	759	874
2-3	16.7	4.6	2,462	2,419	19.4	71.3	44.5	55.8	1,093	1,181
4-5	17.6	6.1	1,814	1,778	17.2	71.1	37.1	49.2	790	739
6+	16.3	5.9	2,233	2,090	15.8	67.1	27.4	45.6	749	704
Residence										
Urban	27.2	8.5	1,188	1,513	33.7	83.1	74.0	79.9	914	1,203
Rural	15.2	5.0	6,720	6,251	15.0	67.3	29.2	44.5	2,477	2,295
Region										
Tigray	33.6	3.9	530	847	27.5	86.3	48.0	66.9	342	546
Affar	23.3	3.4	78	714	26.5	62.4	58.2	68.2	27	205
Amhara	19.0	5.6	1,991	965	16.4	61.1	37.4	49.1	813	371
Oromiya	11.8	5.1	3,116	1,100	16.6	70.2	37.1	48.4	1,232	438
Somali	19.9	2.9	198	559	31.0	68.8	56.9	62.3	50	143
Benishangul-Gumuz	23.3	8.9	92	674	26.0	65.8	37.9	51.5	38	257
SNNP	15.0	6.9	1,634	1,053	17.3	72.5	31.1	48.6	663	421
Gambela	27.5	12.4	31	608	20.1	78.5	53.1	66.3	18	267
Harari	32.9	4.1	19	440	28.5	95.8	82.1	87.3	11	259
Addis Ababa	38.7	4.3	193	348	49.1	96.6	97.8	99.5	182	327
Dire Dawa	27.8	3.3	26	456	27.4	87.7	79.0	86.2	16	264
Education										
No education	14.8	4.2	5,270	5,184	11.6	65.5	29.3	42.7	1,800	1,791
Primary	19.1	8.1	2,270	2,095	23.9	76.0	47.9	61.4	1,256	1,256
Secondary	31.1	6.0	226	312	50.4	83.7	81.2	86.1	202	286
More than secondary	42.8	10.8	142	173	51.5	94.1	80.3	88.2	133	165
Wealth quintile										
Lowest	13.2	3.4	1,739	2,279	10.6	63.8	19.3	36.6	438	579
Second	12.6	5.1	1,696	1,354	13.9	64.2	24.3	39.8	595	491
Middle	15.2	3.3	1,628	1,241	11.5	63.3	28.6	40.2	618	512
Fourth	17.9	7.5	1,493	1,229	17.7	70.1	36.5	52.2	704	595
Highest	28.7	9.2	1,351	1,661	34.2	85.0	71.0	78.9	1,037	1,321
Total	17.0	5.5	7,908	7,764	20.0	71.6	41.3	54.0	3,391	3,498

9.1.4 Informed of signs of pregnancy complications during pregnancy

Pregnancy complications are a major health problem among women in developing countries. Table 9.4 presents the specific pregnancy complications that women were informed of during ANC visits.

Among women who were informed of signs of pregnancy complications at an ANC visit for their last live birth, almost half (48 percent) were informed of abdominal pain as a sign of pregnancy complications. More than one-third (36 percent) were informed of severe headache, one-fourth (25 percent) were informed of vaginal bleeding, and about one-fifth (22 percent) were informed of vaginal gush or fluid as signs of pregnancy complications. Fourteen percent of women were informed of fever, and 7 percent were informed of blurred vision as possible signs of pregnancy complications.

Table 9.4 Informed of signs of pregnancy complications

Among women age 15-49 with a live birth in the five years preceding the survey who were informed of signs of pregnancy complications at an antenatal care visit for their last birth, the percentage who were informed of specific pregnancy complications, according to background characteristics, Ethiopia 2011

Background characteristic	Vaginal bleeding	Vaginal gush or fluid	Severe headache	Blurred vision	Fever	Abdominal pain	Other	Weighted number of women	Unweighted number of women
Age									
15-19	(18.1)	(11.7)	(45.9)	(3.8)	(18.8)	(51.8)	(30.8)	46	44
20-34	27.4	23.8	32.4	7.0	12.7	49.1	15.0	476	635
35-49	21.6	19.9	43.5	5.7	15.9	44.8	16.5	157	168
Residence									
Urban	30.4	27.0	36.1	7.7	8.9	44.0	17.5	308	456
Rural	21.2	18.0	35.7	5.4	18.0	51.8	15.5	371	391
Region									
Tigray	45.7	27.9	16.7	8.3	4.2	51.6	16.0	94	144
Affar	27.3	24.0	49.6	14.5	32.7	45.2	9.5	7	51
Amhara	15.8	29.3	34.0	4.4	13.9	62.7	16.7	133	60
Oromiya	12.2	9.2	46.7	2.8	23.5	46.7	19.6	205	72
Somali	(36.7)	(16.1)	(62.9)	(23.6)	(19.1)	(34.1)	(10.3)	15	42
Benishangul-Gumuz	28.3	41.4	22.3	5.1	18.1	41.3	16.7	10	65
SNNP	34.8	23.1	34.8	11.7	5.7	49.8	13.9	115	67
Gambela	(21.3)	(14.4)	(16.4)	(4.7)	(16.9)	(32.5)	(29.9)	4	44
Harari	20.3	21.0	33.0	3.7	19.2	24.0	34.2	3	73
Addis Ababa	34.5	32.9	31.4	6.2	8.1	29.8	13.1	89	160
Dire Dawa	24.4	9.6	42.9	1.6	31.3	54.1	11.0	4	69
Education									
No education	19.2	22.6	35.9	6.4	15.1	57.1	14.0	209	290
Primary	24.1	19.3	36.7	5.9	17.7	47.0	13.9	300	332
Secondary	32.8	18.1	43.5	8.6	4.4	41.3	22.7	102	140
More than secondary	38.6	38.4	21.0	5.8	7.3	37.6	25.6	69	85
Wealth quintile									
Lowest	24.3	23.7	37.6	7.6	13.9	65.4	9.8	46	82
Second	14.9	15.6	34.5	7.7	20.0	54.2	12.5	82	76
Middle	18.4	16.5	26.7	4.0	14.1	62.3	21.4	71	70
Fourth	23.0	23.2	35.6	3.6	21.1	42.9	15.5	125	131
Highest	30.3	24.1	37.9	7.5	9.8	43.7	17.5	355	488
Total	25.4	22.1	35.9	6.5	13.9	48.3	16.4	679	847

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

9.2 TETANUS TOXOID INJECTIONS

Neonatal tetanus is a leading cause of neonatal deaths in Ethiopia and other developing countries where a high proportion of deliveries are conducted at home or in other places where hygienic conditions do not exist. Tetanus toxoid (TT) immunisation is given to pregnant women to prevent neonatal tetanus. If a woman has received no previous TT injections, she needs two doses of TT during pregnancy for full protection. However, if a woman was immunised before she became pregnant, she may require one injection or not require any TT injections during pregnancy, depending on the number of injections she has already received and the timing of the last injection. For a woman to have lifetime protection, a total of five doses are required.

To assess the status of tetanus vaccination coverage, women who gave birth during the five years before the survey were asked if they had received tetanus toxoid injections during the pregnancy for their most recent birth, and if so, how many. Women who did not receive two or more tetanus

toxoid vaccinations during this pregnancy were then asked about tetanus toxoid vaccinations they may have received prior to this pregnancy. Table 9.5 presents the results.

Thirty-four percent of women with a birth in the five years preceding the survey received two or more tetanus toxoid injections during their last pregnancy, and 48 percent of mothers were protected for their last birth. In the 2011 EDHS mothers age 20-34 were more likely (35 percent) to have received two or more tetanus injections during their last pregnancy than mothers under age 20 or 35-49 (both 30 percent). Mothers in Addis Ababa were most likely to have received two or more tetanus toxoid injections (72 percent) and to have had their last birth protected against neonatal tetanus (82 percent), while mothers in Affar were least likely (22 and 27 percent, respectively).

Education and wealth have a positive effect on whether women receive tetanus toxoid injections. For example, 62 percent of mothers with more than secondary education received at least two injections during their last pregnancy compared with 29 percent of mothers with no education. Also, 52 percent of mothers in the highest wealth quintile received at least two doses of tetanus toxoid injection compared with 24 percent of mothers in the lowest wealth quintile. The pattern is similar for protection against neonatal tetanus.

Table 9.5 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Weighted number of mothers	Unweighted number of mothers
Mother's age at birth				
<20	29.7	43.0	954	1,028
20-34	35.4	49.8	5,630	5,484
35-49	29.6	45.7	1,324	1,252
Birth order				
1	35.5	49.5	1,399	1,477
2-3	35.3	49.2	2,462	2,419
4-5	34.1	49.7	1,814	1,778
6+	30.8	45.4	2,233	2,090
Residence				
Urban	52.0	67.5	1,188	1,513
Rural	30.5	44.9	6,720	6,251
Region				
Tigray	31.8	68.0	530	847
Affar	22.1	26.7	78	714
Amhara	29.1	43.2	1,991	965
Oromiya	32.9	45.9	3,116	1,100
Somali	28.1	33.7	198	559
Benishangul-Gumuz	33.8	48.1	92	674
SNNP	37.7	50.8	1,634	1,053
Gambela	49.0	58.4	31	608
Harari	56.6	69.5	19	440
Addis Ababa	72.3	82.3	193	348
Dire Dawa	51.1	58.7	26	456
Education				
No education	28.7	40.8	5,270	5,184
Primary	41.8	60.5	2,270	2,095
Secondary	54.8	78.1	226	312
More than secondary	61.7	82.5	142	173
Wealth quintile				
Lowest	23.9	36.6	1,739	2,279
Second	29.6	43.2	1,696	1,354
Middle	30.8	45.7	1,628	1,241
Fourth	36.6	51.9	1,493	1,229
Highest	52.3	68.8	1,351	1,661
Total	33.8	48.3	7,908	7,764

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

9.3 PLACE OF DELIVERY

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death or serious illness of the mother and/or the newborn baby. An important component of efforts to reduce health risks to mothers and children is increasing the proportion of babies that are delivered in health facilities. Table 9.6 presents the percent distribution of all live births in the five years preceding the survey by place of delivery.

Ten percent of births in Ethiopia are delivered at a health facility—9 percent in a public facility and 1 percent in a private facility. Nine women in every ten deliver at home. The percentage of deliveries in a health facility doubled from 5 percent the 2005 EDHS, while home deliveries decreased slightly from 94 percent to the current level of 90 percent. First births are much more likely than births orders six or higher to be delivered in a health facility (21 percent versus 4 percent). Delivery in a health facility is more common among births to mothers age 20-34, births to mothers who had at least four ANC visits, and births to highly educated mothers and mothers in the highest wealth quintiles. Urban births are notably more likely than rural births to be delivered in a health facility (50 percent versus 4 percent). The percentage of births delivered in health facility ranges from less than 10 percent in SNNP, Affar, Oromiya, Somalia, and Benishangul-Gumuz regions to 82 percent in Addis Ababa.

Table 9.6 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Ethiopia 2011

Background characteristic	Health facility		Home	Other	Missing	Total	Percentage delivered in a health facility	Weighted number of births	Unweighted number of births
	Public sector	Private sector							
Mother's age at birth									
<20	8.9	0.7	89.1	0.8	0.4	100.0	9.6	1,538	1,647
20-34	9.2	1.5	88.9	0.4	0.0	100.0	10.7	8,663	8,425
35-49	6.1	0.3	93.3	0.1	0.2	100.0	6.4	1,672	1,582
Birth order									
1	18.6	2.4	77.9	0.8	0.3	100.0	21.0	2,262	2,303
2-3	9.4	1.7	88.4	0.4	0.0	100.0	11.1	3,694	3,717
4-5	5.7	0.3	93.6	0.3	0.0	100.0	6.1	2,728	2,678
6+	3.5	0.5	95.5	0.2	0.2	100.0	4.1	3,188	2,956
Antenatal care visits[1]									
None	2.8	0.2	96.6	0.3	0.1	100.0	3.0	4,517	4,266
1-3	13.1	1.3	85.3	0.3	0.0	100.0	14.4	1,856	1,766
4+	29.2	5.1	65.1	0.5	0.0	100.0	34.4	1,508	1,705
Residence									
Urban	43.1	6.7	49.9	0.2	0.1	100.0	49.8	1,528	1,986
Rural	3.7	0.4	95.4	0.5	0.1	100.0	4.1	10,344	9,668
Region									
Tigray	10.8	0.8	87.8	0.5	0.0	100.0	11.6	753	1,202
Affar	6.6	0.3	92.8	0.2	0.1	100.0	6.8	121	1,130
Amhara	9.6	0.6	89.3	0.4	0.1	100.0	10.2	2,656	1,294
Oromiya	7.0	1.0	91.5	0.4	0.1	100.0	8.0	5,014	1,761
Somali	6.5	1.1	92.4	0.0	0.0	100.0	7.6	364	1,027
Benishangul-Gumuz	7.9	1.2	81.9	8.7	0.3	100.0	9.1	140	1,020
SNNP	5.6	0.7	93.5	0.1	0.2	100.0	6.2	2,494	1,614
Gambela	23.4	4.1	71.6	0.4	0.4	100.0	27.5	40	851
Harari	27.5	4.9	67.3	0.3	0.0	100.0	32.4	29	659
Addis Ababa	62.3	20.1	17.2	0.0	0.5	100.0	82.3	222	400
Dire Dawa	34.4	5.3	60.0	0.0	0.3	100.0	39.7	39	696
Mother's education									
No education	4.4	0.3	94.7	0.4	0.1	100.0	4.7	8,227	8,142
Primary	13.4	1.5	84.6	0.3	0.1	100.0	14.9	3,211	2,930
Secondary	54.3	15.3	29.4	0.8	0.2	100.0	69.6	266	386
More than secondary	58.2	17.3	23.0	1.5	0.0	100.0	75.5	168	196
Wealth quintile									
Lowest	2.0	0.0	97.3	0.5	0.1	100.0	2.0	2,710	3,625
Second	3.1	0.1	96.2	0.3	0.3	100.0	3.2	2,658	2,114
Middle	2.9	0.2	96.2	0.6	0.1	100.0	3.1	2,437	1,872
Fourth	6.0	0.8	92.7	0.3	0.1	100.0	6.9	2,272	1,870
Highest	38.5	6.5	54.7	0.3	0.1	100.0	45.0	1,795	2,173
Total	8.7	1.2	89.5	0.4	0.1	100.0	9.9	11,872	11,654

Note: Total includes 27 cases with missing information on ANC visits.
[1] Includes only the most recent birth in the 5 years preceding the survey

9.4 ASSISTANCE DURING DELIVERY

The type of assistance a woman receives during childbirth has important health consequences for both mother and child. In addition, the proportion of births attended by skilled providers is a measure of the health system's effectiveness, accessibility, and quality of care. Delivery assisted by skilled providers is the most important proven intervention in reducing maternal mortality and one of the MDG indicators to track national effort towards safe motherhood.

Table 9.7 shows the percent distribution of births in the five years preceding the survey by type of assistance during delivery, according to women's background characteristics. Ten percent of births were assisted by a skilled provider—4 percent by a doctor and 7 percent by a nurse or midwife. Less than 1 percent of births were assisted by a HEW, and 57 percent of births were assisted by a relative, or some other person. Twenty-eight percent of births were assisted by a traditional birth attendant, while 4 percent of births were unattended. Skilled assistance at delivery increased from 6 percent to 10 percent in the last six years.

Skilled providers were most likely to attend births to mothers age 20-34 (11 percent) and first-order births (21 percent). Not surprisingly, skilled providers attended an overwhelming majority of births delivered in a health facility compared with births delivered elsewhere. Also, skilled providers attended 51 percent of births in urban areas compared with 4 percent of births in rural areas. Conversely, in rural areas the most common birth attendant was a relative or other person. Regional differences in delivery assistance are large. The proportion of births assisted by a skilled provider ranged from 6 percent in the SNNP region to 84 percent in Addis Ababa. Highly educated mothers were most likely to have their births assisted by a skilled provider (74 percent), as were mothers in the highest wealth quintile (46 percent).

Less than 2 percent of births were delivered by caesarean section. C-sections were most likely to take place in a health facility, in urban areas, among highly educated mothers, and in the wealthiest quintiles.

Table 9.7 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of birth assisted by a skilled provider and percentage delivered by caesarean section, according to background characteristics, Ethiopia 2011

Background characteristic	Person providing assistance during delivery								Total	Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Weighted number of births	Un-weighted number of births
	Doctor	Nurse/ midwife	HEW	Traditional birth attendant	Voluntary community health worker (VCHW)	Relative/ Other	No one	Missing					
Mother's age at birth													
<20	2.6	7.0	1.1	30.7	0.1	54.7	3.4	0.4	100.0	9.6	1.3	1,538	1,647
20-34	4.0	6.9	0.7	28.0	0.2	56.5	3.5	0.1	100.0	10.9	1.6	8,663	8,425
35-49	1.6	4.3	0.7	28.4	0.4	58.8	5.6	0.2	100.0	5.9	1.3	1,672	1,582
Birth order													
1	8.6	12.1	1.3	27.4	0.2	47.6	2.5	0.3	100.0	20.8	4.2	2,262	2,303
2-3	3.7	7.9	0.7	27.4	0.3	56.9	3.0	0.1	100.0	11.7	1.3	3,694	3,717
4-5	1.8	4.3	0.9	28.1	0.4	61.0	3.3	0.1	100.0	6.1	0.9	2,728	2,678
6+	1.0	2.8	0.4	30.6	0.1	58.9	5.9	0.2	100.0	3.9	0.3	3,188	2,956
Place of delivery													
Health facility	34.6	62.2	2.2	0.6	0.1	0.4	0.0	0.0	100.0	96.7	14.9	1,181	1,571
Elsewhere	0.0	0.4	0.6	31.5	0.3	62.9	4.2	0.0	100.0	0.4	0.0	10,678	10,063
Residence													
Urban	19.8	30.9	0.8	21.9	0.4	25.0	1.1	0.0	100.0	50.8	8.1	1,528	1,986
Rural	1.1	2.9	0.8	29.4	0.2	61.3	4.2	0.2	100.0	4.0	0.5	10,344	9,668
Region													
Tigray	2.6	9.0	0.9	12.5	0.3	74.1	0.6	0.0	100.0	11.6	2.9	753	1,202
Affar	2.8	4.2	0.0	75.9	0.1	16.5	0.2	0.1	100.0	7.2	2.0	121	1,130
Amhara	2.5	7.6	0.4	28.5	0.1	59.5	1.2	0.2	100.0	10.1	1.3	2,656	1,294
Oromiya	2.2	6.0	0.8	33.7	0.1	52.3	4.9	0.1	100.0	8.1	0.5	5,014	1,761
Somali	3.5	4.7	0.0	81.2	0.0	9.9	0.5	0.0	100.0	8.4	0.7	364	1,027
Benishangul-Gumuz	1.9	7.0	1.3	27.9	0.0	39.5	22.0	0.5	100.0	8.9	1.3	140	1,020
SNNP	1.9	4.1	1.2	14.2	0.8	72.5	5.1	0.1	100.0	6.1	1.2	2,494	1,614
Gambela	8.1	18.9	0.5	12.1	0.3	53.0	6.4	0.4	100.0	27.4	8.7	40	851
Harari	16.4	16.2	0.2	63.0	0.0	1.7	2.6	0.0	100.0	32.5	7.0	29	659
Addis Ababa	60.4	23.5	0.0	5.9	0.1	8.4	1.5	0.2	100.0	83.9	21.8	222	400
Dire Dawa	17.7	22.6	0.2	49.7	0.2	7.0	2.1	0.5	100.0	40.3	6.2	39	696
Mother's education													
No education	1.2	3.4	0.7	29.5	0.2	60.8	4.1	0.2	100.0	4.6	0.4	8,227	8,142
Primary	5.6	9.7	1.0	27.9	0.2	52.0	3.5	0.1	100.0	15.4	2.4	3,211	2,930
Secondary	30.6	41.5	0.1	13.8	0.0	13.3	0.5	0.0	100.0	72.4	14.6	266	386
More than secondary	29.6	44.4	3.4	11.0	1.5	8.5	1.5	0.0	100.0	74.1	13.7	168	196
Wealth quintile													
Lowest	0.5	1.2	0.4	27.9	0.3	65.7	3.9	0.1	100.0	1.7	0.1	2,710	3,625
Second	0.7	2.2	0.9	29.2	0.3	62.1	4.2	0.3	100.0	2.9	0.6	2,658	2,114
Middle	0.8	2.4	0.9	30.4	0.2	61.8	3.3	0.2	100.0	3.2	0.6	2,437	1,872
Fourth	1.8	5.6	1.1	32.0	0.1	55.2	4.2	0.0	100.0	7.4	0.5	2,272	1,870
Highest	17.7	27.9	0.6	20.6	0.4	29.6	3.0	0.0	100.0	45.6	7.2	1,795	2,173
Total	3.5	6.5	0.8	28.4	0.2	56.6	3.8	0.1	100.0	10.0	1.5	11,872	11,654

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes 14 cases with missing information on place of delivery.
HEW = Health Extension Worker
[1] Skilled provider includes doctor, nurse, and midwife.

9.5 REASONS FOR NOT DELIVERING IN A HEALTH FACILITY

Women who did not deliver at a health facility were asked the reasons they did not deliver in a health facility. Table 9.8 shows that more than six women in ten (61 percent) stated that a health facility delivery was not necessary, and three in every ten (30 percent) stated that it was not customary. Fourteen percent of women said that the health facility was either too far or that they did not have transportation. Rural woman were more likely than urban women to report that health facility deliveries are not customary, at 31 percent versus 17 percent, or that health facilities were too far or they had no transportation, at 15 percent versus 8 percent.

Table 9.8 Reasons for not delivering in a health facility

Percent distribution of last live births in the two years preceding the survey by reason for not delivering in a health facility, according to background characteristics, Ethiopia 2011

Background characteristic	Cost too much	Facility not open	Too far/no transportation	Poor quality service	No female provider	Husband/ family did not allow	Not necessary	Not customary	Other	Weighted number of women	Unweighted number of women
Age											
< 20	1.7	1.8	12.4	0.3	0.1	1.8	56.3	37.6	3.7	361	359
20-34	2.0	1.0	14.7	0.4	0.3	1.1	61.7	28.7	4.9	4,736	4,380
35-49	2.6	0.3	14.2	0.9	0.4	1.6	60.8	30.1	3.8	1,883	1,759
Residence											
Urban	4.7	1.4	7.7	1.0	0.2	2.9	65.7	16.5	7.8	560	569
Rural	1.9	0.8	15.0	0.5	0.4	1.1	60.8	30.7	4.2	6,420	5,929
Region											
Tigray	0.9	0.8	9.0	1.1	0.1	0.2	77.0	16.4	2.9	457	744
Affar	13.2	3.4	41.3	0.4	1.1	5.0	45.6	41.2	1.2	72	673
Amhara	2.1	0.5	10.4	0.5	0.5	1.0	56.3	35.9	5.9	1,774	880
Oromiya	2.3	1.2	18.2	0.6	0.1	1.6	63.6	28.9	4.0	2,830	996
Somali	9.0	1.4	35.9	1.5	2.7	2.0	23.1	35.6	5.0	179	509
Benishangul-Gumuz	2.6	2.9	22.1	0.5	0.3	7.9	31.3	41.4	5.6	82	620
SNNP	1.0	0.3	9.2	0.3	0.4	0.5	64.8	26.0	4.0	1,504	984
Gambela	2.8	3.6	26.8	0.2	0.3	2.7	42.4	14.5	14.4	22	495
Harari	2.0	0.0	3.8	0.8	0.0	0.3	83.1	20.6	3.7	12	275
Addis Ababa	3.3	0.0	17.6	1.0	0.0	0.0	60.2	8.3	12.8	35	60
Dire Dawa	8.1	1.1	16.9	0.8	0.8	0.6	51.6	27.4	9.1	14	262
Education											
No education	2.4	0.7	15.3	0.5	0.4	1.1	58.4	31.8	4.3	5,015	4,824
Primary	1.5	1.2	12.4	0.7	0.2	1.4	67.5	24.1	5.0	1,865	1,572
Secondary	0.3	0.3	4.6	0.0	0.0	4.8	80.5	21.9	3.6	66	77
More than secondary	(0.4)	(0.0)	(8.3)	(0.0)	(0.0)	(0.0)	(83.9)	(9.6)	(10.4)	35	25
Wealth quintile											
Lowest	2.8	0.2	17.0	0.4	0.2	0.8	55.3	34.4	4.3	1,696	2,194
Second	1.2	1.1	13.7	0.8	0.6	1.3	62.6	30.0	3.0	1,640	1,299
Middle	2.2	0.9	16.0	0.4	0.5	0.7	60.2	30.1	6.0	1,574	1,192
Fourth	2.1	1.1	13.0	0.2	0.3	1.7	63.4	28.0	3.9	1,382	1,118
Highest	2.6	1.2	9.2	1.1	0.2	2.2	69.9	17.8	6.5	689	695
Total	2.2	0.8	14.4	0.5	0.3	1.2	61.2	29.5	4.5	6,980	6,498

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

9.6 POSTNATAL CARE

A large proportion of maternal and neonatal deaths occur during the 48 hours after delivery, and these first two days following delivery are critical for monitoring complications arising from the delivery. Thus, postnatal care is important for both the mother and the child not only to treat complications arising from the delivery, but also to provide the mother with important information on how to care for herself and her child. Safe motherhood programmes have recently increased emphasis on the importance of postnatal care, recommending that all women receive a health checkup within two days of delivery. To assess the extent of postnatal care utilization, the 2011 EDHS asked respondents whether they had received a health checkup after the delivery, the timing of the first check, and the type of health provider for their last birth in the two years preceding the survey. Table 9.9 presents this information by women's background characteristics.

The level of postnatal care coverage is extremely low in Ethiopia. The great majority of women (92 percent) with a live birth in the preceding five years did not receive a postnatal checkup. Among women who received a postnatal checkup, 4 percent were examined within 4 hours of delivery, 2 percent within 4-23 hours, 1 percent within 1-2 days, and 2 percent within 3-41 days of delivery. In total, 7 percent of women received postnatal care within two days, as recommended.

Table 9.9 Timing of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, according to background characteristics, Ethiopia 2011

Background characteristic	Time after delivery of mother's first postnatal checkup								Percentage of women with a postnatal checkup in the first two days after birth	Weighted number of women	Unweighted number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing	No postnatal checkup[1]	Total			
Mother's age at birth											
<20	4.2	0.5	0.9	0.1	1.7	0.1	92.4	100.0	5.6	557	574
20-34	4.3	2.4	0.7	0.2	1.4	0.2	90.8	100.0	7.4	3,198	3,092
35-49	1.9	2.0	0.5	0.0	1.2	0.1	94.3	100.0	4.3	697	618
Birth order											
1	9.5	4.1	1.3	0.3	1.4	0.3	83.1	100.0	14.9	800	809
2-3	4.0	2.2	0.7	0.2	1.0	0.3	91.5	100.0	6.9	1,449	1,390
4-5	2.5	0.9	0.4	0.2	1.4	0.0	94.6	100.0	3.8	1,008	992
6+	1.3	1.6	0.5	0.0	1.9	0.0	94.6	100.0	3.4	1,195	1,093
Place of delivery											
Health facility	31.6	14.5	4.3	0.9	1.6	1.3	45.8	100.0	50.4	517	653
Elsewhere	0.3	0.5	0.2	0.1	1.4	0.0	97.5	100.0	0.9	3,936	3,631
Residence											
Urban	21.7	9.0	1.4	0.5	1.9	0.6	64.9	100.0	32.1	607	751
Rural	1.1	1.0	0.6	0.1	1.3	0.1	95.7	100.0	2.7	3,846	3,533
Region											
Tigray	8.0	4.4	0.7	0.4	2.8	0.4	83.3	100.0	13.1	273	434
Affar	2.2	1.0	2.8	0.8	3.0	1.1	89.2	100.0	6.0	40	378
Amhara	3.5	1.2	0.4	0.2	1.7	0.0	93.0	100.0	5.1	983	476
Oromiya	2.9	1.6	0.5	0.0	1.1	0.2	93.8	100.0	5.0	1,917	681
Somali	1.8	2.3	1.3	0.6	1.4	0.0	92.6	100.0	5.4	128	358
Benishangul-Gumuz	5.3	0.8	0.5	0.5	2.8	0.9	89.3	100.0	6.5	51	373
SNNP	3.2	1.4	0.8	0.2	1.1	0.0	93.2	100.0	5.5	926	600
Gambela	14.7	0.8	3.3	1.3	1.2	0.0	78.7	100.0	18.8	15	317
Harari	19.2	6.3	2.9	2.6	2.8	0.3	65.9	100.0	28.4	11	246
Addis Ababa	22.7	21.3	3.7	1.6	2.2	2.2	46.3	100.0	47.7	95	167
Dire Dawa	12.2	3.9	2.5	0.0	2.3	0.9	78.1	100.0	18.7	14	254
Education											
No education	1.5	1.0	0.5	0.2	1.2	0.0	95.6	100.0	3.0	2,956	2,845
Primary	5.6	2.6	0.7	0.2	2.0	0.4	88.6	100.0	8.8	1,296	1,184
Secondary	22.9	16.4	3.2	0.7	1.0	0.9	54.8	100.0	42.6	136	173
More than secondary	39.6	13.2	1.8	0.6	0.0	1.9	42.9	100.0	54.6	65	82
Wealth quintile											
Lowest	0.9	1.5	0.5	0.2	1.0	0.0	95.9	100.0	2.8	1,047	1,311
Second	1.0	0.6	0.3	0.0	1.7	0.0	96.4	100.0	1.9	988	782
Middle	1.0	0.0	0.2	0.1	1.6	0.0	97.2	100.0	1.2	917	704
Fourth	1.9	1.1	1.7	0.3	0.7	0.4	93.9	100.0	4.7	784	656
Highest	18.4	8.8	1.0	0.4	2.4	0.5	68.7	100.0	28.1	717	831
Total	3.9	2.1	0.7	0.2	1.4	0.2	91.5	100.0	6.7	4,453	4,284

[1] Includes women who received a checkup after 41 days.

Differences by women's background characteristics are pronounced. Women under age 35, women who delivered their first live birth, urban mothers, those residing in Addis Ababa, and mothers with higher levels of education, and those in the highest wealth quintiles were most likely to have received a postnatal checkup in the first two days after childbirth.

Table 9.10 shows the type of health care provider of the first postnatal checkup according to women's background characteristics. Six percent of women received postnatal care from a doctor, nurse, or midwife. Less than 1 percent of women received care from a HEW. Differentials by background characteristics of the mother are similar to the differences for postnatal care coverage in general. Women having their first baby were more likely than women with a higher birth order to receive postnatal care from a doctor, nurse, or midwife. Thirty-two percent of women in urban areas received a postnatal checkup from a health professional compared with 2 percent of rural women. A higher proportion of women living in Addis Ababa (48 percent), women with more than secondary education (52 percent), and women in the highest wealth quintile (28 percent) received their first postnatal check-up from a doctor, nurse, or midwife compared with their counterparts.

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

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check in the two days after the last live birth, according to background characteristics, Ethiopia 2011

Background characteristic	Type of health provider of mother's first postnatal checkup		No postnatal checkup in the first two days after birth[1]	Total	Weighted number of women	Unweighted number of women
	Doctor/ nurse/ midwife	HEW				
Mother's age at birth						
<20	4.7	0.9	94.4	100.0	557	574
20-34	7.1	0.3	92.6	100.0	3,198	3,092
35-49	3.7	0.6	95.7	100.0	697	618
Birth order						
1	13.9	1.0	85.1	100.0	800	809
2-3	6.6	0.3	93.1	100.0	1,449	1,390
4-5	3.7	0.1	96.2	100.0	1,008	992
6+	3.0	0.4	96.6	100.0	1,195	1,093
Place of delivery						
Health facility	49.9	0.5	49.6	100.0	517	653
Elsewhere	0.5	0.4	99.1	100.0	3,936	3,631
Residence						
Urban	32.0	0.0	67.9	100.0	607	751
Rural	2.2	0.5	97.3	100.0	3,846	3,533
Region						
Tigray	12.3	0.8	86.9	100.0	273	434
Affar	5.9	0.1	94.0	100.0	40	378
Amhara	5.1	0.0	94.9	100.0	983	476
Oromiya	4.4	0.6	95.0	100.0	1,917	681
Somali	5.1	0.0	94.6	100.0	128	358
Benishangul-Gumuz	6.5	0.0	93.5	100.0	51	373
SNNP	5.0	0.5	94.5	100.0	926	600
Gambela	18.8	0.0	81.2	100.0	15	317
Harari	24.2	0.0	71.6	100.0	11	246
Addis Ababa	47.7	0.0	52.3	100.0	95	167
Dire Dawa	18.7	0.0	81.3	100.0	14	254
Education						
No education	2.8	0.3	97.0	100.0	2,956	2,845
Primary	8.2	0.6	91.2	100.0	1,296	1,184
Secondary	42.6	0.0	57.4	100.0	136	173
More than secondary	52.3	2.3	45.4	100.0	65	82
Wealth quintile						
Lowest	2.8	0.1	97.2	100.0	1,047	1,311
Second	1.3	0.7	98.1	100.0	988	782
Middle	1.1	0.1	98.8	100.0	917	704
Fourth	3.7	1.0	95.3	100.0	784	656
Highest	27.7	0.3	71.9	100.0	717	831
Total	6.3	0.4	93.3	100.0	4,453	4,284

HEW = Health Extension Worker
[1] Includes women who received a checkup after 41 days.

9.6 PROBLEMS IN ACCESSING HEALTH CARE

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

Where health services are present, there are many factors—social, cultural, and economic—that cause women not to use the services, particularly when the health concern is related to sexual or reproductive matters. The 2011 EDHS asked women whether each of the following factors would be a big problem or not a big problem in seeking health care for themselves: getting permission to go for treatment, getting money for treatment, distance to health facility, not wanting to go alone, having to take transport, concern there may not be a female provider or any health provider, concern that drugs may not be available, and workload inside and outside the house. Table 9.11 shows the results by women's characteristics.

Ninety-four percent of women reported that they have at least one of the specified problems when accessing health care for themselves. The most important barrier to women's access to health services is taking transport to a facility (71 percent), followed by lack of money (68 percent), and distance to a health facility (66 percent). More than six women in every ten (61 percent) were concerned about their workload inside and outside the home. Also, about six in every ten (58 percent) were concerned that drugs may not be available at the facility or said that they did not want to go alone to a health facility. More than half of women were concerned that there may not be a health provider at the health facility (56 percent) or that there may not be a female health provider (53 percent). Twenty-nine percent expressed concern about getting permission to go for treatment.

Rural women reported the most problems with access to health care. Among regions, women in Somali (98 percent) and Gambela (97 percent) were most likely to report at least one problem when accessing health care for themselves, while women in Addis Ababa were the least likely (74 percent). Women with more than secondary education (72 percent) and women in the highest wealth quintile (84 percent) were least likely to report at least one problem when accessing health care for themselves.

Table 9.11 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Ethiopia 2011

Background characteristic	Problems in accessing health care										Weighted number of women	Un-weighted number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	Having to take transport	Concern there may not be a female health provider	Concern there may not be a health provider	Concern there may not be drugs	Workload inside/ outside home	At least one problem accessing health care		
Age												
< 20	29.7	60.5	61.7	54.0	65.9	50.2	52.4	56.0	53.2	91.8	4,009	3,835
20-34	28.7	67.2	65.7	60.0	70.9	53.8	55.7	58.3	62.3	93.6	8,132	8,307
35-49	28.7	75.4	71.2	59.2	76.1	54.9	58.0	59.7	66.3	95.4	4,374	4,373
Number of living children												
0	27.5	59.6	58.5	52.6	62.7	49.2	51.3	54.4	52.0	90.4	5,708	5,771
1-2	28.0	66.4	63.9	60.0	70.2	52.0	56.4	58.7	62.0	93.0	3,987	4,257
3-4	29.3	73.9	70.5	63.8	75.9	57.2	57.2	60.8	67.8	96.4	3,219	3,151
5+	31.7	76.6	77.1	60.7	81.0	57.4	59.6	60.8	68.8	97.0	3,601	3,336
Marital status												
Never married	27.8	59.6	56.9	52.2	61.6	48.3	51.2	54.4	51.4	90.1	4,469	4,413
Married or living together	30.8	69.8	71.6	60.7	76.0	55.9	57.8	60.2	65.5	95.0	10,287	10,204
Divorced/separated/ widowed	20.4	76.1	58.3	59.8	66.5	50.1	53.2	55.2	60.7	94.9	1,758	1,898
Employed last 12 months												
Not employed	31.8	68.4	67.5	56.4	71.8	55.9	57.0	59.8	60.4	93.1	6,980	7,982
Employed for cash	26.2	67.0	61.9	58.2	67.7	50.9	54.2	56.9	63.3	92.8	6,015	6,054
Employed not for cash	27.6	67.4	70.8	62.3	75.5	51.8	54.7	56.6	58.9	96.2	3,508	2,469
Residence												
Urban	17.0	51.6	31.4	40.5	38.4	37.9	42.3	44.5	46.1	83.4	3,947	5,329
Rural	32.6	72.8	77.1	63.9	81.3	58.1	59.6	62.4	65.9	96.9	12,568	11,186
Region												
Tigray	5.8	46.6	52.1	48.9	52.4	31.9	47.3	51.1	37.1	85.0	1,104	1,728
Affar	38.6	61.8	75.0	62.0	77.7	74.5	76.6	77.1	67.8	90.7	145	1,291
Amhara	20.0	65.8	58.9	51.3	66.4	48.8	42.7	45.9	57.9	95.7	4,433	2,087
Oromiya	37.1	71.9	75.2	68.1	79.7	56.1	61.5	64.4	67.6	95.7	6,011	2,135
Somali	50.8	74.8	71.6	63.0	77.9	78.8	76.7	78.2	72.0	97.6	329	914
Benishangul-Gumuz	32.0	61.2	74.5	66.2	75.0	73.0	75.0	76.6	67.4	96.1	174	1,259
SNNP	36.0	76.6	74.7	60.1	77.6	61.2	65.1	66.9	68.3	95.1	3,236	2,034
Gambela	29.8	63.7	70.4	61.5	76.3	67.1	73.3	77.3	58.6	97.3	69	1,130
Harari	16.8	48.8	45.2	42.4	49.9	57.0	60.6	64.0	54.0	82.9	49	1,101
Addis Ababa	11.1	44.8	25.6	29.4	33.3	35.5	36.2	36.0	32.6	74.3	896	1,741
Dire Dawa	28.0	53.1	49.1	55.0	55.6	54.4	68.1	69.5	57.2	87.9	69	1,095
Education												
No education	32.7	77.3	75.7	63.0	80.8	58.3	59.3	61.3	67.0	97.2	8,394	8,278
Primary	28.2	63.0	62.8	58.4	67.2	51.5	54.4	57.7	59.2	93.2	6,276	5,858
Secondary	14.7	46.8	38.7	41.8	44.6	39.2	46.9	49.6	45.5	83.1	1,117	1,395
More than secondary	13.2	30.7	27.4	28.7	32.8	32.0	34.7	37.7	34.2	72.2	728	984
Wealth quintile												
Lowest	32.7	78.1	80.6	63.6	84.2	60.2	60.8	63.8	67.3	97.5	2,986	3,711
Second	33.1	76.6	79.0	65.8	83.9	60.7	60.3	62.9	63.9	97.0	3,041	2,402
Middle	35.0	73.5	78.0	63.8	82.6	58.7	62.5	64.1	68.0	96.6	3,031	2,268
Fourth	31.6	67.2	71.0	63.6	74.4	53.9	55.2	58.5	66.5	97.1	3,215	2,505
Highest	16.8	50.3	34.8	41.3	41.9	38.7	43.6	46.0	46.0	83.7	4,242	5,629
Total	28.9	67.7	66.2	58.3	71.1	53.2	55.5	58.1	61.2	93.6	16,515	16,515

Note: Total includes 12 cases with missing information on employment in the last 12 months

CHILD HEALTH 10

Key Findings

- One in every four children age 12-23 months (24 percent) were fully vaccinated at the time of the survey, a 19 percent increase from the level reported in the 2005 EDHS.
- Seven percent of children under age five showed symptoms of acute respiratory infection (ARI) in the two weeks before the survey and for 27 percent of them advice or treatment was sought from a health care facility or provider.
- Seventeen percent of children under age 5 had a fever in the two weeks before the survey, and for one-fourth of them advice or treatment was sought from a health care facility or provider.
- Thirteen percent of children under age 5 had diarrhoea, and 3 percent had had diarrhoea with blood, in the two weeks before the survey.
- The proportion of children with diarrhoea for whom advice or treatment was sought from a health care provider increased from 13 percent in 2000 to 22 percent in 2005 and 32 percent in 2011.

This chapter presents findings on several areas of importance relating to child health; characteristics of the neonate (birth weight and size at birth), immunisation, and important childhood illnesses and their treatment. Information on treatment practices and contact with health services for children with three childhood illnesses (acute respiratory infection, fever, and diarrhoea), helps in the assessment of national programmes aimed at reducing mortality. The government of Ethiopia has formulated a number of strategies that provide a framework for improving child health. One of the priorities in the Health Sector Development Plan (HSDP) IV is improving child health, with a goal to reduce the under-five mortality rate to 68 per 1,000 live births and the infant mortality rate to 31 per 1,000 live births by 2015 (MOH, 2010).

10.1 CHILD'S SIZE AT BIRTH

A child's birth weight or size at birth is an important indicator of the child's vulnerability to the risk of childhood illnesses and the child's chances of survival. Children whose birth weight is less than 2.5 kilograms, or children reported to be "very small" or "smaller than average", have a higher than average risk of early childhood death. The 2011 EDHS questionnaire recorded birth weight, if available from written records or mother's recall, for all births in the five years preceding the survey. Because birth weight may not be known for many babies, and particularly for babies delivered at home and not weighed at birth, the mother's estimate of the baby's size at birth was also obtained. Although subjective, mothers' estimates can be a useful proxy for the weight of the child. Table 10.1 presents information on children's weight and size at birth.

Only 5 percent of children in Ethiopia are weighed at birth. This is not surprising because the majority of births do not take place in a health facility, and children are less likely to be weighed at birth in a non-institutional setting. Among children born in the five years before the survey with a reported birth weight, 11 percent weighed less than 2.5 kilograms. Low birth weight is more common among children of the youngest mothers, age less than 20 (13 percent) and older mothers, age 35-49 (17 percent), and children of birth order six and above (16 percent). The birth weight of a child also varies by place of residence. Seventeen percent of births in rural areas, compared with 9 percent in urban areas, have a reported birth weight less than 2.5 kg.

As noted, a mother's subjective assessment of the size of the baby at birth, in the absence of birth weight, may be useful. Mothers reported 21 percent of all live births in the five years preceding the survey to be very small and 9 percent as smaller than average. Children born to very young mothers (<20 years), first-order births, children of mothers with no education, and children born to mothers in the lowest wealth quintile were the most likely to be reported as very small. Nearly three children of every ten born to mothers residing in Affar (30 percent), Amhara (28 percent), Somali (26 percent), and Gambela (27 percent) were reported as very small at birth.

Table 10.1 Child's weight and size at birth

Percentage of live births in the five years preceding the survey with a reported birth weight; among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage of all births with a reported birth weight[1]	Percent distribution of births with a reported birth weight[1]					Percent distribution of all live births by size of child at birth						
		Less than 2.5 kg	2.5 kg or more	Total	Weighted number of births	Unweighted number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Weighted number of births	Unweighted number of births
Mother's age at birth													
<20	5.8	12.8	87.2	100.0	89	158	26.4	9.0	64.0	0.6	100.0	1,541	1,650
20-34	5.6	9.9	90.1	100.0	490	885	19.4	8.6	71.7	0.3	100.0	8,675	8,429
35-49	2.5	17.1	82.9	100.0	42	75	21.0	9.0	69.2	0.7	100.0	1,657	1,575
Birth order													
1	11.1	11.3	88.7	100.0	252	469	25.5	8.7	65.0	0.8	100.0	2,262	2,303
2-3	6.6	11.7	88.3	100.0	245	429	20.3	8.8	70.7	0.2	100.0	3,694	3,717
4-5	2.9	3.8	96.2	100.0	80	144	18.2	7.9	73.8	0.2	100.0	2,728	2,678
6+	1.4	15.7	84.3	100.0	44	76	19.3	9.2	70.9	0.6	100.0	3,188	2,956
Mother's smoking status													
Smokes cigarettes/tobacco	*	*	*	100.0	0	2	18.4	1.2	80.0	0.3	100.0	33	95
Does not smoke	5.2	10.7	89.3	100.0	620	1,116	20.5	8.7	70.3	0.4	100.0	11,838	11,552
Residence													
Urban	31.9	9.1	90.9	100.0	488	928	17.6	6.5	75.0	1.0	100.0	1,528	1,986
Rural	1.3	17.0	83.0	100.0	133	190	21.0	9.0	69.7	0.3	100.0	10,344	9,668
Region													
Tigray	8.1	10.1	89.9	100.0	61	85	21.1	10.8	67.7	0.4	100.0	753	1,202
Affar	(3.7)	(14.0)	(86.0)	100.0	5	30	30.3	10.2	59.4	0.1	100.0	121	1,130
Amhara	(3.2)	(11.2)	(88.8)	100.0	86	33	27.9	12.3	59.3	0.6	100.0	2,656	1,294
Oromiya	3.6	12.0	88.0	100.0	181	67	18.7	7.3	73.6	0.4	100.0	5,014	1,761
Somali	6.4	14.8	85.2	100.0	23	62	26.2	7.0	66.5	0.3	100.0	364	1,027
Benishangul-Gumuz	(5.3)	(7.2)	(92.8)	100.0	7	36	20.6	3.9	74.9	0.6	100.0	140	1,020
SNNP	(3.1)	(5.7)	(94.3)	100.0	79	42	15.2	7.6	77.0	0.2	100.0	2,494	1,614
Gambela	22.1	13.1	86.9	100.0	9	101	27.4	5.9	66.3	0.5	100.0	40	851
Harari	28.1	8.4	91.6	100.0	8	178	19.4	9.2	70.3	1.0	100.0	29	659
Addis Ababa	66.9	11.4	88.6	100.0	148	278	17.7	7.2	74.1	1.0	100.0	222	400
Dire Dawa	34.8	11.9	88.1	100.0	14	206	16.1	12.9	70.1	0.9	100.0	39	696
Mother's education													
No education	1.3	13.2	86.8	100.0	110	270	21.7	9.7	68.1	0.5	100.0	8,227	8,142
Primary	7.9	8.2	91.8	100.0	255	446	18.6	6.2	75.0	0.2	100.0	3,211	2,930
Secondary	49.7	11.5	88.5	100.0	132	240	14.6	8.6	75.6	1.2	100.0	266	386
More than secondary	73.0	13.3	86.7	100.0	123	162	10.4	5.0	82.6	2.0	100.0	168	196
Wealth quintile													
Lowest	(0.5)	(20.7)	(79.3)	100.0	13	48	24.7	9.9	65.0	0.4	100.0	2,710	3,625
Second	(0.7)	(11.5)	(88.5)	100.0	19	25	19.9	9.2	70.2	0.7	100.0	2,658	2,114
Middle	*	*	*	100.0	20	22	22.4	9.5	67.9	0.1	100.0	2,437	1,872
Fourth	2.4	16.8	83.2	100.0	54	78	17.5	8.1	74.1	0.3	100.0	2,272	1,870
Highest	28.7	10.2	89.8	100.0	515	945	16.4	5.7	77.2	0.7	100.0	1,795	2,173
Total	5.2	10.8	89.2	100.0	621	1,118	20.5	8.7	70.4	0.4	100.0	11,872	11,654

Note: Total includes 2 cases with missing information on mother's smoking status. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

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

10.2 VACCINATION COVERAGE

Immunisation coverage is one of the indicators used to monitor progress towards the achievement of MDG4 and the reduction of child morbidity and mortality, as it is one of the most cost-effective public health interventions for reaching these goals. In order to reduce child morbidity and mortality, the HSDP IV has initiated several activities. The major focus areas are strengthening routine immunisation, expansion of community services and facility-based Integrated Management of Neonatal and Childhood Illnesses (IMNCI), strengthening the Health Extension Program (HEP), and implementing locally relevant and effective child health interventions.

According to 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. The pentavalent vaccine DPT-HepB-Hib, introduced in 2007, has replaced the previous DPT vaccine. This new vaccine protects against diphtheria, pertussis (whooping cough), tetanus, hepatitis B, and Haemophilus influenzae type b. In Ethiopia, the vaccination policy calls for BCG vaccine given at birth or at first clinical contact, three doses of DPT-HepB-Hib vaccine given at approximately 4, 8, and 12 weeks of age, four doses of oral polio vaccine given approximately at 0-2, 4, 8, and 12 weeks of age, and measles vaccine given at or soon after reaching 9 months of age.

The 2011 EDHS collected information on vaccination coverage 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. When there was no vaccination card for the child or if a vaccine had not been recorded on the card as being given, the respondent was asked to recall the vaccines given to her child. Vaccinations reported on the vaccination card represent vaccines given by routine immunization services, while vaccines based on mother's recall usually include routine and other immunization services such as campaigns. Table 10.2 and Figure 10.1 show the percentage of children age 12-23 months who have received the various vaccinations by source of information, either 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. The third row of the table shows the proportion of children 12-23 months who were immunised at any age up to the time of the survey according to either the mother's report or the vaccination card, while the last row shows the proportion who were vaccinated by age 12 months, the age at which vaccination coverage should be complete.

Overall, 24 percent of children age 12-23 months were fully vaccinated at the time of the survey. While this represents a 19 percent increase from the level reported in the 2005 EDHS, the percentage of children who are fully vaccinated remains far below the goal of 66 percent coverage set in the HSDP IV (MOH, 2010). Data from the EDHS generally show vaccination coverage to be lower than data in the service statistics from the Ministry of Health. However, comparisons of data from various sources should consider differences in the sampling frame, design, sample size, representativeness of the sample, and selection methodology, as well as differences in the source of information, phrasing of questions, and reporting of data, all of which could help to explain these differences.

As for coverage for specific vaccines, 66 percent of children had received the BCG vaccine, and 56 percent had received the measles vaccine. A relatively high percentage of children received the first DPT dose (64 percent). However, only 37 percent went on to receive the third dose of DPT, reflecting a dropout rate of 43 percent. More than eight children of every ten (82 percent) received the first dose of polio, but only about four in ten (44 percent) received the third dose, reflecting a dropout rate of 46 percent. Even though DPT and polio vaccines are often routinely administered at the same time, polio coverage is higher than DPT coverage. This is primarily due to the success of the national immunisation day campaigns, during which polio vaccines are administered.

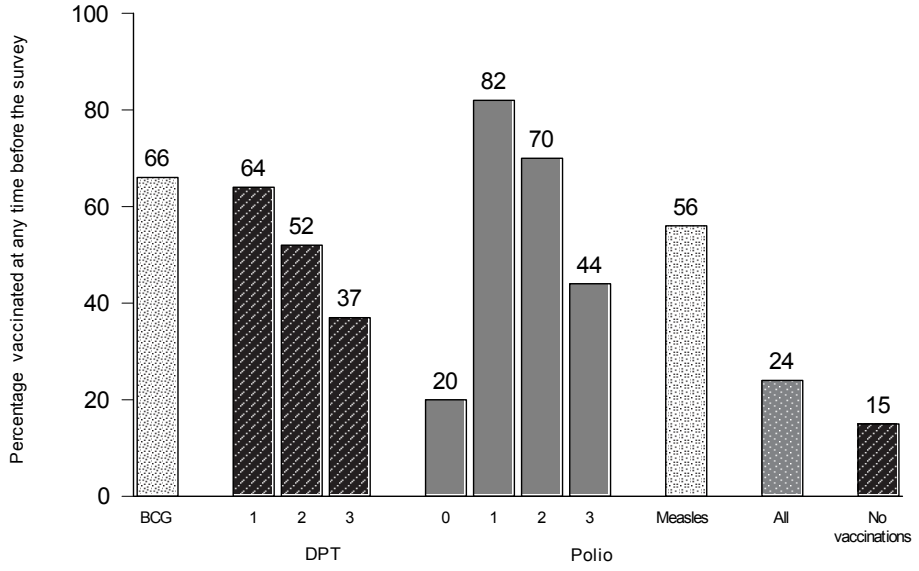
Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated 12 months of age, Ethiopia 2011

		DPT			Polio[1]					All basic vac-cinations[2]	No vac-cinations	Weighted number of children	Unweighted number of children
Source of information	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles				
Vaccinated at any time before survey													
Vaccination card	25.5	28.1	25.2	21.9	10.8	27.4	24.2	20.5	22.0	16.3	0.0	554	629
Mother's report	40.8	35.5	27.2	14.6	8.9	54.9	45.9	23.8	33.8	8.0	14.5	1,376	1,298
Either source	66.3	63.5	52.4	36.5	19.7	82.3	70.0	44.3	55.7	24.3	14.5	1,930	1,927
Vaccinated by 12 months of age[3]	65.2	62.2	50.3	34.7	19.7	80.9	67.4	43.1	49.3	21.7	16.0	1,930	1,927

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine excluding polio vaccine given at birth.
[3] For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

Figure 10.1 Percentage of Children Age 12-23 Months with Specific Vaccinations



Note: Based on vaccination cards and mother's reports
[1]BCG, measles, and three doses each of DPT and polio vaccine (excluding polio 0)

EDHS 2011

10.2.1 Vaccination Coverage by Background Characteristics

Table 10.3 presents vaccination coverage among children age 12-23 months by background characteristics. Female children are slightly more likely to be fully vaccinated (26 percent) than male children (23 percent). First births are more likely to be fully immunised (30 percent) than births of order six and higher (20 percent). Urban children are more than two times as likely as rural children to have all basic vaccinations (48 percent compared with 20 percent). Children whose mothers have secondary education are more likely to be fully immunised than those born to mothers with no education (57 and 20 percent, respectively). Similarly, 51 percent of children in the highest wealth quintile are fully immunised, compared with 17 percent of children in the lowest wealth quintile. There is a wide variation among regions in full vaccination coverage, ranging from 79 percent in Addis Ababa to 9 percent in Affar.

Table 10.3 shows that mothers had vaccination cards for only 29 percent of children age 12-23 months. The actual percentage of children who have a vaccination card may be higher because in some areas the cards are kept at the health centre and not by mothers. Mothers were most likely to show vaccination cards for female children, first births, children living in urban areas, children in Addis Ababa, children of mothers with at least some secondary education, and children of mothers in the highest wealth quintile.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Ethiopia 2011

Background characteristic	BCG	DPT			Polio[1]				Measles	All basic vac-cinations[2]	No vac-cinations	Percentage with a vaccination card seen	Weighted number of children	Un-weighted number of children
		DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3						
Sex														
Male	64.3	60.4	49.6	34.3	18.7	81.9	68.6	42.3	55.7	23.1	15.0	26.0	1,010	983
Female	68.5	67.0	55.4	38.8	20.9	82.8	71.6	46.5	55.7	25.7	14.1	31.6	920	944
Birth order														
1	71.1	68.4	57.1	40.7	29.7	82.9	71.0	46.5	61.0	29.8	13.5	35.1	358	364
2-3	68.6	63.5	51.3	37.5	22.8	84.1	69.6	43.7	52.6	24.2	12.3	30.2	624	637
4-5	66.5	63.3	54.0	37.0	12.7	84.2	76.0	49.8	61.7	24.5	14.3	27.1	450	444
6+	59.9	60.3	48.9	31.7	15.0	78.0	64.5	38.7	50.3	20.3	18.4	23.6	497	482
Residence														
Urban	81.6	79.8	73.9	60.5	53.7	89.1	82.2	65.7	79.6	48.1	6.1	54.8	274	350
Rural	63.8	60.9	48.8	32.5	14.1	81.2	68.0	40.8	51.8	20.4	15.9	24.4	1,656	1,577
Region														
Tigray	95.9	93.8	88.6	73.4	28.8	97.4	90.8	76.4	83.7	58.9	1.8	58.3	129	203
Affar	38.1	30.4	16.8	10.3	10.6	51.0	33.1	18.4	30.3	8.6	47.3	13.5	18	174
Amhara	67.7	68.6	53.6	38.4	18.1	86.5	76.6	47.0	62.0	26.3	9.6	31.1	446	222
Oromiya	57.4	50.4	41.0	26.8	15.5	77.0	61.5	35.8	45.9	15.6	19.4	22.9	811	290
Somali	45.7	41.4	34.9	25.3	18.9	59.8	48.4	27.9	39.5	16.6	35.4	23.7	51	150
Benishangul-Gumuz	68.7	73.3	62.2	41.7	36.4	85.5	75.8	45.7	67.2	23.6	13.0	28.9	23	170
SNNP	73.4	74.7	60.9	38.1	18.8	85.6	74.7	46.9	57.8	24.1	11.8	23.4	391	253
Gambela	72.0	72.4	48.3	27.6	35.7	87.4	73.4	41.5	51.7	15.5	7.7	23.7	8	151
Harari	72.9	76.4	66.7	51.8	30.4	92.0	81.6	59.6	64.7	34.1	8.0	37.1	5	115
Addis Ababa	97.5	94.5	92.1	89.2	87.3	97.5	92.8	81.7	93.5	78.7	2.5	79.9	43	81
Dire Dawa	87.5	90.2	86.4	75.3	43.8	96.3	89.9	79.3	79.9	58.6	3.0	52.1	7	118
Mother's education														
No education	60.1	56.8	45.6	31.2	14.4	78.9	64.7	40.2	49.9	20.1	18.1	24.4	1,307	1,293
Primary	75.4	75.0	62.1	42.6	23.7	87.4	77.7	49.1	63.8	28.3	8.5	34.5	522	512
Secondary	99.8	99.2	95.1	79.2	68.6	99.7	99.7	73.7	82.1	57.0	0.0	50.3	59	79
More than secondary	(99.4)	(81.5)	(81.5)	(63.9)	(66.2)	(99.5)	(99.4)	(73.0)	(99.5)	(57.7)	(0.5)	(58.0)	43	43
Wealth quintile														
Lowest	58.0	55.0	42.4	26.0	11.7	79.5	65.2	37.8	45.3	16.8	16.3	17.3	441	570
Second	65.8	56.5	45.2	29.4	10.5	81.3	70.3	39.9	52.0	18.2	16.3	18.8	419	338
Middle	61.8	60.1	47.1	31.0	12.9	78.5	65.6	41.5	52.0	18.2	17.6	26.5	394	312
Fourth	68.1	67.9	56.6	42.2	20.8	82.3	67.1	41.7	56.4	24.9	16.4	33.1	369	314
Highest	82.6	84.6	78.3	61.5	51.5	92.4	86.0	66.7	79.7	50.5	3.5	56.1	307	393
Total	66.3	63.5	52.4	36.5	19.7	82.3	70.0	44.3	55.7	24.3	14.5	28.7	1,930	1,927

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

10.3 TRENDS IN VACCINATION COVERAGE

One way of measuring trends in vaccination coverage is to compare coverage among children of different ages in the 2011 EDHS. Table 10.4 shows the percentage of children who have received vaccinations during the first year of life by current age. These data provide information on trends in vaccination coverage over the past five years.

There are notable changes in vaccination coverage over the past five years. The percentage of children who have received no vaccinations at all by 12 months of age has declined over the past four years from 24 percent among children age 48-59 months at the time of the survey to 16 percent among children age 12-23 months. The percentage of children fully immunised by age 12 months has increased only slightly, however, from 20 percent to 22 percent. Mothers showed vaccination cards for 29 percent of children age 12-23 months but for only 13 percent of children age 48-59 months. This may be because vaccination cards for older children have been discarded.

Table 10.4 Vaccinations in first year of life

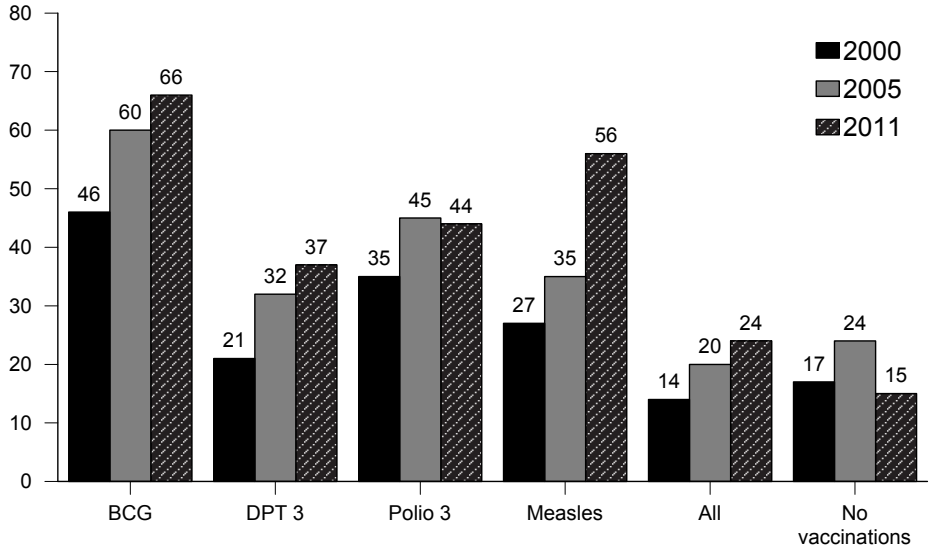
Percentage of children age 12-59 months at the time of the survey who received specific vaccines by 12 months of age, and percentage with a vaccination card, by current age of child, Ethiopia 2011

		DPT			Polio[1]									
Age in months	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Weighted number of children	Unweighted number of children
12-23	65.2	62.2	50.3	34.7	19.7	80.9	67.4	43.1	49.3	21.7	16.0	28.7	1,930	1,927
24-35	63.2	56.0	46.5	30.9	15.0	78.6	70.7	48.6	45.0	19.6	19.0	20.9	2,063	2,099
36-47	61.2	54.5	44.8	31.9	17.2	78.6	73.2	52.2	43.4	19.4	19.8	15.7	2,381	2,311
48-59	60.1	52.9	43.8	28.5	12.6	73.8	70.2	52.1	42.8	19.9	24.1	13.4	2,282	2,217
Total	62.8	56.6	46.5	31.8	16.0	78.7	70.9	50.1	45.7	20.2	19.1	19.2	8,657	8,554

Note: 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 during the first year of life is assumed to be the same as for children with a written record of vaccinations.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Figure 10.2 shows trends in vaccination coverage by comparing similarly collected data in the 2011 EDHS with data from the 2000 and 2005 EDHS. Vaccination coverage in Ethiopia has increased markedly over the past ten years. The percentage of children age 12-23 months who were fully vaccinated at the time of the survey increased from 14 percent in 2000 to 20 percent in 2005 and 24 percent in 2011—a 70 percent increase over ten years and a 19 percent increase in the five years preceding the 2011 survey. The percentage who had received none of the six basic vaccinations increased from 17 percent to 24 percent between 2000 and 2005 and then decreased to 15 percent in 2011. With the exception of polio 3, the percentage of children who received all the other vaccinations has increased in the five years before the 2011 survey.

Figure 10.2 **Trends in Vaccination Coverage During the First Year of Life Among Children 12-23 Months, Ethiopia 2000-2011**



EDHS 2000, 2005, 2011

10.4 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is among the leading causes of child morbidity and mortality in Ethiopia and throughout the world. Pneumonia is the most serious outcome of ARI in young children. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths that can result from pneumonia. The prevalence of symptoms 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 data are subjective (i.e., based on the mother's perception of illness) and not validated by a medical examination.

Table 10.5 shows the percentage of children under age five who experienced symptoms of ARI in the two weeks preceding the survey. Seven percent of children showed symptoms of ARI in the two weeks before the survey. Symptoms of ARI were the most common among children age 6-23 months (9 percent). Children of mothers who smoke were notably more likely to have symptoms of ARI than children of non-smokers (13 percent versus 7 percent). Symptoms of ARI were also remarkably less common among children in households that use electricity or gas as cooking fuel (2 percent) than among children in households that use other cooking fuels (7 percent, the highest percentage, occurring in households using wood/straw). A lower proportion of children in urban areas, children of mothers have more than secondary education and those in the wealthiest quintile have symptoms of ARI than do children in rural areas, children of mothers with no education, and those in the lowest wealth quintiles. The proportion of children with ARI symptoms ranges from 1 percent of children in Harari to 11 percent of children in Benishangul-Gumuz.

Mothers of 27 percent of children who had symptoms of ARI sought advice or treatment from a health facility or provider. Seven percent of children with ARI symptoms received antibiotics.

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, Ethiopia 2011

Background characteristic	Among children under age five:			Percentage for whom advice or treatment was sought from a health facility or provider[2]	Among children under age five with symptoms of ARI:		
	Percentage with symptoms of ARI[1]	Weighted number of children	Unweighted number of children		Percentage who received antibiotics	Weighted number of children	Unweighted number of children
Age in months							
<6	7.1	1,265	1,211	25.9	3.1	90	87
6-11	9.0	1,120	1,043	32.2	5.1	101	93
12-23	8.8	1,930	1,927	36.1	12.3	171	160
24-35	6.7	2,063	2,099	26.8	8.3	139	166
36-47	7.3	2,381	2,311	20.3	5.1	173	148
48-59	4.4	2,282	2,217	19.1	3.4	100	118
Sex							
Male	6.9	5,676	5,515	25.4	7.8	393	386
Female	7.1	5,366	5,293	28.7	5.8	380	386
Mother's smoking status							
Smokes cigarettes/tobacco	12.8	28	86	*	*	4	12
Does not smoke	7.0	11,012	10,716	27.1	6.8	769	760
Cooking fuel							
Electricity or gas	1.5	56	87	*	*	1	1
Kerosene	6.1	56	180	*	*	3	4
Charcoal	4.4	537	804	(80.3)	(4.8)	24	26
Wood/straw[3]	7.3	9,612	9,318	24.9	7.3	706	715
Animal dung	5.2	758	405	(26.6)	(0.0)	39	26
Residence							
Urban	4.8	1,436	1,865	46.9	0.7	69	100
Rural	7.3	9,606	8,943	25.0	7.4	703	672
Region							
Tigray	9.4	702	1,123	18.4	1.8	66	100
Affar	5.4	112	1,033	40.6	0.0	6	52
Amhara	6.4	2,478	1,203	29.4	6.0	159	80
Oromiya	7.0	4,665	1,637	23.4	9.9	328	116
Somali	8.8	339	951	18.7	2.1	30	75
Benishangul-Gumuz	10.6	127	925	42.9	7.6	13	97
SNNP	6.8	2,305	1,491	31.6	4.5	157	108
Gambela	9.2	37	782	52.5	10.9	3	83
Harari	1.3	27	616	*	*	0	8
Addis Ababa	3.4	214	386	*	*	7	10
Dire Dawa	6.7	37	661	(47.1)	(3.2)	2	43
Mother's education							
No education	7.2	7,611	7,521	24.6	6.4	551	570
Primary	6.6	3,012	2,727	27.7	7.2	200	184
Secondary	7.2	252	369	*	*	18	14
More than secondary	2.4	168	191	*	*	4	4
Wealth quintile							
Lowest	7.6	2,476	3,327	15.5	3.0	188	256
Second	6.1	2,444	1,950	25.2	7.8	148	124
Middle	8.6	2,277	1,738	22.1	5.7	197	152
Fourth	8.0	2,158	1,752	33.2	11.7	173	146
Highest	4.0	1,687	2,041	61.7	6.1	67	94
Total	7.0	11,042	10,808	27.0	6.8	773	772

Note: Total includes 6 cases with missing information on mother's smoking status. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related and/or by difficult breathing which was chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, rug vendor/store, shop, and traditional healer.
[3] Includes grass, shrubs, and crop residues.

10.5 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.

Table 10.6 shows the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background

characteristics. Mothers reported that 17 percent of children under five had had fever in the two weeks preceding the survey. The prevalence of fever varied by age of child and was highest in children age 6-11 months and 12-23 months (25 and 22 percent, respectively). There is little variation in the prevalence of fever by sex of the child, place of residence, mother's education, or household wealth. Prevalence of fever among children under five years varies from 11 percent in Harari to 28 percent in Gambela. The prevalence of fever is also relatively high among children living in Tigray and Benishangul-Gumuz (both 24 percent), Afar (23 percent), and Somali (21 percent).

Among children with fever, nearly one-fourth sought advice or treatment for the fever at a health facility or health provider. Children age 12-35 months, male children, and children living in urban areas were more likely to have received advice or treatment than other children. Likewise, children of mothers with some secondary education and those in the wealthiest households were more likely to seek advice or treatment at a health facility or provider. Among children under five who had fever, 4 percent received antimalarial drugs and 7 percent received antibiotics to treat their fever.

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who received antibiotics as treatment, by background characteristics, Ethiopia 2011

	Among children under age five:			Among children under age five with fever				
Background characteristic	Percentage with fever	Weighted number of children	Unweighted number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Weighted number of children	Unweighted number of children
Age in months								
<6	17.6	1,265	1,211	22.8	1.1	3.7	222	207
6-11	24.8	1,120	1,043	23.1	2.9	7.5	278	283
12-23	21.8	1,930	1,927	27.7	3.8	7.3	421	484
24-35	18.1	2,063	2,099	26.7	5.2	5.6	373	433
36-47	14.6	2,381	2,311	21.5	3.9	6.7	348	353
48-59	10.6	2,282	2,217	21.1	3.6	10.3	243	322
Sex								
Male	18.3	5,676	5,515	25.3	3.4	7.4	1,038	1,086
Female	15.8	5,366	5,293	23.0	3.9	6.1	847	996
Residence								
Urban	15.7	1,436	1,865	37.8	2.5	4.9	226	321
Rural	17.3	9,606	8,943	22.4	3.8	7.1	1,659	1,761
Region								
Tigray	23.9	702	1,123	20.5	4.3	1.4	168	267
Affar	23.2	112	1,033	28.9	5.1	0.3	26	240
Amhara	16.6	2,478	1,203	18.2	0.9	4.5	412	204
Oromiya	14.9	4,665	1,637	26.6	1.4	11.2	695	244
Somali	20.9	339	951	18.5	2.8	4.2	71	195
Benishangul-Gumuz	23.7	127	925	40.0	12.9	8.0	30	214
SNNP	19.0	2,305	1,491	23.6	8.8	5.0	438	294
Gambela	27.9	37	782	46.5	19.3	4.7	10	228
Harari	11.3	27	616	46.0	1.4	3.1	3	69
Addis Ababa	12.3	214	386	(67.3)	(0.0)	(4.7)	26	46
Dire Dawa	13.5	37	661	50.7	1.1	8.1	5	81
Mother's education								
No education	16.7	7,611	7,521	21.9	2.2	6.0	1,272	1,425
Primary	18.0	3,012	2,727	27.1	7.3	8.3	543	557
Secondary	16.8	252	369	45.1	3.0	10.5	42	73
More than secondary	16.2	168	191	(43.6)	(0.0)	(10.9)	27	27
Wealth quintile								
Lowest	18.5	2,476	3,327	16.0	3.0	2.0	459	716
Second	16.4	2,444	1,950	20.9	1.4	11.5	401	356
Middle	18.0	2,277	1,738	23.1	2.8	6.2	410	344
Fourth	16.4	2,158	1,752	28.1	6.3	7.6	353	329
Highest	15.5	1,687	2,041	40.4	5.8	8.1	262	337
Total	17.1	11,042	10,808	24.2	3.6	6.8	1,885	2,082

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes pharmacy, drug vendor/store, shop, and traditional healer.

10.6 DIARRHOEAL DISEASE

Dehydration from diarrhoea is a major cause of death in infancy and childhood. This is unfortunate since the condition is easily treated with oral rehydration therapy (ORT). The combination of high cause-specific mortality and the existence of effective treatment make diarrhoea and its treatment a priority concern for health services. Diarrhoea with blood in the stools is indicative of cholera or other specific diseases and needs to be treated somewhat differently than diarrhoea without blood. In the 2011 EDHS mothers were asked whether any of their children under age five had diarrhoea at any time during the two-week period preceding the survey. If the child had had diarrhoea, the mother was asked about feeding practices during the diarrhoeal episode. The validity of this indicator is affected by the mother's perception of diarrhoea as an illness and her capacity to recall the events. Moreover, the prevalence of diarrhoea varies seasonally. Thus, this variable in the 2011 EDHS should be interpreted with caution.

10.6.1 Prevalence of Diarrhoea

Table 10.7 shows that 13 percent of children under age five were reported to have had diarrhoea, and 3 percent had had diarrhoea with blood in the two-week period before the survey. Diarrhoea was most common among children age 6–23 months (23-25 percent). Diarrhoea prevalence is highest among children residing in households that drink from unprotected wells (18 percent), those residing in rural areas (14 percent), and children residing in Benishangul-Gumuz and Gambela (both 23 percent).

Table 10.7 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Diarrhoea in the two weeks preceding the survey		Weighted number of children	Unweighted number of children
	All diarrhoea	Diarrhoea with blood		
Age in months				
<6	10.4	1.8	1,265	1,211
6-11	24.8	4.8	1,120	1,043
12-23	22.6	5.7	1,930	1,927
24-35	14.0	3.2	2,063	2,099
36-47	8.9	2.8	2,381	2,311
48-59	6.0	2.1	2,282	2,217
Sex				
Male	14.3	3.5	5,676	5,515
Female	12.5	3.2	5,366	5,293
Source of drinking water[1]				
Improved source	12.4	3.1	5,150	5,469
Piped into dwelling	8.4	3.9	77	66
Piped to yard/plot	9.5	0.6	440	710
Public tap/standpipe	11.1	3.2	2,455	2,104
Borehole	16.0	5.1	369	615
Protected well	12.9	2.9	781	1,118
Protected spring	15.4	3.3	1,006	756
Rain water	11.2	4.7	22	98
Bottled water	0.0	0.0	1	2
Non-improved source	14.5	3.6	5,847	5,293
Unprotected well	18.3	5.5	490	642
Unprotected spring	14.1	3.6	3,216	2,179
Tanker truck/cart with small tank	10.9	2.1	110	219
Surface water	14.3	3.2	2,031	2,253
Other	0.7	0.0	39	42
Missing	0.0	0.0	6	4
Toilet facility[2]				
Improved, not shared	11.4	4.0	830	916
Shared[3]	11.7	1.3	570	878
Non-improved	13.7	3.4	9,629	9,003
Missing	13.7	0.0	13	11
Residence				
Urban	11.0	2.1	1,436	1,865
Rural	13.8	3.5	9,606	8,943
Region				
Tigray	13.4	4.2	702	1,123
Affar	12.7	1.7	112	1,033
Amhara	13.7	4.5	2,478	1,203
Oromiya	11.3	2.6	4,665	1,637
Somali	19.5	3.7	339	951
Benishangul-Gumuz	22.7	7.8	127	925
SNNP	16.4	3.3	2,305	1,491
Gambela	22.6	6.4	37	782
Harari	11.8	3.4	27	616
Addis Ababa	9.4	1.1	214	386
Dire Dawa	7.8	1.1	37	661
Mother's education				
No education	13.9	3.7	7,611	7,521
Primary	12.6	2.7	3,012	2,727
Secondary	10.2	1.1	252	369
More than secondary	10.9	0.0	168	191
Wealth quintile				
Lowest	15.0	3.4	2,476	3,327
Second	12.3	3.7	2,444	1,950
Middle	13.1	3.6	2,277	1,738
Fourth	15.0	3.5	2,158	1,752
Highest	11.2	2.2	1,687	2,041
Total	13.4	3.3	11,042	10,808

Note: Total includes 6 cases with information missing on drinking water and 13 cases with information missing on toilet facilities.
[1] See Table 2.1 for definition of categories.
[2] See Table 2.2 for definition of categories.
[3] Shared facility of an otherwise improved type

10.6.2 Treatment of Diarrhoea

Mothers of children with diarrhoea in the two weeks preceding the survey were asked what was done to manage or treat the illness. Table 10.8 shows the percentage of children with diarrhoea in the two weeks before the survey who were taken to a health facility or provider for treatment, the percentage who received ORT, and the percentage who were given other treatments, by background characteristics.

Overall, 32 percent of the children with diarrhoea were taken for advice or treatment to a health facility or provider. Children age 24-35 months were more likely than children in other age groups to be taken to a health facility or provider for treatment (39 percent). The differences in percentages of children taken for treatment were small between male and female children and by type of diarrhoea. Urban children were considerably more likely to have been taken for advice or treatment for diarrhoea than rural children (54 percent versus 29 percent). Children of highly educated mothers and those in the highest wealth quintile are more likely than other children to be taken to a health facility or provider for treatment when they have diarrhoea. For example, 22 percent of children in the lowest wealth quintile were taken to a health facility or provider for treatment of diarrhoea compared with 53 percent of children in the highest wealth quintile.

During diarrhoea, oral rehydration therapy (ORT) is a simple and effective remedy for dehydration. It involves giving the child a solution prepared by mixing water with a commercially prepared packet of oral rehydration salts (ORS) or recommended home fluids (RHF), usually a home-made sugar-salt-water solution. Twenty-six percent of children with diarrhoea were treated with ORS packets and 8 percent were treated with RHF. Sixteen percent of children with diarrhoea were given increased fluids. Overall, two children in every five with diarrhoea were treated with some form of ORT or increased fluids, while 42 percent of children did not receive any form of treatment.

Comparable data from the 2000 EDHS and 2005 EDHS show an increase in mothers' health-seeking behaviour for children with diarrhoea over the past decade. The percentage of children with diarrhoea who were taken to a health provider increased steadily from 13 percent in 2000 to 22 percent in 2005 and 32 percent in 2011.

Table 10.8 Diarrhoea treatment

Among children under age five who had diarrhoea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage given other treatments, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of children with diarrhoea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT)			Increased fluids	ORT or increased fluids	Other treatments				No treatment	Weighted number of children with diarrhoea	Un-weighted number of children with diarrhoea
		Fluid from ORS packets	Recom-mended home fluids (RHF)	Either ORS or RHF			Anti-biotic drugs	Anti-motility drugs	Home remedy/ other	Missing			
Age in months													
<6	22.3	12.4	4.2	15.3	4.5	18.4	7.4	0.0	24.5	1.9	59.4	132	144
6-11	29.1	26.9	6.9	30.1	14.9	37.5	11.4	0.7	20.1	0.1	50.8	278	275
12-23	32.0	24.5	5.3	28.0	16.2	39.4	13.3	0.4	21.4	0.0	39.5	436	478
24-35	38.5	33.0	8.0	37.9	19.7	49.8	18.0	0.1	22.9	0.1	33.6	289	346
36-47	32.9	29.2	13.1	38.2	15.6	44.9	15.1	0.1	20.8	0.1	35.2	212	226
48-59	29.6	25.8	9.2	28.4	15.5	36.4	9.6	0.1	21.9	3.9	46.1	136	151
Sex													
Male	31.1	28.3	7.9	32.8	15.5	42.5	14.3	0.4	19.9	0.7	39.5	814	859
Female	32.6	23.8	6.9	28.1	15.4	36.3	12.0	0.1	23.9	0.4	45.6	670	761
Type of diarrhoea													
Non-bloody	32.5	24.8	8.1	29.3	15.4	38.1	12.6	0.3	20.7	0.3	45.1	982	1,085
Bloody	33.0	30.1	7.7	35.3	18.0	45.8	14.4	0.2	25.0	0.0	37.1	368	405
Missing	23.0	27.3	2.2	28.0	9.0	35.0	14.5	0.0	20.0	4.3	35.0	133	130
Residence													
Urban	53.5	44.6	12.9	51.4	17.6	55.4	20.3	0.2	25.3	0.0	27.4	158	228
Rural	29.2	24.1	6.9	28.2	15.2	37.8	12.4	0.3	21.3	0.6	44.0	1,326	1,392
Region													
Tigray	34.1	29.2	8.7	37.3	30.2	53.2	11.5	2.9	17.2	0.0	35.9	94	152
Affar	39.9	32.8	13.7	38.6	2.1	39.9	12.9	0.0	12.7	2.4	44.9	14	128
Amhara	25.4	27.6	9.4	33.1	11.1	38.3	13.1	0.0	23.1	0.0	42.3	339	172
Oromiya	35.3	23.8	4.9	26.8	19.8	40.6	13.9	0.0	22.3	1.5	40.9	529	195
Somali	19.7	30.6	8.2	33.9	6.8	36.1	8.1	0.8	15.7	0.4	54.4	66	179
Benishangul-Gumuz	50.1	28.7	17.0	38.6	8.7	43.6	24.2	1.6	26.3	0.4	29.7	29	204
SNNP	31.0	25.1	6.7	28.9	11.4	34.9	13.0	0.0	21.3	0.0	45.7	378	255
Gambela	47.7	45.3	7.1	48.7	12.9	53.6	16.9	3.0	27.8	0.0	24.0	8	177
Harari	45.0	38.6	9.5	44.2	5.8	48.1	22.5	2.7	23.4	1.1	30.2	3	73
Addis Ababa	(47.2)	(43.4)	(32.0)	(56.5)	(34.1)	(65.1)	(8.0)	(0.0)	(27.8)	(0.0)	(27.1)	20	36
Dire Dawa	(46.4)	(42.8)	(8.6)	(45.6)	(10.9)	(48.6)	(17.2)	(1.6)	(28.6)	(0.0)	(40.0)	3	49
Mother's education													
No education	28.9	23.5	6.2	27.4	12.1	34.8	11.7	0.1	21.5	0.3	46.2	1,060	1,125
Primary	34.6	29.7	9.4	35.0	23.5	49.1	15.0	0.4	21.9	1.4	34.2	380	433
Secondary	61.2	44.6	29.2	57.5	27.0	61.3	17.2	3.9	24.6	0.0	23.9	26	46
More than secondary	*	*	*	*	*	*	*	*	*	*	*	18	16
Wealth quintile													
Lowest	22.4	18.0	6.1	21.8	16.5	34.8	10.5	0.3	17.6	0.7	49.6	372	539
Second	25.4	22.4	4.3	24.6	14.9	33.3	15.9	0.2	22.0	0.2	46.5	301	274
Middle	35.3	27.0	8.9	33.4	12.3	39.3	9.5	0.6	19.6	0.0	42.9	298	273
Fourth	32.8	27.7	7.2	31.4	16.7	41.2	13.8	0.1	22.1	1.6	41.0	323	304
Highest	53.0	45.3	13.5	52.4	17.3	57.5	19.3	0.2	31.8	0.0	22.1	190	230
Total	31.8	26.3	7.5	30.7	15.5	39.7	13.2	0.3	21.7	0.6	42.2	1,483	1,620

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets or recommended home fluids (RHF). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Excludes pharmacy, drug vendor/store, shop, and traditional healer

10.6.3 Feeding Practices during Diarrhoea

Mothers are encouraged to continue feeding and increase the amount of liquids given to their children when they suffer from diarrhoeal illnesses. These practices help to reduce dehydration and also minimize the adverse consequences of diarrhoea on the child's nutritional status. Mothers interviewed in the 2011 EDHS were specifically asked whether they gave the child who had had diarrhoea in the two weeks preceding the survey more or less fluid and food than usual.

Table 10.9 shows that 16 percent of children with diarrhoea were given more fluids than usual, as recommended. More than one-third of children (35 percent) were given the same amount of fluids as usual. However, almost one child in every two (49 percent) were offered less fluid than usual or were given no fluids at all: 28 percent were offered somewhat less, 13 percent were offered much less, and 7 percent of children were offered no fluids at all. Likewise, almost one child in every two children (48 percent) was offered less food than usual: 25 percent were offered somewhat less, 16 percent were offered much less, and 7 percent of children were offered no food at all. Only 10 percent of children with diarrhoea were given increased liquids and continued feeding as recommended, while 25 percent of children with diarrhoea continued to feed and were given ORT or increased fluids. These findings suggest that a large proportion of mothers still engage in the dangerous practice of curtailing fluids and food intake when their children have diarrhoea.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhoea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhoea, by background characteristics, Ethiopia 2011

Background characteristic	Amount of liquids given							Amount of food given								Percentage given increased fluids and continued feeding[1]	Percentage who continued feeding and were given ORT and/or increased fluids[1]	Weighted number of children with diarrhoea	Unweighted number of children with diarrhoea
	More	Same as usual	Somewhat less	Much less	None	Don't know/ missing	Total	More	Same as usual	Somewhat less	Much less	None	Never gave food	Don't know/ missing	Total				
Age in months																			
<6	4.5	30.0	31.9	13.6	19.8	0.1	100.0	0.1	8.5	10.1	3.8	0.0	75.8	1.6	100.0	0.1	4.2	132	144
6-11	14.9	32.4	27.9	13.3	11.3	0.2	100.0	3.8	24.9	18.2	11.6	9.9	31.6	0.0	100.0	8.3	18.7	278	275
12-23	16.2	37.2	25.7	15.8	4.7	0.4	100.0	5.9	29.9	28.8	18.5	6.3	10.2	0.4	100.0	10.9	25.1	436	478
24-35	19.7	33.7	27.6	15.3	2.8	0.9	100.0	9.2	31.9	30.1	17.8	10.1	0.2	0.7	100.0	14.1	35.1	289	346
36-47	15.6	32.8	32.5	10.0	8.8	0.2	100.0	7.7	37.8	29.2	19.9	5.4	0.0	0.0	100.0	11.2	35.2	212	226
48-59	15.5	47.4	25.5	6.7	0.9	4.1	100.0	5.6	44.2	20.5	23.2	2.5	0.0	4.1	100.0	9.3	21.2	136	151
Sex																			
Male	15.5	34.4	27.9	13.8	7.4	1.0	100.0	6.9	30.3	24.0	15.5	5.7	16.5	1.1	100.0	10.8	27.4	814	859
Female	15.4	36.4	28.1	12.9	6.8	0.4	100.0	4.6	29.4	25.5	17.6	7.9	14.7	0.3	100.0	9.0	22.2	670	761
Type of diarrhoea																			
Non-bloody	15.4	36.9	27.8	12.2	7.3	0.3	100.0	5.5	32.1	23.9	14.9	6.2	16.9	0.4	100.0	11.2	24.9	982	1,085
Bloody	18.0	33.0	28.2	14.1	6.5	0.1	100.0	7.2	27.1	25.7	20.9	6.0	13.1	0.0	100.0	8.6	26.8	368	405
Missing	9.0	29.5	28.3	20.1	7.6	5.5	100.0	4.7	21.2	27.7	14.8	12.2	14.0	5.5	100.0	4.7	21.8	133	130
Residence																			
Urban	17.6	44.2	15.4	15.0	7.8	0.1	100.0	8.5	38.3	12.6	19.0	7.2	14.3	0.1	100.0	13.1	29.3	158	228
Rural	15.2	34.2	29.5	13.2	7.1	0.8	100.0	5.6	28.9	26.1	16.1	6.6	15.9	0.9	100.0	9.6	24.6	1,326	1,392
Region																			
Tigray	30.2	43.2	17.2	6.8	2.6	0.0	100.0	11.1	44.5	23.8	9.6	2.7	8.4	0.0	100.0	24.8	43.0	94	152
Affar	2.1	14.4	38.9	36.7	7.2	0.7	100.0	0.7	20.6	30.2	38.4	2.2	7.2	0.7	100.0	0.8	19.9	14	128
Amhara	11.1	46.5	22.6	10.6	8.2	1.1	100.0	7.6	36.2	21.8	11.7	4.8	16.3	1.6	100.0	8.2	29.3	339	172
Oromiya	19.8	28.1	27.9	16.0	7.2	1.0	100.0	4.0	24.6	23.4	20.7	12.9	13.3	1.0	100.0	9.4	19.9	529	195
Somali	6.8	27.8	30.8	23.2	8.1	3.3	100.0	3.0	14.5	33.3	23.8	4.8	19.7	1.0	100.0	4.1	18.7	66	179
Benishangul-Gumuz	8.7	36.3	26.8	19.7	8.6	0.0	100.0	5.1	34.0	28.5	18.7	4.0	9.7	0.0	100.0	6.8	27.4	29	204
SNNP	11.4	35.2	35.2	10.8	7.4	0.0	100.0	6.3	30.6	26.9	13.8	1.2	21.2	0.0	100.0	9.8	24.1	378	255
Gambela	12.9	29.1	31.1	20.9	6.1	0.0	100.0	1.7	20.7	29.3	18.8	18.2	11.2	0.0	100.0	5.6	27.0	8	177
Harari	5.8	45.1	31.7	15.0	1.3	1.1	100.0	11.5	38.4	24.1	15.5	2.3	7.1	1.1	100.0	5.8	34.6	3	73
Addis Ababa	(34.1)	(39.1)	(15.7)	(11.0)	(0.0)	(0.0)	100.0	(9.5)	(35.4)	(27.9)	(19.3)	(6.4)	(1.5)	(0.0)	100.0	(21.5)	(43.3)	20	36
Dire Dawa	(10.9)	(18.1)	(43.8)	(13.7)	(11.4)	(2.0)	100.0	(0.0)	(17.1)	(34.6)	(20.3)	(4.5)	(21.5)	(2.0)	100.0	(8.2)	(27.4)	3	49
Mother's education																			
No education	12.1	37.0	29.2	13.9	7.4	0.4	100.0	4.5	29.9	24.5	17.7	6.7	16.4	0.4	100.0	7.1	21.0	1,060	1,125
Primary	23.5	30.7	24.3	12.4	7.2	1.9	100.0	9.0	28.4	26.5	12.8	7.5	13.7	1.9	100.0	16.6	33.3	380	433
Secondary	27.0	34.4	37.8	0.9	0.0	0.0	100.0	13.8	35.7	18.8	17.7	0.6	13.4	0.0	100.0	18.6	41.6	26	46
More than secondary	*	*	*	*	*	*	100.0	*	*	*	*	*	*	*	100.0	*	*	18	16
Wealth quintile																			
Lowest	16.5	31.9	27.6	12.5	10.6	0.9	100.0	4.9	27.1	25.1	13.4	10.5	18.0	1.1	100.0	10.1	24.0	372	539
Second	14.9	38.4	29.4	11.9	5.3	0.2	100.0	4.2	32.9	23.1	18.0	3.7	18.1	0.0	100.0	6.6	17.9	301	274
Middle	12.3	33.8	33.4	12.9	7.7	0.0	100.0	5.1	27.1	29.4	18.2	4.8	15.3	0.0	100.0	8.7	25.3	298	273
Fourth	16.7	36.9	24.3	15.3	4.6	2.2	100.0	7.9	31.3	23.0	16.0	7.4	12.1	2.2	100.0	12.2	27.5	323	304
Highest	17.3	36.4	24.4	15.1	6.8	0.0	100.0	8.2	32.4	21.6	17.8	5.8	14.2	0.0	100.0	13.3	34.0	190	230
Total	15.5	35.3	28.0	13.4	7.1	0.8	100.0	5.9	29.9	24.7	16.4	6.7	15.7	0.8	100.0	10.0	25.1	1,483	1,620

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

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

10.7 KNOWLEDGE OF ORS PACKETS

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

Table 10.10 shows that 65 percent of mothers with a live birth in the five years preceding the survey had heard about ORS packets. Mothers older than 25 years were more likely to have heard of ORS packets than younger mothers. Knowledge is more widespread in urban areas (87 percent) than in rural areas (61 percent). More than 90 percent of women in Addis Ababa, Dire Dawa, Harari, and Tigray know about ORS packets. Levels of knowledge increase with education and with household wealth.

Table 10.10 Knowledge of ORS packets

Percentage of women age 15-49 with a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of women who know about ORS packets	Weighted number of women	Unweighted number of women
Age			
15-19	49.4	402	416
20-24	61.7	1,608	1,596
25-34	67.8	3,872	3,799
35-49	66.2	2,026	1,953
Residence			
Urban	86.5	1,188	1,513
Rural	61.4	6,720	6,251
Region			
Tigray	93.9	530	847
Affar	69.2	78	714
Amhara	60.6	1,991	965
Oromiya	60.4	3,116	1,100
Somali	74.3	198	559
Benishangul-Gumuz	60.7	92	674
SNNP	65.5	1,634	1,053
Gambela	80.6	31	608
Harari	93.2	19	440
Addis Ababa	91.7	193	348
Dire Dawa	92.1	26	456
Education			
No education	59.4	5,270	5,184
Primary	73.8	2,270	2,095
Secondary	93.7	226	312
More than secondary	98.2	142	173
Wealth quintile			
Lowest	55.1	1,739	2,279
Second	59.0	1,696	1,354
Middle	59.4	1,628	1,241
Fourth	69.4	1,493	1,229
Highest	88.4	1,351	1,661
Total	65.2	7,908	7,764

ORS = Oral rehydration salts

10.8 STOOL DISPOSAL

The proper disposal of children's faeces is extremely important in preventing the spread of disease. Contact with human faeces directly, or indirectly by animal contact with the faeces, can lead to diarrhoeal diseases. Table 10.11 presents the percent distribution of mothers who have their youngest child under age 5 living with them by how the child's stools are disposed of, according to background characteristics and type of toilet facilities in the household. Thirty-six percent of children's stools are safely disposed, that is, 6 percent of children use a toilet or latrine, 29 percent of children's stools are rinsed in the toilet or latrine, and 1 percent is buried. In contrast, the stools of two children in every five are left in the open, and 14 percent are thrown into the garbage.

There are marked differences in the way children's stools are disposed of according to background characteristics. A higher proportion of urban children's stools are disposed of safely than of rural children's stools (63 and 31 percent, respectively). Regional differentials in safe disposal also are substantial. For example, in Addis Ababa, 75 percent of children's stools are disposed of safely compared with 24 percent in Gambela. Safe disposal of children's stools increases with mother's level of education and with household wealth. Comparable data from the 2005 EDHS show an increase in safe stool disposal from 21 percent to 36 percent over the five years between surveys.

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age 5 living with the mother, by the manner of disposal of the child's last faecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Ethiopia 2011

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely[1]	Weighted number of children	Unweighted number of children
	Child used toilet or latrine	Put/ rinsed into toilet or latrine	Buried	Put/ rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing				
Age in months												
<6	0.2	17.3	1.2	7.1	11.2	39.9	21.9	1.2	100.0	18.7	1,248	1,187
6-11	0.5	29.8	1.1	4.4	17.2	37.8	8.2	1.0	100.0	31.4	1,113	1,033
12-23	1.6	33.3	0.8	2.8	16.5	42.2	2.3	0.4	100.0	35.7	1,836	1,817
24-35	5.0	32.9	1.5	2.0	15.7	40.9	1.1	0.9	100.0	39.4	1,495	1,579
36-47	12.5	27.2	1.2	1.8	11.7	44.2	0.8	0.5	100.0	40.9	1,153	1,094
48-59	25.5	30.6	0.5	1.3	8.1	32.3	0.5	1.2	100.0	56.6	738	676
Toilet facility[2]												
Improved, not shared	11.3	43.3	0.1	3.3	12.9	23.6	4.9	0.6	100.0	54.7	596	664
Shared[3]	4.9	58.0	0.5	5.3	10.2	17.7	2.7	0.7	100.0	63.4	419	641
Non-improved	5.4	25.7	1.2	3.2	14.4	43.2	6.0	0.9	100.0	32.3	6,560	6,073
Residence												
Urban	5.2	56.1	1.2	4.6	11.7	16.0	3.7	1.5	100.0	62.5	1,099	1,388
Rural	6.0	24.3	1.1	3.1	14.4	44.4	6.1	0.7	100.0	31.3	6,485	5,998
Region												
Tigray	3.2	29.4	2.1	2.9	12.8	47.2	2.0	0.4	100.0	34.7	515	823
Affar	1.5	8.6	23.0	7.4	26.1	32.8	0.4	0.2	100.0	33.1	73	673
Amhara	6.5	18.1	0.7	3.1	13.1	53.9	3.1	1.4	100.0	25.4	1,922	931
Oromiya	5.5	26.8	0.6	4.0	14.2	37.5	11.0	0.4	100.0	32.9	2,988	1,055
Somali	0.6	28.1	6.3	1.5	17.3	41.2	3.0	2.0	100.0	35.1	185	528
Benishangul-Gumuz	4.3	40.9	0.6	2.5	9.0	40.1	2.1	0.5	100.0	45.8	89	648
SNNP	8.0	41.1	0.6	0.9	15.2	31.5	1.7	1.0	100.0	49.7	1,563	1,010
Gambela	2.2	20.3	1.6	9.7	16.1	47.4	1.7	1.0	100.0	24.1	26	551
Harari	4.9	33.4	2.7	21.0	16.4	20.1	1.1	0.5	100.0	41.0	18	411
Addis Ababa	2.6	72.6	0.0	13.3	6.3	3.7	0.9	0.5	100.0	75.2	180	323
Dire Dawa	3.7	42.8	0.9	3.9	30.3	16.3	1.4	0.7	100.0	47.4	25	433
Mother's education												
No education	5.4	23.3	1.2	2.9	15.4	45.2	5.7	0.8	100.0	29.9	5,080	4,972
Primary	6.7	36.9	0.9	4.0	11.5	33.4	5.9	0.6	100.0	44.6	2,165	1,968
Secondary	7.3	55.5	0.7	4.5	11.0	9.8	7.2	4.0	100.0	63.5	209	291
More than secondary	4.2	71.0	0.2	4.0	6.5	10.2	2.4	1.5	100.0	75.5	130	155
Wealth quintile												
Lowest	2.7	13.2	2.0	3.4	14.0	59.1	4.9	0.6	100.0	17.9	1,670	2,183
Second	6.7	17.8	0.8	3.7	18.0	45.4	6.3	1.4	100.0	25.2	1,637	1,309
Middle	5.3	27.9	1.1	3.0	12.8	41.9	7.4	0.6	100.0	34.3	1,571	1,193
Fourth	8.2	37.2	0.7	2.4	11.9	33.8	5.5	0.4	100.0	46.1	1,442	1,174
Highest	6.9	55.8	0.6	4.1	12.7	14.1	4.5	1.2	100.0	63.3	1,264	1,527
Total	5.8	28.9	1.1	3.3	14.0	40.3	5.8	0.8	100.0	35.8	7,584	7,386

Note: Total includes 9 cases with missing information on toilet facilities.
[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the faecal matter was put/rinsed into a toilet or latrine or if it was buried.
[2] See Table 2.2 for definition of categories.
[3] Shared facility of an otherwise improved type.

NUTRITION OF CHILDREN AND ADULTS 11

Key Findings

- There has been a marked decline in the proportion of children stunted and underweight in the last 11 years.
- Breastfeeding is nearly universal in Ethiopia and half of children born in the three years before the survey are breastfed for about 25 months.
- More than half (52 percent) of children less than 6 months old are exclusively breastfed.
- Complementary foods are not introduced in a timely fashion for all children. At 6-9 months only about half of children receive complementary foods.
- Overall, only 4 percent of children age 6-23 months are fed appropriately, based on the recommended infant and young child feeding (IYCF) practices.
- Forty-four percent of children age 6-59 months are anaemic, with 21 percent mildly anaemic, 20 percent moderately anaemic, and 3 percent severely anaemic.
- Overall, 17 percent of women age 15-49 are anaemic; 13 percent are mildly anaemic, 3 percent are moderately anaemic, and less than 1 percent are severely anaemic.
- Twenty-seven percent of women age 15-49 are thin, that is, they fall below the cut-off of 18.5 for the body mass index (BMI), and 9 percent are moderately or severely thin. Only 6 percent of women are overweight or obese (BMI ≥25 kg/m^2).

Nutritional status is the result of complex interactions between food consumption and the overall status of health and health care practices. Numerous socioeconomic and cultural factors influence patterns of feeding children and the nutritional status of women and children. The period from birth to age two is especially important for optimal growth, health, and development. Unfortunately, this period is often marked by micronutrient deficiencies that interfere with optimal growth. Additionally, childhood illnesses such as diarrhoea and acute respiratory infections (ARI) are common. For women, improving overall nutritional status throughout the life cycle is crucial to maternal health. Women who become malnourished during pregnancy and children who fail to grow and develop normally due to malnutrition at any time during their life, including during foetal development, are at increased risk of perinatal problems, increased susceptibility to infections, slowed recovery from illness, and possibly death. Improving maternal nutrition is crucial for improving children's health.

The poor nutritional status of children and women has been a serious problem in Ethiopia for many years. Therefore, the health sector has increased its efforts to enhance good nutritional practices through health education, treatment of extremely malnourished children, and provision of micronutrients to the most vulnerable group of the population, that is, mothers and children. In addition, the Health Extension Programme (HEP) has included nutrition as part of their health packages. A national nutrition strategy and programme has also been developed and implemented by the Government of Ethiopia. The Health Sector Development Plan IV (2010/11-2014/15) strives to improve the nutritional status of mothers and children through the following programmes: Enhanced Outreach Strategy (EOS) with Targeted Supplementary Food (TSF) and Transitioning of EOS into HEP, Health Facility Nutrition Services, Community Based Nutrition (CBN), and Micronutrient Interventions and Essential Nutrition Actions/Integrated Infant and Young Feeding Counselling Services.

The 2011 EDHS asked questions about early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding until at least age 2, timely introduction of complementary foods at age 6 months (with increasing frequency of feeding solid and semi-solid foods), and diet diversity. Interviewers measured the height and weight of all children under age 5 and of women and men age 15-49. This chapter also presents findings on infant feeding practices, maternal eating patterns, household testing of salt for adequate levels of iodine, and the nutritional status of women, men, and children.

11.1 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of children under age five is an important outcome measure of children's health. The anthropometric data on height and weight collected in the 2011 EDHS permit the measurement and evaluation of the nutritional status of young children. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

11.1.1 Measurement of Nutritional Status among Young Children

The 2011 EDHS collected data on the nutritional status of children by measuring the height and weight of all children under age five. Data were collected to calculate three indices of anthropometric indicators—weight-for-age, height-for-age, and weight-for-height.

For this report indicators of the nutritional status of children were calculated using new growth standards published by the World Health Organization (WHO) in 2006. These new growth standards were generated using data collected in the WHO Multicentre Growth Reference Study (WHO, 2006). The findings of the study, whose sample included 8,440 children in six countries (Brazil, Ghana, India, Norway, Oman, and the United States), describe how children should grow under optimal conditions. Therefore, the WHO Child Growth Standards can be used to assess children all over the world, regardless of ethnicity, social and economic influences, and feeding practices. The new child growth standards replace the previously used reference standards of the U.S. National Center for Health Statistics, accepted by the U.S. Centers for Disease Control and Prevention (NCHS/CDC/WHO).

The three indices are expressed as standard deviation units from the median for the reference group. Children who fall below minus two standard deviations (−2 SD) from the median of the reference population are regarded as moderately malnourished, while those who fall below minus three standard deviations (−3 SD) from the median of the reference population are considered severely malnourished.

The height-for-age index provides an indicator of linear growth retardation and cumulative growth deficits in children. Children whose height-for-age Z-score is below minus two standard deviations (−2 SD) from the median of the WHO reference population are considered short for their age (stunted), or chronically malnourished. Children who are below minus three standard deviations (−3 SD) are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The weight-for-height index measures body mass in relation to body height or length; it describes current nutritional status. Children with Z-scores below minus two standard deviations

(−2 SD) are considered thin (wasted) or acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children with a weight-for-height index below minus three standard deviations (−3 SD) are considered severely wasted.

The weight-for-height index also provides data on overweight and obesity. Children more than two standard deviations (+2 SD) above the median weight-for-height are considered overweight, or obese.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both chronic and acute malnutrition. A child can be underweight for his/her age because he or she is stunted, wasted, or both. Weight-for-age is an overall indicator of a population's nutritional health. Children with weight-for-age below minus two standard deviations (−2 SD) are classified as underweight. Children with weight-for-age below minus three standard deviations (−3 SD) are considered severely underweight.

Importantly, the WHO Child Growth Standards reference population used for the 2011 EDHS differs from that used in past DHS surveys, and thus the measures from the 2011 EDHS are not directly comparable to previous EDHS results, which use the US Center for Health Statistics standards (NCHS/CDC/WHO). When the new WHO child growth standards are used in place of the previous reference, the following changes are observed:

- The level of stunting is usually greater, but not for all age groups.
- The level of wasting in infancy is substantially higher, particularly in the first six months of life.
- The level of underweight is substantially higher during the first half of infancy (0-6 months) and decreases thereafter.
- The level of overweight/obesity is higher.

11.1.2 Data Collection

Interviewing teams obtained measurements of height and weight for all children born in the five years preceding the survey and listed in the Household Questionnaire. The survey included children who were not biological offspring of the women interviewed. Each interviewing team carried a scale and measuring board. The scales were lightweight electronic SECA scales with a digital screen. They were designed and manufactured under the authority of the United Nations Children's Fund (UNICEF). Shorr Productions manufactured the measuring boards especially for use in survey settings. Interviewers measured children younger than 24 months lying down on the board (recumbent length) and measured the standing height of older children. In a few cases the team measured recumbent length—when the child's age was not known and the child was less than 85 centimetres tall. The scale allowed weighing of very young children through an automatic mother-child adjustment that eliminated the mother's weight while she was standing on the scale with her baby.

A total of 11,152 children under age five were eligible to be weighed and measured. Data are presented for 10,282 (10,883 children weighted) of these children: 5 percent had missing values for height or weight and 3 percent had height or weight measures considered to be out of the range for their ages. Table 11.1 and Figure 11.1 show the percentage of children under age 5 classified as malnourished according to the three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age.

11.1.3 Measures of Child Nutrition Status

Height-for-age

Nationally, 44 percent of children under age five are stunted, and 21 percent of children are severely stunted. In general, the prevalence of stunting increases as the age of a child increases, with the highest prevalence of chronic malnutrition found in children age 24-35 months (57 percent) and lowest in children under age six months (10 percent). Male children are slightly more likely to be stunted than female children (46 percent and 43 percent, respectively). With the exception of first order births, there is an inverse relationship between the length of the preceding birth interval and the proportion of children who are stunted. The longer the interval, the less likely it is that the child will be stunted.

Size at birth is an important indicator of a child's nutritional status and the likelihood that a child will be chronically malnourished. Stunting is more common among children who were reported to have been very small at birth (52 percent) than among children who were small or average or larger in size at birth.

The mother's nutritional status, as measured by her body mass index (BMI), also has an inverse relationship with her child's level of stunting. For example, children of thin mothers (BMI <18.5) are more likely to be stunted (47 percent) than the children of overweight/obese (BMI ≥25) mothers (26 percent).

Children in rural areas are one and a half times more likely to be stunted (46 percent) than those in urban areas (32 percent). Regional variation in the prevalence of stunting in children is substantial. Stunting levels are somewhat above the national average in the Amhara (52 percent), Tigray (51 percent), Affar (50 percent), and Benishangul-Gumuz (49 percent) regions and are lowest in Addis Ababa and the Gambela region (22 and 27 percent, respectively).

The mother's level of education generally has an inverse relationship with stunting levels. For example, children of mothers with more than secondary education are the least likely to be stunted (19 percent), while children whose mothers have no education are the most likely to be stunted (47 percent). A similar inverse relationship is observed between the household wealth index and the stunting levels of children; that is, a higher proportion of children in the lowest household wealth quintile are stunted (49 percent) than of children in the highest wealth quintile (30 percent).

Table 11.1 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 background characteristics, Ethiopia 2011

Background characteristic	Height-for-age[1]			Weight-for-height				Weight-for-age				Weighted number of children	Unweighted number of children
	Percentage below −3 SD	Percentage below −2 SD[2]	Mean Z-score (SD)	Percentage below −3 SD	Percentage below −2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below −3 SD	Percentage below −2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)		
Age in months													
<6	2.7	10.0	-0.1	5.4	13.5	4.5	-0.4	3.5	10.0	3.5	-0.4	1,078	1,015
6-8	4.5	12.2	-0.4	3.4	13.8	2.4	-0.7	4.0	13.2	0.2	-0.8	580	559
9-11	13.9	31.6	-1.3	6.3	18.9	1.8	-0.9	9.9	29.1	0.3	-1.4	499	424
12-17	16.4	40.2	-1.5	5.2	16.1	1.3	-0.7	9.5	28.5	1.3	-1.3	1,002	1,030
18-23	26.0	49.9	-2.0	3.6	11.0	2.3	-0.6	9.5	31.1	1.2	-1.4	910	820
24-35	30.2	57.1	-2.2	2.4	8.4	1.8	-0.4	12.4	33.9	0.5	-1.5	2,043	2,015
36-47	23.7	54.6	-2.1	1.0	5.9	0.5	-0.4	8.7	32.5	0.1	-1.5	2,450	2,260
48-59	22.3	49.1	-2.0	1.5	6.6	1.1	-0.5	8.7	31.7	0.0	-1.5	2,321	2,159
Sex													
Male	21.7	46.2	-1.7	3.6	11.1	1.5	-0.6	8.9	30.5	0.6	-1.4	5,584	5,238
Female	19.4	42.5	-1.6	1.9	8.2	1.9	-0.5	8.8	26.8	0.8	-1.3	5,299	5,044
Birth interval in months[3]													
First birth[4]	19.0	44.1	-1.7	2.5	8.9	2.6	-0.4	7.3	27.3	0.5	-1.3	1,870	1,819
<24	24.5	49.3	-1.9	2.4	9.2	2.0	-0.5	9.3	31.5	0.9	-1.4	1,612	1,633
24-47	21.0	44.8	-1.7	3.1	9.9	1.3	-0.6	9.8	30.0	0.8	-1.4	4,913	4,402
48+	16.5	39.1	-1.5	2.8	11.3	1.9	-0.5	7.4	25.1	0.6	-1.2	1,766	1,729
Size at birth[3]													
Very small	26.0	51.8	-1.9	4.1	14.2	1.6	-0.8	14.3	39.0	0.6	-1.7	2,110	2,154
Small	21.4	45.9	-1.8	4.8	12.4	1.5	-0.8	10.9	35.5	0.0	-1.6	905	857
Average or larger	18.7	42.0	-1.6	2.2	8.3	1.9	-0.4	6.9	25.1	0.9	-1.2	7,125	6,544
Mother's interview status													
Interviewed	20.4	44.4	-1.7	2.8	9.9	1.8	-0.5	8.8	28.9	0.7	-1.3	10,161	9,583
Not interviewed but in household	21.6	41.1	-1.6	3.5	8.7	0.5	-0.4	13.8	32.2	0.8	-1.3	224	238
Not interviewed and not in the household[5]	23.5	46.1	-1.9	2.3	5.8	0.6	-0.3	7.1	23.1	0.0	-1.3	497	461
Mother's nutritional status[6]													
Thin (BMI<18.5)	22.1	47.0	-1.8	4.0	14.6	1.1	-0.9	12.2	38.9	0.4	-1.6	2,138	2,538
Normal (BMI 18.5-24.9)	20.6	44.7	-1.7	2.6	8.6	1.8	-0.4	8.3	27.1	0.7	-1.3	7,574	6,509
Overweight/obese (BMI ≥25)	9.4	26.4	-1.0	1.2	6.2	3.9	0.0	1.9	11.6	3.2	-0.6	457	564
Residence													
Urban	12.4	31.5	-1.3	2.1	5.7	3.3	-0.2	4.8	16.3	1.6	-0.9	1,342	1,655
Rural	21.7	46.2	-1.8	2.9	10.2	1.5	-0.6	9.4	30.4	0.6	-1.4	9,541	8,627
Region													
Tigray	22.4	51.4	-2.0	3.0	10.3	1.0	-0.6	9.8	35.1	0.2	-1.6	733	1,140
Affar	29.1	50.2	-1.8	6.2	19.5	2.1	-0.9	17.2	40.2	0.6	-1.7	105	962
Amhara	24.2	52.0	-2.0	3.1	9.9	1.6	-0.6	9.7	33.4	0.2	-1.6	2,325	1,120
Oromiya	18.1	41.4	-1.5	2.8	9.7	1.4	-0.5	7.8	26.0	0.9	-1.2	4,723	1,619
Somali	16.1	33.0	-1.1	8.5	22.2	1.2	-1.1	11.8	33.5	0.9	-1.4	278	798
Benishangul-Gumuz	27.0	48.6	-1.9	2.5	9.9	1.2	-0.6	12.5	31.9	0.2	-1.5	123	893
SNNP	22.9	44.1	-1.7	1.9	7.6	2.3	-0.3	9.6	28.3	0.8	-1.2	2,311	1,477
Gambela	10.7	27.3	-1.0	3.2	12.5	0.7	-0.7	7.4	20.7	0.7	-1.1	33	735
Harari	12.6	29.8	-1.1	1.6	9.1	1.8	-0.5	4.4	21.5	0.6	-1.0	23	537
Addis Ababa	5.9	22.0	-0.8	1.4	4.6	5.7	0.0	1.7	6.4	2.5	-0.5	194	357
Dire Dawa	18.3	36.3	-1.4	2.0	12.3	2.0	-0.7	10.4	27.6	0.6	-1.3	35	644
Mother's education[7]													
No education	22.5	46.7	-1.8	2.9	10.9	1.5	-0.6	10.1	31.5	0.6	-1.4	7,212	6,864
Primary	17.0	41.7	-1.5	2.8	7.8	1.8	-0.4	6.9	25.2	0.9	-1.2	2,797	2,478
Secondary	6.9	20.0	-0.9	0.4	3.0	4.2	0.0	2.0	11.7	2.9	-0.5	229	315
More than secondary	4.1	18.9	-0.7	2.4	4.9	7.4	-0.1	0.6	4.2	2.6	-0.3	147	163
Wealth quintile													
Lowest	25.5	49.2	-1.9	3.3	12.1	1.7	-0.6	12.0	35.6	0.9	-1.5	2,452	3,166
Second	23.1	47.7	-1.8	4.1	12.3	1.8	-0.7	11.1	33.2	0.3	-1.5	2,385	1,878
Middle	21.8	45.6	-1.7	2.5	9.4	0.8	-0.5	8.7	28.8	0.6	-1.4	2,289	1,707
Fourth	17.4	45.0	-1.7	2.1	7.7	1.5	-0.5	5.9	25.8	0.4	-1.3	2,163	1,717
Highest	12.0	29.7	-1.2	1.6	5.1	2.8	-0.2	4.9	15.1	1.5	-0.8	1,593	1,814
Total	20.6	44.4	-1.7	2.8	9.7	1.7	-0.5	8.8	28.7	0.7	-1.3	10,883	10,282

Note: Table is based on children who stayed in the household on the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO reference. Total includes 18 cases with missing information on size at birth. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children.

[2] Includes children who are below -3 standard deviations (SD) from the WHO Child Growth standards population median

[3] Excludes children whose mothers were not interviewed

[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[5] Includes children whose mothers are deceased

[6] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10

[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Weight-for-height

Overall, 10 percent of Ethiopian children are wasted, and 3 percent are severely wasted. Wasting, or acute malnutrition, is highest in children age 9-11 months (19 percent) and lowest in children age 36-47 months (6 percent). Male children are slightly more likely to be wasted (11 percent) than female children (8 percent). Ten percent of children in rural areas are wasted, compared with 6 percent in urban areas. The data show an inverse correlation between wasting and birth weight. A higher proportion of babies who are reported as very small at birth (14 percent) are acutely malnourished than babies reported as average or larger in size (8 percent). Wasting is most common in the children of thin mothers (whose BMI is less than 18.5) (15 percent), in those residing in the Somali region (22 percent), in children whose mothers have no education (11 percent), and in those in the lowest two wealth quintiles (12 percent).

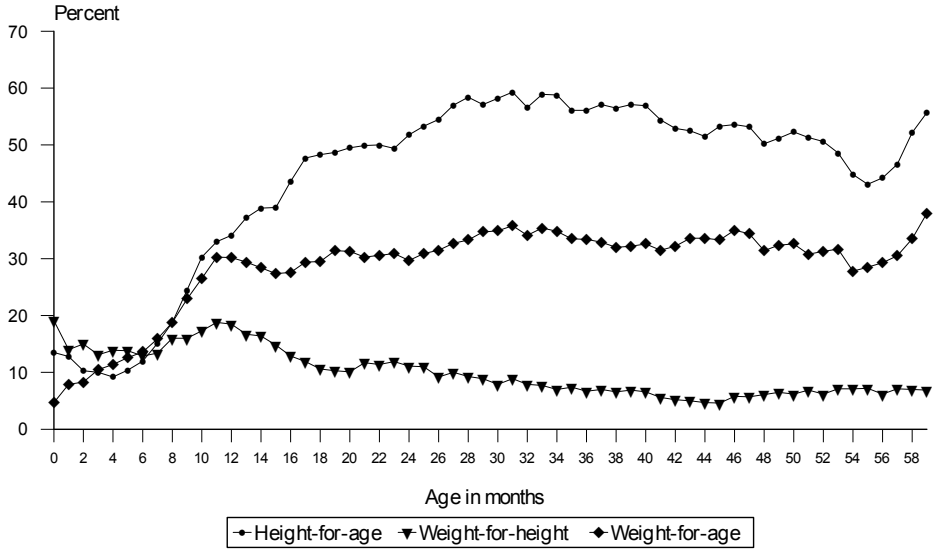
A small proportion of children in Ethiopia are classified as overweight or obese. Overall, 2 percent of children below age five years are overweight or obese (+2 SD). Overweight or obesity among children increases with increasing BMI of the mother, from 1 percent among children of mothers who are thin to 4 percent among children of mothers who are overweight/obese (BMI $\geq$25). There are no substantial differences between male and female children. Variation by region is minimal except for Addis Ababa, where 6 percent of children under five, the highest percentage in all regions, are overweight or obese. Overweight and obesity do not correlate with wealth quintile. However, there is a positive relationship between mothers' education and level of overweight or obesity in children under five years of age.

Weight-for-age

Table 11.1 shows that 29 percent of children under age five are underweight (have low weight-for-age), and 9 percent are severely underweight. The proportion of underweight children generally increases with each age cohort. The proportion of underweight children is highest in the age groups 24-35 months (34 percent) and lowest among those under six months (10 percent). This may be explained by the fact that foods for weaning are typically introduced to children in the older age group, thus increasing their exposure to infections and susceptibility to illness. This tendency, coupled with inappropriate or inadequate feeding practices, may contribute to faltering nutritional status among children in these age groups. Also, babies reported as very small or small at birth are much more likely to be underweight later in life (39 percent and 36 percent, respectively) than those reported as average or large at birth (25 percent). Children born to mothers who are thin (BMI less than 18.5) are more than three times as likely to be underweight (39 percent) as children born to mothers who are overweight/obese (12 percent). The proportion of underweight children is eight times higher for those born to uneducated mothers than for those whose mothers have more than secondary education (32 percent versus 4 percent).

Rural children are more likely to be underweight (30 percent) than urban children (16 percent). The proportion of underweight children varies by region. Addis Ababa has the lowest proportion of underweight children, at 6 percent, while Affar has the highest prevalence of underweight children, at 40 percent. The proportion of underweight children decreases as the wealth quintile of the mother increases. Children born to mothers in the lowest wealth quintile are more than twice as likely to be underweight as children born to mothers in the highest wealth quintile (36 percent compared with 15 percent).

Figure 11.1 Nutritional Status of Children by Age



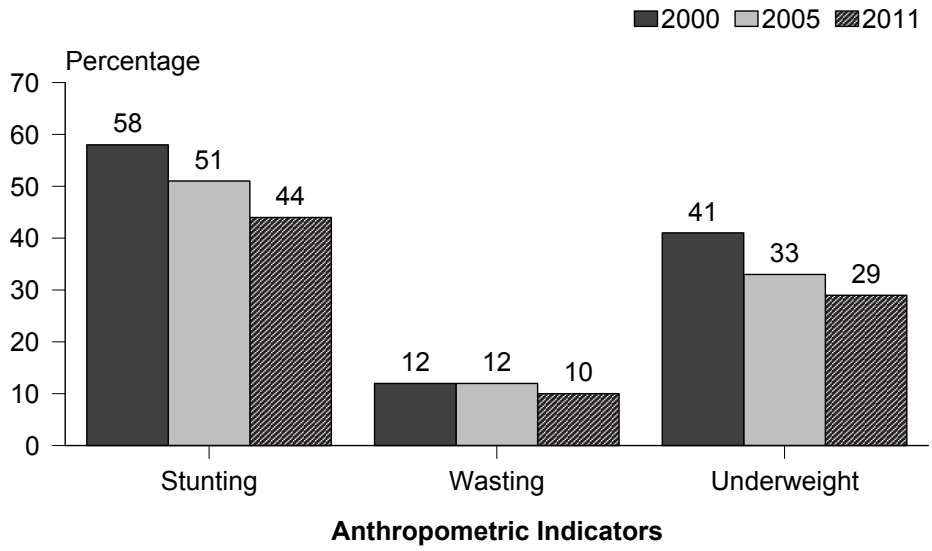
EDHS 2011

11.1.4 Trends in Children's Nutritional Status

Trends in the nutritional status of children for the period 2000, 2005 and 2011 are shown in Figure 11.2. For the purpose of comparison, the data for 2000 and 2005 were recalculated using the new WHO standard reference population making it comparable to the results of 2011 EDHS.

Figure 11.2 shows a downward trend in the proportion of children stunted and underweight over the three EDHS surveys. Stunting prevalence decreased by 12 percent (from 58 percent to 51 percent) between 2000 and 2005 and by an additional 14 percent to 44 percent between 2005 and 2011. The decline in the proportion of stunted Ethiopian children shows improvement in chronic malnutrition over the past eleven years. A similar pattern is also observed for the proportion of children underweight which dropped by 20 percent from 2000 to 2005 and 12 percent from 2005 to 2011. The prevalence of wasting in Ethiopia has remained constant over the last 11 years.

Figure 11.2 Trends in Nutritional Status of Children Under Age 5



Note: For comparison purposes, the 2000 and 2005 anthropometric indicators are computed on the basis of the new WHO Standards. The values in the graph indicate percentage below -2 SD.

EDHS 2011

11.2 BREASTFEEDING AND COMPLEMENTARY FEEDING

Infant feeding affects both the mother and the child. Feeding practices affect the child's nutritional status, which in turn affects the risk of death. The duration and intensity of breastfeeding affect the mother's period of postpartum infertility, and hence the length of the birth interval and fertility levels.

11.2.1 Initiation of Breastfeeding

Early initiation of breastfeeding is important for both the mother and the child. Early suckling stimulates the release of prolactin, which helps in the production of milk, and oxytocin, which is responsible for the ejection of milk and stimulates the contraction of the uterus after childbirth. The first liquid to come from the breast, known as colostrum, is produced in the first few days after delivery and provides natural immunity to the infant. It is recommended that children be fed colostrum immediately after birth and continue to be exclusively breastfed even if the regular breast milk has not yet let down.

The survey collected information on children who were ever breastfed, who were breastfed in the first hour and the first day after birth, and who were fed anything other than breast milk before breast milk was regularly given (also known as prelacteal feeding).

Table 11.2 shows that 98 percent of children are breastfed for some period of time. Breastfeeding is widely practised across all subgroups of women, and variations by background characteristics are small.

Table 11.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Ethiopia 2011

	Among last-born children born in the past two years:					Among last-born children born in the past two years who were ever breastfed:		
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Weighted number of last-born children	Unweighted number of last-born children	Percentage who received a prelacteal feed[2]	Weighted number of last-born children ever breastfed	Unweighted number of last-born children ever breastfed
Sex								
Male	96.8	49.0	77.8	2,327	2,184	28.8	2,252	2,124
Female	98.2	54.3	82.9	2,126	2,100	25.2	2,089	2,052
Assistance at delivery								
Health professional[3]	95.1	52.7	80.4	508	647	20.6	483	619
Traditional birth attendant	97.0	49.0	78.0	1,266	1,546	33.6	1,229	1,507
Other	98.0	52.5	81.2	2,519	1,899	25.2	2,469	1,860
No one	99.9	51.3	82.3	159	191	25.7	159	189
Place of delivery								
Health facility	94.3	52.1	80.0	517	653	20.9	487	623
At home	97.9	51.5	80.3	3,916	3,583	27.8	3,833	3,505
Other	(100.0)	(39.9)	(61.5)	20	48	(32.1)	20	48
Residence								
Urban	95.2	57.1	83.2	607	751	24.2	578	720
Rural	97.8	50.6	79.7	3,846	3,533	27.5	3,762	3,456
Region								
Tigray	97.0	44.7	82.6	273	434	25.6	265	421
Affar	97.7	59.6	77.9	40	378	30.3	39	372
Amhara	96.5	37.5	66.9	983	476	47.8	949	459
Oromiya	98.0	52.6	83.6	1,917	681	21.9	1,879	667
Somali	96.8	39.6	54.8	128	358	72.5	124	346
Benishangul-Gumuz	97.5	42.2	68.7	51	373	23.4	49	364
SNNP	97.9	66.5	91.5	926	600	10.4	907	588
Gambela	97.3	59.3	73.2	15	317	28.4	14	311
Harari	97.2	64.6	86.0	11	246	31.2	11	239
Addis Ababa	93.4	62.0	74.1	95	167	25.5	89	157
Dire Dawa	99.1	66.0	81.2	14	254	34.2	14	252
Mother's education								
No education	97.9	50.7	79.0	2,956	2,845	30.1	2,893	2,787
Primary	96.6	51.5	82.3	1,296	1,184	20.5	1,252	1,144
Secondary	97.6	63.4	85.8	136	173	27.7	132	168
More than secondary	97.5	65.5	83.7	65	82	17.9	63	77
Wealth quintile								
Lowest	97.2	48.5	72.4	1,047	1,311	37.2	1,018	1,283
Second	98.1	50.9	78.7	988	782	30.1	969	766
Middle	97.9	50.7	81.3	917	704	23.1	897	686
Fourth	98.2	51.4	87.6	784	656	19.8	769	644
Highest	95.9	57.8	84.2	717	831	21.3	687	797
Total	97.5	51.5	80.2	4,453	4,284	27.1	4,340	4,176

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children are living or dead at the time of interview. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes children who started breastfeeding within one hour of birth
[2] Children given something other than breast milk during the first three days of life
[3] Doctor, nurse, or midwife

Fifty-two percent of infants started breastfeeding within one hour of birth, and 80 percent, within the first day. This percentage falls short of the HSDP IV target of 92 percent of children breastfed within one hour of birth.

Initiation of breastfeeding in the first hour and in the first 24 hours after birth varies by background characteristics. Breastfeeding within one hour after birth was more common in urban areas (57 percent) than in rural areas (51 percent). There was also considerable variation by region. Initiation of breastfeeding within one hour was lowest in the Amhara and Somali regions (38 percent and 40 percent, respectively), and highest in the SNNP and Dire Dawa regions (67 percent and 66 percent, respectively). The likelihood that a child is breastfed in the first hour after birth increases with the mother's educational status and wealth quintile. The proportion of children who breastfed within one hour of birth does not vary significantly by type of assistance at delivery.

Overall, nearly three children in every ten (27 percent) are given prelacteal feeds within the first three days of life. The practice of giving prelacteal feeds is discouraged because it limits the infant's frequency of suckling and exposes the baby to the risk of infection. Prelacteal feeding is

slightly more common in rural areas (28 percent) than in urban areas (24 percent). It also varies by region, most commonly practiced in Somali (73 percent). In contrast, 10 percent of children residing in SNNP receive prelacteal feeds.

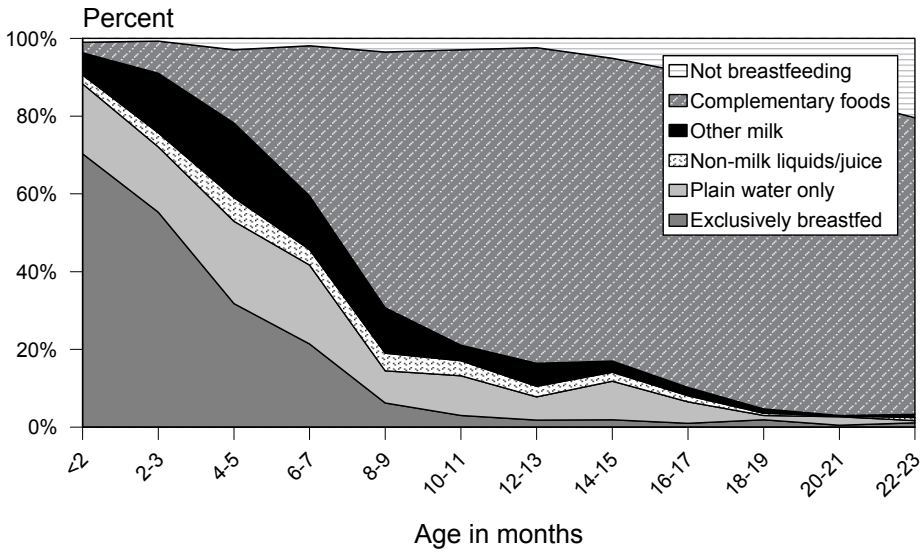
Children whose mothers were assisted during childbirth by a traditional birth attendant are most likely to receive prelacteal feeds (34 percent), while children whose mothers were assisted by a health professional are least likely (21 percent). The practice of prelacteal feeding decreases as wealth quintile increases, with the exception of children in the highest wealth quintile. Nearly four children in every ten (37 percent) of mothers in the lowest quintile receive prelacteal feeds, compared with two children in every ten of mothers in the two highest wealth quintiles (20 percent and 21 percent, respectively).

11.2.2 Breastfeeding Status by Age

UNICEF and WHO recommend that children be exclusively breastfed during the first 6 months of life and that children be given solid or semi-solid complementary food in addition to continued breastfeeding from age 6 months until 24 months or more, when the child is fully weaned. Use of bottles with nipples is not recommended at any age. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary in the first few months of life. In addition, the mother's antibodies in breast milk provide the infant with immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and thus increases their risk of infection, especially diarrhoeal disease. Second, it decreases infants' intake of breast milk and therefore suckling, which in turn reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior. Interviewers obtained information on complementary feeding by asking mothers about the current breastfeeding status of all children under 5 years of age and, for the youngest child born in the two-year period before the survey and living with the mother, foods and liquids given to the child the day and night before the survey.

Table 11.3 shows the percent distribution of youngest children under two years living with the mother by breastfeeding status and the percentage of children under two years using a bottle with a nipple, according to age in months. The data presented in Table 11.3 and Figure 11.3 show that exclusive breastfeeding during the first six months after birth is not widely practised in Ethiopia. Currently, mothers exclusively breastfeed approximately half of children under six months (52 percent). Among sub-groups the percentage of young children who are exclusively breastfed decreases sharply from 70 percent of infants age 0-1 month to 55 percent of those age 2-3 months and, further, to 32 percent among infants 4-5 months. The HSDP IV targets an increase in the proportion of exclusively breastfed infants under age 6 months to 70 percent by 2015.

Figure 11.3 Infant Feeding Practices by Age



EDHS 2011

Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under two years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under two years using a bottle with a nipple, according to age in months, Ethiopia 2011

Age in months	Breastfeeding status							Percentage currently breastfeeding	Weighted number of youngest children under two years living with the mother	Unweighted number of youngest children under two years living with the mother	Percentage using a bottle with a nipple	Weighted number of all children under two years	Unweighted number of all children under two years
	Not breastfeeding	Exclusively breastfed	Breastfeeding and consuming plain water only	Breastfeeding and consuming non milk liquids[1]	Breastfeeding and consuming other milk	Breastfeeding and consuming complementary foods	Total						
0-1	1.0	70.3	18.0	2.3	5.7	2.7	100.0	99.0	363	333	8.8	373	343
2-3	0.7	55.3	16.8	3.6	15.3	8.3	100.0	99.3	479	452	14.3	481	461
4-5	2.9	31.8	21.2	6.1	19.2	18.9	100.0	97.1	406	402	23.1	411	407
6-8	1.7	16.9	16.7	3.5	12.9	48.4	100.0	98.3	608	591	13.9	610	597
9-11	4.1	3.6	9.2	4.9	6.9	71.4	100.0	95.9	505	442	11.5	510	446
12-17	5.2	1.6	7.0	2.2	3.8	80.1	100.0	94.8	1,000	1,046	10.2	1,030	1,085
18-23	15.9	1.2	1.3	0.5	0.7	80.3	100.0	84.1	835	771	7.8	900	842
0-3	0.8	61.8	17.3	3.1	11.2	5.9	100.0	99.2	842	785	11.9	854	804
0-5	1.5	52.0	18.6	4.0	13.8	10.1	100.0	98.5	1,248	1,187	15.5	1,265	1,211
6-9	2.7	14.2	14.6	4.2	12.8	51.4	100.0	97.3	778	747	14.3	780	754
12-15	3.6	1.9	7.7	2.6	4.6	79.7	100.0	96.4	682	676	11.8	693	695
12-23	10.1	1.4	4.4	1.5	2.4	80.2	100.0	89.9	1,836	1,817	9.1	1,930	1,927
20-23	17.8	0.8	1.4	0.5	0.5	79.1	100.0	82.2	521	475	7.3	564	521

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

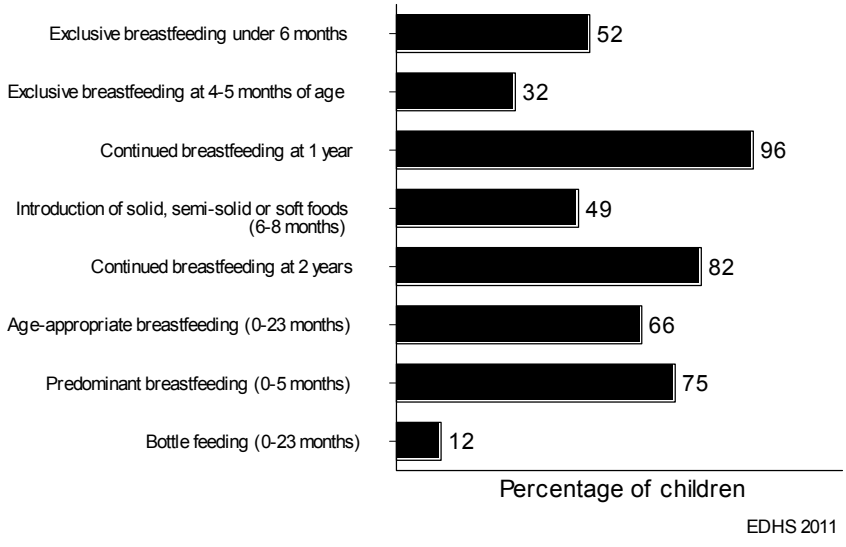
[1] Non-milk liquids include juice, juice drinks, clear broth or other liquids.

In addition to breast milk, 19 percent of infants under six months are given plain water only, while 14 percent receive milk in addition to breast milk, and 4 percent are given non-milk liquids and juice (Figure 11.3). Complementary feeding is uncommon in Ethiopia; only 3 percent of children age 0-1 months receive complementary food, and only 10 percent of infants under six months are given complementary foods in addition to breast milk, indicating that very young children are mostly fed breastmilk, as recommended. All children age 6-9 months, in contrast, should receive complementary foods. However, only half of children age 6-9 months (51 percent) received complementary foods the day or night preceding the survey. Sixteen percent of infants under six months are fed using a bottle with a nipple, a practice that is discouraged, as it increases the child's risk of illness and reduces the child's interest in breastfeeding, with consequent potential decline in milk production.

The duration of breastfeeding in Ethiopia is long. The proportion of children who are currently breastfeeding is 95 percent or more for children up to age 12-17 months and then declines to 84 percent of children age 18-23 months.

Figure 11.4 shows several infant and young child feeding (IYCF) indicators of breastfeeding status. As mentioned, 52 percent of children under six months and 32 percent of children 4-5 months are exclusively breastfed[1], and 75 percent of children under six months are predominantly breastfed[2]. About half of children age 6-8 months (49 percent) consume solid, semi-solid, or soft foods. Almost seven children of every ten (66 percent) under the age of two receive age-appropriate breastfeeding[3], while one child of every ten (12 percent) use a bottle with a nipple. Ninety-six percent of children continued breastfeeding at one year, and 82 percent continued breastfeeding at two years.

Figure 11.4 IYCF Indicators of Breastfeeding Status



[1] Note that the Multiple Indicator Cluster Survey (MICS) indicator makes a specific point of including in exclusive breastfeeding children who received ORS, vitamins, mineral supplements and medicines in addition to breast milk. The DHS questionnaire does not ask comparable questions on all of these items.

[2] Children who are exclusively breastfed, children who breastfeed and consume plain water, and children who breastfeed and consume non-milk liquids or juice.

[3] Includes children age 0-5 months who are exclusively breastfed and children age 6-23 months who receive breast milk and complementary foods.

11.2.3 Duration of Breastfeeding

Table 11.4 provides information on median duration of breastfeeding among children born in the three years preceding the survey. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children last-born in the three years preceding the survey who were being breastfed at the time of the survey.

The median duration and the mean duration of any breastfeeding in Ethiopia are 25 months. The median duration of exclusive breastfeeding is 2.3 months, and the mean duration of exclusive breastfeeding is 4.2 months. Predominant breastfeeding is defined as exclusive breastfeeding or breastfeeding in combination with plain water, water-based liquids, or juices. The median and mean lengths of predominant breastfeeding are 5.3 months and 6.9 months, respectively.

The median duration of any breastfeeding varies little by background characteristics, with the exceptions of regional and educational differences. Among regions the median duration of breastfeeding ranges from 16.7 months in the Somali region to 32.7 months in the Amhara region. Women with secondary and higher education breastfeed for several months less than women who have little or no education. For example, the median duration of breastfeeding among women with no education is 25.4 months, whereas it is 21.5 months among those with more than secondary education. Differentials in the median months of exclusive breastfeeding and predominant breastfeeding follow a similar pattern.

Table 11.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Ethiopia 2011

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	25.7	1.8	5.0
Female	24.8	2.9	5.5
Residence			
Urban	24.3	0.6	4.6
Rural	25.3	2.5	5.4
Region			
Tigray	25.6	3.1	6.7
Affar	20.7	0.6	7.1
Amhara	32.7	4.6	7.4
Oromiya	24.0	1.8	4.9
Somali	16.7	0.5	2.8
Benishangul-Gumuz	26.4	1.9	4.7
SNNP	25.4	2.2	4.3
Gambela	30.7	0.6	5.6
Harari	22.2	1.9	5.1
Addis Ababa	20.1	1.0	2.1
Dire Dawa	21.3	1.9	4.5
Mother's education			
No education	25.4	2.6	5.5
Primary	25.5	1.8	4.9
Secondary	23.9	2.1	4.7
More than secondary	21.5	0.6	0.6
Wealth quintile			
Lowest	25.0	2.6	5.3
Second	25.8	2.3	5.2
Middle	28.0	3.6	6.1
Fourth	24.8	2.3	5.2
Highest	23.8	0.6	4.0
Total	**25.2**	**2.3**	**5.3**
Mean for all children	25.1	4.2	6.9

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only.

11.2.4 Types of Complementary Foods

UNICEF and WHO recommend the introduction of solid food to infants around age 6 months because by that age breast milk alone is no longer adequate to maintain a child's optimal growth. In the transition to introducing the child to the family diet, in addition to breastfeeding, children age six months and older should be fed small quantities of solid and semi-solid foods frequently throughout the day. During this transition period (age 6-23 months), the prevalence of malnutrition increases substantially in many countries because of an increase in infections and poor feeding practices. The 2011 EDHS collected data on the types of foods given on the day and night preceding the survey to the youngest child under age 2 living with the mothers. These data are presented in Table 11.5 according to breastfeeding status.

Infant formula supplementation at any age is uncommon in Ethiopia. Among breastfeeding children under age two, very few (2 percent) consume infant formula. However, a much higher proportion (18 percent) receive other milk or other liquids. The introduction of other liquids, such as water, juice, and formula, takes place earlier than the recommended introduction at age six months. Among the youngest breastfeeding children (0-1 month), 6 percent consume other milk and 3 percent consume other liquids. Consumption of other milk increases gradually with age until age 6-8 months, when 24 percent of breastfeeding children consume milk. Consumption of other liquids also shows increasing trends with age through age 12-17 months, when 26 percent of breastfeeding children consume other liquids.

Among children age 6-23 months, foods made from grains are consumed more often than foods from any other food group. Among breastfeeding children in this age group, 66 percent ate foods made from grains, and 20 percent ate foods from legumes or nuts during the day or night preceding the interview. Among breastfeeding children age 6-23 months, only 15 percent consumed fruits and vegetables rich in vitamin A or foods made from roots and tubers. Thirteen percent of children in this age group consumed cheese, yogurt, or other dairy products in the 24 hours preceding the survey. Meat, fish, poultry, and eggs have body-building substances essential to good health. They are important for balanced physical and mental development. The introduction of these foods in the diet is late, and few children consume them. For instance, at age 6-23 months, only 5 percent of children consume meat, fish, or poultry, and 8 percent consume eggs. Overall, almost four of every five breastfeeding children age 6-23 months (78 percent) consumed some solid or semi-soild food during the day or night preceding the survey.

A comparison of dietary intake of children under two years of age by breastfeeding status shows that a higher proportion of nonbreastfeeding children are consuming solid and semi-solid foods (84 percent) than breastfeeding children (57 percent). Consumption of foods made from grains is very common (69 percent), whereas consumption of vitamin A-rich fruits and vegetables and foods made from roots and tubers is less common (24-25 percent). As expected, more nonbreastfeeding children than breastfeeding children consume milk other than breast milk (43 percent compared with 18 percent). Still; the percentage of nonbreastfeeding children consuming milk other than breast milk is low, considering that they are not benefiting from breast milk.

Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under two years of age who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Ethiopia 2011

	Liquids			Solid or semi-solid foods											
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vegetables rich in vitamin A[4]	Other fruits and vegetables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Weighted number of children	Unweighted number of children
BREASTFEEDING CHILDREN															
0-1	1.2	6.3	3.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.7	359	325
2-3	3.6	12.9	5.0	0.0	4.1	0.0	0.0	0.2	0.6	0.0	0.0	3.6	8.3	475	443
4-5	2.7	20.5	13.9	0.6	6.6	1.9	0.4	2.2	0.7	0.2	2.3	7.0	19.4	394	387
6-8	1.3	23.7	16.8	3.9	34.9	8.5	1.8	6.9	7.3	2.8	7.7	7.9	49.2	598	576
9-11	1.9	21.1	21.4	4.4	62.8	10.2	2.9	10.6	16.4	2.4	9.4	14.0	74.4	485	424
12-17	1.7	20.6	26.0	4.7	73.1	19.1	3.8	17.6	21.7	6.0	8.8	14.9	84.6	948	930
18-23	0.6	17.4	23.0	2.7	84.9	17.5	4.1	19.6	29.2	8.6	7.6	14.4	95.5	702	615
6-23	1.3	20.5	22.4	4.0	65.9	14.8	3.3	14.5	19.5	5.3	8.3	13.1	77.8	2,733	2,545
Total	1.7	18.3	17.7	2.8	46.6	10.4	2.3	10.3	13.6	3.7	6.0	10.2	56.9	3,962	3,700
NONBREASTFEEDING CHILDREN															
Total	3.3	43.3	34.7	5.7	69.4	24.6	7.4	24.4	17.3	7.4	7.6	20.0	84.1	235	337

Note: Breastfeeding status and food consumed refer to a 24-hour" period (yesterday and last night).
[1] Other milk includes fresh, tinned and powdered cow or other animal milk.
[2] Does not include plain water. Includes juice, juice drinks, clear broth, or other non-milk liquids.
[3] Includes fortified baby food.
[4] Includes pumpkin, squash, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mangoes, ripe papayas, and other fruits and vegetables that are rich in vitamin A.

11.2.5 Infant and Young Child Feeding (IYCF) Practices

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding of solid and semi-solid foods from age 6 months and improving the quality of foods consumed as the child gets older, while maintaining breastfeeding (WHO, 2008).

WHO has established guidelines with respect to IYCF practices for children age 6-23 months. Breastfeed children 6-23 months should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Since first foods almost universally include a grain- or tuber-based staple, it is unlikely that young children who eat two or fewer food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, four food groups are considered the minimum acceptable number of food groups for breastfed infants (Arimond and Ruel, 2003). Breastfed infants 6-8 months should be fed meals of complementary foods two or three times per day, with one to two snacks as desired; breastfed children 9-23 months should be fed meals three or four times per day, with one to two snacks (WHO, 2008).

Nonbreastfed children 6-23 months should receive milk products at least twice a day to ensure that their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Therefore, for nonbreastfed young children, four food groups are considered the minimum acceptable number. Nonbreastfed children should be fed meals four or five times per day, with one to two snacks as desired (WHO, 2005). Meal frequency is considered a proxy for energy intake from foods other than breast milk. Therefore, for nonbreastfed children feeding frequency indicators include both milk feeds and solid or semi-solid feeds (WHO, 2008).

Table 11.6 presents summary indicators of IYCF practices. Results show that only 4 percent of youngest children 6-23 months living with their mothers are fed in accordance with IYCF practices. More than nine children of every ten (96 percent) received breast milk or milk products during the 24-hour period before the survey, and half of the children (49 percent) were fed at least the minimum number of times. Five percent of children were fed according to minimum standards with respect to food diversity (four or more food groups). Older children and children in urban areas are more likely to be fed according to the IYCF practices than younger children or rural children. In addition, feeding practices improve as the wealth quintile and the educational level of the mother increases.

Among breastfed children age 6-23 months, 4 percent receive foods from at least four food groups, while 48 percent are fed the minimum number of times or more. In total, 4 percent of breastfed children are given foods from four or more groups and also are fed at least the minimum number of times per day.

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Ethiopia 2011

	Among breastfed children 6-23 months, percentage fed:					Among non-breastfed children 6-23 months, percentage fed:						Among all children 6-23 months, percentage fed:					
Background characteristic	4+ food groups[1]	Minimum meal frequency[2]	Both 4+ food groups and minimum meal frequency	Weighted number of breastfed children 6-23 months	Unweighted number of breastfed children 6-23 months	Milk or milk products[3]	4+ food groups[1]	Minimum meal frequency[4]	With 3 IYCF practices[5]	Weighted number of non-breastfed children 6-23 months	Unweighted number of non-breastfed children 6-23 months	Breast milk, milk, or milk products[6]	4+ food groups[1]	Minimum meal frequency[7]	With 3 IYCF practices	Weighted number of all children 6-23 months	Unweighted number of all children 6-23 months
Age in months																	
6-8	1.0	36.5	1.0	598	576	*	*	*	*	10	15	99.2	1.0	36.2	1.0	608	591
9-11	2.1	37.7	2.0	485	424	*	*	*	*	21	18	97.5	2.0	38.2	1.9	505	442
12-17	6.2	47.4	5.4	948	930	38.0	5.9	40.9	1.3	52	116	96.7	6.2	47.0	5.2	1,000	1,046
18-23	6.0	65.4	5.9	702	615	43.4	15.8	64.9	8.1	133	156	91.0	7.6	65.3	6.3	835	771
Sex																	
Male	3.7	48.3	3.3	1,379	1,265	42.4	13.4	59.3	7.5	119	167	95.4	4.5	49.2	3.6	1,497	1,432
Female	4.9	47.5	4.7	1,355	1,280	41.8	8.3	50.7	2.7	97	138	96.1	5.1	47.7	4.6	1,452	1,418
Residence																	
Urban	8.7	49.4	7.9	360	427	67.3	38.3	74.9	19.8	44	84	96.4	12.0	52.2	9.2	404	511
Rural	3.6	47.7	3.4	2,374	2,118	35.6	4.1	50.4	1.6	172	221	95.7	3.6	47.9	3.2	2,545	2,339
Region																	
Tigray	5.3	55.6	4.5	183	289	*	*	*	*	15	24	94.4	6.0	56.9	4.2	198	313
Affar	5.9	23.7	3.9	19	183	(57.8)	(3.5)	(47.8)	(0.0)	5	46	91.5	5.4	28.6	3.1	23	229
Amhara	2.1	34.0	2.1	646	316	*	*	*	*	20	10	97.7	2.0	34.0	2.0	666	326
Oromiya	6.1	56.0	5.8	1,156	415	(33.5)	(6.4)	(54.8)	(3.4)	81	28	95.7	6.1	55.9	5.7	1,237	443
Somali	0.8	11.7	0.8	53	154	75.1	9.1	45.4	5.2	23	64	92.5	3.3	21.9	2.2	75	218
Benishangul-Gumuz	5.3	46.0	4.1	32	236	*	*	*	*	2	14	96.8	5.4	46.2	3.9	34	250
SNNP	2.5	48.9	2.3	567	370	(44.3)	(17.0)	(60.2)	(11.3)	54	33	95.2	3.8	49.8	3.1	620	403
Gambela	9.8	35.4	7.3	9	191	*	*	*	*	0	7	97.7	12.0	36.2	7.0	9	198
Harari	5.9	48.5	4.7	7	160	*	*	*	*	1	19	93.6	7.7	50.9	4.2	8	179
Addis Ababa	7.5	50.8	4.6	53	92	(65.9)	(30.2)	(72.8)	(9.1)	14	26	92.8	12.3	55.4	5.5	67	118
Dire Dawa	12.0	56.0	11.0	8	139	(57.8)	(25.4)	(66.2)	(11.9)	2	34	91.7	14.6	58.0	11.2	10	173
Mother's education																	
No education	2.3	43.8	2.1	1,881	1,727	35.8	1.6	45.0	0.6	113	184	96.4	2.2	43.9	2.0	1,993	1,911
Primary	7.3	55.9	6.9	741	679	45.0	16.4	62.7	7.5	88	90	94.2	8.3	56.6	7.0	829	769
Secondary	8.2	61.2	7.3	69	97	*	*	*	*	10	18	96.5	15.1	65.8	10.7	79	115
More than secondary	(32.8)	(66.5)	(30.6)	43	42	*	*	*	*	5	13	96.1	32.5	67.8	28.7	48	55
Wealth quintile																	
Lowest	1.4	42.2	1.2	657	757	38.7	1.4	38.4	0.0	32	80	97.1	1.4	42.0	1.2	689	837
Second	4.7	47.1	4.0	616	480	(29.6)	(3.6)	(47.1)	(0.0)	46	46	95.1	4.6	47.1	3.8	661	526
Middle	2.9	50.9	2.9	547	415	(35.6)	(0.2)	(56.1)	(0.0)	47	42	94.9	2.7	51.3	2.7	594	457
Fourth	3.9	50.6	3.9	486	407	(37.6)	(6.2)	(54.7)	(0.0)	38	43	95.5	4.1	50.9	3.6	524	450
Highest	10.2	51.0	9.6	428	486	64.1	37.1	73.0	21.8	53	94	96.1	13.2	53.4	10.9	481	580
Total	4.3	47.9	4.0	2,733	2,545	42.1	11.1	55.4	5.3	216	305	95.8	4.8	48.5	4.1	2,949	2,850

[1] Food groups: a. infant formula, milk other than breast milk, cheese or yogurt; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, shellfish, and organ meats; g. legumes and nuts.
[2] For breastfed children, minimum meal frequency is receiving solid or semi-solid food at least twice a day for infants 6-8 months and at least three times a day for children 9-23 months
[3] Includes two or more feedings of commercial infant formula fresh, tinned and powdered animal milk; and yogurt.
[4] For non-breastfed children age 6-23 months, minimum meal frequency is receiving solid or semi-solid food or milk feeds at least four times a day.
[5] Non-breastfed children age 6-23 months are considered to be fed with a minimum standard of three Infant and young child feeding practices if they receive other milk or milk products at least twice a day, receive the minimum meal frequency, and receive solid or semi-solid foods from at least four food groups not including the milk/milk product group.
[6] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt.
[7] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 4.

11.3 PREVALENCE OF ANAEMIA IN CHILDREN

Anaemia is a condition characterised by a low level of haemoglobin in the blood. Haemoglobin is necessary for transporting oxygen to tissues and organs in the body. About half of the global burden of anaemia is due to iron deficiency. Iron deficiency, in turn, is largely due to an inadequate dietary intake of bioavailable iron, inadequate dietary iron during periods of increased iron requirements (such as pregnancy and infancy), increased blood loss due to hookworm infestation, and infections such as malaria. Nutritional anaemia includes anaemia due to deficiency in iron plus deficiencies in folate, vitamins B and B12, and certain trace elements involved with red blood cell production. Anaemia in children is associated with impaired mental and physical development and with increased morbidity and mortality. Anaemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight. WHO considers anaemia prevalence over 40 percent in a population to be a major public health problem, anaemia prevalence between 20 and 40 percent is considered a medium-level public health problem, and between 5 to less than 20 percent is considered a mild public health problem (WHO, 2001).

A number of interventions have been put in place in Ethiopia to address the high prevalence of anaemia in children. These include distribution and promotion of the use of insecticide-treated mosquito nets (ITNs) and deworming of children age 2-5 every six months. Other programmes that seek to reduce anaemia include the Enhanced Outreach Strategy (EOS) with Targeted Supplementary Food (TSF), Health Facility Nutrition Services, Community Based Nutrition (CBN), Micronutrient Interventions, and Essential Nutrition Actions.

Table 11.7 presents anaemia levels among children age 6-59 months, according to selected background characteristics. Haemoglobin was measured in 9,157 children (9,800 children weighted) that account for 93 percent of all children. Unadjusted (i.e., measured) haemoglobin values are obtained using the HemoCue instrument. Given that haemoglobin requirements differ substantially depending on altitude, an adjustment to sea-level equivalents has been made before classifying children by level of anaemia. These adjustments for altitude are reflected in Table 11.7.

More than four in ten Ethiopian children (44 percent) are anaemic. One child of every five (21 percent) has mild anaemia, another 20 percent have moderate anaemia, and 3 percent have severe anaemia. Anaemia prevalence is highest among children age 9-11 months (73 percent) and decreases steadily with age from 12 to 59 months. Forty-five percent of children in rural areas have anaemia, compared with 35 percent of children in urban areas. Regional variation of anaemia in children ranges from 33 percent in Addis Ababa to 75 percent in Affar. Anaemia among children decreases with increases in mother's education and wealth quintile.

The national anaemia prevalence estimate has dropped by 19 percent in the past six years, from 54 percent in 2005 to 44 percent in 2011 (Figure 11.5). This change is due largely to the drop in the prevalence of moderate anaemia; estimates of the prevalence of mild and severe anaemia have remained stable. The prevalence of moderate anaemia decreased from 28 percent in 2005 to 20 percent in 2011.

Table 11.7 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Ethiopia 2011

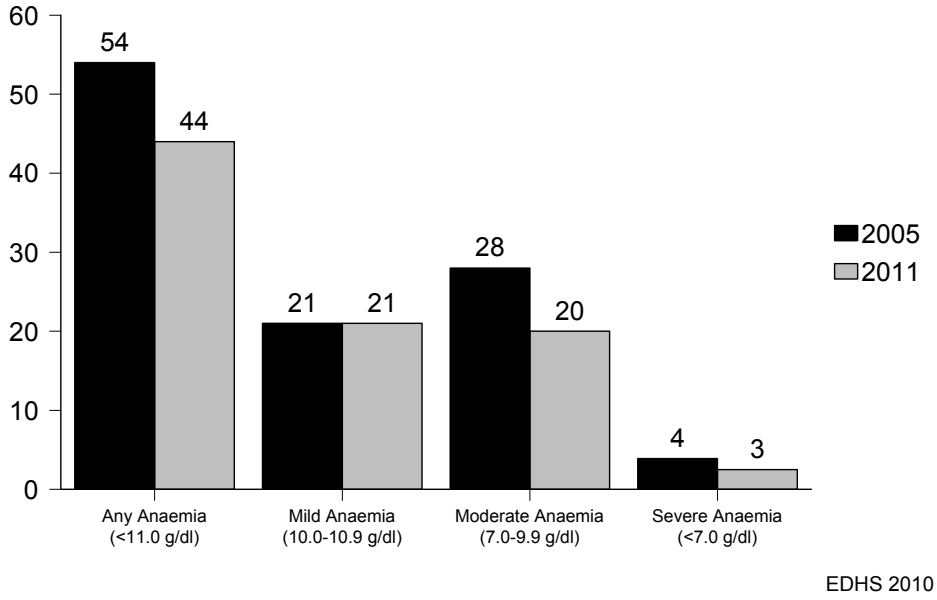
Background characteristic	Anaemia status by haemoglobin level				Weighted number of children	Unweighted number of children
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (< 7.0 g/dl)		
Age in months						
6-8	61.3	24.2	35.7	1.5	572	528
9-11	72.7	26.3	40.7	5.7	500	411
12-17	62.6	25.3	33.7	3.6	997	1,011
18-23	52.2	22.1	27.9	2.2	901	806
24-35	45.4	22.9	18.0	4.5	2,062	2,016
36-47	35.8	19.3	15.1	1.4	2,434	2,237
48-59	30.8	18.5	11.3	1.0	2,334	2,148
Sex						
Male	44.3	20.9	20.7	2.7	5,032	4,692
Female	44.2	21.9	20.0	2.3	4,768	4,465
Mother's interview status						
Interviewed	44.6	21.7	20.5	2.5	9,073	8,461
Not interviewed but in household	38.0	16.9	16.8	4.2	217	222
Not interviewed, and not in the household[1]	39.4	17.2	20.5	1.8	510	474
Residence						
Urban	35.2	15.7	18.0	1.5	1,139	1,388
Rural	45.4	22.1	20.7	2.6	8,661	7,769
Region						
Tigray	37.5	17.4	17.5	2.6	661	1,027
Affar	74.7	21.6	46.1	7.0	95	877
Amhara	35.1	19.4	14.5	1.1	2,148	1,041
Oromiya	51.7	22.9	25.1	3.7	4,199	1,442
Somali	68.7	24.5	35.2	9.0	241	691
Benishangul-Gumuz	46.5	25.1	19.6	1.8	111	808
SNNP	36.9	21.3	15.1	0.5	2,111	1,352
Gambela	50.9	22.4	26.0	2.5	29	637
Harari	55.5	26.6	26.6	2.3	19	451
Addis Ababa	33.2	17.0	15.3	1.0	155	281
Dire Dawa	62.9	18.0	34.7	10.2	30	550
Mother's education[2]						
No education	45.5	21.4	21.4	2.6	6,546	6,189
Primary	42.9	22.6	17.8	2.5	2,446	2,122
Secondary	41.4	18.6	21.1	1.6	175	250
More than secondary	30.1	15.8	14.3	0.0	122	121
Wealth quintile						
Lowest	47.9	20.5	24.2	3.2	2,216	2,847
Second	47.6	23.0	21.2	3.3	2,180	1,699
Middle	43.3	21.9	18.9	2.5	2,066	1,526
Fourth	43.1	21.6	19.5	2.0	1,985	1,549
Highest	35.9	18.9	16.3	0.7	1,353	1,536
Total	44.2	21.4	20.4	2.5	9,800	9,157

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anaemia. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulas from CDC, 1998. Haemoglobin in grams per decilitre (g/dl)

[1] Includes children whose mothers are deceased

[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 11.5 Trends in Anaemia Status among Children 6-59 Months



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11.4 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation. Table 11.8 summarises information collected in the 2011 EDHS on children's intake of vitamin A and iron, receipt of deworming medications, and whether they live in households with iodized salt.

Vitamin A is an essential micronutrient for the immune system that plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD can also increase the severity of infections such as measles and diarrhoeal diseases in children and slow recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for four to six months. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD.

Table 11.8 shows that 26 percent of youngest children age 6-23 months living with their mothers consumed foods rich in vitamin A in the 24 hours preceding the interview. The proportion of children consuming vitamin A rich foods increases with age (from 16 percent at 6-8 months to 31 percent at 18-23 months). Nonbreastfeeding children are more likely than breastfeeding children to consume foods rich in vitamin A (34 percent compared with 25 percent). Urban children (38 percent) are more likely than rural children (24 percent) to consume foods rich in vitamin A. With regard to regions, children living in the Gambela region are most likely to consume foods rich in vitamin A (48 percent), while those in the Affar region are least likely (11 percent). Mother's level of education is directly related to the consumption of foods rich in vitamin A; 20 percent of children whose mothers have no education consumed foods rich in vitamin A in the 24 hours before the survey,

compared with 58 percent of children whose mothers have more than secondary education. Likewise, as household wealth increases, so does the proportion of children who receive foods rich in vitamin A, from 19 percent among children in the lowest wealth quintile to 40 percent among children in the highest wealth quintile.

As noted, low iron intake can also contribute to anaemia. Also, iron is essential for cognitive development. Iron requirements are greatest at ages 6-11 months, when growth is extremely rapid. As Table 11.8 shows, 13 percent of children age 6-23 months consumed iron-rich foods in the 24 hours preceding the survey. Consumption of foods rich in iron increases with age, as children age 18-23 months are more likely to consume foods rich in iron than children age 6-8 months (16 percent and 10 percent, respectively). The consumption of iron-rich foods is more common in urban areas (22 percent) than in rural areas (12 percent). Children in Gambela are most likely to consume iron-rich foods (33 percent), while those living in Affar, SNNP, and Somali are the least likely (6 percent each). Children whose mothers have some secondary education are more likely to consume iron-rich foods (31 percent) than those whose mothers have no education (11 percent). Similarly, wealth status is directly related to the consumption of foods rich in iron, with 9 percent of children in the lowest wealth quintile consuming foods rich in iron in the 24 hours before the survey compared with 23 percent of children in the highest wealth quintile.

The 2011 EDHS also collected data on vitamin A and iron supplementation for children age 6-59 months. Table 11.8 shows that more than half of children age 6-59 months (53 percent) received vitamin A supplements in the six months preceding the survey. Vitamin A supplementation does not show a clear pattern among children of different age cohorts. Children in urban areas are slightly more likely to have received vitamin A supplements in the past six months (57 percent) than those in rural areas (53 percent). At the regional level the proportion of children receiving vitamin A supplements was exceptionally low in Somali and Affar (26 percent and 35 percent, respectively), while Tigray had the highest proportion of children who were given vitamin A supplementation (83 percent). Mother's level of education is closely associated with children receiving vitamin A supplements; 51 percent of children whose mothers have no education received vitamin A supplements in the past six months compared with 72 percent of children whose mothers have more than a secondary education. A similar pattern is observed with household wealth status.

Iron supplementation coverage is generally low in Ethiopia. Only 6 percent of children age 6-59 months were given iron supplements in the seven days preceding the survey. It is, however, worth noting that Benishangul-Gumuz and Dire Dawa have relatively high coverage (20 percent and 19 percent, respectively) compared with other regions. Rural children were twice as likely as urban children to have received iron supplements in the seven days preceding the survey (6 percent compared with 3 percent).

Infection with helminths or intestinal worms has an adverse impact on the physical development of children and is associated with high levels of iron deficiency anaemia and other nutritional deficiencies. Regular treatment with deworming medication is a simple, cost-effective measure to address these infections. As Table 11.8 shows, 21 percent of children age 6-59 months received deworming medication during the six months preceding the survey. The likelihood of receiving deworming medication increases with the child's age, mother's age at childbirth, mother's education, and wealth status. Non-breastfed children as well as urban children are more likely to receive deworming medication than their counterparts. Benishangul-Gumuz (27 percent), Amhara and Tigray regions (26 percent, each) have the highest proportion of children who received deworming medication, while Somali is the region with the lowest proportion (6 percent).

Table 11.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A rich and iron-rich foods in the day or night preceding the survey, and among all children 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the past seven days, and who were given deworming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Ethiopia 2011

	Among youngest children age 6-23 months living with the mother:				Among all children age 6-59 months:					Among children age 6-59 months living in households tested for iodized salt		
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Weighted number of children	Unweighted number of children	Percentage given vitamin A supplements in past 6 months	Percentage given iron supplements in past 7 days	Percentage given deworming medication in past 6 months[3]	Weighted number of children	Unweighted number of children	Percentage living in households with iodized salt[4]	Weighted number of children	Unweighted number of children
Age in months												
6-8	16.4	10.3	608	591	40.5	1.8	3.5	610	597	14.4	600	570
9-11	18.8	11.3	505	442	54.7	3.7	5.6	510	446	15.4	501	430
12-17	30.1	14.2	1,000	1,046	51.5	3.3	14.5	1,030	1,085	18.1	996	1,030
18-23	31.2	15.7	835	771	58.4	6.8	17.5	900	842	17.9	865	792
24-35	na	na	na	na	56.0	6.8	24.7	2,063	2,099	15.5	1,985	1,984
36-47	na	na	na	na	53.4	6.6	23.9	2,381	2,311	14.7	2,326	2,227
48-59	na	na	na	na	51.6	7.2	26.8	2,282	2,217	15.2	2,201	2,085
Sex												
Male	26.3	13.7	1,497	1,432	52.2	5.6	21.5	5,002	4,894	15.4	4,846	4,650
Female	25.0	12.9	1,452	1,418	53.9	6.5	20.3	4,775	4,703	15.9	4,629	4,468
Breastfeeding status												
Breastfeeding	25.1	13.2	2,733	2,545	55.8	5.2	16.4	3,987	3,591	15.1	3,870	3,408
Not breastfeeding	33.5	14.6	216	303	51.4	6.6	24.2	5,751	5,965	16.1	5,566	5,670
Mother's age at birth												
15-19	25.9	14.5	185	190	49.7	4.1	12.6	331	349	19.5	324	333
20-29	28.1	15.6	1,632	1,542	51.1	5.4	19.6	5,055	4,888	15.1	4,930	4,662
30-39	23.6	10.7	934	944	56.2	6.9	23.0	3,491	3,510	16.4	3,381	3,334
40-49	15.8	6.1	199	174	53.2	6.9	23.8	900	850	14.3	840	789
Residence												
Urban	37.9	22.3	404	511	56.8	3.3	25.0	1,278	1,679	23.7	1,248	1,616
Rural	23.8	11.9	2,545	2,339	52.5	6.4	20.3	8,499	7,918	14.4	8,227	7,502
Region												
Tigray	24.6	20.4	198	313	82.8	11.4	25.7	640	1,021	21.9	624	995
Affar	11.4	5.5	23	229	35.3	13.3	18.5	98	909	18.9	96	886
Amhara	16.1	10.4	666	326	63.8	8.1	25.9	2,220	1,083	9.8	2,152	1,050
Oromiya	26.8	17.4	1,237	443	48.7	4.8	19.8	4,082	1,434	18.3	3,992	1,403
Somali	11.7	6.3	75	218	26.3	1.7	6.0	294	829	21.2	259	733
Benishangul-Gumuz	31.9	18.3	34	250	59.9	19.7	26.6	113	820	39.0	110	796
SNNP	34.5	6.0	620	403	43.9	3.9	18.2	2,049	1,326	11.4	1,971	1,275
Gambela	47.8	32.8	9	198	55.6	11.2	23.9	33	680	23.0	27	525
Harari	29.6	13.9	8	179	62.6	7.7	21.3	24	562	4.3	24	557
Addis Ababa	33.3	16.1	67	118	62.3	5.0	21.1	191	346	29.5	189	342
Dire Dawa	38.1	23.8	10	173	67.6	19.1	19.3	33	587	5.6	31	556
Mother's education												
No education	20.4	10.5	1,993	1,911	50.6	5.4	19.6	6,794	6,719	14.8	6,572	6,387
Primary	33.6	17.4	829	769	57.4	7.7	22.8	2,630	2,389	15.7	2,564	2,260
Secondary	55.6	30.7	79	115	63.7	4.7	31.0	198	318	31.0	197	308
More than secondary	57.5	30.4	48	55	71.9	7.1	34.5	155	171	30.1	143	163
Wealth quintile												
Lowest	18.5	9.2	689	837	45.2	5.2	15.4	2,192	2,919	13.4	2,093	2,662
Second	20.4	9.9	661	526	53.2	8.1	19.7	2,165	1,734	12.2	2,123	1,680
Middle	26.4	12.0	594	457	51.4	5.5	19.9	1,989	1,518	15.4	1,925	1,463
Fourth	28.1	15.5	524	450	59.6	6.5	26.9	1,935	1,580	17.7	1,904	1,542
Highest	39.7	23.1	481	580	58.1	4.3	24.6	1,495	1,846	21.6	1,430	1,771
Total	25.7	13.3	2,949	2,850	53.1	6.0	21.0	9,777	9,597	15.6	9,475	9,118

Note: Information on vitamin A is based on both mother's recall and the immunization card. Information on iron supplements and deworming medication is based on the mother's recall. Total includes 39 cases with missing information on breastfeeding status.

na = Not applicable

[1] Includes meat, organ meat, fish, poultry, eggs, pumpkin, squash, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mangoes, ripe papayas, and other fruits and vegetables that are rich in vitamin A

[2] Includes meat, organ meat, fish, and eggs

[3] Deworming for intestinal parasites is commonly done for helminths and for schistosomiasis.

[4] Excludes children in households in which salt was not tested

Iodine deficiency has serious effects on body growth and mental development. The principal cause of iodine deficiency is inadequate iodine in foods. The fortification of salt with iodine is the most common method of preventing iodine deficiency. According to WHO, a country's salt iodisation programme is considered to be on a good track (poised to attain the goal of eliminating iodine deficiency) when 90 percent of the households are using iodised salt. To assess the use of iodised salt in Ethiopia, interviewers in the 2011 EDHS asked households to provide a teaspoon of salt used for cooking. The salt was tested for iodine using the iodine rapid test kit.

As Table 11.8 shows, only 16 percent of children live in households that use iodised salt. The percentage is higher in urban areas than in rural areas (24 percent compared with 14 percent). At the regional level Benishangul-Gumuz has the highest proportion of households using iodised salt (39 percent) and Harari has the lowest percentage (4 percent). In general, use of iodised salt is correlated with the mother's education level; about 30 percent of children of mothers who are educated at the secondary or higher level live in households using iodised salt, compared with 15 percent of children whose mothers have no education. A similar pattern is observed according to household wealth quintile.

11.5 IODISATION OF HOUSEHOLD SALT

Table 11.9 shows the percentage of households with salt tested for iodine content, the percentage of households without salt, and, among households with tested salt, the percentage with iodine present in the salt. Ninety-four percent of households had salt tested for iodine at the time of the interview. Of these households, 15 percent were using iodised salt.

Table 11.9 Presence of iodised salt in household

Among all households, the percentage with salt tested for iodine content and the percentage with no salt in the household; and among households with salt tested, the percentage with iodised salt, according to background characteristics, Ethiopia 2011

	Among all households, the percentage:				Among households with tested salt:		
Background characteristic	With salt tested	With no salt in the household	Weighted number of households	Unweighted number of households	Percentage with iodised salt	Weighted number of households	Unweighted number of households
Residence							
Urban	89.9	9.0	3,780	5,112	23.2	3,398	4,535
Rural	94.9	4.5	12,922	11,590	13.3	12,266	10,695
Region							
Tigray	95.0	4.5	1,134	1,730	22.3	1,078	1,647
Affar	93.9	5.7	143	1,267	17.8	134	1,199
Amhara	94.0	5.3	4,452	2,071	9.6	4,186	1,956
Oromiya	94.9	4.3	6,221	2,165	17.4	5,905	2,053
Somali	79.1	17.2	343	975	19.2	271	792
Benishangul-Gumuz	93.4	6.0	181	1,323	39.7	169	1,241
SNNP	93.1	6.5	3,256	2,045	12.2	3,031	1,909
Gambela	76.7	22.6	66	1,215	22.9	51	895
Harari	91.0	5.4	53	1,201	5.6	48	1,093
Addis Ababa	93.3	5.9	781	1,524	29.6	729	1,418
Dire Dawa	85.9	12.1	73	1,186	5.7	63	1,027
Wealth quintile							
Lowest	93.4	6.3	3,213	3,972	11.3	3,002	3,519
Second	96.2	3.4	3,222	2,534	11.7	3,100	2,397
Middle	95.3	4.1	3,091	2,364	14.7	2,945	2,226
Fourth	95.1	4.1	3,070	2,419	15.6	2,921	2,258
Highest	90.0	8.6	4,106	5,413	22.3	3,697	4,830
Total	93.8	5.5	16,702	16,702	15.4	15,664	15,230

Urban households are more likely to use iodised salt (23 percent) than rural households (13 percent). At the regional level Benishangul-Gumuz and Addis Ababa have the highest proportions of households using iodised salt (40 percent and 30 percent, respectively), whereas the Dire Dawa and Harari regions have the lowest (6 percent). Households in the highest wealth quintile are twice as likely to use iodised salt as households in the lowest two wealth quintiles.

11.6 NUTRITIONAL STATUS OF WOMEN AND MEN

The nutritional status of women and men was assessed by use of two anthropometric indices—height and body mass index (BMI). To derive those indices, the 2011 EDHS measured the height and weight of women age 15-49 years and men age 15-59 years. Results are presented for women in Table 11.10.1 and for men in Table 11.10.2.

Short stature reflects previous poor socioeconomic conditions and inadequate nutrition during childhood and adolescence. In a woman short stature is a risk factor for poor birth outcomes and obstetric complications. For example, short stature is associated with small pelvic size, which increases the likelihood of difficulty during delivery and the risk of bearing low birth weight babies. A woman is considered to be at risk if her height is below 145 cm.

BMI is used to measure thinness or obesity. BMI is defined as weight in kilograms divided by height in metres squared (kg/m^2). A BMI below 18.5 indicates thinness or acute undernutrition. A BMI below 17 kg/m^2 indicates severe undernutrition and is associated with increased mortality. Low pre-pregnancy BMI, like short stature, is associated with poor birth outcomes and obstetric complications. A BMI of 25.0 or above indicates overweight or obesity

Table 11.10.1 shows the percentage of women with height under 145 cm, the mean BMI, and the proportion of women falling into high-risk categories, by background characteristics. Respondents for whom there was no information on height or weight and for whom a BMI could not be estimated are excluded from this analysis. The data analysis on BMI is based on 14,505 women age 15-49 years, while the height analysis is based on 16,062 women.

As shown in Table 11.10.1, 3 percent of Ethiopian women are below 145 cm in height. In general, height differs little with background characteristics. Adolescent women, age 15-19 years, are most likely to be below 145 cm. Women of short stature are most likely to reside in the Amhara region, and to have no education or primary education.

The mean BMI for Ethiopian women age 15-49 is 20 kg/m^2. There are no major differences in mean BMI by women's age, urban or rural residence, region, or education level. The mean BMI increases slightly with wealth, from 20 kg/m^2 for women in the lowest wealth quintile to 22 kg/m^2 in the highest quintile. Sixty-seven percent of Ethiopian women have a normal BMI (between 18.5 and 24.9 kg/m^2), while 27 percent of women are thin or undernourished (BMI less than 18.5 kg/m^2) and 6 percent are overweight or obese (BMI 25 kg/m^2 or above).

Adolescents (age 15-19) are more likely to be thin (36 percent) than older women. Rural women also are more likely to be thin than urban women, and those residing in the Affar region are the most likely to be thin of any region. By education, women who have attended up to primary school have the greatest likelihood of being thin. Those in the lowest wealth quintile also are more likely to be thin than women in other wealth quintiles.

Overweight or obesity (BMI 25 kg/m^2 or above) is not common among women in Ethiopia. Five percent are overweight (BMI 25-29 kg/m^2), and just 1 percent are obese (BMI 30 kg/m^2 or above). Younger women are less likely than older women to be overweight or obese. For example, 2 percent of women age 15-19 are overweight or obese compared with 9 percent of women age 40-49. Urban women are more likely to be overweight or obese (15 percent) than rural women (3 percent). One woman of every five residing in Addis Ababa and the Dire Dawa region are overweight or obese (20 percent and 19 percent, respectively), compared with 3 percent of women in Benishangul-Gumuz and Tigray. Being overweight or obese is positively correlated with educational attainment; the proportion of overweight or obese women increases steadily from 4 percent among those with no education to 17 percent among those with more than secondary schooling. Similarly, the proportion of overweight or obese women increases as wealth increases, from 2 percent in the lowest wealth quintile to 16 percent in the highest quintile.

Table 11.10.1 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Ethiopia 2011

	Height			Body Mass Index[1]									
					Normal	Thin			Overweight/Obese				
Background characteristic	Percentage below 145 cm	Weighted number of women	Unweighted number of women	Mean Body Mass Index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Weighted number of women	Unweighted number of women
Age													
15-19	5.6	3,895	3,701	19.5	61.5	36.1	20.7	15.5	2.4	2.2	0.2	3,724	3,534
20-29	2.2	5,920	6,003	20.4	73.5	21.3	15.9	5.4	5.2	4.6	0.6	5,099	5,163
30-39	3.6	3,846	3,911	20.6	68.1	24.1	17.1	6.9	7.8	6.2	1.6	3,359	3,413
40-49	2.6	2,401	2,353	20.4	62.7	28.5	18.4	10.2	8.7	6.7	2.0	2,323	2,271
Residence													
Urban	2.9	3,747	5,022	21.4	65.0	20.1	12.9	7.2	14.9	12.1	2.8	3,569	4,752
Rural	3.6	12,315	10,946	19.9	68.2	29.1	19.4	9.7	2.6	2.3	0.4	10,936	9,629
Region													
Tigray	3.2	1,096	1,716	19.3	56.8	40.0	23.7	16.3	3.2	2.9	0.3	1,001	1,565
Affar	3.1	143	1,277	19.4	52.2	43.5	21.7	21.8	4.3	3.0	1.3	125	1,102
Amhara	4.9	4,303	2,032	19.9	66.6	29.8	18.0	11.8	3.6	3.1	0.5	3,985	1,871
Oromiya	2.7	5,915	2,099	20.2	68.4	26.9	19.4	7.5	4.7	3.8	0.9	5,258	1,872
Somali	0.7	303	849	20.9	51.4	32.7	18.9	13.8	15.9	10.2	5.7	255	717
Benishangul-Gumuz	3.0	170	1,231	20.0	69.3	27.8	19.6	8.2	2.9	2.3	0.6	148	1,063
SNNP	3.6	3,109	1,955	20.5	73.6	20.3	14.3	6.0	6.1	5.5	0.5	2,760	1,731
Gambela	1.8	68	1,101	20.3	62.1	31.0	17.1	13.9	6.9	5.6	1.3	63	1,001
Harari	1.4	46	1,032	21.4	63.5	22.1	15.9	6.2	14.4	11.0	3.4	42	949
Addis Ababa	2.7	845	1,645	22.2	65.7	14.4	9.5	4.9	19.9	15.8	4.0	810	1,583
Dire Dawa	1.2	65	1,031	21.5	56.6	24.9	16.9	8.0	18.5	13.4	5.1	59	927
Education													
No education	3.4	8,193	8,040	20.1	69.7	26.5	18.0	8.5	3.8	3.0	0.7	7,194	7,013
Primary	4.0	6,107	5,676	20.1	64.5	30.1	19.3	10.8	5.4	4.7	0.7	5,621	5,206
Secondary	1.6	1,069	1,325	21.2	66.3	20.3	12.8	7.5	13.3	10.7	2.7	1,024	1,272
More than secondary	1.1	693	927	21.8	69.2	14.2	10.5	3.8	16.6	13.3	3.2	665	890
Wealth quintile													
Lowest	4.1	2,922	3,635	19.6	65.8	32.4	20.9	11.5	1.8	1.4	0.4	2,531	3,106
Second	4.0	2,985	2,362	19.7	66.8	31.0	19.3	11.7	2.3	1.9	0.4	2,658	2,097
Middle	3.5	2,975	2,216	19.8	71.2	26.8	17.6	9.3	1.9	1.8	0.2	2,649	1,969
Fourth	3.5	3,148	2,449	20.0	68.7	28.8	20.4	8.4	2.5	2.3	0.2	2,853	2,198
Highest	2.4	4,031	5,306	21.5	65.5	19.0	12.9	6.1	15.5	12.6	3.0	3,815	5,011
Total	3.4	16,062	15,968	20.2	67.4	26.9	17.8	9.1	5.7	4.7	1.0	14,505	14,381

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months.

Table 11.10.2 presents the nutritional status of men. The mean BMI for Ethiopian men age 15-49 is 19 kg/m^2. There is little difference in the mean BMI by background characteristics. Sixty percent of Ethiopian men age 15-49 have a normal BMI (between 18.5-24.9 kg/m^2), whereas 37 percent are thin or undernourished (BMI less than 18.5 kg/m^2), and 2 percent are overweight or obese (BMI 25 kg/m^2 or above).

Young men, age 15-19, are more likely to be thin (66 percent) than their older counterparts. Rural men are slightly more likely to be thin (39 percent) than urban men (32 percent). Among regions, those residing in the Somali region are most likely to be thin (62 percent), and those living in Addis Ababa are least likely (22 percent). Men who attended only primary school are more likely than those with higher educational levels and those with no education to have a BMI of less than 18.5 kg/m^2. Forty-four percent of men in the lowest wealth quintile are thin, compared with 29 percent in the highest wealth quintile.

Table 11.10.2 Nutritional status of men

Among men age 15-49, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Ethiopia 2011

	Body Mass Index									
		Normal	Thin			Overweight/Obese				
Background characteristic	Mean Body Mass Index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Weighted number of men	Unweighted number of men
Age										
15-19	17.8	33.8	65.9	29.1	36.7	0.4	0.3	0.1	2,864	2,681
20-29	19.5	68.1	30.7	23.8	6.9	1.3	1.2	0.1	4,440	4,376
30-39	20.0	70.5	25.3	19.3	6.0	4.2	3.8	0.3	3,033	3,106
40-49	19.9	66.5	29.0	20.1	8.9	4.5	3.7	0.8	1,979	2,070
Residence										
Urban	20.1	60.8	31.5	20.7	10.9	7.6	6.9	0.7	2,687	3,603
Rural	19.1	60.3	38.9	24.1	14.8	0.8	0.7	0.1	9,630	8,630
Region										
Tigray	18.8	49.9	47.8	27.0	20.8	2.3	2.1	0.2	757	1,216
Affar	18.5	40.8	56.8	28.4	28.4	2.4	2.4	0.0	99	885
Amhara	18.9	56.2	42.7	25.7	17.0	1.2	1.0	0.2	3,368	1,687
Oromiya	19.3	62.5	35.9	23.8	12.2	1.6	1.3	0.3	4,790	1,822
Somali	18.2	36.1	62.0	28.3	33.7	1.9	1.9	0.0	217	589
Benishangul-Gumuz	19.3	60.4	37.6	25.0	12.5	2.0	1.7	0.3	131	997
SNNP	19.7	68.1	29.5	19.1	10.4	2.4	2.4	0.1	2,171	1,460
Gambela	19.7	64.9	33.2	23.6	9.5	2.0	1.8	0.1	56	823
Harari	19.9	58.8	34.8	22.1	12.6	6.4	5.5	1.0	36	816
Addis Ababa	21.1	65.6	22.0	15.0	7.0	12.4	10.8	1.6	643	1,164
Dire Dawa	20.3	53.4	36.5	25.5	11.0	10.1	8.4	1.8	49	774
Education										
No education	19.3	64.1	34.6	23.9	10.7	1.3	1.2	0.1	3,668	3,526
Primary	19.0	57.2	41.6	24.3	17.3	1.2	1.0	0.1	6,547	6,032
Secondary	19.8	61.7	32.9	22.4	10.5	5.4	5.1	0.3	1,225	1,454
More than secondary	20.8	67.2	22.1	15.2	6.8	10.7	8.8	1.9	875	1,221
Wealth quintile										
Lowest	18.7	55.0	44.4	24.5	19.8	0.6	0.6	0.0	2,058	2,473
Second	18.9	57.7	42.1	26.1	16.0	0.2	0.1	0.1	2,293	1,829
Middle	19.1	64.4	35.1	21.5	13.6	0.5	0.4	0.1	2,399	1,872
Fourth	19.2	59.3	39.4	27.0	12.4	1.3	1.1	0.2	2,576	2,105
Highest	20.2	64.1	28.6	18.7	9.9	7.3	6.5	0.8	2,991	3,954
Total 15-49	19.3	60.4	37.3	23.3	13.9	2.3	2.0	0.3	12,316	12,233
50-59	19.9	65.0	30.5	22.3	8.2	4.5	3.9	0.6	1,230	1,184
Total 15-59	19.4	60.9	36.6	23.2	13.4	2.5	2.2	0.3	13,546	13,417

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2).

Two percent of Ethiopian men 15-49 are overweight, while less than 1 percent are obese. The proportion of overweight or obese men increases with age. Nearly 8 percent of urban men are overweight or obese, compared with less than 1 percent of rural men. Addis Ababa and Dire Dawa have relatively high proportions of overweight or obese men (12 percent and 10 percent, respectively), while the Amhara region has the lowest proportion (1 percent). The proportion of overweight or obese men increases with education and wealth. For example, 1 percent of men with no education are overweight or obese, compared with 11 percent with more than secondary school education. Similarly, 1 percent of men in the lowest wealth quintile are overweight or obese, compared with 7 percent of men in the highest quintile.

11.7 PREVALENCE OF ANAEMIA IN WOMEN

Anaemia in pregnant women results in an increased risk of premature delivery and low birth weight. Table 11.11.1 presents anaemia prevalence among women age 15-49 based on haemoglobin levels, according to selected background characteristics. The raw measured values of haemoglobin were obtained using the HemoCue instrument and adjusted for altitude and smoking status.

Seventeen percent of Ethiopian women age 15-49 are anaemic, with 13 percent having mild anaemia, 3 percent having moderate anaemia, and 1 percent having severe anaemia. A higher proportion of pregnant women are anaemic (22 percent) than women who are breastfeeding (19 percent) and women who are neither pregnant nor breastfeeding (15 percent). Anaemia prevalence also varies by urban and rural residence; a higher proportion of women in rural areas are anaemic (18 percent) than those in urban areas (11 percent). Also, women in the Somali, Affar, and Dire Dawa regions have a relatively high prevalence of anaemia (44 percent, 35 percent, and 29 percent, respectively). Women in Addis Ababa and the SNNP and Tigray regions are at the other end of the range, with relatively low prevalence of anaemia (9 percent, 11 percent, and 12 percent, respectively). Women with no education are twice as likely to be anaemic as women with more than secondary education (20 percent and 10 percent, respectively). Similarly, anaemia prevalence decreases as wealth status increases.

The HSDP IV target is to reduce anaemia prevalence nationally to 12 percent. In comparison with the data from the 2005 EDHS, the prevalence of any anaemia has declined from 27 percent to 17 percent in 2011, a decrease of 37 percent. The prevalence of mild and moderate anaemia also has declined between the two surveys, from 17 percent to 13 percent, and from 8 percent to 3 percent, respectively.

Table 11.11.1 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia, by background characteristics, Ethiopia 2011

Background characteristic	Not pregnant: Pregnant	Anaemia status by haemoglobin level: Any	Mild	Moderate	Severe	Weighted number of women	Unweighted Number of Women
		<12.0 g/dl <11.0 g/dl	10.0-11.9 g/dl 10.0-10.9 g/dl	7.0-9.9 g/dl 7.0-9.9 g/dl	<7.0 g/dl <7.0 g/dl		
Age							
15-19		13.4	10.9	2.2	0.3	3,841	3,617
20-29		16.3	12.3	3.2	0.8	5,811	5,838
30-39		17.3	13.3	3.4	0.6	3,782	3,817
40-49		21.5	18.3	2.7	0.5	2,348	2,296
Number of children ever born							
0		12.5	10.1	2.1	0.3	5,267	5,194
1		15.7	12.2	2.8	0.7	1,712	1,892
2-3		18.0	14.3	2.7	1.0	3,052	3,060
4-5		18.0	12.9	4.5	0.7	2,353	2,296
6+		21.1	17.1	3.5	0.5	3,397	3,126
Maternity status							
Pregnant		22.0	12.2	8.7	1.2	1,173	1,226
Breastfeeding		18.5	14.8	3.0	0.6	4,933	4,487
Neither		15.0	12.3	2.2	0.5	9,675	9,855
Using IUD							
Yes		(21.8)	(14.9)	(6.9)	(0.0)	34	42
No		16.6	13.1	2.9	0.6	15,748	15,526
Smoking status							
Smokes cigarettes/ tobacco		15.7	13.9	1.7	0.2	117	437
Does not smoke		16.6	13.1	3.0	0.6	15,665	15,131
Residence							
Urban		10.9	8.8	1.9	0.2	3,621	4,780
Rural		18.3	14.4	3.3	0.7	12,161	10,788
Region							
Tigray		12.4	9.7	2.3	0.4	1,077	1,688
Affar		34.8	24.0	9.3	1.5	141	1,260
Amhara		16.6	13.8	2.4	0.4	4,219	1,989
Oromiya		19.2	15.2	3.3	0.7	5,834	2,068
Somali		44.0	24.8	14.7	4.5	292	813
Benishangul-Gumuz		19.1	14.3	4.2	0.6	167	1,213
SNNP		11.3	8.8	2.1	0.4	3,090	1,943
Gambela		19.4	15.7	3.5	0.2	67	1,092
Harari		19.4	14.4	4.2	0.8	43	980
Addis Ababa		9.3	7.8	1.2	0.3	788	1,525
Dire Dawa		28.8	17.4	9.9	1.5	63	997
Education							
No education		20.3	15.9	3.5	0.9	8,081	7,889
Primary		13.6	10.5	2.8	0.3	6,017	5,551
Secondary		9.3	8.4	0.7	0.3	1,032	1,269
More than secondary		9.7	8.4	1.2	0.2	651	859
Wealth quintile							
Lowest		20.1	15.0	4.0	1.1	2,894	3,596
Second		18.9	15.3	3.1	0.5	2,940	2,327
Middle		17.1	13.6	2.6	0.8	2,936	2,184
Fourth		17.4	13.4	3.6	0.4	3,123	2,402
Highest		11.3	9.3	1.7	0.2	3,890	5,059
Total		16.6	13.1	2.9	0.6	15,782	15,568

Note: Prevalence is adjusted for altitude and for smoking status if known using formulas in CDC, 1998. Figures in parentheses are based on 25-49 unweighted cases.

11. 8 PREVALENCE OF ANAEMIA IN MEN

Table 11.11.2 shows the prevalence of anaemia among men. Nationally, 11 percent of men 15-49 are anaemic. Younger men, age 15-19 (18 percent) and older men, age 40-49 (14 percent) are the more likely than men age 20-39 to be anaemic. It must be noted that oldest men age 50-59 have the highest prevalence of anaemia (19 percent). Rural men are more likely to be anaemic than urban men (13 and 5 percent, respectively). Men residing in Addis Ababa have the lowest anaemia prevalence (3 percent) of any region, while men in Affar, Somali, and Dire Dawa (all 15 percent) have the highest. There are inverse relationships between the prevalence of anaemia in men and both educational level and wealth quintile.

Table 11.11.2 Prevalence of anaemia in men

Percentage of men age 15-49 with anaemia, by background characteristics, Ethiopia 2011

Background characteristic	Any anaemia (<13.0 g/dl)	Weighted number of men	Unweighted number of men
Age			
15-19	17.8	2,818	2,637
20-29	7.4	4,352	4,254
30-39	8.9	2,985	3,028
40-49	14.4	1,927	2,015
Smoking status			
Smokes cigarettes/tobacco	11.3	876	1,678
Does not smoke	11.3	11,206	10,256
Residence			
Urban	4.8	2,555	3,413
Rural	13.1	9,527	8,521
Region			
Tigray	12.1	737	1,186
Affar	15.0	97	872
Amhara	13.6	3,266	1,641
Oromiya	11.8	4,742	1,803
Somali	14.9	208	568
Benishangul-Gumuz	14.1	130	993
SNNP	8.1	2,161	1,454
Gambela	10.5	56	819
Harari	8.5	34	768
Addis Ababa	2.8	603	1,085
Dire Dawa	15.1	47	745
Education			
No education	13.9	3,593	3,456
Primary	12.2	6,476	5,934
Secondary	4.8	1,198	1,403
More than secondary	2.3	815	1,141
Wealth quintile			
Lowest	16.2	2,036	2,441
Second	15.5	2,274	1,807
Middle	12.8	2,371	1,857
Fourth	9.6	2,551	2,070
Highest	4.8	2,850	3,759
Total 15-49	11.3	12,082	11,934
50-59	19.3	1,209	1,152
Total 15-59	12.0	13,291	13,086

Note: Prevalence is adjusted for altitude and smoking status, if known, using formulas from CDC, 1998.

11.9 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for both women and their children. A mother's nutritional status during pregnancy is important both for foetal development and for protection against maternal morbidity and mortality. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iodine deficiency is related to a number of adverse pregnancy outcomes, including abortion, foetal brain damage, congenital

malformation, stillbirth, and prenatal death. Table 11.12 includes a number of measures that are useful in assessing the extent to which women are obtaining adequate intakes of vitamin A and iron.

Sixteen percent of mothers who gave birth in the five years preceding the survey received postpartum vitamin A supplements. By age, the proportion of mothers that received vitamin A supplements was highest among the 30-39 age group. Vitamin A supplements are more common in urban areas than rural areas (20 percent and 15 percent, respectively). Three women of every ten residing in the Tigray region (30 percent), Addis Ababa (29 percent) and Gambela regions (28 percent) received vitamin A supplements. By comparison, less than one woman of every ten living in the Affar, Somali, SNNP, and Harari regions received vitamin A supplementation (all 9 percent). Educated women were more likely to have received vitamin A supplements during their last pregnancy—28 percent of women with more than secondary education compared with 14 percent of women with no education. Similarly, as a woman's wealth status increases, so does her likelihood of receiving vitamin A supplements. Those in the fourth and highest wealth quintiles are twice as likely to have received a vitamin A dose postpartum as those in the lowest wealth quintile (20 percent and 10 percent, respectively).

Eighty-three percent of women did not take iron tablets during their last pregnancy. Fifteen percent took them for less than 60 days, and less than 1 percent took them for 90 days or more during their last pregnancy. There are very small differences in daily iron supplements between urban and rural women and among regions. In general, the percentage of women who took iron tablets increases as educational status and wealth index increase. The proportion of women who took iron during each length of time increases with educational level and wealth quintile.

Six percent of mothers received deworming medication during their last pregnancy. Urban women were more likely than rural women to have taken deworming medication (9 percent compared with 5 percent). Among regions the proportion of women who received deworming medication generally ranges between 3 and 6 percent. It is notable that 12 percent of women residing in Gambela and 9 percent in Benishangul-Gumuz received deworming medication during their last pregnancy. There is little variation in the percentage who received deworming medication by age, educational level, or wealth quintile.

Iodine deficiency has adverse effects on all population groups, but women of reproductive age are often the worst affected. Table 11.12 shows the percentage of women with a child born in the five years preceding the survey who live in households using iodised salt. Nationally, 15 percent of women live in households with iodised salt. This percentage is higher in urban area (23 percent) than rural areas (14 percent). The proportion of women living in a household with iodised salt is nearly three times higher in Benishangul-Gumuz than the national average (41 percent versus 15 percent). Women who have more than secondary education are more likely to live in a household with iodised salt (30 percent) than those who are not educated (14 percent). Likewise, the proportion of women living in households using iodised salt is higher in the highest wealth quintile (22 percent) than in the second and lowest wealth quintiles (12 percent each).

Table 11.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, the percent distribution by number of days they took iron tablets during the pregnancy of the last child, and the percentage who took deworming medication during the pregnancy of the last child; and among women age 15-49 with a child born in the past five years and who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, Ethiopia 2011

	Among women with a child born in the past five years:										Among women with a child born in the past five years who live in households that were tested for iodized salt:		
		Number of days women took iron tablets during pregnancy of last birth						Percentage of women who took deworming medication during pregnancy of last birth					
Background characteristic	Percentage who received vitamin A dose postpartum[1]	None	<60	60-89	90+	Don't know/ missing	Total		Weighted number of women	Unweighted number of women	Percentage living in households with iodized salt[2]	Weighted number of women	Unweighted number of women
Age													
15-19	9.4	91.7	6.7	0.9	0.0	0.6	100.0	4.7	402	416	17.9	391	392
20-29	16.1	82.0	15.5	0.8	0.5	1.2	100.0	5.3	3,991	3,888	14.9	3,891	3,713
30-39	16.9	81.7	16.3	0.5	0.3	1.2	100.0	5.9	2,728	2,710	15.4	2,635	2,570
40-49	13.8	84.6	13.0	0.9	0.5	1.1	100.0	5.8	787	750	14.2	743	698
Residence													
Urban	20.4	72.4	24.3	1.1	1.0	1.2	100.0	8.5	1,188	1,513	22.9	1,157	1,458
Rural	15.0	84.5	13.4	0.6	0.3	1.1	100.0	5.0	6,720	6,251	13.8	6,502	5,915
Region													
Tigray	30.2	65.7	27.1	3.3	1.3	2.6	100.0	3.9	530	847	21.8	515	822
Affar	8.9	76.3	22.1	0.7	0.0	1.0	100.0	3.4	78	714	19.3	76	694
Amhara	10.9	80.6	17.1	0.3	0.4	1.7	100.0	5.6	1,991	965	9.5	1,925	933
Oromiya	19.5	87.9	10.8	0.4	0.3	0.6	100.0	5.1	3,116	1,100	17.5	3,049	1,077
Somali	8.9	79.7	19.0	0.7	0.2	0.4	100.0	2.9	198	559	20.9	174	493
Benishangul-Gumuz	23.2	76.3	20.4	0.5	1.7	1.1	100.0	8.9	92	674	41.0	90	655
SNNP	8.9	84.7	13.7	0.5	0.3	0.8	100.0	6.9	1,634	1,053	11.6	1,570	1,012
Gambela	27.8	72.4	25.9	0.8	0.6	0.4	100.0	12.4	31	608	21.9	26	476
Harari	9.1	66.7	28.5	2.0	1.7	1.1	100.0	4.1	19	440	4.4	19	435
Addis Ababa	28.7	60.8	29.2	3.9	2.4	3.8	100.0	4.3	193	348	27.4	190	344
Dire Dawa	25.3	70.8	24.0	2.2	0.3	2.7	100.0	3.3	26	456	6.6	25	432
Education													
No education	13.7	84.8	13.2	0.5	0.4	1.1	100.0	4.2	5,270	5,184	14.2	5,094	4,922
Primary	19.1	80.7	16.7	0.9	0.4	1.3	100.0	8.1	2,270	2,095	15.4	2,207	1,981
Secondary	24.1	68.9	28.1	1.4	1.3	0.3	100.0	6.0	226	312	25.9	224	304
More than secondary	27.7	57.2	38.4	2.3	1.3	0.7	100.0	10.8	142	173	30.0	135	166
Wealth quintile													
Lowest	10.1	86.1	11.6	0.4	0.3	1.6	100.0	3.4	1,739	2,279	12.1	1,664	2,074
Second	14.4	87.2	11.2	0.3	0.4	0.9	100.0	5.1	1,696	1,354	11.5	1,663	1,314
Middle	15.9	84.5	13.2	0.6	0.4	1.3	100.0	3.3	1,628	1,241	14.1	1,571	1,197
Fourth	20.1	82.0	16.2	0.9	0.1	0.8	100.0	7.5	1,493	1,229	17.8	1,462	1,192
Highest	19.8	71.0	25.3	1.5	1.1	1.1	100.0	9.2	1,351	1,661	22.0	1,299	1,596
Total	15.8	82.7	15.1	0.7	0.4	1.1	100.0	5.5	7,908	7,764	15.1	7,659	7,373

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

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

12

Key Findings

- General knowledge of AIDS is almost universal; 97 percent of women and 99 percent of men have heard of AIDS.
- Comprehensive knowledge of AIDS is uncommon. However, 19 percent of women and 32 percent of men have comprehensive knowledge of HIV/AIDS transmission and prevention methods.
- Men are more likely than women to express accepting attitudes toward people with HIV. Still, only 28 percent of men and 17 percent of women always expressed accepting attitudes when reacting to four hypothetical situations involving people with HIV.
- Less than 1 percent of women had two or more sexual partners in the 12 months preceding the survey. Almost half of these women reported using a condom during last sexual intercourse.
- Four percent of men had two or more partners in the last 12 months. Sixteen percent of these men reported using a condom during last sex.
- About one-quarter of young women and young men who are sexually active were tested for HIV in the 12 months before the survey—a dramatic increase over the levels in 2005.

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV). HIV weakens the immune system, making the body susceptible to secondary and opportunistic infections. Without treatment, HIV infection leads to AIDS and death. The predominant mode of HIV transmission is through sexual contact. Other modes of transmission are mother-to-child transmission (in which the mother passes HIV to her child during pregnancy, delivery, or breastfeeding), use of contaminated blood supplies for transfusions, and injections using contaminated needles or syringes.

AIDS is one of the most serious public health and development challenges in sub-Saharan Africa. According to the 2011 EDHS, 1.5 percent of adults age 15-49 are infected with HIV (see Chapter 13). Heterosexual contact accounts for the great majority of HIV transmission in the country. AIDS is now affecting all sectors of Ethiopian society. The future course of the AIDS epidemic in Ethiopia depends on a number of factors including HIV/AIDS-related knowledge, social stigmatisation, risk behaviour modification, access to high-quality services for sexually transmitted infections (STIs), provision and uptake of HIV counselling and testing, and access to antiretroviral therapy (ART).

The principal objective of this chapter is to establish the prevalence of relevant knowledge, attitudes, and behaviours at the national level and within the geographic and socioeconomic subgroups of the population, using data from the 2011 EDHS. This chapter presents findings from the general adult population and specifically from youth. The chapter concludes with information on patterns of sexual activity among young people, as they are the main target of many HIV prevention efforts. The findings in this chapter will help HIV/AIDS control and prevention programmes to target the groups of people most in need of information and services and most vulnerable to the risk of HIV infection. Also, findings presented in this chapter can be compared with the findings from the 2000 and 2005 EDHS.

12.1 HIV/AIDS KNOWLEDGE, TRANSMISSION, AND PREVENTION METHODS

12.1.1 Awareness of HIV/AIDS

Interviewers asked 2011 EDHS respondents whether they had heard of AIDS. Those who reported having heard of AIDS were then asked a number of questions such as whether and how HIV/AIDS can be avoided. Table 12.1 shows that knowledge of AIDS is almost universal; 97 percent of women and 99 percent of men age 15-49 have heard of AIDS. The level of awareness of AIDS is notably lower in Somali (82 percent of women and 93 percent of men) than in other regions.

Table 12.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Ethiopia 2011

	Women			Men		
Background characteristic	Has heard of AIDS	Weighted number of women	Unweighted number of women	Has heard of AIDS	Weighted number of men	Unweighted number of men
Age						
15-24	96.4	6,940	6,857	98.0	5,332	5,162
15-19	96.2	4,009	3,835	97.3	3,013	2,832
20-24	96.7	2,931	3,022	98.9	2,319	2,330
25-29	96.2	3,147	3,185	99.2	2,297	2,274
30-39	97.0	3,971	4,058	99.3	3,132	3,261
40-49	96.1	2,457	2,415	99.4	2,074	2,171
Marital status						
Never married	97.4	4,469	4,413	98.2	5,600	5,641
Ever had sex	98.3	344	489	99.9	1,044	1,492
Never had sex	97.3	4,126	3,924	97.8	4,555	4,149
Married/living together	96.1	10,287	10,204	99.2	6,872	6,775
Divorced/separated/ widowed	96.4	1,758	1,898	99.9	363	452
Residence						
Urban	99.2	3,947	5,329	99.8	2,882	3,915
Rural	95.6	12,568	11,186	98.5	9,952	8,953
Region						
Tigray	99.7	1,104	1,728	99.8	770	1,235
Affar	96.5	145	1,291	98.7	101	910
Amhara	96.4	4,433	2,087	98.2	3,481	1,739
Oromiya	95.1	6,011	2,135	98.6	4,957	1,889
Somali	81.6	329	914	93.0	245	653
Benishangul-Gumuz	92.6	174	1,259	97.4	138	1,047
SNNP	98.8	3,236	2,034	99.8	2,307	1,550
Gambela	97.7	69	1,130	99.4	59	865
Harari	99.6	49	1,101	99.8	40	898
Addis Ababa	99.9	896	1,741	100.0	682	1,237
Dire Dawa	99.3	69	1,095	99.7	53	845
Education						
No education	94.5	8,394	8,278	97.2	3,785	3,659
Primary	98.1	6,276	5,858	99.3	6,813	6,334
Secondary	99.8	1,117	1,395	100.0	1,296	1,565
More than secondary	100.0	728	984	100.0	940	1,310
Wealth quintile						
Lowest	93.5	2,986	3,711	96.9	2,141	2,563
Second	95.9	3,041	2,402	98.2	2,362	1,891
Middle	95.0	3,031	2,268	98.7	2,454	1,935
Fourth	97.4	3,215	2,505	99.4	2,683	2,203
Highest	99.4	4,242	5,629	99.9	3,194	4,276
Total 15-49	96.5	16,515	16,515	98.8	12,834	12,868
50-59	na	na	na	98.8	1,276	1,242
Total 15-59	na	na	na	98.8	14,110	14,110

na = Not applicable

In Ethiopia HIV/AIDS prevention programmes focus their messages and efforts on three important aspects of behaviour: using condoms, limiting the number of sexual partners (or staying faithful with one uninfected, mutually faithful partner), and delaying sexual debut (abstinence) among the young and the never-married. To ascertain whether programmes have effectively communicated at least two of these messages, respondents were prompted with specific questions about whether it is possible to reduce the chance of getting the virus that causes AIDS by having just one faithful sexual partner and by using a condom at every sexual encounter.

Table 12.2 shows that about seven respondents of every ten (65 percent of women and 74 percent of men) know that the chance of becoming infected with HIV is reduced by limiting sexual intercourse to one uninfected partner who has no other partners. In contrast, there is a noticeable difference between women and men in the percentages who know that using condoms consistently reduces the chance of acquiring HIV infection (56 percent for women and 82 percent for men). More than six men of every ten (64 percent) know of both ways to reduce HIV risk, compared with about four women of every ten (43 percent).

Table 12.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, Ethiopia 2011

	Women					Men				
	Percentage who say HIV can be prevented by:					Percentage who say HIV can be prevented by:				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Weighted number of women	Unweighted number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Weighted number of men	Unweighted number of men
Age										
15-24	61.6	67.8	48.5	6,940	6,857	80.7	73.9	64.7	5,332	5,162
15-19	61.6	68.4	48.7	4,009	3,835	77.8	72.4	62.0	3,013	2,832
20-24	61.5	66.9	48.3	2,931	3,022	84.6	76.0	68.2	2,319	2,330
25-29	55.8	64.2	42.9	3,147	3,185	83.3	77.4	67.7	2,297	2,274
30-39	52.3	63.2	39.6	3,971	4,058	82.2	72.7	63.1	3,132	3,261
40-49	46.0	58.5	34.4	2,457	2,415	80.2	71.7	61.0	2,074	2,171
Marital status										
Never married	67.2	71.1	53.6	4,469	4,413	82.1	75.0	66.3	5,600	5,641
Ever had sex	81.5	73.9	64.5	344	489	92.8	82.5	77.9	1,044	1,492
Never had sex	66.1	70.9	52.7	4,126	3,924	79.6	73.3	63.6	4,555	4,149
Married/living together	51.0	62.0	38.8	10,287	10,204	81.0	72.9	62.6	6,872	6,775
Divorced/separated/ widowed	56.0	63.5	42.9	1,758	1,898	81.1	74.9	64.0	363	452
Residence										
Urban	76.6	73.0	60.6	3,947	5,329	90.0	75.4	69.5	2,882	3,915
Rural	49.4	62.0	37.8	12,568	11,186	79.0	73.5	62.7	9,952	8,953
Region										
Tigray	73.9	81.6	63.9	1,104	1,728	89.9	84.7	78.5	770	1,235
Affar	36.1	32.3	23.3	145	1,291	73.6	62.9	51.1	101	910
Amhara	54.3	58.9	39.4	4,433	2,087	79.0	66.4	56.1	3,481	1,739
Oromiya	52.1	64.6	41.2	6,011	2,135	82.0	79.5	69.4	4,957	1,889
Somali	20.8	36.3	15.5	329	914	51.2	59.9	36.6	245	653
Benishangul-Gumuz	53.5	53.2	38.2	174	1,259	77.9	71.9	60.3	138	1,047
SNNP	56.1	71.8	45.4	3,236	2,034	81.2	72.9	63.5	2,307	1,550
Gambela	55.1	46.3	34.3	69	1,130	85.8	72.4	67.0	59	865
Harari	58.5	53.1	38.2	49	1,101	75.0	49.3	40.2	40	898
Addis Ababa	82.4	65.4	57.0	896	1,741	94.1	70.7	68.4	682	1,237
Dire Dawa	64.6	69.5	50.1	69	1,095	86.9	82.4	72.0	53	845
Education										
No education	42.2	56.0	30.8	8,394	8,278	71.7	66.0	52.4	3,785	3,659
Primary	65.5	72.1	52.4	6,276	5,858	83.4	75.5	66.6	6,813	6,334
Secondary	82.4	78.1	65.2	1,117	1,395	90.8	82.3	76.3	1,296	1,565
More than secondary	90.9	78.9	73.4	728	984	94.4	82.3	78.7	940	1,310
Wealth quintile										
Lowest	42.3	57.1	30.9	2,986	3,711	74.4	67.5	57.2	2,141	2,563
Second	47.0	60.8	35.0	3,041	2,402	76.6	73.0	59.9	2,362	1,891
Middle	50.4	60.7	38.1	3,031	2,268	78.8	73.9	62.5	2,454	1,935
Fourth	55.1	66.8	44.0	3,215	2,505	83.7	75.1	66.5	2,683	2,203
Highest	76.5	73.7	60.9	4,242	5,629	90.0	77.8	71.6	3,194	4,276
Total 15-49	55.9	64.6	43.2	16,515	16,515	81.5	73.9	64.2	12,834	12,868
50-59	na	na	na	na	na	76.1	71.3	58.1	1,276	1,242
Total 15-59	na	na	na	na	na	81.0	73.7	63.7	14,110	14,110

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

There are notable differences in knowledge of HIV/AIDS prevention by background characteristics. Among women, knowledge of HIV/AIDS prevention decreases with age. For example, nearly half (49 percent) of female youth, age 15-24, know that both using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of acquiring HIV, compared with about one-third (34 percent) of women age 40-49. Never-married women who have ever had sex are the most likely to know about HIV prevention methods when compared with never-married women who have never had sex or with women currently in union or previously married. Knowledge of both methods of prevention is higher among urban women than rural women (61 percent versus 38 percent). Variation by region is particularly striking. For example, more than six women of every ten residing in Tigray (64 percent) are aware of both methods of HIV/AIDS prevention compared with less than two in every ten (16 percent) in Somali. Awareness of prevention methods increases with education and wealth.

Among men differentials in knowledge of HIV prevention according to background characteristics are similar to those among women but not as pronounced. For example, knowledge of HIV prevention among men decreases slightly with age, from 65 percent of men age 15-24 who are aware of both prevention methods to 61 percent of men age 40-49. Never-married men, particularly those who have ever had sex, urban men, those with secondary education or more, and men in the highest wealth quintile are the most likely to know methods of HIV prevention. Among regions knowledge of both HIV prevention methods among men ranges from 79 percent in Tigray to 37 percent in Somali.

12.1.2 Rejection of Misconceptions About HIV/AIDS

As part of the effort to assess HIV and AIDS knowledge, the 2011 EDHS obtained information on common misconceptions about HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have HIV and whether they believe HIV is transmitted through mosquito bites, supernatural means, or sharing food with a person who has HIV. Respondents were also asked whether a person can get AIDS by sharing sharp materials, such as razors or blades, or through injection with unsterilised needles, and whether a person can reduce the chance of getting HIV by abstaining from sexual intercourse. Tables 12.3.1 and 12.3.2 present results for women and men.

The majority of Ethiopian adults (63 percent of women and 78 percent of men) know that a healthy-looking person can have HIV. The most common misconception about HIV transmission is that it can be transmitted by mosquitoes. Only about half of women (52 percent) and six men of every ten (63 percent) know that HIV cannot be transmitted by mosquitoes. The second most common misconception is that HIV can be transmitted by supernatural means. About three-fourths of women and men age 15-49 (72 and 76 percent, respectively) correctly believe that HIV cannot be transmitted through supernatural means. Seventy-six percent of women and 85 percent of men know that a person cannot become infected with HIV by sharing food with a person who has HIV. About three-quarters of women and more than four men of every five report that people can reduce their chance of getting HIV by abstaining from sexual intercourse (73 and 86 percent, respectively). More than nine of every ten women and men know that people can get HIV by sharing sharp materials, such as razors or other blades, if they should cut the skin or by injection with unsterilised needles (92 and 97 percent, respectively).

Table 12.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of women who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means[1]	A person cannot become infected by sharing food with a person who has the AIDS virus	People reduce the chance of getting the AIDS virus by abstaining from sexual intercourse	People can get the AIDS virus by sharing sharp materials or by injection with unsterilised needles	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local miscon-ceptions[2]	Percentage with a compre-hensive knowledge about AIDS[3]	Weighted number of women	Unweighted number of women
Age										
15-24	67.0	58.5	76.8	80.3	74.5	92.4	36.9	23.9	6,940	6,857
15-19	66.5	60.0	77.6	81.6	75.1	92.7	37.3	24.0	4,009	3,835
20-24	67.6	56.3	75.7	78.5	73.8	92.0	36.3	23.6	2,931	3,022
25-29	63.0	49.1	68.8	74.1	71.1	91.7	27.8	16.9	3,147	3,185
30-39	61.6	47.7	68.9	74.1	70.8	92.5	26.2	14.9	3,971	4,058
40-49	57.0	44.8	66.6	65.9	72.7	88.9	22.7	11.5	2,457	2,415
Marital status										
Never married	71.0	65.4	80.9	85.4	78.0	94.9	43.7	28.8	4,469	4,413
Ever had sex	78.0	71.2	89.2	93.4	77.4	95.6	55.4	40.3	344	489
Never had sex	70.5	64.9	80.2	84.7	78.1	94.8	42.7	27.9	4,126	3,924
Married/living together	59.7	47.2	68.1	71.1	70.5	90.6	25.4	14.5	10,287	10,204
Divorced/separated/ widowed	65.8	46.6	70.5	75.6	72.4	90.9	26.4	16.2	1,758	1,898
Residence										
Urban	80.2	68.0	83.6	92.3	81.4	97.0	51.7	35.1	3,947	5,329
Rural	58.2	47.1	68.2	70.2	70.0	90.1	23.8	13.3	12,568	11,186
Region										
Tigray	76.4	37.7	76.1	74.6	86.9	97.5	27.9	22.1	1,104	1,728
Affar	42.5	38.3	39.4	63.8	41.4	80.0	11.0	4.0	145	1,291
Amhara	64.9	47.6	74.3	77.3	73.3	91.9	31.4	17.2	4,433	2,087
Oromiya	64.3	49.3	65.7	69.2	68.4	89.8	26.6	16.7	6,011	2,135
Somali	28.1	34.5	30.0	48.7	39.1	64.1	7.7	3.5	329	914
Benishangul-Gumuz	54.7	54.5	68.0	75.6	65.2	85.5	31.2	18.4	174	1,259
SNNP	54.9	66.0	80.1	82.6	77.3	94.9	34.4	21.1	3,236	2,034
Gambela	61.7	57.8	68.9	81.3	56.1	90.8	29.4	14.5	69	1,130
Harari	70.7	69.1	74.5	88.4	74.0	93.5	42.0	23.2	49	1,101
Addis Ababa	83.6	65.9	88.5	93.6	85.2	98.6	51.9	31.8	896	1,741
Dire Dawa	50.4	64.9	61.0	83.1	71.3	96.1	26.7	18.7	69	1,095
Education										
No education	53.8	38.8	62.0	63.1	66.6	87.4	17.0	7.7	8,394	8,278
Primary	69.0	61.2	79.1	85.8	76.8	95.6	37.3	24.2	6,276	5,858
Secondary	85.8	78.6	91.4	96.9	86.3	98.2	63.3	43.1	1,117	1,395
More than secondary	92.3	85.1	93.5	96.0	87.7	98.7	76.4	57.4	728	984
Wealth quintile										
Lowest	50.8	39.8	63.7	63.5	67.4	85.5	16.8	8.3	2,986	3,711
Second	55.9	44.1	68.6	68.2	70.4	91.0	20.8	10.1	3,041	2,402
Middle	59.4	48.3	66.3	69.4	68.2	89.5	24.3	14.2	3,031	2,268
Fourth	64.1	52.6	72.2	77.4	72.7	93.0	29.8	17.2	3,215	2,505
Highest	80.1	68.6	83.5	92.0	81.3	97.5	51.9	36.0	4,242	5,629
Total 15-49	63.4	52.1	71.8	75.5	72.7	91.8	30.5	18.5	16,515	16,515

[1] Witchcraft, God's curse, or other supernatural means

[2] Two most common local misconceptions: (1) AIDS can be transmitted by mosquito bites and (2) AIDS can be transmitted by supernatural means.

[3] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission.

Table 12.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means[1]	A person cannot become infected by sharing food with a person who has the AIDS virus	People reduce the chance of getting the AIDS virus by abstaining from sexual intercourse	People can get the AIDS virus by sharing sharp materials or by injection with unsterilised needles	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local miscon-ceptions[2]	Percentage with a compre-hensive knowledge about AIDS[3]	Weighted number of men	Unweighted number of men
Age										
15-24	77.0	66.1	76.3	85.4	83.9	95.5	45.8	34.2	5,332	5,162
15-19	74.9	65.4	75.7	84.3	81.4	94.5	44.0	31.8	3,013	2,832
20-24	79.8	67.1	77.1	86.9	87.3	96.9	48.3	37.4	2,319	2,330
25-29	81.0	65.5	75.1	87.2	87.8	97.3	44.8	34.8	2,297	2,274
30-39	79.4	60.4	72.8	83.3	87.7	97.1	40.8	28.6	3,132	3,261
40-49	76.2	57.1	77.9	80.8	87.8	97.0	39.2	27.6	2,074	2,171
Marital status										
Never married	78.2	68.3	77.4	86.2	85.3	95.9	48.1	36.6	5,600	5,641
Ever had sex	85.5	75.2	81.9	94.3	91.5	98.0	56.3	46.3	1,044	1,492
Never had sex	76.6	66.7	76.3	84.3	83.9	95.4	46.2	34.4	4,555	4,149
Married/living together	78.4	59.6	73.7	83.1	86.7	96.9	40.1	28.6	6,872	6,775
Divorced/separated/ widowed	74.3	52.0	79.7	84.4	88.2	98.0	32.1	21.2	363	452
Residence										
Urban	87.6	77.9	84.9	93.9	92.0	98.5	61.3	45.0	2,882	3,915
Rural	75.5	58.9	72.8	81.8	84.4	95.9	38.1	28.1	9,952	8,953
Region										
Tigray	85.9	55.5	90.8	86.5	92.1	99.5	47.4	41.0	770	1,235
Affar	78.9	55.0	52.5	78.4	83.6	95.6	32.2	19.8	101	910
Amhara	75.1	57.6	85.5	87.5	86.6	96.0	44.1	29.5	3,481	1,739
Oromiya	77.5	62.9	61.2	79.1	84.6	95.8	35.1	28.2	4,957	1,889
Somali	48.9	32.3	26.9	58.7	66.1	83.2	9.4	6.4	245	653
Benishangul-Gumuz	70.9	67.9	81.6	86.6	80.2	93.6	48.6	31.5	138	1,047
SNNP	81.8	75.0	87.2	89.3	86.7	98.7	57.1	39.9	2,307	1,550
Gambela	69.2	77.0	86.0	91.3	86.3	97.5	49.0	34.9	59	865
Harari	78.5	74.9	72.7	93.5	80.9	96.8	46.1	21.6	40	898
Addis Ababa	90.3	70.7	90.6	97.9	94.7	98.0	59.6	43.7	682	1,237
Dire Dawa	88.7	73.3	72.9	91.2	95.4	98.1	56.3	44.5	53	845
Education										
No education	68.1	45.0	66.5	73.6	81.7	93.3	25.2	16.5	3,785	3,659
Primary	79.5	66.1	76.5	87.1	86.1	97.4	44.7	33.0	6,813	6,334
Secondary	90.3	83.2	86.0	94.3	93.8	98.7	65.6	50.6	1,296	1,565
More than secondary	93.0	87.2	90.3	95.9	94.0	99.2	75.5	59.9	940	1,310
Wealth quintile										
Lowest	65.7	47.8	66.8	73.6	82.6	92.9	27.4	20.5	2,141	2,563
Second	73.5	54.9	73.2	80.3	83.7	95.7	34.6	24.7	2,362	1,891
Middle	78.0	61.2	73.6	82.7	85.1	96.0	40.6	29.3	2,454	1,935
Fourth	81.1	67.7	74.1	86.8	86.0	97.8	44.9	32.9	2,683	2,203
Highest	87.7	77.4	85.6	94.3	91.2	98.6	61.3	46.1	3,194	4,276
Total 15-49	78.2	63.2	75.5	84.5	86.2	96.5	43.3	31.9	12,834	12,868
50-59	73.2	46.7	72.8	75.3	88.5	96.4	31.1	23.3	1,276	1,242
Total 15-59	77.7	61.7	75.3	83.6	86.4	96.5	42.2	31.1	14,110	14,110

[1] Witchcraft, God's curse, or other supernatural means
[2] Two most common local misconceptions: (1) AIDS can be transmitted by mosquito bites and (2) AIDS can be transmitted by supernatural means.
[3] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission.

Comprehensive knowledge about AIDS is defined as (1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, (2) being aware that a healthy-looking person can have HIV, and (3) rejecting the two most common local misconceptions in Ethiopia—that HIV/AIDS can be transmitted through mosquito bites and by supernatural means. The 2011 EDHS reveals that comprehensive knowledge of AIDS is low; only two women 15-49 of every ten (19 percent) and three men of every ten (32 percent) have comprehensive knowledge about AIDS. There has been only a slight increase since 2005, when 16 percent of women and 30 percent of men

had comprehensive knowledge about AIDS. Comprehensive knowledge varies by background characteristics. Respondents age 15-24, those that have never married but have ever had sex, urban respondents, those with secondary education or more, and respondents from the wealthiest households have the highest levels of comprehensive knowledge about AIDS. Among regions, women in Affar and Somali (both 4 percent) and men living in Somali (6 percent) are the least likely to have comprehensive knowledge about AIDS.

12.2 KNOWLEDGE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Increasing knowledge of ways in which HIV can be transmitted from mother to child and of the fact that the risk of transmission can be reduced by using antiretroviral drugs is critical to reducing mother-to-child transmission (MTCT) of HIV. To obtain information on these issues, the 2011 EDHS asked respondents if the virus that causes AIDS can be transmitted from a mother to a child during breastfeeding and whether a mother with HIV can reduce the risk of transmission to the baby by taking certain drugs (antiretrovirals) during pregnancy.

Table 12.4 shows that more than three-quarters of respondents—77 percent of women and 76 percent of men—know that HIV can be transmitted to a baby through breastfeeding. More than four in every ten women (44 percent) and more than half of men (53 percent) know that the risk of MTCT can be reduced through the use of ARTs during pregnancy. Overall, 42 percent of women and 47 percent of men know both that HIV can be transmitted through breastfeeding and that HIV positive women can reduce the risk of MTCT by taking special drugs during pregnancy. This knowledge has increased dramatically since the 2005 EDHS, from 20 percent to 42 percent for women and from 26 percent to 47 percent for men.

There are notable differences in knowledge of prevention of MTCT by background characteristic. The oldest respondents, age 40-49, are the least likely to know both facts about MTCT (34 percent of women and 42 percent of men), compared with younger respondents. Knowledge of both facts about MTCT is the highest among never-married respondents who have ever had sex (75 percent of women and 62 percent of men), compared with other marital status sub-groups. Urban women are more than twice as likely as rural women (71 and 32 percent, respectively) to report knowledge about mother-to-child transmission.

Among men 67 percent of urban residents, compared with 41 percent of rural residents, have correct knowledge about both aspects of MTCT. Women and men in the Somali region are the least knowledgeable about the two aspects of MTCT (17 percent of women and 26 percent of men), while those in Addis Ababa are the most knowledgeable (81 percent of women and 71 percent of men). Knowledge of MTCT is lowest among respondents with no education (28 percent of women and 31 percent of men) and highest among those with more than secondary education (84 percent of women and 74 percent of men). This knowledge increases from 24 percent of women and 31 percent of men in the lowest wealth quintile to 71 percent of women and 68 percent of men in the highest wealth quintile.

Table 12.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Ethiopia 2011

	Women					Men				
	Percentage who know that:					Percentage who know that:				
Background characteristic	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breast-feeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Weighted number of women	Unweighted number of women	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breast-feeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Weighted number of men	Unweighted number of men
Age										
15-24	78.5	49.6	46.0	6,940	6,857	77.2	53.2	47.6	5,332	5,162
15-19	78.7	49.3	45.8	4,009	3,835	76.3	50.1	45.0	3,013	2,832
20-24	78.3	49.9	46.3	2,931	3,022	78.5	57.3	50.9	2,319	2,330
25-29	77.4	43.3	40.8	3,147	3,185	76.2	55.9	48.6	2,297	2,274
30-39	76.1	41.2	38.6	3,971	4,058	74.7	53.6	46.6	3,132	3,261
40-49	73.4	36.2	34.2	2,457	2,415	73.8	48.0	42.3	2,074	2,171
Marital status										
Never married	81.6	56.1	52.2	4,469	4,413	77.8	56.3	50.2	5,600	5,641
Ever had sex	86.3	81.0	75.4	344	489	81.9	70.9	62.2	1,044	1,492
Never had sex	81.2	54.0	50.3	4,126	3,924	76.8	52.9	47.4	4,555	4,149
Married/living together	75.2	39.0	36.5	10,287	10,204	74.5	50.2	44.0	6,872	6,775
Divorced/separated/ widowed	75.4	46.1	43.7	1,758	1,898	72.2	54.5	43.7	363	452
Currently pregnant										
Pregnant	74.6	32.3	31.0	1,205	1,277	na	na	na	na	na
Not pregnant/not sure	77.2	45.3	42.3	15,310	15,238	na	na	na	na	na
Residence										
Urban	86.3	75.4	70.9	3,947	5,329	81.6	77.2	67.3	2,882	3,915
Rural	74.1	34.6	32.3	12,568	11,186	74.2	45.9	40.7	9,952	8,953
Region										
Tigray	86.9	62.1	58.6	1,104	1,728	83.2	68.6	60.2	770	1,235
Affar	64.1	45.5	43.1	145	1,291	69.4	51.1	47.6	101	910
Amhara	71.0	43.8	40.4	4,433	2,087	71.7	49.0	43.0	3,481	1,739
Oromiya	79.8	42.7	40.4	6,011	2,135	77.9	54.1	48.9	4,957	1,889
Somali	47.6	18.6	17.0	329	914	56.5	30.0	25.7	245	653
Benishangul-Gumuz	67.1	36.2	32.5	174	1,259	68.3	45.4	38.2	138	1,047
SNNP	77.1	32.6	30.1	3,236	2,034	77.2	43.3	37.4	2,307	1,550
Gambela	79.5	59.9	56.2	69	1,130	81.0	70.2	62.5	59	865
Harari	82.0	60.7	57.6	49	1,101	80.3	69.9	61.1	40	898
Addis Ababa	89.1	86.4	81.2	896	1,741	78.6	85.6	71.4	682	1,237
Dire Dawa	83.5	67.8	63.8	69	1,095	81.5	72.7	63.5	53	845
Education										
No education	69.6	29.4	27.6	8,394	8,278	68.3	34.4	31.2	3,785	3,659
Primary	82.5	52.4	48.7	6,276	5,858	77.6	54.2	47.8	6,813	6,334
Secondary	90.7	82.4	77.4	1,117	1,395	82.8	76.7	66.4	1,296	1,565
More than secondary	93.2	89.5	84.0	728	984	84.4	85.8	74.3	940	1,310
Wealth quintile										
Lowest	67.5	25.3	23.9	2,986	3,711	69.8	33.3	30.8	2,141	2,563
Second	73.8	31.0	28.2	3,041	2,402	74.1	43.0	38.2	2,362	1,891
Middle	72.1	33.1	31.1	3,031	2,268	73.7	44.4	38.8	2,454	1,935
Fourth	80.6	44.1	41.6	3,215	2,505	75.4	55.8	48.7	2,683	2,203
Highest	86.7	75.6	70.8	4,242	5,629	83.4	77.7	68.1	3,194	4,276
Total 15-49	77.0	44.4	41.5	16,515	16,515	75.9	52.9	46.7	12,834	12,868
50-59	na	na	na	na		74.6	42.5	38.3	1,276	1,242
Total 15-59	na	na	na	na		75.8	52.0	45.9	14,110	14,110

na = Not applicable

12.3 ATTITUDES TOWARDS PEOPLE LIVING WITH HIV/AIDS

Widespread stigma and discrimination towards people infected with HIV or living with AIDS can adversely affect both people's willingness to be tested for HIV and their adherence to antiretroviral therapy. Thus, reduction of stigma and discrimination is an important indicator of the success of programmes to prevent and control HIV/AIDS.

To assess survey respondents' attitudes towards people living with HIV/AIDS, respondents who had heard of AIDS were asked if they would be willing to care for a relative sick with AIDS in their own households, if they would be willing to buy fresh vegetables from a market vendor who had the AIDS virus, if they thought a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would want to keep a family member's HIV positive status secret. Tables 12.5.1 and 12.5.2 show the results for women and men, respectively.

Most women and men age 15-49 (82 percent of women and 93 percent of men) would be willing to care at home for a relative with AIDS. Three women 15-49 of every ten (32 percent) and about five men 15-49 in every ten (47 percent) would buy fresh vegetables from a market vendor with the AIDS virus, and six women of every ten (59 percent) and seven men of every ten (70 percent) believe that an HIV positive female teacher who is not sick should be allowed to continue teaching. More than half of respondents (59 percent of women and 66 percent of men) would not want to keep secret the fact that a family member is infected with HIV. Overall, men are more likely than women to express accepting attitudes regarding all four situations (28 percent compared with 17 percent).

Accepting attitudes are generally more common among respondents in urban areas than among those in rural areas and increase with education and wealth. Women and men residing in Addis Ababa, Dire Dawa, and Harari are the most likely to express accepting attitudes on all four indicators, while those living in SNNP region are the least likely.

Table 12.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Ethiopia 2011

	Percentage of women who:						
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Weighted number of women who have heard of AIDS	Unweighted number of women who have heard of AIDS
Age							
15-24	83.1	38.4	65.5	58.6	21.1	6,691	6,620
15-19	83.2	38.2	66.3	57.8	20.5	3,857	3,694
20-24	82.9	38.7	64.4	59.7	21.9	2,834	2,926
25-29	80.4	30.1	55.7	62.1	16.2	3,028	3,075
30-39	82.2	27.6	53.6	59.2	13.8	3,853	3,890
40-49	80.1	23.2	50.1	58.7	12.5	2,362	2,313
Marital status							
Never married	86.4	45.6	72.0	56.9	25.3	4,353	4,305
Ever had sex	96.7	67.2	84.8	52.9	35.5	338	486
Never had sex	85.5	43.7	71.0	57.2	24.4	4,015	3,819
Married/living together	79.8	25.3	52.3	60.5	13.3	9,886	9,756
Divorced/separated/ widowed	82.6	35.8	59.8	59.7	18.2	1,696	1,837
Residence							
Urban	94.7	67.0	84.5	59.1	37.8	3,915	5,285
Rural	77.7	20.6	50.0	59.5	10.4	12,019	10,613
Region							
Tigray	87.6	40.4	62.7	67.6	25.2	1,100	1,723
Affar	89.7	45.1	47.7	58.8	24.4	140	1,250
Amhara	87.5	31.6	56.7	56.3	16.4	4,272	2,002
Oromiya	80.6	27.6	58.1	72.7	16.6	5,716	2,032
Somali	66.6	28.9	42.7	49.1	14.4	269	724
Benishangul-Gumuz	84.7	34.0	58.6	53.6	16.5	161	1,154
SNNP	71.2	21.7	51.5	39.4	7.6	3,197	2,007
Gambela	82.7	47.3	67.1	46.6	17.6	68	1,086
Harari	86.6	59.4	72.3	65.9	37.6	49	1,096
Addis Ababa	97.0	82.1	92.5	55.2	44.9	895	1,739
Dire Dawa	88.0	60.8	80.9	62.0	37.9	68	1,085
Education							
No education	75.6	16.8	44.1	59.6	7.9	7,933	7,755
Primary	85.1	38.0	66.7	59.0	20.2	6,158	5,765
Secondary	98.0	71.6	90.0	59.9	42.3	1,115	1,394
More than secondary	98.9	86.3	97.3	59.6	52.7	728	984
Wealth quintile							
Lowest	72.7	14.6	40.5	56.6	5.5	2,792	3,412
Second	76.7	16.3	46.3	59.3	8.6	2,916	2,297
Middle	77.1	19.5	50.2	61.9	9.8	2,879	2,164
Fourth	83.1	27.7	59.4	60.7	14.8	3,131	2,433
Highest	94.0	66.1	83.8	58.7	37.4	4,216	5,592
Total 15-49	81.9	32.0	58.5	59.4	17.1	15,934	15,898

Table 12.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of men who:				Percentage expressing accepting attitudes on all four indicators	Weighted number of men who have heard of AIDS	Unweighted number of men who have heard of AIDS
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus			
Age							
15-24	91.6	50.4	71.3	64.8	30.1	5,225	5,061
15-19	90.1	49.1	68.7	62.7	27.6	2,933	2,757
20-24	93.5	52.1	74.7	67.5	33.4	2,292	2,304
25-29	93.5	50.2	69.7	65.7	30.8	2,280	2,255
30-39	93.6	42.9	68.9	66.2	26.1	3,111	3,231
40-49	94.1	41.9	66.9	66.2	25.0	2,061	2,144
Marital status							
Never married	92.2	54.7	73.1	64.8	32.9	5,496	5,543
Ever had sex	96.8	67.1	83.3	68.2	41.5	1,044	1,489
Never had sex	91.1	51.8	70.7	64.0	30.8	4,453	4,054
Married/living together	93.1	40.7	66.9	65.9	24.6	6,817	6,699
Divorced/separated/ widowed	97.3	53.6	72.6	68.7	34.2	363	449
Residence							
Urban	97.9	79.5	90.6	66.8	51.1	2,876	3,908
Rural	91.3	37.6	63.6	65.2	21.8	9,800	8,783
Region							
Tigray	95.8	56.0	67.6	51.4	24.8	768	1,232
Affar	95.4	59.3	68.5	59.0	30.3	100	898
Amhara	95.3	44.4	68.0	60.0	25.1	3,418	1,706
Oromiya	92.3	46.7	71.6	78.5	33.6	4,890	1,863
Somali	89.3	44.4	51.9	65.5	21.9	228	602
Benishangul-Gumuz	86.6	46.4	68.4	56.4	22.3	135	1,013
SNNP	88.3	34.6	62.6	53.4	16.7	2,303	1,547
Gambela	93.4	66.5	78.3	73.3	41.9	59	855
Harari	86.3	75.2	86.6	62.4	46.6	40	896
Addis Ababa	98.8	90.0	94.6	59.0	50.8	682	1,237
Dire Dawa	95.0	76.1	87.1	70.1	51.1	53	842
Education							
No education	89.6	27.9	53.9	64.7	14.7	3,677	3,537
Primary	92.8	46.4	70.3	64.9	27.4	6,763	6,281
Secondary	97.6	77.6	91.6	68.3	51.5	1,296	1,564
More than secondary	98.9	85.3	97.2	69.6	58.4	939	1,309
Wealth quintile							
Lowest	88.7	29.4	53.8	61.5	15.9	2,076	2,469
Second	92.0	35.0	59.8	62.1	19.3	2,320	1,852
Middle	91.2	36.8	65.1	66.5	20.0	2,422	1,911
Fourth	92.8	44.3	71.7	68.0	27.4	2,668	2,187
Highest	97.4	77.7	89.1	67.9	50.5	3,190	4,272
Total 15-49	92.8	47.1	69.7	65.5	28.4	12,676	12,691
50-59	92.0	34.7	54.9	63.5	18.7	1,261	1,225
Total 15-59	92.8	46.0	68.4	65.4	27.6	13,937	13,916

12.4 ATTITUDES TOWARDS REFUSING TO HAVE SEX AND NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if a woman feels powerless to negotiate safer sex practices with her partner. The EDHS 2011 assessed the ability of women to negotiate safer sex with a spouse who has sexual intercourse with other women or who has an STI. Interviewers asked women and men two attitudinal questions: Is a wife justified in refusing to have sex with her husband when she knows he has sexual intercourse with other women, and is a woman justified in asking her husband to use a condom if he has an STI?

Eight women of every ten (83 percent) and nine men of every ten (90 percent) believe that a woman may refuse to have sex with her husband if she knows he has sex with other women (Table 12.6). Among both women and men, those who never married but had ever had sex, respondents living in urban areas, those with secondary or higher education, and respondents in the

highest wealth quintile are more likely to agree that both specified behaviours are justified than are other respondents. Among age groups, women in the oldest group, age 40-49, are the least likely to believe that a woman is justified in refusing to have sex with her husband when she knows he has sex with other women or to use a condom if she knows he has an STI. Among men there is not much difference in these attitudes by age. Among regions both women and men residing in Somali are in general markedly less likely than those in other regions to believe that a woman is justified in refusing sex if she knows that the husband has sex with other women (64 and 83 percent, respectively) or in asking that they use a condom if he has an STI (31 and 61 percent, respectively).

Table 12.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Ethiopia 2011

	Women				Men			
	Woman is justified in:				Woman is justified in:			
Background characteristic	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Weighted number of women	Unweighted number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Weighted number of men	Unweighted number of men
Age								
15-24	84.4	73.3	6,940	6,857	87.4	87.9	5,332	5,162
15-19	84.0	73.5	4,009	3,835	85.3	86.5	3,013	2,832
20-24	85.0	73.0	2,931	3,022	90.2	89.6	2,319	2,330
25-29	81.7	68.7	3,147	3,185	90.6	90.1	2,297	2,274
30-39	83.3	66.4	3,971	4,058	91.2	89.3	3,132	3,261
40-49	77.5	58.1	2,457	2,415	92.2	86.5	2,074	2,171
Marital status								
Never married	85.2	77.9	4,469	4,413	87.6	88.4	5,600	5,641
Ever had sex	92.0	89.3	344	489	91.5	95.3	1,044	1,492
Never had sex	84.6	76.9	4,126	3,924	86.8	86.8	4,555	4,149
Married/living together	81.4	64.5	10,287	10,204	91.2	88.3	6,872	6,775
Divorced/separated/ widowed	83.1	68.2	1,758	1,898	91.7	90.4	363	452
Residence								
Urban	90.5	86.4	3,947	5,329	95.9	95.7	2,882	3,915
Rural	80.2	62.9	12,568	11,186	87.9	86.3	9,952	8,953
Region								
Tigray	89.1	84.6	1,104	1,728	93.2	93.1	770	1,235
Affar	63.1	49.8	145	1,291	86.5	81.1	101	910
Amhara	86.4	65.3	4,433	2,087	92.3	88.2	3,481	1,739
Oromiya	81.8	69.2	6,011	2,135	85.0	86.1	4,957	1,889
Somali	64.0	30.5	329	914	82.5	61.1	245	653
Benishangul-Gumuz	75.4	66.4	174	1,259	85.7	87.0	138	1,047
SNNP	76.9	64.1	3,236	2,034	93.9	92.9	2,307	1,550
Gambela	69.7	66.4	69	1,130	86.5	88.8	59	865
Harari	88.3	77.8	49	1,101	89.4	84.0	40	898
Addis Ababa	93.5	91.9	896	1,741	96.2	97.1	682	1,237
Dire Dawa	89.6	83.3	69	1,095	93.0	91.3	53	845
Education								
No education	77.3	56.4	8,394	8,278	86.0	81.2	3,785	3,659
Primary	86.5	77.1	6,276	5,858	89.8	89.7	6,813	6,334
Secondary	93.1	92.9	1,117	1,395	94.6	96.2	1,296	1,565
More than secondary	95.1	96.7	728	984	97.0	96.9	940	1,310
Wealth quintile								
Lowest	78.1	54.1	2,986	3,711	85.4	80.6	2,141	2,563
Second	77.6	61.4	3,041	2,402	86.8	84.7	2,362	1,891
Middle	80.2	64.3	3,031	2,268	89.4	87.4	2,454	1,935
Fourth	83.2	68.5	3,215	2,505	89.2	90.3	2,683	2,203
Highest	90.7	86.7	4,242	5,629	95.3	95.6	3,194	4,276
Total 15-49	82.6	68.5	16,515	16,515	89.7	88.4	12,834	12,868
50-59	na	na	na	na	89.3	85.2	1,276	1,242
Total 15-59	na	na	na	na	89.6	88.1	14,110	14,110

na = Not applicable

12.5 ADULT SUPPORT FOR EDUCATION ABOUT CONDOMS FOR CHILDREN AGE 12-14

To gauge the extent of support for programmes to increase condom knowledge among youth, all women age 18-49 and men age 18-59 were asked whether they thought that children age 12-14 should be taught about using condoms to avoid AIDS.

Table 12.7 shows that 54 percent of women and 76 percent of men age 18-49 agree that children age 12-14 should be taught about using condoms to avoid AIDS. Women age 18-24 are somewhat more supportive of condom education for children than older women. Support for condom education is higher among urban than rural women (68 percent versus 49 percent), and it increases with education and wealth. There is considerable regional variability in the level of support for condom education among women, from 23 percent in the Somali region to 70 percent in Tigray.

Among adult men support for condom education does not vary consistently with age or urban-rural residence. As with women Somali is the region where the lowest percentage of men (43 percent) agree that children age 12-14 should be taught about condom use to avoid AIDS. There is no clear variation by education or wealth.

Table 12.7 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, Ethiopia 2011

	Women			Men		
Background characteristic	Percentage who agree	Weighted number of women	Unweighted number of women	Percentage who agree	Weighted number of men	Unweighted number of men
Age						
18-24	58.5	4,486	4,516	77.4	3,462	3,436
18-19	59.7	1,555	1,494	75.0	1,144	1,106
20-24	57.9	2,931	3,022	78.6	2,319	2,330
25-29	53.6	3,147	3,185	77.8	2,297	2,274
30-39	50.2	3,971	4,058	74.9	3,132	3,261
40-49	49.7	2,457	2,415	75.5	2,074	2,171
Marital status						
Never married	63.8	2,324	2,405	77.3	3,746	3,931
Married/living together	50.6	10,041	9,946	76.0	6,859	6,762
Divorced/separated/ widowed	57.3	1,697	1,823	75.1	360	449
Residence						
Urban	68.0	3,357	4,601	76.7	2,517	3,511
Rural	49.0	10,704	9,573	76.4	8,447	7,631
Region						
Tigray	70.3	913	1,428	89.6	632	1,013
Affar	29.7	125	1,114	53.5	88	788
Amhara	51.3	3,723	1,749	73.7	2,874	1,428
Oromiya	53.5	5,102	1,811	77.6	4,260	1,617
Somali	22.6	285	793	43.4	211	560
Benishangul-Gumuz	56.2	150	1,085	72.4	117	883
SNNP	51.1	2,817	1,771	79.8	2,011	1,346
Gambela	64.2	58	971	82.3	54	777
Harari	51.4	43	967	67.2	36	815
Addis Ababa	67.3	784	1,520	72.2	633	1,149
Dire Dawa	55.3	60	965	73.8	48	766
Education						
No education	44.2	8,073	7,877	69.5	3,545	3,435
Primary	64.4	4,330	4,144	80.8	5,322	4,979
Secondary	72.8	955	1,201	78.9	1,175	1,431
More than secondary	68.0	702	952	75.0	923	1,297
Wealth quintile						
Lowest	42.1	2,589	3,220	70.7	1,807	2,184
Second	49.8	2,613	2,061	74.4	2,027	1,617
Middle	47.3	2,588	1,934	79.1	2,065	1,636
Fourth	55.1	2,625	2,090	80.2	2,270	1,875
Highest	67.7	3,647	4,869	76.6	2,795	3,830
Total 18-49	53.5	14,061	14,174	76.4	10,964	11,142
50-59	na	na	na	70.4	1,276	1,242
Total 18-59	na	na	na	75.8	12,240	12,384

na = Not applicable

12.6 HIGHER-RISK SEX

Information on sexual behaviour is important for designing and monitoring intervention programmes to control the spread of HIV/AIDS. The 2011 EDHS included questions on the number of lifetime sexual partners and of those during the 12 months preceding the survey. For male respondents interviewers asked an additional question on whether they had paid for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual encounter with each of partner was collected for both women and men. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behaviour.

12.6.1 Multiple Partners and Condom Use

Table 12.8.1 shows that a negligible proportion of women (less than 1 percent) had two or more partners in the 12 months preceding the survey. In the Gambela region a notably higher proportion of women than in other regions report that they had two or more partners in the past 12 months (11 percent compared with 1 percent or less elsewhere).

Women have a mean of 1.5 lifetime sexual partners. Never-married women have the highest mean number of sexual partners, 3.5, compared with 1.4 among those currently in union and 2.1 among those previously married. Women in the Gambela region report a markedly higher mean number of lifetime sexual partners (8.1) than women in other regions (1.2 to 2 partners). Among all women who had two or more partners in the past 12 months, 47 percent reported using a condom during last sexual intercourse (data not shown).

Table 12.8.2 shows that 4 percent of men had two or more partners in the past 12 months. The percentage of men with two or more sexual partners in the past 12 months increases from 1 percent among men age 15-19 to 8 percent among men age 40-49. Divorced, separated, or widowed men are somewhat more likely to have had two or more sexual partners in the past 12 months (9 percent) than men who are married or cohabiting (5 percent) or who never married (1 percent). Among regions the highest proportion of men with two or more sexual partners in the past 12 months is seen in Gambela (9 percent), followed by Affar and Benishangul-Gumuz (both 8 percent). The percentage of men with two or more partners in the past 12 months decreases with education and wealth.

Among men age 15-49 with two or more partners in the past 12 months, 16 percent used a condom during last sexual intercourse. Currently married men were much less likely to have used a condom at last sex (2 percent) than men who have never married (72 percent). Men age 25-29 (47 percent), those in urban areas (54 percent), men with more than secondary education (69 percent), and those in the highest wealth quintile (55 percent) were more likely than other men to have used a condom at last sex.

Men have a mean of 2.6 lifetime sexual partners. Previously married men, men residing in urban areas and in Gambela, men with secondary or higher education, and those in the highest wealth quintile have the highest mean number of lifetime sexual partners.

Table 12.8.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with two or more sexual partners in the past 12 months and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, Ethiopia 2011

Background characteristic	All women			Among women who ever had sexual intercourse[1]:		
	Percentage who had 2+ partners in the past 12 months	Weighted number of women	Unweighted number of women	Mean number of sexual partners in lifetime	Weighted number of women	Unweighted number of women
Age						
15-24	0.4	6,940	6,857	1.5	3,090	3,236
15-19	0.3	4,009	3,835	1.4	968	1,032
20-24	0.6	2,931	3,022	1.6	2,122	2,204
25-29	0.6	3,147	3,185	1.5	2,911	2,934
30-39	0.3	3,971	4,058	1.5	3,873	3,948
40-49	0.2	2,457	2,415	1.7	2,438	2,398
Marital status						
Never married	0.3	4,469	4,413	3.5	351	492
Married/living together	0.3	10,287	10,204	1.4	10,252	10,163
Divorced/separated/ widowed	1.1	1,758	1,898	2.1	1,709	1,861
Residence						
Urban	0.7	3,947	5,329	1.9	2,558	3,508
Rural	0.3	12,568	11,186	1.4	9,753	9,008
Region						
Tigray	0.9	1,104	1,728	2.0	829	1,308
Affar	0.0	145	1,291	1.2	121	1,093
Amhara	0.3	4,433	2,087	1.7	3,442	1,643
Oromiya	0.2	6,011	2,135	1.3	4,522	1,606
Somali	0.6	329	914	1.2	263	737
Benishangul-Gumuz	0.5	174	1,259	1.4	142	1,031
SNNP	0.4	3,236	2,034	1.5	2,301	1,463
Gambela	11.2	69	1,130	8.1	61	995
Harari	0.1	49	1,101	1.3	36	809
Addis Ababa	0.2	896	1,741	1.6	545	1,035
Dire Dawa	0.1	69	1,095	1.5	49	796
Education						
No education	0.4	8,394	8,278	1.5	7,855	7,663
Primary	0.5	6,276	5,858	1.7	3,474	3,499
Secondary	0.0	1,117	1,395	1.3	528	774
More than secondary	0.1	728	984	1.3	454	580
Wealth quintile						
Lowest	0.1	2,986	3,711	1.4	2,442	3,138
Second	0.3	3,041	2,402	1.4	2,416	1,938
Middle	0.4	3,031	2,268	1.4	2,377	1,810
Fourth	0.2	3,215	2,505	1.5	2,259	1,875
Highest	0.7	4,242	5,629	1.9	2,817	3,755
Total 15-49	0.4	16,515	16,515	1.5	12,311	12,516

[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 12.8.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with two or more sexual partners in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Ethiopia 2011

	All men			Among men who had 2+ partners in the past 12 months:			Among men who ever had sexual intercourse[1]:		
Background characteristic	Percentage who had 2+ partners in the past 12 months	Weighted number of men	Unweighted number of men	Percentage who reported using a condom during last sexual intercourse	Weighted number of men	Unweighted number of men	Mean number of sexual partners in life time	Weighted number of men	Unweighted number of men
Age									
15-24	1.0	5,332	5,162	47.2	52	97	1.9	1,260	1,491
15-19	0.5	3,013	2,832	*	14	24	1.9	234	325
20-24	1.6	2,319	2,330	36.9	37	73	1.9	1,026	1,166
25-29	2.6	2,297	2,274	47.1	60	91	2.1	1,854	1,870
30-39	5.4	3,132	3,261	7.0	168	191	2.5	3,028	3,140
40-49	8.0	2,074	2,171	2.8	166	185	3.8	2,047	2,129
Marital status									
Never married	1.2	5,600	5,641	72.1	65	124	3.0	1,033	1,480
Married/living together	5.1	6,872	6,775	1.6	350	414	2.4	6,810	6,710
Divorced/separated/ widowed	8.6	363	452	(54.2)	31	26	5.3	345	440
Type of union									
In polygynous union	86.9	348	425	1.6	302	340	2.9	346	423
In non-polygynous union	0.7	6,502	6,328	1.8	48	73	2.4	6,443	6,265
Not currently in union	1.6	5,963	6,093	66.3	96	150	3.6	1,379	1,920
Residence									
Urban	3.2	2,882	3,915	53.9	93	148	4.3	1,839	2,642
Rural	3.5	9,952	8,953	5.5	353	416	2.1	6,350	5,988
Region									
Tigray	1.7	770	1,235	*	13	21	3.5	478	769
Affar	7.7	101	910	20.2	8	78	3.7	73	672
Amhara	1.5	3,481	1,739	(24.3)	54	25	2.6	2,121	1,061
Oromiya	4.1	4,957	1,889	10.8	201	81	2.2	3,194	1,220
Somali	6.2	245	653	(5.6)	15	39	1.9	164	441
Benishangul-Gumuz	8.4	138	1,047	3.7	12	90	2.4	93	700
SNNP	5.0	2,307	1,550	5.4	115	79	2.6	1,481	996
Gambela	8.5	59	865	30.3	5	72	5.9	45	690
Harari	1.7	40	898	*	1	15	2.4	28	624
Addis Ababa	3.2	682	1,237	(71.8)	22	42	4.6	473	852
Dire Dawa	2.7	53	845	*	1	22	3.4	38	605
Education									
No education	4.0	3,785	3,659	1.4	153	206	2.1	3,107	3,009
Primary	3.5	6,813	6,334	13.9	236	241	2.6	3,766	3,738
Secondary	2.4	1,296	1,565	54.0	31	65	4.0	637	940
More than secondary	2.6	940	1,310	69.4	25	52	4.0	679	943
Wealth quintile									
Lowest	5.7	2,141	2,563	4.6	123	184	2.1	1,456	1,845
Second	3.4	2,362	1,891	8.7	81	70	2.1	1,529	1,255
Middle	3.2	2,454	1,935	4.1	79	75	2.1	1,563	1,259
Fourth	2.9	2,683	2,203	8.1	78	97	2.4	1,589	1,392
Highest	2.7	3,194	4,276	55.3	85	138	4.0	2,051	2,879
Total 15-49	3.5	12,834	12,868	15.5	446	564	2.6	8,189	8,630
50-59	6.4	1,276	1,242	3.5	82	91	4.5	1,246	1,217
Total 15-59	3.7	14,110	14,110	13.7	528	655	2.9	9,435	9,847

Note: Total includes 22 cases with information missing on type of union. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

While the risk of HIV transmission increases with the mean number of lifetime partners, it is highest when the sexual partnerships are concurrent. Two sexual partnerships are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner. Concurrent partnership is measured in two ways—by the point prevalence of concurrency and by the cumulative percentage of concurrency. Point prevalence refers to the percentage of respondents who had two or more sexual partners concurrently at the point six months before the survey. Cumulative prevalence measures the percentage of respondents who had two or more sexual partners concurrently at any time during the 12 months

preceding the survey. The point prevalence and the cumulative prevalence of concurrent sexual partners are presented in Table 12.9.

The point prevalence and the cumulative prevalence of concurrent sexual partners among women are close to zero, while among men they are 2 and 3 percent, respectively. Among men both the point prevalence and the cumulative prevalence are highest among the oldest men, age 40-49 (7 and 8 percent, respectively), among currently married or cohabiting men (4 and 5 percent, respectively), and among those living in rural areas (both 3 percent).

The percentage of multiple sexual partnerships that were concurrent in the 12 months preceding the survey is 41 percent for women and 82 percent for men 15-49.

Table 12.9 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all women and men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence[1]), percentage of all women and all men age 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence[2]), and, among women and men age 15-49 who had multiple sexual partners during the 12 months before the survey, percentage who had concurrent sexual partners, Ethiopia 2011

	Among all respondents:				Among all respondents who had multiple partners during the 12 months before the survey:		
Background characteristic	Point prevalence of concurrent sexual partners[1]	Cumulative prevalence of concurrent sexual partners[2]	Weighted number of respondents	Unweighted number of respondents	Percentage who had concurrent sexual partners[2]	Weighted number of respondents	Unweighted number of respondents
			WOMEN				
Age							
15-24	0.0	0.1	6,940	6,857	(25.1)	28	45
15-19	0.0	0.0	4,009	3,835	*	11	24
20-24	0.0	0.2	2,931	3,022	*	17	21
25-29	0.1	0.2	3,147	3,185	*	19	21
30-39	0.0	0.2	3,971	4,058	*	10	11
40-49	0.0	0.2	2,457	2,415	*	5	2
Marital status							
Never married	0.0	0.1	4,469	4,413	*	13	23
Married/living together	0.0	0.2	10,287	10,204	(62.5)	29	25
Divorced/separated/ widowed	0.0	0.2	1,758	1,898	(16.1)	20	31
Residence							
Urban	0.0	0.2	3,947	5,329	(24.2)	29	30
Rural	0.0	0.1	12,568	11,186	(56.3)	33	49
Total 15-49	0.0	0.2	16,515	16,515	41.3	62	79
			MEN				
Age							
15-24	0.1	0.3	5,332	5,162	29.3	52	97
15-19	0.0	0.1	3,013	2,832	*	14	24
20-24	0.2	0.6	2,319	2,330	36.0	37	73
25-29	0.7	1.6	2,297	2,274	59.2	60	91
30-39	4.2	4.8	3,132	3,261	90.2	168	191
40-49	6.7	7.9	2,074	2,171	98.1	166	185
Marital status							
Never married	0.2	0.5	5,600	5,641	43.3	65	124
Married/living together	4.1	4.8	6,872	6,775	94.9	350	414
Divorced/separated/ widowed	0.0	1.4	363	452	(16.7)	31	26
Residence							
Urban	0.8	1.6	2,882	3,915	48.8	93	148
Rural	2.7	3.2	9,952	8,953	90.6	353	416
Total 15-49	2.3	2.8	12,834	12,868	81.9	446	564
50-59	5.8	6.4	1,276	1,242	99.4	82	91
Total 15-59	2.6	3.2	14,110	14,110	84.6	528	655

Note: Two sexual partners are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] The percentage of respondents who had two (or more) sexual partners that were concurrent at the point in time six months before the survey

[2] The percentage of respondents who had two (or more) sexual partners that were concurrent at any time during the 12 months preceding the survey

12.6.2 Transactional Sex

Transactional sex involves the exchange of sex for money, favours, or gifts. Transactional sex is associated with a high risk of contracting HIV and other sexually transmitted infections due to compromised power relations and the tendency to have multiple partnerships. The 2011 EDHS asked male respondents if they had ever paid anyone in exchange for sex. Men who had sexual intercourse in the 12 months preceding the survey were asked if they had paid anyone for sexual intercourse during that time. Further, respondents who had engaged in paid sexual intercourse in the past 12 months were asked if they had used a condom the last time they paid for sexual intercourse.

Table 12.10 shows that 5 percent of men age 15-49 have paid for sexual intercourse at some point in their lives, and 1 percent did so in the past 12 months. Men age 40-49 (13 percent), those who were previously married (20 percent), and urban men (10 percent) were more likely than other men to have ever paid for sexual intercourse. Among regions this proportion ranges from 2 percent of men in Somali and Harari to 15 percent in Gambela. The proportion of men who ever paid for sex increases with increases in men's education and wealth. There is little variation by background characteristics in the percentage of men who paid for sex in the past 12 months. Thirty percent of men who paid for sex in the past 12 months reported condom use at last paid sexual intercourse (data not shown).

Table 12.10 Payment for sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Weighted number of men	Unweighted number of men
Age				
15-24	1.5	1.0	5,332	5,162
15-19	0.6	0.4	3,013	2,832
20-24	2.6	1.6	2,319	2,330
25-29	4.4	1.7	2,297	2,274
30-39	8.1	1.4	3,132	3,261
40-49	12.5	0.7	2,074	2,171
Marital status				
Never married	2.3	1.0	5,600	5,641
Married/living together	7.1	0.8	6,872	6,775
Divorced/separated/ widowed	20.4	9.3	363	452
Residence				
Urban	9.5	1.9	2,882	3,915
Rural	4.2	0.9	9,952	8,953
Region				
Tigray	13.2	1.8	770	1,235
Affar	2.6	1.9	101	910
Amhara	6.9	1.4	3,481	1,739
Oromiya	3.0	0.8	4,957	1,889
Somali	1.5	0.9	245	653
Benishangul-Gumuz	6.3	1.2	138	1,047
SNNP	4.3	1.1	2,307	1,550
Gambela	14.9	4.4	59	865
Harari	2.0	0.3	40	898
Addis Ababa	11.3	1.4	682	1,237
Dire Dawa	7.6	0.5	53	845
Education				
No education	5.3	1.2	3,785	3,659
Primary	4.6	1.1	6,813	6,334
Secondary	7.0	1.0	1,296	1,565
More than secondary	9.2	1.5	940	1,310
Wealth quintile				
Lowest	3.7	1.2	2,141	2,563
Second	3.9	0.7	2,362	1,891
Middle	4.6	1.0	2,454	1,935
Fourth	4.9	1.3	2,683	2,203
Highest	8.7	1.4	3,194	4,276
Total 15-49	5.4	1.1	12,834	12,868
50-59	14.6	0.3	1,276	1,242
Total 15-59	6.2	1.1	14,110	14,110

12.7 COVERAGE OF HIV TESTING

12.7.1 General HIV Testing

Knowledge of HIV status helps HIV negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain free of disease. For those who are infected with HIV, knowledge of their status allows them to take action to protect their sexual partners, to seek treatment, and to plan for the future. To assess awareness of HIV testing services and the coverage of those services, the 2011 EDHS asked respondents whether they had ever been tested for HIV. If they said that they had been, they were asked whether they had received the results of their last test. If they had never been tested, they were asked if they knew a place where they could go to be tested.

Tables 12.11.1 and 12.11.2 show that 66 percent of women and 82 percent of men know where to get an HIV test. The level of this knowledge is substantially higher among urban residents (91 percent of women and 97 percent of men) than among rural residents (59 percent of women and 78 percent of men). Women and men who have never married and have ever had sex, who live in Addis Ababa, who have secondary or higher education, and who are in the highest wealth quintile are more likely to know where to get an HIV test.

Results show that 36 percent of women and 38 percent of men have ever been tested for HIV and received their test results. Among age groups women age 20-24 (44 percent) and men age 25-29 (46 percent) are the most likely to have ever been tested for HIV and received their test results. Among both women and men, urban residents are more likely than rural residents to have ever had an HIV test and received results. Never-married respondents who have ever had sex are more likely to have taken the test and received results (69 percent of women and 58 percent of men) than those currently or previously in union. Among regions the percentages of men and women who have ever been tested for HIV and received results ranges from 11 percent in Somali to 65 percent in Addis Ababa for women and from 17 percent in Somali to 60 percent in Dire Dawa for men. HIV testing is more common among better educated and wealthier respondents.

Overall, about six in every ten Ethiopians (61 percent of women and 59 percent of men) have never been tested for HIV.

One respondent of every five (20 percent of women and 21 percent of men) were tested for HIV in the year preceding the survey and received the results. These figures are much higher than those recorded in the 2005 EDHS (2 percent for both women and men), showing an increased awareness and utilization of opportunities for HIV testing and learning one's HIV status.

Table 12.11.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test in the past 12 months	Weighted number of women	Unweighted number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]					
Age									
15-24	69.2	37.3	3.2	59.5	100.0	40.5	21.2	6,940	6,857
15-19	67.5	32.1	3.0	64.9	100.0	35.1	18.8	4,009	3,835
20-24	71.5	44.4	3.4	52.3	100.0	47.7	24.5	2,931	3,022
25-29	68.0	39.8	2.7	57.5	100.0	42.5	23.1	3,147	3,185
30-39	65.0	35.6	3.3	61.1	100.0	38.9	19.2	3,971	4,058
40-49	59.0	26.6	2.6	70.8	100.0	29.2	13.9	2,457	2,415
Marital status									
Never married	73.1	36.1	3.3	60.6	100.0	39.4	21.2	4,469	4,413
Ever had sex	92.9	68.5	2.6	28.8	100.0	71.2	45.2	344	489
Never had sex	71.5	33.4	3.4	63.2	100.0	36.8	19.2	4,126	3,924
Married/living together	62.8	34.7	3.0	62.2	100.0	37.8	19.5	10,287	10,204
Divorced/separated/ widowed	70.5	40.9	2.3	56.8	100.0	43.2	19.7	1,758	1,898
Residence									
Urban	90.8	61.2	2.6	36.2	100.0	63.8	36.0	3,947	5,329
Rural	58.8	27.8	3.1	69.1	100.0	30.9	15.0	12,568	11,186
Region									
Tigray	85.3	55.5	4.9	39.6	100.0	60.4	35.3	1,104	1,728
Affar	49.2	29.4	0.7	69.9	100.0	30.1	18.7	145	1,291
Amhara	67.9	34.5	2.6	62.9	100.0	37.1	19.0	4,433	2,087
Oromiya	59.3	32.5	2.9	64.6	100.0	35.4	18.2	6,011	2,135
Somali	34.9	10.6	0.9	88.6	100.0	11.4	6.5	329	914
Benishangul-Gumuz	61.1	36.7	2.2	61.1	100.0	38.9	17.1	174	1,259
SNNP	66.1	30.5	3.9	65.5	100.0	34.5	16.1	3,236	2,034
Gambela	77.0	46.6	3.1	50.3	100.0	49.7	27.6	69	1,130
Harari	87.2	55.4	2.7	41.9	100.0	58.1	33.5	49	1,101
Addis Ababa	96.6	65.2	1.2	33.6	100.0	66.4	35.2	896	1,741
Dire Dawa	88.1	62.9	4.4	32.7	100.0	67.3	40.8	69	1,095
Education									
No education	52.9	24.1	2.4	73.5	100.0	26.5	12.9	8,394	8,278
Primary	75.3	41.5	3.8	54.7	100.0	45.3	23.7	6,276	5,858
Secondary	96.2	65.1	4.0	30.9	100.0	69.1	36.0	1,117	1,395
More than secondary	100.0	76.3	1.5	22.2	100.0	77.8	45.6	728	984
Wealth quintile									
Lowest	46.4	18.2	2.2	79.7	100.0	20.3	10.5	2,986	3,711
Second	55.1	23.4	3.5	73.1	100.0	26.9	12.2	3,041	2,402
Middle	60.0	28.3	3.5	68.2	100.0	31.8	15.2	3,031	2,268
Fourth	70.2	37.1	3.4	59.5	100.0	40.5	19.0	3,215	2,505
Highest	90.4	61.3	2.7	36.0	100.0	64.0	36.5	4,242	5,629
Total 15-49	66.4	35.8	3.0	61.2	100.0	38.8	20.0	16,515	16,515

[1] Includes 'don't know/missing'

Table 12.11.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test in the past 12 months	Weighted number of men	Unweighted number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]					
Age									
15-24	78.8	32.0	3.6	64.4	100.0	35.6	20.1	5,332	5,162
15-19	74.7	25.3	3.6	71.1	100.0	28.9	16.5	3,013	2,832
20-24	84.1	40.7	3.5	55.8	100.0	44.2	24.8	2,319	2,330
25-29	86.8	45.9	4.6	49.5	100.0	50.5	23.7	2,297	2,274
30-39	83.2	40.8	3.1	56.1	100.0	43.9	20.0	3,132	3,261
40-49	82.6	37.8	2.8	59.5	100.0	40.5	19.8	2,074	2,171
Marital status									
Never married	80.9	34.2	3.6	62.2	100.0	37.8	20.8	5,600	5,641
Ever had sex	95.0	57.8	3.3	38.9	100.0	61.1	34.7	1,044	1,492
Never had sex	77.7	28.7	3.7	67.6	100.0	32.4	17.6	4,555	4,149
Married/living together	82.5	39.7	3.5	56.8	100.0	43.2	20.3	6,872	6,775
Divorced/separated/ widowed	85.7	50.5	2.2	47.3	100.0	52.7	26.2	363	452
Residence									
Urban	96.9	56.3	2.2	41.4	100.0	58.6	30.4	2,882	3,915
Rural	77.5	32.1	3.9	64.0	100.0	36.0	17.9	9,952	8,953
Region									
Tigray	92.1	49.1	5.9	45.1	100.0	54.9	29.7	770	1,235
Affar	79.2	35.0	1.3	63.7	100.0	36.3	17.9	101	910
Amhara	81.4	40.6	2.9	56.5	100.0	43.5	23.4	3,481	1,739
Oromiya	76.3	31.9	2.6	65.5	100.0	34.5	18.1	4,957	1,889
Somali	54.2	17.1	1.6	81.3	100.0	18.7	7.9	245	653
Benishangul-Gumuz	77.6	39.9	2.5	57.7	100.0	42.3	23.4	138	1,047
SNNP	89.2	36.3	6.7	57.0	100.0	43.0	17.2	2,307	1,550
Gambela	91.7	51.9	4.9	43.2	100.0	56.8	29.0	59	865
Harari	81.3	42.8	1.8	55.4	100.0	44.6	24.6	40	898
Addis Ababa	98.7	58.9	0.9	40.2	100.0	59.8	29.0	682	1,237
Dire Dawa	93.5	60.1	3.5	36.4	100.0	63.6	42.0	53	845
Education									
No education	68.6	25.4	2.9	71.7	100.0	28.3	13.1	3,785	3,659
Primary	83.6	36.5	4.2	59.3	100.0	40.7	19.7	6,813	6,334
Secondary	99.0	59.2	3.0	37.7	100.0	62.3	35.3	1,296	1,565
More than secondary	99.5	64.7	1.5	33.8	100.0	66.2	38.2	940	1,310
Wealth quintile									
Lowest	65.9	22.2	3.3	74.5	100.0	25.5	11.2	2,141	2,563
Second	74.7	28.6	3.1	68.3	100.0	31.7	15.3	2,362	1,891
Middle	78.2	32.9	3.4	63.6	100.0	36.4	16.4	2,454	1,935
Fourth	86.5	38.0	5.6	56.4	100.0	43.6	23.2	2,683	2,203
Highest	96.9	57.7	2.3	40.0	100.0	60.0	32.1	3,194	4,276
Total 15-49	81.9	37.6	3.5	58.9	100.0	41.1	20.7	12,834	12,868
50-59	77.9	27.6	4.2	68.2	100.0	31.8	12.4	1,276	1,242
Total 15-59	81.5	36.7	3.6	59.8	100.0	40.2	19.9	14,110	14,110

[1] Includes 'don't know/missing'

12.7.2 HIV Counselling and Testing During Pregnancy

Table 12.12 presents information on HIV screening of pregnant women age 15-49 who gave birth in the two years preceding the survey. The screening process is a key tool in reducing mother-to-child transmission of HIV. Only 14 percent of women who gave birth in the two years before the survey received HIV counselling during antenatal care (ANC). One woman in every five (20 percent) were tested for HIV during antenatal care and received the test results, and 2 percent were tested but did not receive the test results.

Overall, 11 percent of women received HIV counselling, an HIV test, and the results during ANC for their most recent birth in the two years preceding the survey. Young women, age 15-24 (14 percent) and urban women (43 percent) were more likely than other women to have been counselled on HIV and received an HIV test and its results during ANC. Addis Ababa has by far the highest percentage of women receive the full screening process, at 76 percent, while Somali has the lowest, at 2 percent. The likelihood of HIV counselling and testing during ANC increases with levels of education and wealth. For example, the proportion of women who were counselled about HIV during ANC, were tested, and received results ranges from 6 percent of women with no education to 72 percent of those with more than secondary education.

Table 12.12 Pregnant women counselled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counselling and the percentage who received an HIV test during antenatal care for their most recent birth, by whether they received their test results, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who received HIV counselling during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who:		Percentage who received counselling on HIV, an HIV test during ANC, and the results	Weighted number of women who gave birth in the past two years[2]	Unweighted number of women who gave birth in the past two years[2]
		Received results	Did not receive results			
Age						
15-24	16.0	24.3	1.3	13.8	1,366	1,333
15-19	10.8	18.2	2.5	9.6	333	336
20-24	17.6	26.3	0.9	15.2	1,034	997
25-29	13.6	20.3	1.3	11.6	1,407	1,333
30-39	12.5	17.0	1.7	9.7	1,386	1,364
40-49	7.8	12.7	1.7	6.2	293	254
Marital status						
Never married/ ever had sex	(22.4)	(29.0)	(1.5)	(20.9)	38	32
Married/living together	13.2	19.6	1.4	11.0	4,166	4,012
Divorced/separated/ widowed	19.5	24.6	2.7	15.6	249	240
Residence						
Urban	46.8	60.9	3.4	43.2	607	751
Rural	8.4	13.5	1.2	6.3	3,846	3,533
Region						
Tigray	29.3	43.9	2.8	27.0	273	434
Affar	13.5	19.2	0.0	10.7	40	378
Amhara	12.1	19.6	2.6	10.3	983	476
Oromiya	11.2	16.8	0.9	8.6	1,917	681
Somali	6.5	5.7	1.0	2.2	128	358
Benishangul-Gumuz	13.1	17.9	1.1	11.2	51	373
SNNP	9.4	14.1	1.3	7.8	926	600
Gambela	16.6	29.8	0.5	14.1	15	317
Harari	26.9	40.7	0.9	25.2	11	246
Addis Ababa	79.7	90.5	0.5	76.0	95	167
Dire Dawa	32.5	40.5	2.3	29.7	14	254
Education						
No education	7.1	11.7	1.0	5.6	2,956	2,845
Primary	20.4	29.1	2.3	16.7	1,296	1,184
Secondary	62.8	78.1	4.7	56.4	136	173
More than secondary	71.7	94.5	0.1	71.7	65	82
Wealth quintile						
Lowest	5.3	6.7	0.5	3.6	1,047	1,311
Second	5.5	10.3	1.3	3.4	988	782
Middle	8.1	12.8	0.6	6.2	917	704
Fourth	14.6	21.8	2.8	11.5	784	656
Highest	42.8	60.1	2.8	39.9	717	831
Total 15-49	13.6	20.0	1.5	11.3	4,453	4,284

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] In this context "counselling" means that someone talked with the respondent about all three of the following topics: (1) babies getting the AIDS virus from their mother, (2) preventing transmission of the virus, and (3) getting tested for the virus.
[2] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

12.8 MALE CIRCUMCISION

Circumcision is widely practiced in Ethiopia and often serves as a rite of passage to adulthood. Recently, studies have shown that male circumcision, which involves the removal of the foreskin of the penis, is associated with lower susceptibility to transmission of sexually transmitted infections, including HIV (Bailey et al., 2007). The 2011 EDHS asked men if they were circumcised.

Table 12.13.1 shows that 92 percent of Ethiopian men age 15-49 are circumcised. The percentage of men who are circumcised increases with age, ranging from 88 percent of men age 15-19 to 95 percent of men age 40-49. Men living in urban areas are somewhat more likely to be circumcised than men in rural areas (98 percent versus 90 percent). Circumcision is close to universal in most regions, except in Gambela and SNNP regions (76 and 79 percent, respectively). The proportion of circumcised men is highest among Orthodox Christians and Muslims (96 percent each).

Table 12.13.1 Male circumcision

Percentage of men age 15-49 who report having been circumcised, by background characteristics, Ethiopia 2011

Background characteristic	Percentage circumcised	Weighted number of men	Unweighted number of men
Age			
15-24	89.1	5,332	5,162
15-19	87.6	3,013	2,832
20-24	91.1	2,319	2,330
25-29	93.5	2,297	2,274
30-39	93.3	3,132	3,261
40-49	94.8	2,074	2,171
Residence			
Urban	97.9	2,882	3,915
Rural	90.1	9,952	8,953
Region			
Tigray	96.2	770	1,235
Affar	99.0	101	910
Amhara	95.2	3,481	1,739
Oromiya	93.6	4,957	1,889
Somali	97.2	245	653
Benishangul-Gumuz	94.6	138	1,047
SNNP	78.5	2,307	1,550
Gambela	75.9	59	865
Harari	99.6	40	898
Addis Ababa	99.1	682	1,237
Dire Dawa	99.5	53	845
Religion			
Orthodox	96.3	6,133	5,510
Catholic	83.3	120	125
Protestant	78.9	2,459	2,069
Muslim	95.5	3,788	4,873
Traditional	76.6	96	87
Total 15-49	91.8	12,834	12,868
50-59	95.6	1,276	1,242
Total 15-59	92.2	14,110	14,110

Note: Total includes 15 cases with information missing on religion.

Circumcised men were also asked the age at which they were circumcised, who performed the circumcision, and where the circumcision was done. As Table 12.13.2 shows, the majority of circumcised men, 61 percent, were circumcised during childhood (younger than age 5). In the majority of the cases, the circumcision was performed by a traditional practitioner or family friend (72 percent) and at the respondent's home (73 percent).

Table 12.13.2 Circumstances surrounding male circumcision

Percentage of men age 15-49 who have been circumcised, by age at circumcision, person who performed the circumcision, and place of circumcision, Ethiopia 2011

Characteristics of circumcision	Total
Age at circumcision	
During childhood (< age 5)	61.3
5-9	9.0
10+	17.9
Don't know	11.5
Missing	0.2
Who performed the circumcision	
Traditional practitioner/family friend	72.0
Health worker/professional	14.0
Other	0.5
Don't know	13.3
Missing	0.1
Place where circumcision was done	
Health facility	10.2
Home of a health worker/professional	3.7
At home	72.7
Ritual site	2.1
Other home/place	4.0
Don't know	7.3
Total	100.0
Weighted number	13,901
Unweighted number	13,004

12.9 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse but also because STI infection is a co-factor in HIV transmission. The 2011 EDHS asked respondents who had ever had sex whether they had had a disease that they acquired through sexual contact in the past 12 months. They were also asked whether, in the past 12 months, they had any genital discharge and whether they had experienced a genital sore or ulcer. These symptoms have been shown to be useful in identifying STIs in men. For women, however, discharge is less easily interpreted as a symptom because women experience non-STI conditions of the reproductive tract that also produce discharge.

Table 12.14 shows that 1 percent, each, of Ethiopian women and men reported having had an STI in the past 12 months. Three percent of women and 2 percent of men reported having had an abnormal genital discharge, and 1 percent each of women and men reported having had a genital sore or ulcer in the 12 months preceding the survey. These numbers may be underestimates because respondents may be embarrassed or ashamed to admit to having STIs. Given the low levels of reporting of STIs, variations across background characteristics are small.

Table 12.14 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

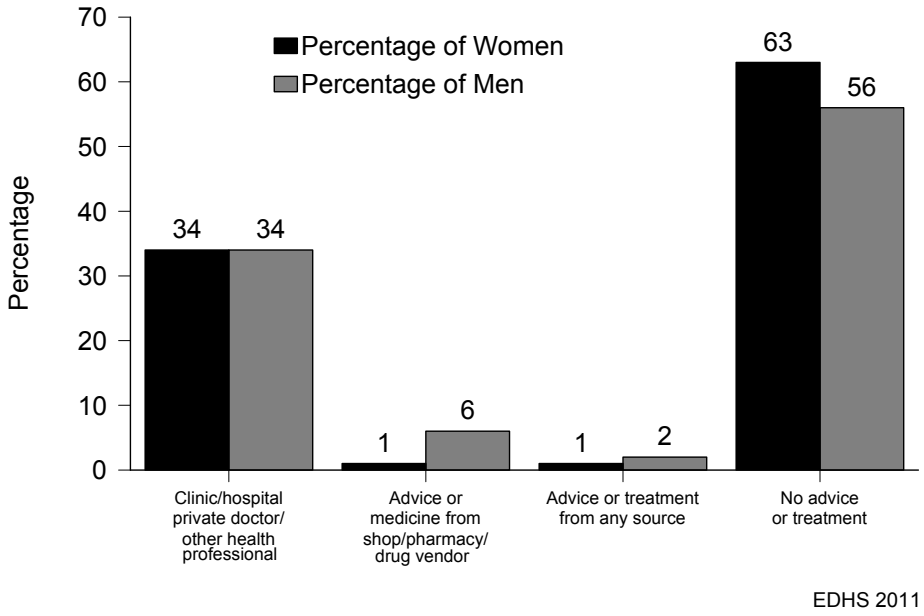
Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Ethiopia 2011

	Women						Men					
	Percentage of women who reported having in the past 12 months:						Percentage of men who reported having in the past 12 months:					
Background characteristic	STI	Bad-smelling or abnormal genital discharge	Genital sore or ulcer	STI ,genital discharge, sore or ulcer	Weighted number of women who ever had sexual intercourse	Unweighted number of women who ever had sexual intercourse	STI	Bad-smelling or abnormal genital discharge	Genital sore or ulcer	STI, genital discharge, sore or ulcer	Weighted number of men who ever had sexual intercourse	Unweighted number of men who ever had sexual intercourse
Age												
15-24	0.7	2.9	0.9	3.6	3,088	3,237	1.9	2.9	1.0	4.4	1,266	1,498
15-19	1.0	2.1	1.4	3.3	970	1,032	0.2	2.3	0.6	2.3	236	327
20-24	0.6	3.3	0.8	3.7	2,119	2,205	2.3	3.0	1.1	4.8	1,030	1,171
25-29	0.8	2.2	1.8	3.4	2,917	2,945	0.6	0.8	0.5	1.6	1,859	1,874
30-39	0.8	1.9	1.0	2.7	3,881	3,959	0.6	1.4	0.4	1.9	3,040	3,158
40-49	0.7	3.5	1.9	4.2	2,441	2,400	1.2	1.2	0.9	2.3	2,059	2,152
Marital status												
Never married/ever had sex	1.2	2.7	2.4	4.7	344	489	1.8	2.8	1.0	4.3	1,044	1,492
Married/living together	0.7	2.4	1.1	3.2	10,263	10,179	0.8	1.1	0.6	1.8	6,831	6,747
Divorced/separated/ widowed	0.8	3.1	2.5	4.3	1,722	1,873	1.9	4.5	1.2	6.8	350	443
Male circumcision												
Circumcised	na	na	na	na	na	na	0.9	1.4	0.6	2.3	7,677	8,035
Not circumcised	na	na	na	na	na	na	1.7	1.8	0.7	3.0	528	626
Residence												
Urban	0.7	3.0	1.7	4.0	2,569	3,520	0.2	1.3	0.6	1.7	1,857	2,670
Rural	0.8	2.4	1.3	3.2	9,760	9,021	1.2	1.5	0.7	2.5	6,368	6,012
Region												
Tigray	0.7	3.2	1.6	4.0	833	1,316	0.5	0.9	0.5	1.3	489	786
Affar	0.5	0.8	0.5	1.4	121	1,093	1.4	4.0	1.8	4.3	73	672
Amhara	0.3	2.4	1.4	3.3	3,453	1,649	0.2	1.5	0.7	2.3	2,136	1,069
Oromiya	1.1	3.1	1.5	4.0	4,515	1,604	1.7	1.3	0.6	2.5	3,192	1,219
Somali	1.7	3.9	4.2	5.9	263	740	4.6	7.3	1.9	7.8	167	448
Benishangul-Gumuz	0.3	2.1	1.0	2.6	143	1,035	0.2	1.4	0.8	2.1	93	704
SNNP	0.6	1.5	0.6	2.2	2,308	1,466	0.5	1.6	0.6	2.2	1,488	999
Gambela	1.7	3.8	4.9	6.5	61	994	1.2	2.3	1.9	3.4	45	692
Harari	0.5	1.0	0.7	1.6	36	810	0.2	0.5	0.0	0.7	28	630
Addis Ababa	0.6	1.5	1.3	2.2	546	1,038	0.1	0.3	0.1	0.4	476	857
Dire Dawa	0.1	1.0	0.8	1.4	49	796	1.2	1.2	0.3	2.1	38	606
Education												
No education	0.8	2.6	1.4	3.4	7,869	7,681	0.8	1.2	0.8	2.2	3,117	3,021
Primary	0.8	2.3	1.4	3.4	3,482	3,507	1.1	1.8	0.6	2.5	3,781	3,762
Secondary	0.0	2.3	0.8	3.0	521	771	1.4	1.1	0.3	2.3	641	946
More than secondary	0.2	2.7	0.7	3.0	457	582	0.6	1.2	0.5	1.9	686	953
Wealth quintile												
Lowest	0.3	1.9	1.3	2.7	2,442	3,138	0.9	1.9	0.4	2.4	1,467	1,853
Second	0.9	2.6	1.1	3.2	2,425	1,946	1.2	1.1	0.9	2.4	1,530	1,261
Middle	1.3	2.7	1.4	3.7	2,374	1,812	1.1	1.4	0.9	2.4	1,566	1,263
Fourth	0.5	2.2	1.2	2.9	2,260	1,879	1.5	1.4	0.4	2.6	1,594	1,398
Highest	0.8	3.2	1.6	4.1	2,827	3,766	0.3	1.6	0.6	2.0	2,069	2,907
Total 15-49	0.7	2.5	1.3	3.4	12,328	12,541	0.9	1.5	0.6	2.3	8,225	8,682
50-59	na	na	na	na	na	na	0.4	1.4	0.9	1.8	1,271	1,237
Total 15-59	na	na	na	na	na		0.9	1.5	0.7	2.3	9,496	9,919

na = Not applicable
Note: Total includes 21 men with information missing on circumcision.

It is important for people experiencing symptoms of STIs to be able to recognise them and seek appropriate treatment. If respondents reported an STI or an STI symptom (i.e., discharge or sore or ulcer) in the past 12 months, they were asked questions about what they did about the illness or symptom. Figure 12.1 presents information on women and men who sought care from any source. Thirty-four percent, each, of women and men sought care for the STIs or symptoms of STIs from a clinic, hospital, or health professional. One percent of women and 6 percent of men sought advice or medicine from a shop, pharmacy, or drug vendor. Sixty-three percent of women and 56 percent of men who had STIs or STI symptoms in the 12 months preceding the survey did not seek any advice or treatment.

Figure 12.1 Women and Men Seeking Treatment for STIs



EDHS 2011

12.10 PREVALENCE OF MEDICAL INJECTIONS

The overuse of injections in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices, such as reuse of injection equipment. The proportion of injections given with reused injection equipment is an important indicator in an initiative to prevent and control HIV/AIDS. Table 12.15 presents data on the prevalence of injections among respondents. Interviewers asked respondents if they had received an injection in the past 12 months and, if so, the total number of injections and the number received from a health worker. Respondents who had received one or more injections from a health worker were then asked if their most recent injection from a health worker was given using a syringe from a new, unopened package. It should be noted that self-administered medical injections (e.g., insulin for diabetes) were not included in the calculation.

Women are more likely than men to report receiving medical injections (40 percent versus 24 percent). The percentage of women who received a medical injection in the past 12 months is highest among those age 20-39 (43-47 percent), most likely because of injections given to women during antenatal care or family planning visits. There is little difference among men's age cohorts. Women and men in rural areas (36 and 20 percent, respectively) are less likely than those in urban areas (51 and 36 percent, respectively) to have had a medical injection within the past 12 months. Among regions women in Gambela and Addis Ababa are most likely to have received a medical injection (59 and 57 percent, respectively), while women in Somali are the least likely (18 percent). Similarly, the proportion of men who received a medical injection in the past 12 months is highest in Addis Ababa (54 percent) and lowest in Somali (12 percent).

Table 12.15 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Ethiopia 2011

	Women							Men						
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Weighted number of women	Unweighted number of women	For last injection, syringe and needle taken from a new, unopened package	Weighted number of women receiving medical injections in the past 12 months	Unweighted number of women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Weighted number of men	Unweighted number of men	For last injection, syringe and needle taken from a new, unopened package	Weighted number of men receiving medical injections in the past 12 months	Unweighted number of men receiving medical injections in the past 12 months
Age														
15-24	38.0	1.3	6,940	6,857	98.3	2,638	2,571	22.9	0.9	5,332	5,162	97.3	1,220	1,386
15-19	31.5	1.0	4,009	3,835	98.1	1,262	1,223	21.5	0.8	3,013	2,832	96.2	647	726
20-24	47.0	1.7	2,931	3,022	98.5	1,376	1,348	24.7	1.0	2,319	2,330	98.5	573	660
25-29	43.6	1.8	3,147	3,185	98.3	1,372	1,320	25.2	1.2	2,297	2,274	97.6	578	640
30-39	42.8	2.0	3,971	4,058	96.8	1,699	1,605	24.5	1.3	3,132	3,261	98.1	766	862
40-49	33.4	1.9	2,457	2,415	94.8	820	770	23.7	1.3	2,074	2,171	97.8	492	572
Marital status														
Never married	31.7	1.0	4,469	4,413	98.2	1,418	1,449	23.7	0.9	5,600	5,641	97.2	1,330	1,584
Ever had sex	47.8	1.8	344	489	98.3	164	245	30.5	1.3	1,044	1,492	98.6	319	507
Never had sex	30.4	0.9	4,126	3,924	98.2	1,254	1,204	22.2	0.9	4,555	4,149	96.8	1,011	1,077
Married/living together	44.1	1.9	10,287	10,204	97.4	4,541	4,191	24.0	1.2	6,872	6,775	98.1	1,652	1,756
Divorced/separated/widowed	32.4	1.5	1,758	1,898	96.0	570	626	20.6	0.9	363	452	94.5	75	120
Residence														
Urban	51.1	2.3	3,947	5,329	98.3	2,016	2,557	35.8	1.4	2,882	3,915	98.9	1,031	1,479
Rural	35.9	1.4	12,568	11,186	97.1	4,514	3,709	20.3	1.0	9,952	8,953	97.0	2,025	1,981
Region														
Tigray	40.1	1.2	1,104	1,728	97.9	442	686	21.5	0.8	770	1,235	97.5	166	260
Affar	26.2	1.4	145	1,291	98.6	38	290	26.1	1.7	101	910	99.9	26	209
Amhara	37.5	1.5	4,433	2,087	96.3	1,660	763	17.8	0.7	3,481	1,739	94.6	621	298
Oromiya	41.6	1.8	6,011	2,135	97.6	2,498	871	23.2	1.3	4,957	1,889	99.1	1,152	434
Somali	18.4	0.9	329	914	90.8	61	160	12.1	1.1	245	653	95.7	30	77
Benishangul-Gumuz	42.0	2.3	174	1,259	98.0	73	494	35.0	1.9	138	1,047	99.4	48	354
SNNP	35.9	1.5	3,236	2,034	98.8	1,163	700	25.7	1.0	2,307	1,550	97.2	593	382
Gambela	58.5	4.3	69	1,130	99.2	40	537	38.7	2.5	59	865	99.8	23	284
Harari	38.4	1.6	49	1,101	98.1	19	426	26.8	1.0	40	898	99.5	11	244
Addis Ababa	57.3	2.2	896	1,741	98.4	513	982	54.3	2.1	682	1,237	98.5	370	681
Dire Dawa	33.1	1.3	69	1,095	87.1	23	357	29.4	1.4	53	845	99.5	16	237
Education														
No education	35.8	1.5	8,394	8,278	96.3	3,005	2,627	17.2	0.9	3,785	3,659	97.1	652	693
Primary	40.7	1.6	6,276	5,858	98.1	2,552	2,451	23.5	1.1	6,813	6,334	97.1	1,603	1,687
Secondary	51.0	2.2	1,117	1,395	99.5	570	685	33.8	1.3	1,296	1,565	99.0	438	581
More than secondary	55.4	2.2	728	984	99.0	403	503	38.6	1.5	940	1,310	99.1	362	499
Wealth quintile														
Lowest	27.7	1.1	2,986	3,711	95.4	826	901	13.8	0.7	2,141	2,563	96.5	296	401
Second	32.9	1.3	3,041	2,402	96.6	1,001	760	17.6	0.9	2,362	1,891	94.9	416	386
Middle	35.5	1.5	3,031	2,268	96.9	1,077	790	21.2	1.1	2,454	1,935	97.3	521	444
Fourth	44.2	1.7	3,215	2,505	98.3	1,422	1,068	24.4	1.2	2,683	2,203	97.4	654	613
Highest	52.0	2.4	4,242	5,629	98.4	2,204	2,747	36.6	1.5	3,194	4,276	99.1	1,170	1,616
Total 15-49	39.5	1.6	16,515	16,515	97.5	6,530	6,266	23.8	1.1	12,834	12,868	97.6	3,056	3,460
50-59	na	na	na	na	na	na	na	26.7	1.6	1,276	1,242	96.3	340	327
Total 15-59	na	na	na	na	na	na	na	24.1	1.1	14,110	14,110	97.5	3,396	3,787

na = Not applicable
Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker.

The great majority of recent medical injections received by women and men (both 98 percent) were given with a syringe taken from a newly opened package. Variation by sociodemographic characteristics is minimal, indicating that use of single-use disposable syringes is approaching universal levels.

12.11 HIV/AIDS KNOWLEDGE AND SEXUAL BEHAVIOUR AMONG YOUTH

This section addresses HIV/AIDS-related knowledge and sexual behaviour among youth, age 15-24. The period between the initiation of sexual activity and marriage is often a time of sexual experimentation and may involve risky behaviours. Comprehensive knowledge among youth of HIV/AIDS transmission and prevention as well as knowledge of where to obtain condoms is analysed below. Issues such as age at first sex, age difference between partners, sex related to alcohol use, and voluntary counselling and testing for HIV also are covered in this section.

12.11.1 HIV/AIDS-Related Knowledge Among Young Adults

Knowledge of how HIV is transmitted is crucial to enable people to avoid HIV infection, especially for young people, who are often at greater risk because they may have shorter relationships and thus more partners or may engage in other risky behaviours.

Table 12.16 shows the level of comprehensive knowledge about AIDS among young people, measured by their responses to prompted questions. As discussed, comprehensive knowledge is defined as: (1) one's knowledge that people can reduce their chances of getting the AIDS virus by having sex with only one uninfected, faithful partner and by using condoms consistently; (2) knowing that a healthy-looking person can have HIV; and (3) knowing that HIV cannot be transmitted by mosquito bites or by supernatural means. About one-fourth of women (24 percent) and one-third of men (34 percent) age 15-24 have comprehensive knowledge about AIDS. Never-married young adults who have ever had sex (41 percent of women and 44 percent of men) are the most likely to have comprehensive knowledge about AIDS. Urban youth (38 percent of women and 49 percent of men) are more likely than rural youth (19 percent of women and 30 percent of men) to have comprehensive AIDS knowledge. The level of knowledge increases steadily with education. For example, 7 percent of young women with no education have comprehensive knowledge about AIDS, compared with 54 percent of young women with more than secondary education.

Table 12.16 Comprehensive knowledge about AIDS and knowledge of a source of condoms among young people

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Ethiopia 2011

	Women				Men			
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Weighted number of women	Unweighted number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Weighted number of men	Unweighted number of men
Age								
15-19	24.0	40.8	4,009	3,835	31.8	69.4	3,013	2,832
15-17	23.5	40.1	2,454	2,341	30.7	64.6	1,870	1,726
18-19	24.9	41.8	1,555	1,494	33.6	77.2	1,144	1,106
20-24	23.6	45.1	2,931	3,022	37.4	79.3	2,319	2,330
20-22	22.9	45.4	1,954	2,020	34.3	75.5	1,543	1,522
23-24	25.1	44.5	977	1,002	43.4	86.9	776	808
Marital status								
Never married	28.9	50.1	4,022	3,866	35.5	74.8	4,622	4,446
Ever had sex	40.5	85.7	219	285	44.0	93.4	587	804
Never had sex	28.3	48.1	3,803	3,581	34.2	72.0	4,035	3,642
Ever married	16.8	32.3	2,918	2,991	26.1	66.8	710	716
Residence								
Urban	37.7	75.8	1,877	2,448	49.0	95.0	1,218	1,561
Rural	18.7	30.3	5,063	4,409	29.8	67.4	4,114	3,601
Education								
No education	7.0	12.5	1,809	1,913	11.9	43.9	803	765
Primary	25.1	44.7	3,988	3,652	33.7	73.8	3,497	3,178
Secondary	42.3	78.2	750	786	51.7	95.7	712	751
More than secondary	53.5	92.5	393	506	57.0	98.8	320	468
Total 15-24	23.9	42.6	6,940	6,857	34.2	73.7	5,332	5,162

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus. The components of comprehensive knowledge are presented in Tables 12.2, 12.3.1, and 12.3.2.
[2] For this table the following responses are not considered sources for condoms: friends, family members, and home.

Because of the important role that condoms play in combating the transmission of HIV, respondents were asked if they knew where condoms could be obtained. Only responses about 'formal' sources were counted; friends, family members, and home were not included. As shown in Table 12.16, young men are more likely than young women to know where to obtain condoms (74 percent versus 43 percent). Young women and men in urban areas are more likely than those in rural areas to know a source of condoms. Consistent with patterns for other indicators, respondents with more education are more likely than those with no or little education to know a source of condoms.

12.11.2 Age at First Sexual Intercourse

Age at first sex is an important indicator of both exposure to the risk of pregnancy and exposure to STIs. Young people who initiate sex at an early age face a higher risk of becoming pregnant or contracting an STI than young people who delay initiation of sexual activity. Consistent use of condoms reduces these risks. Table 12.17 shows the proportions of women and men age 15-24 who had sex before age 15 and before age 18.

Eleven percent of young women and 1 percent of young men had had sexual intercourse before age 15; 39 percent of young women and 13 percent of young men had had sex before age 18. Among young women the older age cohorts are more likely to have had sex before age 15 or age 18 than those who reached those age milestones more recently. Ever-married young women are much more likely than never-married young women to have had sexual intercourse before age 15 or 18. Twenty-six and 64 percent of ever-married young women had sexual intercourse before age 15 and 18, respectively, compared with less than 1 percent and 3 percent, respectively, of never-married women. Among young women a higher proportion of rural residents have had sex before age 15 and

before age 18 than their urban counterparts. Education has an inverse relationship with sexual debut. Young women with no schooling are considerably more likely than those who go to school to have had sex by age 15 (26 percent compared with 7 percent or less). Variation in young men's sexual debut across background characteristics are small, except for variation associated with marital status. Like women, ever-married young men are much more likely than never-married men to have had sexual intercourse before age 18.

Table 12.17 Age at first sexual intercourse among young people

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Ethiopia 2011

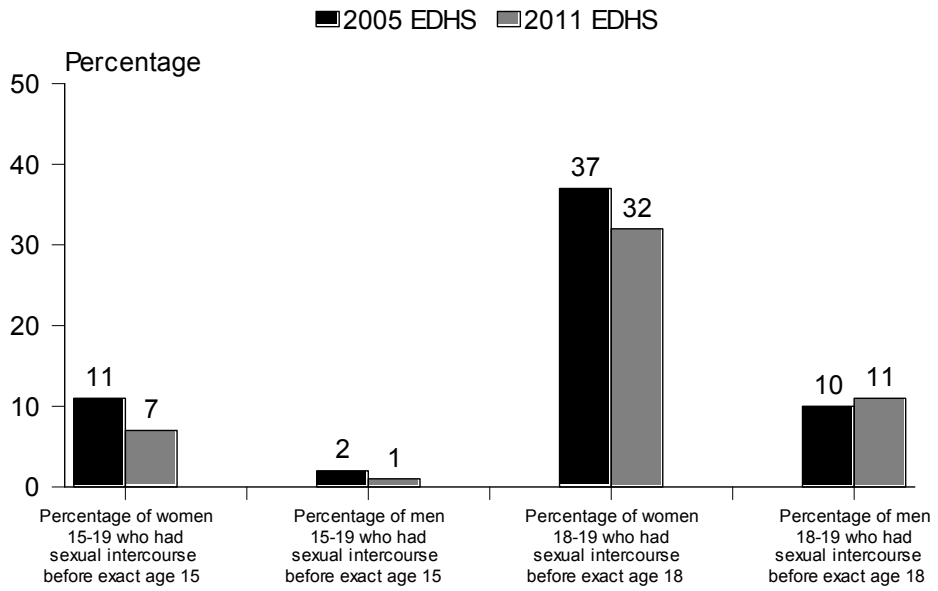
	Women						Men					
	Women age 15-24			Women age 18-24			Men age 15-24			Men age 18-24		
Background characteristic	Percentage who had sexual intercourse before age 15	Weighted number of women	Unweighted number of women	Percentage who had sexual intercourse before age 18	Weighted number of women	Unweighted number of women	Percentage who had sexual intercourse before age 15	Weighted number of men	Unweighted number of men	Percentage who had sexual intercourse before age 18	Weighted number of men	Unweighted number of men
Age												
15-19	7.1	4,009	3,835	na	na	na	1.2	3,013	2,832	na	na	na
15-17	5.7	2,454	2,341	na	na	na	1.5	1,870	1,726	na	na	na
18-19	9.4	1,555	1,494	32.2	1,555	1,494	0.7	1,144	1,106	10.8	1,144	1,106
20-24	16.0	2,931	3,022	42.2	2,931	3,022	1.3	2,319	2,330	14.0	2,319	2,330
20-22	14.9	1,954	2,020	41.3	1,954	2,020	1.0	1,543	1,522	13.9	1,543	1,522
23-24	18.3	977	1,002	43.9	977	1,002	1.9	776	808	14.2	776	808
Marital status												
Never married	0.3	4,022	3,866	3.4	1,877	1,858	1.0	4,622	4,446	8.6	2,768	2,736
Ever married	25.5	2,918	2,991	64.1	2,609	2,658	3.0	710	716	30.4	694	700
Knows condom source[1]												
Yes	6.0	2,958	3,191	27.1	1,973	2,195	1.4	3,930	3,849	13.3	2,722	2,731
No	14.5	3,982	3,666	47.8	2,513	2,321	0.9	1,402	1,313	11.5	740	705
Residence												
Urban	5.8	1,877	2,448	24.0	1,287	1,720	0.9	1,218	1,561	12.6	853	1,157
Rural	12.8	5,063	4,409	44.6	3,199	2,796	1.4	4,114	3,601	13.0	2,609	2,279
Education												
No education	26.2	1,809	1,913	61.5	1,488	1,512	1.1	803	765	13.6	563	541
Primary	6.6	3,988	3,652	33.5	2,042	1,938	1.4	3,497	3,178	13.3	2,006	1,823
Secondary	1.5	750	786	17.4	589	592	0.5	712	751	9.4	590	617
More than secondary	2.1	393	506	9.5	367	474	1.6	320	468	16.0	303	455
Total	10.9	6,940	6,857	38.7	4,486	4,516	1.2	5,332	5,162	12.9	3,462	3,436

na = Not applicable

[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

The percentages of young women who have had sexual intercourse before ages 15 and 18 have decreased somewhat since the 2005 EDHS, while the percentages among young men have remained almost the same (Figure 12.2).

Figure 12.2 **Trends in Age at First Sexual Intercourse**



EDHS 2011

12.11.3 Abstinence and Premarital Sex

The period between age at first sex and age at marriage is often a time of sexual experimentation. Unfortunately, in the era of HIV/AIDS, it can also be a risky time. HIV control programmes advocate consistent condom use to reduce the risk of sexual transmission of HIV. Table 12.18 presents information on premarital sexual intercourse and condom use among never-married Ethiopian youth, age 15-24.

Ninety-five percent of never-married young women and 87 percent of never-married young men have never had sexual intercourse. Abstinence rates are highest among the youngest respondents (age 15-17), those that do not know a condom source, and rural and less educated young respondents. Conversely, a higher percentage of respondents age 23-24, those living in urban areas, those that know a condom source, and respondents with more than secondary education report that they had sexual intercourse in the past 12 months.

Overall, 4 percent of never-married young women and 8 percent of never-married young men had sex in the past 12 months. Among those who had sex in the past year, 37 percent of women and 68 percent of men reported using a condom during their last sexual intercourse. Due to the small number of women who report having had sex in the past year and using a condom at last sex, caution should be used when interpreting these data by background characteristics. Among men condom use is higher among urban than rural respondents and increases with education.

Table 12.18 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Ethiopia 2011

	Never-married women age 15-24							Never-married men age 15-24						
					Among women who had sexual intercourse in the past 12 months:							Among men who had sexual intercourse in the past 12 months:		
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Weighted number of never married women	Unweighted number of never married women	Percentage who used a condom at last sexual intercourse	Weighted number of women	Unweighted number of women	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Weighted number of never married men	Unweighted number of never married men	Percentage who used a condom at last sexual intercourse	Weighted number of men	Unweighted number of men
Age														
15-19	97.3	1.9	3,087	2,887	45.5	58	86	93.8	3.8	2,941	2,753	60.9	111	185
15-17	98.5	1.0	2,146	2,008	(65.7)	21	42	96.4	2.5	1,854	1,710	44.6	47	73
18-19	94.5	4.0	941	879	(34.1)	37	44	89.3	5.9	1,087	1,043	72.9	64	112
20-24	85.4	9.2	935	979	30.9	86	114	76.0	14.7	1,681	1,693	71.3	248	351
20-22	86.8	8.5	714	726	37.3	61	74	80.2	11.6	1,206	1,191	70.3	140	203
23-24	81.2	11.5	221	253	(15.7)	26	40	65.3	22.7	474	502	72.6	108	148
Knows condom source[1]														
Yes	90.7	6.3	2,016	2,119	39.2	128	176	84.1	10.0	3,455	3,358	70.0	345	494
No	98.4	0.9	2,006	1,747	*	17	24	96.7	1.2	1,167	1,088	(19.7)	14	42
Residence														
Urban	89.6	6.4	1,366	1,769	39.2	87	137	79.1	12.6	1,152	1,453	83.9	145	257
Rural	97.1	2.2	2,657	2,097	33.2	57	63	90.0	6.2	3,470	2,993	57.4	214	279
Education														
No education	97.3	1.2	414	504	*	5	9	93.5	4.2	584	575	(26.8)	24	48
Primary	96.4	2.4	2,755	2,374	47.9	66	104	89.9	5.8	3,074	2,761	61.4	179	262
Secondary	92.2	5.2	569	597	(27.9)	29	36	81.7	12.0	669	686	77.0	80	121
More than secondary	77.4	15.7	285	391	(26.3)	45	51	60.1	25.6	295	424	87.9	75	105
Total	94.6	3.6	4,022	3,866	36.8	145	200	87.3	7.8	4,622	4,446	68.1	359	536

[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

The proportion of never-married young men, age 15-24, who used a condom at their last sexual intercourse has increased since the 2005 EDHS from 50 percent to 68 percent.

12.11.4 Multiple Partnerships Among Young Adults

Table 12.19.1 and Table 12.19.2 present information on young people, age 15-24, who had two or more sexual partners during the 12 months preceding the survey and, among those with two or more partners, those who used a condom during last sex.

Table 12.19.1 shows that less than 1 percent of women age 15-24 had sexual intercourse with more than one partner in the past 12 months. Due to the small percentages, there is no variation in the prevalence of multiple partners by background characteristics. Among women age 15-24 who reported two or more sexual partners in the past 12 months, 62 percent reported using a condom at last intercourse (data not shown).

Table 12.19.2 shows that 1 percent of men age 15-24 had sexual intercourse with two or more partners in the past 12 months. Again, due to the small percentages, the variation by background characteristics is not notable. Among young men who had one or more partners in the past year, 47 percent reported using a condom at last sexual intercourse.

Table 12.19.1 Multiple sexual partners in the past 12 months among young people: Women

Percentage of young women age 15-24 who had sexual intercourse with more than one sexual partner in the past 12 months, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who had 2+ partners in the past 12 months	Weighted number of women	Unweighted number of women
Age			
15-19	0.3	4,009	3,835
15-17	0.1	2,454	2,341
18-19	0.5	1,555	1,494
20-24	0.6	2,931	3,022
20-22	0.8	1,954	2,020
23-24	0.1	977	1,002
Marital status			
Never married	0.3	4,022	3,866
Ever married	0.6	2,918	2,991
Knows condom source[1]			
Yes	0.7	2,958	3,191
No	0.1	3,982	3,666
Residence			
Urban	0.7	1,877	2,448
Rural	0.3	5,063	4,409
Education			
No education	0.4	1,809	1,913
Primary	0.5	3,988	3,652
Secondary	0.0	750	786
More than secondary	0.0	393	506
Total 15-24	0.4	6,940	6,857

[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

Table 12.19.2 Multiple sexual partners in the past 12 months among young people: Men

Among all young men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months and, among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Ethiopia 2011

	Among all men age 15-24:			Among men age 15-24 who had 2+ partners in the past 12 months:		
Background characteristic	Percentage who had 2+ partners in the past 12 months	Weighted number of men	Unweighted number of men	Percentage who reported using a condom at last intercourse	Weighted number of men	Unweighted number of men
Age						
15-19	0.5	3,013	2,832	*	14	24
15-17	0.3	1,870	1,726	*	6	10
18-19	0.7	1,144	1,106	*	8	14
20-24	1.6	2,319	2,330	36.9	37	73
20-22	1.2	1,543	1,522	(26.1)	18	38
23-24	2.5	776	808	(46.9)	19	35
Marital status						
Never married	0.8	4,622	4,446	60.6	38	73
Ever married	1.9	710	716	*	13	24
Knows condom source[1]						
Yes	1.2	3,930	3,849	51.3	48	88
No	0.3	1,402	1,313	*	4	9
Residence						
Urban	2.0	1,218	1,561	(81.3)	25	47
Rural	0.7	4,114	3,601	15.8	27	50
Education						
No education	1.0	803	765	*	8	14
Primary	0.7	3,497	3,178	(27.1)	25	43
Secondary	1.4	712	751	(93.6)	10	27
More than secondary	2.5	320	468	*	8	13
Total 15-24	1.0	5,332	5,162	47.2	52	97

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

12.11.5 Age-mixing in Sexual Relationships

In many societies young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because older men are more likely to have been exposed to these diseases. Also, using preventive strategies, such as negotiating safer sex, is more difficult when a woman's partner is much older. To examine age-mixing, the 2011 EDHS asked respondents who had had sex in the 12 months preceding the survey to give their partner's age. The results are presented in Table 12.20.

Overall, 21 percent of women age 15-19 who had sexual intercourse in the past 12 months had sex with a man ten or more years older than they were. Very few young men, less than 1 percent, had sex with women who were ten or more years older. Age-mixing in sexual relationships varies little by background characteristics. Young women age 15-17, those who ever married, women in urban areas, and those with primary or no education are more likely than other women to have had sex with a man ten years or more older than they are.

Table 12.20 Age-mixing in sexual relationships among women and men age 15-19

Among women and men 15-19 who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with a partner who was 10 or more years older than they, by background characteristics, Ethiopia 2011

Background characteristic	Women 15-19 who had sexual intercourse in the past 12 months			Men 15-19 who had sexual intercourse in the past 12 months		
	Percentage who had sexual intercourse with a man 10+ years older	Weighted number of women	Unweighted number of women	Percentage who had sexual intercourse with a woman 10+ years older	Weighted number of men	Unweighted number of men
Age						
15-17	24.6	277	319	0.2	50	79
18-19	19.4	587	590	0.1	110	164
Marital status						
Never married	7.2	58	86	0.2	111	185
Ever married	22.1	806	823	0.0	48	58
Knows condom source[1]						
Yes	18.8	240	301	0.1	138	202
No	21.9	625	608	(0.4)	22	41
Residence						
Urban	23.5	121	163	0.0	44	77
Rural	20.7	743	746	0.2	115	166
Education						
No education	21.4	356	355	*	6	15
Primary	21.9	446	494	0.1	120	176
Secondary	16.6	48	50	(0.0)	25	42
More than secondary	*	14	10	*	8	10
Total	21.1	865	909	0.1	159	243

Note; Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

12.11.6 Recent HIV Testing Among Youth

Knowledge of one's HIV serostatus can motivate a person to protect himself/herself or to practise safer sexual behaviour to avoid transmitting the virus to others. It is particularly important to measure the coverage of HIV testing among youths, not only because of their vulnerability, but also because they in particular may encounter obstacles to counselling and testing. The 2011 EDHS asked respondents age 15-24 who had had sexual intercourse in the past 12 month whether they had been tested for HIV and received their test results in the past 12 months. Table 12.21 shows these data.

Nationally, one in every four young women, age 15-24, (25 percent) and about three in every ten young men, age 15-24, (28 percent) who had had sexual intercourse in the past 12 months had been tested for HIV in the past 12 months and received the results of the test. These percentages reflect a dramatic increase since the 2005 EDHS, when 2 percent of young women and 6 percent of young men who had had sexual intercourse in the past 12 months had been tested for HIV and received results.

A large difference is observed in HIV testing by marital status for both young women and young men. For instance, 58 percent of never-married women were tested for HIV in the past 12 months and received their test results, compared with 23 percent of ever-married ones. This difference is less pronounced among young men (38 percent compared with 22 percent). Urban youth, those who know a condom source, and youth with secondary or higher education are much more likely than other youth to have been tested for HIV and received the results over the past 12 months.

Table 12.21 Recent HIV testing among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Ethiopia 2011

Background characteristic	Among women age 15-24 who have had sexual intercourse in the past 12 months:			Among men age 15-24 who have had sexual intercourse in the past 12 months:		
	Percentage who have been tested for HIV and received results in the past 12 months	Weighted number of women	Unweighted number of women	Percentage who have been tested for HIV and received results in the past 12 months	Weighted number of men	Unweighted number of men
Age						
15-19	23.9	865	909	26.9	159	243
15-17	21.4	277	319	29.4	50	79
18-19	25.1	587	590	25.8	110	164
20-24	25.7	1,914	1,916	28.0	846	947
20-22	24.0	1,190	1,215	23.2	454	513
23-24	28.6	724	701	33.4	392	434
Marital status						
Never married	58.4	145	200	37.7	359	536
Ever married	23.3	2,634	2,625	22.3	647	654
Knows condom source[1]						
Yes	45.1	968	1,109	32.5	784	950
No	14.5	1,810	1,716	11.3	221	240
Residence						
Urban	57.8	539	719	42.6	210	357
Rural	17.3	2,239	2,106	23.9	796	833
Education						
No education	10.4	1,272	1,260	20.5	218	216
Primary	32.3	1,180	1,215	20.9	566	646
Secondary	55.0	183	195	56.0	123	182
More than secondary	59.5	144	155	48.9	98	146
Total	25.2	2,778	2,825	27.8	1,006	1,190

[1] For this table the following responses are not considered a source for condoms: friends, family members, and home.

12.12 USE OF ALCOHOL OR CHAT DURING SEXUAL INTERCOURSE

Sexual intercourse when one or both partners are under the influence of alcohol is risky because the couple may not be fully aware of their actions, which may lead to failure to use a condom. All eligible women and men who have ever had sex were asked if they or their partner drank alcohol or chewed chat the last time they had sexual intercourse in the past 12 months.

Tables 12.22.1 and Table 12.22.2 show that 1 percent of women and 4 percent of men age 15-49 drank alcohol the last time that they had sex in the past 12 months. By comparison, 5 percent of women chewed chat the last time that they had sex during the past 12 months as did 17 percent of men. Chat chewing is more common among ever-married respondents, those who live in rural areas, and respondents in Harari and Dire Dawa. For both women and men, chat use at last sexual intercourse tends to decrease with an increase in education. The relationship between chat use at last sex and wealth does not reveal a clear pattern.

Table 12.22.1 Use of alcohol and/or chat at last sexual intercourse: Women

Percentage of women age 15-49 who drank alcohol or chewed chat the last time they had sexual intercourse in the past 12 months, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who drank alcohol at last sexual intercourse	Percentage who report sexual partner drank alcohol at last sexual intercourse	Percentage who chewed chat[1] at last sexual intercourse	Percentage who report sexual partner chewed chat[1] at last sexual intercourse	Weighted number of women	Unweighted number of women
Age						
15-24	0.6	2.6	3.6	13.8	2,778	2,825
15-19	0.6	2.7	4.0	12.5	865	909
20-24	0.7	2.6	3.4	14.4	1,914	1,916
25-29	0.7	3.2	4.9	16.2	2,642	2,569
30-39	0.6	5.5	5.5	13.9	3,370	3,307
40-49	0.6	4.1	5.7	15.1	1,849	1,698
Marital status						
Never married	1.6	5.4	2.3	7.1	202	300
Married/living together	0.5	3.6	5.0	14.9	9,935	9,601
Divorced/separated/ widowed	2.6	9.7	4.6	13.2	503	498
Residence						
Urban	0.8	4.6	3.5	10.3	2,025	2,682
Rural	0.6	3.8	5.2	15.7	8,615	7,717
Region						
Tigray	1.0	2.4	0.3	1.1	678	1,071
Affar	0.3	0.4	4.0	16.6	99	912
Amhara	0.3	1.5	1.8	3.6	2,908	1,393
Oromiya	0.8	5.1	9.5	27.1	4,024	1,420
Somali	0.0	1.3	5.1	41.9	227	641
Benishangul-Gumuz	1.7	3.6	0.3	2.4	124	902
SNNP	0.7	6.4	2.4	8.2	2,064	1,316
Gambela	7.0	18.1	4.8	16.2	46	679
Harari	0.7	2.2	26.6	69.7	29	665
Addis Ababa	0.4	2.2	0.8	5.8	400	746
Dire Dawa	0.7	2.4	20.4	62.4	40	654
Education						
No education	0.6	4.2	5.3	15.5	6,815	6,439
Primary	0.8	4.1	4.9	14.5	3,034	2,906
Secondary	0.4	1.7	2.0	8.5	411	595
More than secondary	0.0	0.7	1.6	7.2	379	459
Wealth quintile						
Lowest	0.3	2.9	3.4	12.8	2,102	2,557
Second	0.4	4.1	6.1	16.4	2,148	1,675
Middle	0.6	3.8	6.1	15.3	2,115	1,597
Fourth	0.8	5.2	4.5	16.8	1,983	1,636
Highest	1.0	3.8	4.4	12.2	2,292	2,934
Total	0.6	3.9	4.9	14.6	10,640	10,399

[1] Refers to those who chewed chat any time during the day they had sexual intercourse.

Table 12.22.2 Use of alcohol and/or chat at last sexual intercourse: Men

Percentage of women age 15-49 who drank alcohol or chewed chat the last time they had sexual intercourse in the past 12 months, by background characteristics, Ethiopia 2011

Background characteristic	Percentage who drank alcohol at last sexual intercourse	Percentage who report sexual partner drank alcohol at last sexual intercourse	Percentage who chewed chat[1] at last sexual intercourse	Percentage who report sexual partner chewed chat[1] at last sexual intercourse	Weighted number of men	Unweighted number of men
Age						
15-24	3.1	1.3	14.7	1.8	1,006	1,190
15-19	2.6	2.4	16.5	6.3	159	243
20-24	3.2	1.1	14.3	1.0	846	947
25-29	4.0	0.5	16.0	3.4	1,684	1,652
30-39	3.3	0.3	17.3	2.8	2,876	2,872
40-49	3.8	0.1	16.9	2.9	1,976	1,999
Marital status						
Never married	5.4	2.8	11.0	3.0	602	924
Married/living together	3.1	0.2	17.0	2.8	6,765	6,590
Divorced/separated/ widowed	13.1	1.8	18.9	2.8	175	199
Residence						
Urban	3.4	0.9	12.6	1.5	1,559	2,154
Rural	3.6	0.3	17.6	3.2	5,984	5,559
Region						
Tigray	2.5	0.8	1.2	0.3	447	719
Affar	3.0	1.4	19.4	3.1	66	613
Amhara	2.1	0.5	2.7	0.5	1,978	993
Oromiya	4.3	0.4	30.5	5.9	2,976	1,135
Somali	0.0	0.0	38.6	2.3	149	401
Benishangul-Gumuz	2.8	0.2	2.8	0.0	87	657
SNNP	4.8	0.3	9.4	0.8	1,370	925
Gambela	8.3	4.7	16.1	2.5	37	561
Harari	3.9	1.4	74.6	13.5	24	531
Addis Ababa	3.0	0.7	9.5	1.0	376	671
Dire Dawa	2.2	1.6	67.0	14.2	31	507
Education						
No education	3.1	0.3	17.2	3.7	2,957	2,818
Primary	4.3	0.3	17.9	2.5	3,503	3,389
Secondary	1.8	0.9	13.4	2.2	527	755
More than secondary	2.6	1.4	7.6	1.5	555	751
Wealth quintile						
Lowest	3.1	0.3	13.4	3.1	1,402	1,719
Second	3.8	0.3	17.3	3.7	1,462	1,176
Middle	3.9	0.4	18.2	2.7	1,472	1,181
Fourth	3.7	0.2	19.6	2.3	1,453	1,268
Highest	3.2	0.8	14.6	2.6	1,753	2,369
Total 15-49	3.5	0.4	16.6	2.9	7,542	7,713
50-59	5.6	0.3	14.0	3.6	1,172	1,110
Total 15-59	3.8	0.4	16.2	3.0	8,714	8,823

[1] Refers to those who chewed chat any time during the day they had sexual intercourse.

12.13 SHARING OF HIV TEST RESULTS AMONG COUPLES

Sharing of HIV test results among couples is important. Partners can support each other in cases where one or both of them are HIV positive. When one of the partners is positive, measures can be taken to prevent the other one from being infected. When they are both HIV negative, this knowledge encourages them to practise safe sex in order to remain HIV negative.

Currently married women and men age 15-49 who were ever tested for HIV and received the result of the last HIV test were asked whether they had shared these results with their partner. Table 12.23 shows that currently married men were slightly more likely than currently married women to have been tested and to have shared their HIV test results with their partners (36 percent versus 32 percent). Respondents in urban areas were much more likely (66 percent of women and 59 percent of men) to have been tested and to have shared their HIV test results with their partners than those in rural areas (24 and 31 percent, respectively). Among regions women and men residing in Addis

Ababa (81 and 70 percent, respectively) were the most likely to have been tested and to have shared their results with their partners. Sharing of HIV results among couples increases with education and wealth.

Overall, 2 percent of women and 3 percent of men were tested for HIV and received their results but did not share them with their partners.

Table 12.23 Sharing of HIV test results among couples

Among currently married women and men age 15-49, percentage who have received the results of the last HIV test, by whether they shared the results of their last HIV test with their spouse, according to background characteristics, Ethiopia 2011

	Women				Men			
Background characteristic	Ever tested, received results, and shared with partner	Ever tested, received results, and did not share with partner	Weighted number of women	Unweighted number of women	Ever tested, received results, and shared with partner	Ever tested, received results, and did not share with partner	Weighted number of men	Unweighted number of men
Age								
15-24	37.5	1.4	2,527	2,572	33.1	2.1	647	641
15-19	30.1	2.5	765	784	24.9	2.0	64	66
20-24	40.7	0.9	1,762	1,788	34.0	2.1	583	575
25-29	34.5	2.0	2,511	2,480	40.0	2.8	1,481	1,378
30-39	30.6	2.8	3,311	3,322	35.8	2.9	2,790	2,762
40-49	22.7	3.0	1,938	1,830	33.1	4.1	1,953	1,994
Residence								
Urban	65.5	3.5	1,843	2,422	59.4	3.4	1,235	1,580
Rural	24.4	2.0	8,444	7,782	30.5	3.1	5,637	5,195
Region								
Tigray	49.4	6.1	620	984	44.2	10.3	377	613
Affar	26.7	1.7	104	960	34.7	3.3	52	492
Amhara	29.9	2.7	2,776	1,331	41.8	3.5	1,867	936
Oromiya	29.3	1.6	3,961	1,403	30.0	2.0	2,738	1,040
Somali	8.8	1.5	232	664	13.7	2.1	145	391
Benishangul-Gumuz	33.3	1.9	124	904	36.7	2.8	81	614
SNNP	27.2	2.0	2,022	1,295	31.2	3.2	1,279	870
Gambela	41.4	3.7	41	768	48.0	3.9	29	488
Harari	52.0	4.4	28	635	37.3	1.5	20	460
Addis Ababa	80.5	2.9	342	634	70.4	3.6	259	442
Dire Dawa	61.3	4.6	38	626	52.0	4.4	25	429
Education								
No education	21.4	2.0	6,735	6,569	25.3	2.7	2,906	2,757
Primary	44.8	2.6	2,862	2,739	38.6	3.6	3,213	2,997
Secondary	77.9	4.2	378	528	61.8	4.5	385	525
More than secondary	80.5	3.1	313	368	65.3	2.4	368	496
Wealth quintile								
Lowest	15.5	1.8	2,077	2,724	21.3	2.7	1,344	1,631
Second	19.7	2.3	2,117	1,676	26.4	2.9	1,404	1,138
Middle	24.4	1.7	2,083	1,585	31.8	2.4	1,393	1,104
Fourth	33.9	2.2	1,923	1,590	37.4	4.3	1,339	1,152
Highest	65.5	3.6	2,087	2,629	61.2	3.5	1,391	1,750
Total 15-49	31.8	2.3	10,287	10,204	35.7	3.2	6,872	6,775
50-59	na	na	na	na	24.2	3.1	1,217	1,155
Total 15-59	na	na	na	na	33.9	3.2	8,089	7,930

na = Not applicable

12.14 PARTICIPATION IN COMMUNITY CONVERSATION PROGRAMME

The Community Conversation (CC) programme is one of the main social mobilization tools endorsed and led by the MOH and the HIV/AIDS Prevention and Control Office (HAPCO). Its methodology is based on the recognition that communities have the capacity to prevent the spread of HIV in their midst. It includes the following activities: caring for those infected with HIV, changing harmful attitudes and behaviours, and sustaining hope among those who are HIV positive. The main objective of the CC programme is to generate a response to HIV/AIDS that integrates individual and community concerns, values, and beliefs and addresses attitudes and behaviours embedded in social systems and structures. A team of two or three trained facilitators leads CC meetings. Up to 60 people can participate in a CC meeting, and they are encouraged to meet at least twice a month over a period

of ten months. By the end of the ten-month period, the team is expected to be able to develop a plan of action for the community and to follow up on its implementation.

Tables 12.24.1 and 12.24.2 show the percentage of women and men age 15-49 who have heard of the Community Conversation programme and, among those, the percentage distribution by whether they have attended a CC meeting and the time since their last meeting, by background characteristics. It must be noted that there may be over-reporting of participation because respondents may have reported coffee ceremonies or other educational lectures in the community as CC meetings.

Overall, 31 percent of women and 52 percent of men have heard of the Community Conversation programme. Among those who have heard of the CC programme, men are more likely than women to report having attended a CC meeting (64 percent versus 44 percent). Men also are more likely than women to report attending a CC meeting within the past three months (42 percent versus 20 percent).

The percentage of respondents who have attended a CC meeting increases with age for both men and women. Previously married women and currently married men, rural men, women living in Benishangul-Gumuz, and men living in Oromiya are more likely than other respondents to have attended a CC meeting. There is no clear pattern of attendance at a CC meeting with differences in education or wealth.

Table 12.24.1 Exposure to Community Conversation programme: Women

Percentage of women age 15-49 who have heard of the Community Conversation programme, and, among those who have heard of the programme, the percentage distribution by whether they attended a Community Conversation meeting and time since the last meeting, by background characteristics, Ethiopia 2011

	All women			Among women who have heard of the Community Conversation programme, time since last meeting:						
Background characteristic	Percentage who have heard of Community Conversation programme	Weighted number of women	Unweighted number of women	Never attended a Community Conversation meeting	Attended within last 3 months	Attended 4-11 months ago	Attended one year or more ago	Total	Weighted number of women who have heard of programme	Unweighted number of women who have heard of programme
Age										
15-24	32.0	6,940	6,857	65.0	13.8	9.4	11.7	100.0	2,219	2,282
15-19	31.2	4,009	3,835	69.2	12.4	8.6	9.8	100.0	1,249	1,224
20-24	33.1	2,931	3,022	59.7	15.5	10.3	14.1	100.0	971	1,058
25-29	29.8	3,147	3,185	56.1	21.3	11.6	11.0	100.0	939	1,002
30-39	29.8	3,971	4,058	47.1	24.3	14.3	14.2	100.0	1,184	1,299
40-49	30.3	2,457	2,415	44.5	26.9	9.9	18.0	100.0	744	777
Marital status								100.0		
Never married	36.7	4,469	4,413	66.2	13.9	8.6	11.3	100.0	1,639	1,769
Married/living together	28.0	10,287	10,204	52.2	21.6	12.1	13.8	100.0	2,882	2,891
Divorced/separated/widowed	32.1	1,758	1,898	47.7	25.4	12.6	14.3	100.0	565	700
Residence										
Urban	47.8	3,947	5,329	56.6	18.2	11.5	13.5	100.0	1,888	2,707
Rural	25.4	12,568	11,186	56.0	20.3	10.7	12.8	100.0	3,198	2,653
Region										
Tigray	50.6	1,104	1,728	52.4	22.9	9.6	15.2	100.0	558	840
Affar	21.0	145	1,291	65.2	21.2	6.1	7.5	100.0	30	210
Amhara	24.9	4,433	2,087	52.3	21.0	11.4	14.9	100.0	1,106	490
Oromiya	32.7	6,011	2,135	56.9	17.5	11.7	13.7	100.0	1,966	705
Somali	20.5	329	914	51.0	22.9	12.4	12.3	100.0	67	186
Benishangul-Gumuz	22.9	174	1,259	39.6	30.6	10.8	19.0	100.0	40	288
SNNP	23.0	3,236	2,034	58.5	23.2	10.5	7.6	100.0	743	451
Gambela	31.6	69	1,130	51.6	22.4	11.4	14.6	100.0	22	272
Harari	42.3	49	1,101	56.1	14.7	8.5	20.4	100.0	21	457
Addis Ababa	55.8	896	1,741	65.0	13.8	9.4	11.8	100.0	500	984
Dire Dawa	45.8	69	1,095	50.4	18.2	17.9	13.2	100.0	32	477
Education										
No education	20.4	8,394	8,278	53.9	22.4	10.9	12.6	100.0	1,711	1,640
Primary	34.6	6,276	5,858	61.4	17.8	8.5	12.1	100.0	2,174	2,112
Secondary	60.3	1,117	1,395	51.3	17.8	15.2	15.3	100.0	673	891
More than secondary	72.5	728	984	48.2	19.8	16.2	15.8	100.0	528	717
Wealth quintile										
Lowest	20.3	2,986	3,711	59.5	19.9	7.0	13.2	100.0	607	624
Second	24.2	3,041	2,402	57.2	19.1	11.8	11.9	100.0	736	573
Middle	25.5	3,031	2,268	58.8	18.0	11.7	11.1	100.0	773	564
Fourth	29.1	3,215	2,505	53.5	22.6	10.7	13.0	100.0	935	716
Highest	48.0	4,242	5,629	55.1	18.8	11.8	14.2	100.0	2,035	2,883
Total	30.8	16,515	16,515	56.2	19.5	11.0	13.1	100.0	5,086	5,360

Table 12.24.2 Exposure to Community Conversation programme: Men

Percentage of men age 15-49 who have heard of the Community Conversation programme, and, among those who have heard of the programme, the percentage distribution by whether they attended a Community Conversation meeting and time since the last meeting, by background characteristics, Ethiopia 2011

Background characteristic	All men			Among men who have heard of the Community Conversation programme, time since last meeting:						
	Percentage who have heard of Community Conversation programme	Weighted number of men	Unweighted number of men	Never attended a Community Conversation meeting	Attended within last 3 months	Attended 4-11 months ago	Attended one year or more ago	Total	Weighted number of men who have heard of programme	Unweighted number of men who have heard of programme
Age										
15-24	44.2	5,332	5,162	52.6	26.5	9.6	11.2	100.0	2,357	2,306
15-19	38.5	3,013	2,832	63.9	18.5	8.4	9.0	100.0	1,161	1,098
20-24	51.6	2,319	2,330	41.7	34.2	10.7	13.3	100.0	1,196	1,208
25-29	55.9	2,297	2,274	32.3	44.0	9.6	13.9	100.0	1,284	1,269
30-39	58.0	3,132	3,261	26.1	49.5	11.4	12.9	100.0	1,816	1,814
40-49	58.2	2,074	2,171	24.0	56.6	9.6	9.7	100.0	1,207	1,228
Marital status										
Never married	46.2	5,600	5,641	52.4	25.3	10.0	12.2	100.0	2,587	2,682
Married/living together	57.1	6,872	6,775	25.5	52.7	9.8	11.9	100.0	3,922	3,713
Divorced/separated/ widowed	42.6	363	452	40.7	34.4	16.9	7.9	100,0	155	222
Residence										
Urban	60.0	2,882	3,915	47.5	28.2	11.0	13.2	100.0	1,729	2,530
Rural	49.6	9,952	8,953	32.3	46.3	9.7	11.4	100.0	4,934	4,087
Region										
Tigray	55.7	770	1,235	41.5	25.7	16.4	16.5	100.0	429	685
Affar	35.2	101	910	32.7	48.9	6.6	11.7	100.0	36	290
Amhara	36.1	3,481	1,739	41.3	39.1	8.3	10.9	100.0	1,256	611
Oromiya	64.6	4,957	1,889	28.0	54.6	7.6	9.8	100.0	3,204	1,218
Somali	32.1	245	653	41.0	26.5	13.5	18.2	100.0	79	196
Benishangul-Gumuz	36.8	138	1,047	35.9	45.2	5.7	13.0	100.0	51	385
SNNP	48.0	2,307	1,550	39.5	26.9	16.7	16.5	100.0	1,108	737
Gambela	52.2	59	865	31.2	25.3	22.8	20.6	100.0	31	420
Harari	79.3	40	898	44.0	30.2	16.3	9.5	100.0	32	717
Addis Ababa	58.6	682	1,237	70.2	9.3	8.7	11.8	100.0	400	733
Dire Dawa	75.6	53	845	50.2	23.9	10.6	15.2	100.0	40	625
Education										
No education	40.2	3,785	3,659	30.3	49.8	8.8	10.9	100.0	1,521	1,305
Primary	51.8	6,813	6,334	38.7	40.9	10.0	10.2	100.0	3,527	3,227
Secondary	66.6	1,296	1,565	39.6	36.1	9.9	14.4	100.0	864	1,065
More than secondary	80.0	940	1,310	33.4	34.5	13.0	19.2	100.0	752	1,020
Wealth quintile										
Lowest	39.7	2,141	2,563	36.5	44.6	8.3	10.1	100.0	850	844
Second	44.6	2,362	1,891	30.9	49.2	8.8	10.6	100.0	1,053	824
Middle	52.6	2,454	1,935	31.8	43.6	11.6	13.0	100.0	1,292	944
Fourth	54.0	2,683	2,203	31.1	47.7	10.2	10.9	100.0	1,448	1,161
Highest	63.3	3,194	4,276	45.5	30.8	10.5	13.3	100.0	2,021	2,844
Total 15-49	51.9	12,834	12,868	36.3	41.6	10.1	11.9	100.0	6,664	6,617
50-59	56.8	1,276	1,242	22.4	53.2	10.7	13.6	100.0	724	675
Total 15-59	52.4	14,110	14,110	34.9	42.7	10.1	12.1	100.0	7,388	7,292

HIV PREVALENCE 13

Key Findings

- HIV prevalence is low in Ethiopia, with 1.5 percent of the population age 15-49 HIV positive.
- Women have a higher HIV prevalence (1.9 percent) than men (1.0 percent).
- For both women and men HIV prevalence increases substantially as the number of lifetime sexual partners increases.

In Ethiopia much of the information on national HIV prevalence estimates is derived from sentinel surveillance at antenatal care clinics. Although surveillance data do not provide estimates of HIV prevalence for the general population, they do provide results specific to women attending antenatal clinics.

The inclusion of HIV testing in the EDHS offers the opportunity to better understand the magnitude and patterns of infection within the general reproductive-age population not included in sentinel surveillance surveys, especially men age 15-59. The first such exercise was conducted as part of the 2005 EDHS. The 2011 EDHS is the second EDHS survey to anonymously link HIV testing results with demographic, socioeconomic, and behavioural characteristics of survey respondents.

This chapter presents information on the HIV testing coverage rates among eligible survey respondents, the prevalence of HIV infection among those tested, and the factors associated with HIV infection in the population. Blood collection and HIV testing methodologies used in the 2011 EDHS are described in Chapter 1.

13.1 COVERAGE RATES FOR HIV TESTING

Table 13.1 shows the distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, by residence and regions of the country. Overall, 86 percent of all EDHS respondents who were eligible for testing were interviewed and consented to HIV testing. Four percent of respondents were interviewed but refused to be tested for HIV and did not provide blood samples. Coverage rates for HIV testing were 89 percent for women and 82 percent for men. The proportion of respondents who consented to the HIV test was higher in rural areas than in urban areas for both women and men. Ninety-two percent of women in rural areas consented to HIV testing, compared with 84 percent in urban areas. Among men 86 percent in rural areas consented to testing, compared with 72 percent in urban areas. The Oromiya region has the largest proportion of respondents who consented to HIV testing, at 92 percent.

Table 13.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and region (unweighted), Ethiopia 2011

Background characteristic	Testing status								Total	Unweighted number
	DBS Tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/missing[2]			
	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed		
WOMEN 15-49										
Residence										
Urban	84.1	0.0	7.8	0.8	1.6	3.8	0.8	1.1	100.0	5,656
Rural	91.8	0.1	2.4	0.5	0.7	3.1	0.5	0.9	100.0	11,729
Region										
Tigray	94.8	0.1	2.0	0.1	0.1	1.6	0.3	1.1	100.0	1,778
Affar	93.2	0.0	2.4	0.2	0.1	2.4	0.7	1.0	100.0	1,340
Amhara	90.6	0.1	3.7	0.4	0.8	3.0	0.7	0.6	100.0	2,177
Oromiya	93.9	0.0	2.1	0.2	0.7	2.0	0.4	0.5	100.0	2,198
Somali	81.5	0.2	9.7	1.1	0.9	5.4	0.5	0.7	100.0	987
Benishangul-Gumuz	91.5	0.0	2.3	1.0	0.6	3.1	0.5	1.0	100.0	1,326
SNNP	91.0	0.2	2.1	0.5	1.3	2.6	0.9	1.4	100.0	2,134
Gambela	88.9	0.0	1.8	1.4	0.9	6.2	0.4	0.4	100.0	1,228
Harari	83.5	0.1	7.5	1.2	2.2	3.9	0.6	1.0	100.0	1,174
Addis Ababa	81.1	0.1	9.9	0.8	1.3	3.9	0.7	2.2	100.0	1,870
Dire Dawa	84.9	0.0	5.8	0.4	2.1	5.5	0.5	0.8	100.0	1,173
Total	89.3	0.1	4.2	0.6	1.0	3.3	0.6	1.0	100.0	17,385
MEN 15-59										
Residence										
Urban	72.0	0.1	8.0	1.7	2.4	12.3	0.9	2.6	100.0	5,062
Rural	86.4	0.1	2.8	0.6	1.4	6.9	0.7	1.2	100.0	10,846
Region										
Tigray	87.0	0.0	2.7	1.0	0.4	7.5	0.4	1.0	100.0	1,530
Affar	84.7	0.0	3.0	0.4	0.7	8.8	1.1	1.3	100.0	1,117
Amhara	84.9	0.3	4.3	0.4	1.3	7.4	0.6	0.9	100.0	2,159
Oromiya	90.1	0.0	2.7	0.4	1.3	4.2	0.4	0.9	100.0	2,181
Somali	69.1	0.2	9.3	2.5	1.7	12.6	2.2	2.3	100.0	868
Benishangul-Gumuz	86.1	0.0	2.4	1.1	1.6	6.8	1.0	0.9	100.0	1,249
SNNP	87.1	0.0	2.0	0.2	2.9	4.9	0.7	2.2	100.0	1,832
Gambela	82.1	0.1	2.5	0.7	1.8	11.4	0.4	1.0	100.0	1,083
Harari	71.9	0.1	9.2	1.6	2.4	11.5	1.0	2.3	100.0	1,149
Addis Ababa	69.7	0.2	7.9	1.9	1.3	13.6	0.9	4.4	100.0	1,649
Dire Dawa	73.7	0.0	6.5	1.2	3.4	13.0	0.5	1.6	100.0	1,091
Total	81.8	0.1	4.5	0.9	1.7	8.6	0.8	1.7	100.0	15,908
TOTAL (WOMEN 15-49 and MEN 15-59)										
Residence										
Urban	78.4	0.1	7.9	1.2	1.9	7.8	0.8	1.8	100.0	10,718
Rural	89.2	0.1	2.6	0.5	1.0	4.9	0.6	1.1	100.0	22,575
Region										
Tigray	91.2	0.0	2.3	0.5	0.2	4.3	0.4	1.0	100.0	3,308
Affar	89.3	0.0	2.7	0.3	0.4	5.3	0.9	1.1	100.0	2,457
Amhara	87.8	0.2	4.0	0.4	1.0	5.2	0.7	0.7	100.0	4,336
Oromiya	92.0	0.0	2.4	0.3	1.0	3.1	0.4	0.7	100.0	4,379
Somali	75.7	0.2	9.5	1.8	1.3	8.7	1.3	1.5	100.0	1,855
Benishangul-Gumuz	88.9	0.0	2.4	1.0	1.1	4.9	0.8	0.9	100.0	2,575
SNNP	89.2	0.1	2.0	0.4	2.1	3.7	0.8	1.7	100.0	3,966
Gambela	85.7	0.0	2.1	1.1	1.3	8.6	0.4	0.7	100.0	2,311
Harari	77.7	0.1	8.4	1.4	2.3	7.7	0.8	1.6	100.0	2,323
Addis Ababa	75.8	0.1	9.0	1.3	1.3	8.4	0.8	3.2	100.0	3,519
Dire Dawa	79.5	0.0	6.1	0.8	2.7	9.1	0.5	1.2	100.0	2,264
Total	85.7	0.1	4.3	0.8	1.3	5.9	0.7	1.3	100.0	33,293

[1] Includes all Dried Blood Spot (DBS) samples tested at the lab for which there is a result, whether positive, negative, or indeterminate. Indeterminate means that the sample went through the entire testing algorithm, but the final result was inconclusive.
[2] Includes 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reasons and not enough blood to complete the algorithm.

Table 13.2 shows HIV testing coverage rates for women age 15-49 and men age 15-59 by age group, level of education, and wealth quintile. For women HIV testing coverage varied from 88 percent among women age 15-19 to 92 percent among women age 45-49. For men HIV testing coverage varied from 80 percent among men age 20-29 to 86 percent among men age 55-59.

Among women and men, more education and higher wealth are associated with higher testing refusal rates. For women HIV testing coverage was lowest among women with more than a secondary education (82 percent) and women in the highest wealth quintile (84 percent). Similarly for men HIV testing coverage was lowest among men with more than a secondary education (75 percent) and men in the highest wealth quintile (73 percent). Age differentials in HIV testing coverage were not large for either women or men. Additional tables describing the relationship between participation in HIV testing and characteristics related to HIV risk are presented in Appendix A.

Table 13.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Ethiopia 2011

	Testing status									
	DBS tested[1]		Refused to provide blood		Absent at the time of blood collection		Other/missing[2]			
Background characteristic	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed	Total	Unweighted number
WOMEN 15-49										
Age										
15-19	88.4	0.0	3.7	0.6	1.4	4.4	0.5	0.9	100.0	4,082
20-24	88.6	0.1	3.9	0.7	1.0	3.7	0.7	1.3	100.0	3,204
25-29	89.1	0.0	5.0	0.6	0.8	2.6	0.6	1.1	100.0	3,333
30-34	88.8	0.0	5.1	0.5	1.1	2.9	0.6	0.9	100.0	2,196
35-39	90.4	0.2	3.8	0.4	0.6	3.3	0.5	0.8	100.0	2,055
40-44	90.3	0.1	3.9	0.7	0.7	2.5	0.4	1.3	100.0	1,375
45-49	91.8	0.1	3.2	0.6	0.6	2.4	0.9	0.4	100.0	1,140
Education										
No education	90.2	0.1	3.6	0.6	0.7	3.1	0.6	1.2	100.0	8,715
Primary	90.5	0.0	3.4	0.6	1.0	3.1	0.6	0.8	100.0	6,129
Secondary	84.0	0.0	6.5	0.7	1.9	5.1	0.7	1.1	100.0	1,498
More than secondary	81.8	0.0	10.5	0.7	1.5	4.3	0.6	0.7	100.0	1,043
Wealth quintile										
Lowest	91.3	0.0	2.2	0.8	0.6	3.8	0.4	1.0	100.0	3,930
Second	92.6	0.1	2.0	0.5	0.7	2.7	0.5	0.9	100.0	2,508
Middle	91.9	0.1	2.6	0.3	0.7	3.2	0.4	0.7	100.0	2,373
Fourth	91.6	0.1	2.8	0.4	0.8	2.8	0.7	0.9	100.0	2,613
Highest	84.4	0.1	7.6	0.7	1.6	3.6	0.8	1.2	100.0	5,961
Total	89.3	0.1	4.2	0.6	1.0	3.3	0.6	1.0	100.0	17,385
MEN 15-59										
Age										
15-19	82.8	0.1	3.6	1.0	2.1	8.4	0.8	1.1	100.0	3,172
20-24	80.2	0.2	4.0	1.1	1.9	9.9	0.7	2.0	100.0	2,683
25-29	80.0	0.0	4.9	0.8	1.8	9.9	0.6	1.9	100.0	2,602
30-34	81.6	0.1	4.7	1.1	1.5	8.3	0.8	2.0	100.0	1,898
35-39	83.0	0.0	4.9	0.5	1.3	7.7	0.6	2.0	100.0	1,758
40-44	81.2	0.1	4.4	1.1	1.3	9.2	1.0	1.6	100.0	1,375
45-49	84.2	0.0	5.6	0.8	1.1	6.6	0.8	1.0	100.0	1,048
50-54	82.0	0.1	4.9	1.1	1.7	7.6	0.7	2.0	100.0	820
55-59	85.9	0.0	4.7	0.7	0.9	5.4	0.9	1.4	100.0	552
Education										
No education	82.5	0.1	3.5	0.8	1.2	8.7	0.9	2.2	100.0	5,045
Primary	84.6	0.1	3.7	0.8	1.6	7.0	0.8	1.3	100.0	7,351
Secondary	75.4	0.0	6.1	1.5	2.5	12.4	0.4	1.8	100.0	1,928
More than secondary	74.7	0.1	8.8	1.3	2.2	10.7	0.6	1.7	100.0	1,582
Wealth quintile										
Lowest	84.6	0.1	2.8	0.7	1.1	8.0	0.9	1.7	100.0	3,184
Second	87.0	0.0	2.9	0.4	1.1	7.1	0.6	0.9	100.0	2,303
Middle	87.8	0.1	2.5	0.5	1.2	6.5	0.4	0.9	100.0	2,342
Fourth	86.5	0.1	2.9	0.5	2.3	5.7	0.7	1.3	100.0	2,602
Highest	73.2	0.1	7.7	1.7	2.1	11.8	0.9	2.5	100.0	5,477
Total	81.8	0.1	4.5	0.9	1.7	8.6	0.8	1.7	100.0	15,908

Note: Total for men includes 2 cases with missing information on education.
[1] Includes all Dried Blood Spot (DBS) samples tested at the lab for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire testing algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reasons and not enough blood to complete the algorithm.

13.2 HIV PREVALENCE

13.2.1 HIV Prevalence by Age and Sex

Table 13.3 shows the percentage of adults age 15-49 in Ethiopia who are infected with HIV. Among women age 15-49 HIV prevalence is 1.9 percent, and among men age 15-49 and 15-59, HIV prevalence is 1.0 percent. For women, HIV prevalence increases with age to a peak of 3.7 percent at age 30-34. For men, HIV prevalence increases from 0.0 percent at age 15-19 to 3.0 percent at age 35-39 and drops thereafter. Overall, HIV prevalence is higher for women than men in most age groups. Figure 13.1 illustrates the age pattern of HIV prevalence for women and men.

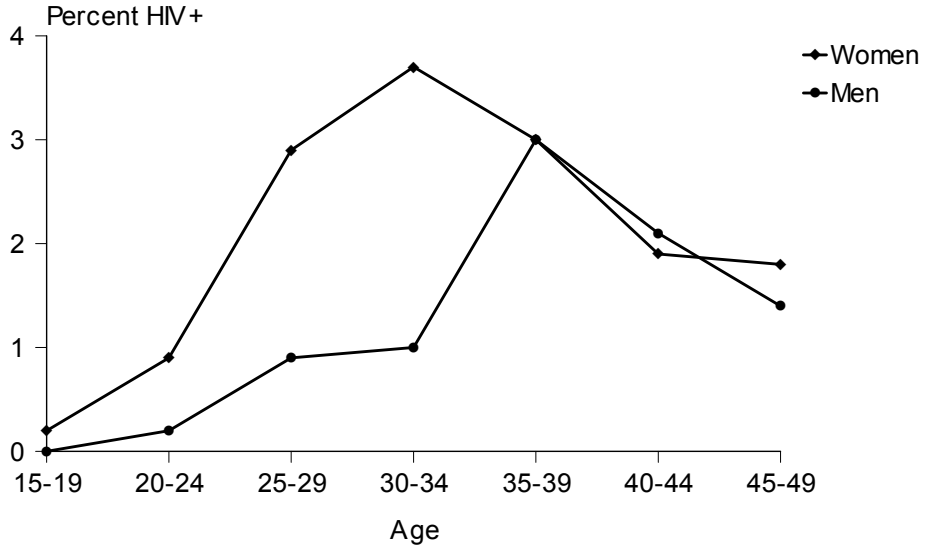
Table 13.3 HIV prevalence by age

Among women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV positive, by age, Ethiopia 2011

	Women			Men			Total		
Age	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
15-19	0.2	3,584	3,607	0.0	2,931	2,624	0.1	6,516	6,231
20-24	0.9	2,619	2,843	0.2	2,280	2,153	0.6	4,899	4,996
25-29	2.9	2,788	2,969	0.9	2,261	2,083	2.0	5,049	5,052
30-34	3.7	1,809	1,949	1.0	1,478	1,550	2.5	3,287	3,499
35-39	3.0	1,714	1,858	3.0	1,630	1,459	3.0	3,344	3,317
40-44	1.9	1,110	1,244	2.1	1,093	1,117	2.0	2,203	2,361
45-49	1.8	1,071	1,047	1.4	907	882	1.6	1,978	1,929
Total 15-49	1.9	14,695	15,517	1.0	12,581	11,868	1.5	27,276	27,385
50-59	na	na	na	0.6	1,255	1,146	na	na	na
Total 15-59	na	na	na	1.0	13,836	13,014	na	na	na

na = Not applicable

Figure 13.1 **HIV Prevalence for Women and Men Age 15-49 by Age Groups**



EDHS 2011

The overall adult HIV prevalence in Ethiopia has remained low. The HIV prevalence among adults age 15-49 in the 2011 EDHS is 1.5 percent (confidence interval 1.2-1.7 percent), and it was 1.4 percent (confidence interval 1.1-1.8 percent) in the 2005 EDHS. To understand the epidemic in more detail, further in depth analysis on existing data and other data sources is recommended.

13.2.2 HIV Prevalence by Socioeconomic Characteristics

Table 13.4 shows the variation in HIV prevalence by various socioeconomic characteristics—employment, residence, region, educational level, and wealth quintile. Among both women and men, HIV prevalence is somewhat higher among those who are employed than those who are not employed. HIV prevalence is higher in urban areas (4.2 percent) than in rural areas (0.6 percent). Among regions HIV prevalence is highest in Gambela (6.5 percent) and in Addis Ababa (5.2 percent). A higher proportion of Ethiopians who attended secondary school (3.1 percent) are HIV positive than those with less education or with more than a secondary school education. Men and women in the highest wealth quintile have the highest HIV prevalence (3.9 percent). In general, differentials in HIV prevalence are similar for women and men.

Table 13.4 HIV prevalence by socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Ethiopia 2011

	Women			Men			Total		
Socioeconomic characteristic	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Employment (last 12 months)									
Not employed	1.4	6,154	7,469	0.1	678	854	1.3	6,832	8,323
Employed	2.2	8,535	8,045	1.1	11,901	11,012	1.5	20,436	19,057
Residence									
Urban	5.2	3,512	4,754	2.9	2,824	3,392	4.2	6,336	8,146
Rural	0.8	11,183	10,763	0.5	9,757	8,476	0.6	20,940	19,239
Region									
Tigray	2.2	982	1,685	1.3	755	1,188	1.8	1,738	2,873
Affar	2.0	129	1,249	1.7	99	861	1.8	228	2,110
Amhara	2.2	3,945	1,973	1.0	3,419	1,624	1.6	7,364	3,597
Oromiya	1.3	5,348	2,065	0.6	4,853	1,798	1.0	10,202	3,863
Somali	1.6	293	804	0.4	239	550	1.1	532	1,354
Benishangul-Gumuz	1.7	155	1,213	0.8	135	987	1.3	290	2,200
SNNP	1.0	2,880	1,943	0.6	2,261	1,454	0.9	5,141	3,397
Gambela	7.9	61	1,092	4.9	58	817	6.5	119	1,909
Harari	3.8	43	980	1.7	39	765	2.8	83	1,745
Addis Ababa	6.0	797	1,517	4.3	669	1,079	5.2	1,466	2,596
Dire Dawa	4.3	61	996	3.7	53	745	4.0	114	1,741
Education									
No education	1.3	7,473	7,858	0.8	3,711	3,431	1.1	11,184	11,289
Primary	2.2	5,620	5,547	0.9	6,714	5,902	1.5	12,335	11,449
Secondary	4.3	980	1,259	2.1	1,279	1,399	3.1	2,259	2,658
More than secondary	1.6	622	853	1.1	877	1,136	1.3	1,499	1,989
Wealth quintile									
Lowest	0.5	2,671	3,589	0.2	2,098	2,427	0.3	4,769	6,016
Second	0.5	2,710	2,322	0.4	2,329	1,797	0.4	5,039	4,119
Middle	0.7	2,701	2,180	0.7	2,427	1,848	0.7	5,128	4,028
Fourth	1.5	2,878	2,393	0.5	2,625	2,062	1.0	5,503	4,455
Highest	4.9	3,736	5,033	2.7	3,101	3,734	3.9	6,837	8,767
Total 15-49	1.9	14,695	15,517	1.0	12,581	11,868	1.5	27,276	27,385
50-59	na	na	na	0.6	1,255	1,146	na	na	na
Total 15-59	na	na	na	1.0	13,836	13,014	na	na	na

na = Not applicable
Note: Total includes 14 cases with missing information on religion and 8 cases with missing information on employment.

13.2.3 HIV Prevalence by Demographic Characteristics

Table 13.5 shows HIV prevalence among women and men by various characteristics—marital status, type of union, the number of times the respondent slept away from home in the 12 months before the survey, the total time away from home in the past 12 months for men, pregnancy status for women, use of antenatal care (ANC) for women, and male circumcision. HIV prevalence does not vary much with the type of union, the number of times men slept away from home in the 12 months before the survey, the total time men spent away in the past 12 months, or male circumcision. However, HIV prevalence is closely related to marital status. Widowed and divorced respondents (12.2 percent and 5.2 percent, respectively) are much more likely to be HIV positive than those who are married and those who have never been married. Both women and men show this same pattern. However, HIV prevalence is slightly higher among widowed men (14.5 percent) than among widowed women (12.0 percent). Among women who received ANC for their last birth in the three years preceding the survey, a higher proportion of women who received ANC from a non-public sector provider are HIV positive (3.1 percent) than are those who received ANC from a public sector provider (1.7 percent). Pregnant women are less likely to be HIV positive than other women.

Table 13.5 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, Ethiopia 2011

	Women			Men			Total		
Demographic characteristic	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Marital status									
Never married	0.5	3,957	4,056	0.2	5,416	5,127	0.3	9,373	9,183
Ever had sexual intercourse	3.2	306	445	1.0	992	1,314	1.5	1,298	1,759
Never had sexual intercourse	0.3	3,651	3,611	0.0	4,424	3,813	0.2	8,075	7,424
Married/living together	1.5	9,183	9,697	1.3	6,812	6,335	1.5	15,995	16,032
Divorced or separated	5.0	1,086	1,218	5.9	317	341	5.2	1,403	1,559
Widowed	12.0	470	546	14.5	36	65	12.2	506	611
Type of union									
In polygynous union	1.8	967	1,262	1.2	338	393	1.7	1,306	1,655
In non-polygynous union	1.5	8,166	8,383	1.3	6,453	5,923	1.4	14,619	14,306
Not currently in union	2.4	5,513	5,820	0.6	5,769	5,533	1.5	11,282	11,353
Times slept away from home in past 12 months									
None	na	na	na	0.9	6,260	6,263	na	na	na
1-2	na	na	na	0.9	2,234	1,832	na	na	na
3-4	na	na	na	0.8	1,443	1,112	na	na	na
5+	na	na	na	1.4	2,581	2,605	na	na	na
Time away in past 12 months									
Away for more than 1 month	na	na	na	1.5	1,104	1,276	na	na	na
Away for less than 1 month	na	na	na	1.0	5,137	4,260	na	na	na
Not away	na	na	na	0.9	6,260	6,263	na	na	na
Currently pregnant									
Pregnant	0.8	1,083	1,222	na	na	na	na	na	na
Not pregnant or not sure	1.9	13,612	14,295	na	na	na	na	na	na
ANC for last birth in the last 3 years									
ANC provided by the public sector	1.7	2,112	2,228	na	na	na	na	na	na
ANC provided by other than the public sector	3.1	162	262	na	na	na	na	na	na
No ANC/No birth in last 3 years	1.9	12,405	13,010	na	na	na	na	na	na
Male circumcision									
Circumcised	na	na	na	1.0	11,563	10,914	na	na	na
Not circumcised	na	na	na	0.9	988	925	na	na	na
Total 15-49	1.9	14,695	15,517	1.0	12,581	11,868	1.5	27,276	27,385
50-59	na	na	na	0.6	1,255	1,146	na	na	na
Total 15-59	na	na	na	1.0	13,836	13,014	na	na	na

na = Not applicable
Note: Total includes 69 cases with missing information on type of union, 63 men with missing information on times slept away from home in the past 12 months, 16 women with missing information on ANC for last birth in the last 3 years, and 31 men with missing information on male circumcision.

13.2.4 HIV Prevalence by Sexual Risk Behaviour

Table 13.6 presents HIV prevalence rates among respondents who have ever had sexual intercourse, by sexual behaviour indicators. Among all respondents age 15-49 who have ever had sex and were tested for HIV, 2.0 percent were HIV positive (2.4 percent of women and 1.5 percent of men). In reviewing these results, one should note that responses to questions about sexual risk behaviour may be subject to reporting bias. Also, sexual behaviour in the 12 months preceding the survey may not adequately reflect lifetime sexual risk.

In the general population there is no strong relationship between age at first sexual intercourse and HIV prevalence. Among men, however, those whose sexual debut was at age 16-17 were slightly more likely to be HIV positive (2.7 percent) than other men. Among women there was little difference in HIV prevalence by age at first sexual intercourse.

Table 13.6 HIV prevalence by sexual behaviour

Percentage HIV positive among women and men age 15-49 who have ever had sex and were tested for HIV, by sexual behaviour characteristics, Ethiopia 2011

	Women			Men			Total		
Sexual behaviour characteristic	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Age at first sexual intercourse									
<16	2.4	4,936	5,036	2.1	760	889	2.3	5,696	5,925
16-17	2.1	2,191	2,397	2.7	1,084	1,115	2.3	3,276	3,512
18-19	2.3	1,736	1,825	1.5	1,736	1,749	1.9	3,472	3,574
20+	2.6	1,614	1,941	1.1	4,216	3,959	1.5	5,831	5,900
Multiple sexual partners and partner concurrency in past 12 months									
0	6.7	1,481	1,975	2.9	645	850	5.6	2,126	2,825
1	1.6	9,446	9,802	1.4	7,018	6,648	1.5	16,463	16,450
2+	22.5	56	74	1.9	431	514	4.3	487	588
Had concurrent partners[1]	*	4	5	1.3	285	314	1.3	289	319
None of the partners were concurrent	24.4	52	69	3.1	146	200	8.7	198	269
Condom use at last sexual intercourse in past 12 months									
Used condom	17.2	175	293	5.4	524	692	8.3	698	985
Did not use condom	1.4	9,325	9,580	1.1	6,923	6,468	1.3	16,248	16,048
No sexual intercourse in last 12 months	6.9	1,490	1,984	2.8	657	861	5.6	2,147	2,845
Number of lifetime partners									
1	1.3	7,996	8,857	0.1	4,261	3,871	0.9	12,257	12,728
2	5.1	2,134	2,197	2.5	1,757	1,843	3.9	3,891	4,040
3-4	4.4	711	634	2.9	1,247	1,289	3.4	1,957	1,923
5-9	8.7	102	92	3.5	516	613	4.3	619	705
10+	23.7	29	52	6.8	289	365	8.3	317	417
Paid for sexual intercourse in past 12 months									
Yes	na	na	na	4.3	119	111	na	na	na
Used condom	na	na	na	*	33	19	na	na	na
Did not use condom	na	na	na	6.0	86	92	na	na	na
No/no sexual intercourse in last 12 months	na	na	na	1.5	7,987	7,912	na	na	na
Total 15-49	2.4	10,992	11,860	1.5	8,105	8,023	2.0	19,097	19,883
50-59	na	na	na	0.6	1,250	1,143	na	na	na
Total 15-59	na	na	na	1.4	9,355	9,166	na	na	na

Note: Total includes 823 cases with inconsistent/missing information on age at first sexual intercourse, 21 cases with missing information on multiple sexual partners and partner concurrency in past 12 months, 4 cases with missing information on condom use at last sexual intercourse in past 12 months, and 70 cases with missing information on number of lifetime partners. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

Caution should be used when interpreting HIV prevalence levels among women based on the number of sexual partners in the past 12 months because very few women report more than one partner. Among men HIV prevalence is highest for those who report no partners in the past 12 months (2.9 percent). Among men who report two or more partners in the past 12 months, HIV prevalence is higher among those with no concurrent partners (3.1 percent) than among those with concurrent partners (1.3 percent). However, these bivariate associations must be considered with caution as they may be influenced by other factors, such as respondents' marital status. In addition, findings on sexual behaviour in the past 12 months should not be interpreted as a complete picture of an individual's exposure to risk of HIV infection as individuals may have become infected more than 12 months before the survey. Concurrent partnerships are defined as overlapping sexual partnerships with two or more individuals during the 12 months preceding the survey.

HIV prevalence increases substantially as the number of lifetime sexual partners increases, for both women and men. HIV prevalence increases from 1.3 percent for women with one lifetime partner to 5.1 percent for women with two lifetime partners and to 8.7 percent for women with 5-9 lifetime partners. Almost one-quarter of women with 10 or more lifetime partners are HIV positive. HIV prevalence ranges from 0.1 percent among men with one lifetime partner to 6.8 percent among men with 10 or more lifetime partners.

Condom use at last sexual intercourse is also related to HIV prevalence. For respondents who had sex in the past 12 months, a higher proportion of those who used a condom at last sex were HIV positive (8.3 percent) than those who did not use a condom (1.3 percent). This proportion is more than three times higher among women than among men. No causal association between condom use and HIV can be assumed from these results. In these data it is not possible to know the sequence of events, e.g., whether reported condom use occurred before or after HIV infection. It is likely that those who suspect that they or their partner might be infected would also be more likely to use condoms, thus reversing the expected direction of the relationship of lower HIV prevalence among those who use condoms. Condom use at last sex has been associated with higher HIV prevalence in many other cross-sectional surveys. In addition, other factors may be influencing the relationship between condom use and HIV. For example, condom use may be higher in urban areas, among those who engage in higher risk sexual behaviours, or in other groups which are also more likely to be HIV-positive. Further analysis is required to gain a better understanding of the true relationship between condom use and HIV infection in Ethiopia.

13.3 HIV Prevalence Among Youth

Table 13.7 shows HIV prevalence among women and men age 15-24 by background characteristics. Overall, less than 1 percent of Ethiopian youth age 15-24 tested positive for HIV. There is little variation in HIV prevalence by background characteristics, given the low overall prevalence. Regional estimates of HIV prevalence among youth are similar, with one exception: in Gambela HIV prevalence among young women is much higher, at 9 percent, than in other regions of the country.

Table 13.7 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, Ethiopia 2011

Background characteristic	Women			Men			Total		
	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Age									
15-19	0.2	3,584	3,607	0.0	2,931	2,624	0.1	6,516	6,231
15-17	0.2	2,184	2,187	0.0	1,827	1,606	0.1	4,011	3,793
18-19	0.3	1,401	1,420	0.1	1,104	1,018	0.2	2,505	2,438
20-24	0.9	2,619	2,843	0.2	2,280	2,153	0.6	4,899	4,996
20-22	0.6	1,760	1,905	0.1	1,508	1,404	0.4	3,268	3,309
23-24	1.4	859	938	0.4	772	749	0.9	1,631	1,687
Marital status									
Never married	0.4	3,579	3,590	0.1	4,508	4,107	0.2	8,087	7,697
Ever had sex	2.2	195	264	0.6	579	739	1.0	774	1,003
Never had sex	0.3	3,384	3,326	0.0	3,928	3,368	0.2	7,312	6,694
Married/living together	0.5	2,268	2,458	0.1	640	601	0.4	2,907	3,059
Divorced/separated/widowed	1.4	357	402	0.0	64	69	1.2	421	471
Currently pregnant									
Pregnant	0.4	355	405	na	na	na	na	na	na
Not pregnant or not sure	0.5	5,848	6,045	na	na	na	na	na	na
Residence									
Urban	0.9	1,710	2,230	0.1	1,212	1,384	0.6	2,922	3,614
Rural	0.3	4,494	4,220	0.1	4,000	3,393	0.2	8,493	7,613
Region									
Tigray	0.6	445	748	0.7	342	533	0.7	787	1,281
Affar	0.6	52	498	0.2	39	325	0.4	92	823
Amhara	0.4	1,692	830	0.0	1,532	728	0.2	3,225	1,558
Oromiya	0.2	2,274	873	0.1	1,952	725	0.2	4,226	1,598
Somali	1.0	107	290	0.0	92	208	0.5	199	498
Benishangul-Gumuz	1.1	64	493	0.0	57	417	0.6	121	910
SNNP	0.4	1,118	740	0.0	876	558	0.2	1,994	1,298
Gambela	9.0	32	441	0.2	24	301	5.3	55	742
Harari	1.1	18	415	0.0	16	310	0.6	34	725
Addis Ababa	1.7	376	717	0.2	262	425	1.1	639	1,142
Dire Dawa	1.2	25	405	0.7	18	247	1.0	44	652
Education									
No education	0.3	1,598	1,787	0.3	774	710	0.3	2,372	2,497
Primary	0.5	3,589	3,481	0.0	3,423	2,966	0.3	7,012	6,447
Secondary	1.2	677	729	0.3	704	678	0.8	1,381	1,407
More than secondary	0.7	340	453	0.0	311	423	0.3	651	876
Wealth quintile									
Lowest	0.1	998	1,289	0.1	779	858	0.1	1,777	2,147
Second	0.5	1,059	896	0.0	934	706	0.3	1,993	1,602
Middle	0.3	1,062	850	0.2	1,019	777	0.2	2,081	1,627
Fourth	0.2	1,267	1,034	0.0	1,131	881	0.1	2,397	1,915
Highest	1.0	1,818	2,381	0.2	1,349	1,555	0.7	3,167	3,936
Total	0.5	6,204	6,450	0.1	5,211	4,777	0.3	11,415	11,227

na = Not applicable

13.3.1 HIV Prevalence by Sexual Behaviour among Youth

The 2011 EDHS collected data on behaviours that correlate with sexually transmitted infection (STI) rates. Information on sexual behaviour characteristics is important in designing, targeting, and monitoring HIV prevention interventions for the young adult population. Three behaviours that correlate with STI rates are the number of sexual partners, age at first sexual intercourse, and condom use. This section examines data on sexual behaviour related to the spread of HIV among respondents who have ever had sexual intercourse. It is important to note that responses about sexual behaviour are subject to reporting bias.

Table 13.8 shows HIV prevalence among youth by sexual behaviour. Overall, 0.6 percent of respondents age 15-24 who have ever had sex and were tested for HIV in the 2011 EDHS are HIV positive. By comparison, HIV prevalence is relatively high among young respondents who report two or more sexual partners (6.7 percent) in the 12 months before the survey and among those who used a condom at last sex (2.4 percent).

Table 13.8 HIV prevalence among young people by sexual behaviour

Percentage HIV-positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behaviour, Ethiopia 2011

Sexual behaviour characteristic	Women			Men			Total		
	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Multiple sexual partners and partner concurrency in past 12 months									
0	1.5	278	386	0.2	256	281	0.9	535	667
1	0.4	2,467	2,654	0.4	940	1,015	0.4	3,407	3,669
2+	(20.5)	25	43	0.0	51	89	6.7	75	132
Had concurrent partners[1]	*	1	1	*	4	15	*	5	16
None of the partners were concurrent	(21.5)	24	42	0.0	47	74	7.2	71	116
Condom use at last sexual intercourse in past 12 months									
Used condom	6.2	75	134	1.2	243	322	2.4	318	456
Did not use condom	0.4	2,417	2,562	0.1	747	782	0.3	3,164	3,344
No sexual intercourse in last 12 months	2.3	284	389	0.2	260	283	1.3	544	672
Total	0.8	2,776	3,086	0.3	1,250	1,387	0.6	4,027	4,473

Note: Total includes 10 cases with missing information on multiple sexual partners and partner concurrency in past 12 months and 1 case with missing information on condom use at last sexual intercourse in past 12 months. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

13.4 HIV Prevalence by Other Characteristics

13.4.1 HIV Prevalence and STIs

A strong link exists between sexually transmitted infections and the sexual transmission of HIV. Many studies have demonstrated that STIs are a co-factor for HIV transmission. Management and treatment of STIs can play an important role in the reduction of HIV transmission. The 2011 EDHS asked respondents who had ever had sex if they had contracted a disease through sexual contact in the past 12 months, or if they had any symptoms associated with STIs (an abnormal discharge from the vagina or penis or a genital sore or ulcer). Table 13.9 shows HIV prevalence among women and men age 15-49 who have ever had sex, by whether respondents reported an STI or STI symptoms in the 12 months preceding the survey. Overall, a higher percentage of respondents with STIs or STI symptoms in the past 12 months are HIV positive (4.7 percent) than of those with no STIs or STI symptoms (2.0 percent). This pattern is observed among both women and men. HIV prevalence is higher among those previously tested for HIV than among those who were never tested for HIV. Among those ever tested, respondents who received their results had a higher HIV prevalence (3.8 percent) than those who tested but did not receive results (1.6 percent) and those who never tested (0.9 percent).

Table 13.9 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who have ever had sex and were tested for HIV, by whether had an STI in the past 12 months and by prior testing for HIV, Ethiopia 2011

Characteristic	Women			Men			Total		
	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Sexually transmitted infection in past 12 months									
Had STI or STI symptoms	3.9	373	365	6.2	196	199	4.7	569	564
No STI, no symptoms	2.3	10,501	11,308	1.4	7,839	7,771	2.0	18,340	19,079
Prior HIV testing									
Ever tested	4.7	4,340	5,105	2.4	3,749	3,862	3.6	8,089	8,967
Received results	4.8	4,037	4,777	2.6	3,465	3,577	3.8	7,503	8,354
Did not receive results	2.6	303	328	0.6	284	285	1.6	586	613
Never tested	0.9	6,637	6,742	0.8	4,356	4,161	0.9	10,994	10,903
Total 15-49	2.4	10,992	11,860	1.5	8,105	8,023	2.0	19,097	19,883

Note: Total includes 240 cases with missing information on STIs and 15 cases of women with missing information on prior HIV testing status.

13.4.2 Prior HIV Testing and Current HIV Status

Table 13.10 shows the percent distribution of women and men age 15-49 by HIV testing status prior to the survey. Among respondents who are HIV positive, 72 percent were previously tested for HIV and received their result, whereas 26 percent had never been tested. Less than 3 percent were previously tested for HIV but did not receive their test result. Among respondents who are HIV negative, 36 percent were previously tested for HIV and received their result, while 60 percent had never been tested for HIV.

Table 13.10 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative by HIV testing status prior to the survey, Ethiopia 2011

HIV testing prior to the survey	Women		Men		Total	
	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested						
Received result of last test	72.5	35.3	70.3	37.7	71.8	36.4
Did not receive result of last test	3.0	2.9	1.3	3.6	2.5	3.3
Not previously tested	24.3	61.6	28.4	58.6	25.6	60.2
Missing	0.2	0.1	0.0	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Weighted number	273	14,422	127	12,454	400	26,876
Unweighted number	358	15,159	171	11,697	529	26,856

13.4.3 HIV Prevalence by Male Circumcision

Several recent studies in sub-Saharan Africa—including clinical trials conducted in South Africa, Kenya, and Uganda (Auvert et al., 2001; Bailey et al., 2007; Gray et al., 2007)—have documented that male circumcision provides some protection against HIV infection and other STIs. Although the research supporting circumcision's protective effects is compelling, it is important to emphasise that circumcised men can still become infected with HIV and can infect their sexual partners.

Table 13.11 presents data from the 2011 EDHS on HIV prevalence by male circumcision status. In this survey there is no marked difference between HIV prevalence among circumcised and uncircumcised men, and, due to the small number of uncircumcised men, detailed comparisons are not reliable. Male circumcision is almost universal throughout Ethiopia, except in SNNP and Gambela, where 21 and 24 percent of men are uncircumcised, respectively (see Table 12.13.1). Among the circumcised male population, the highest HIV prevalence was found among men age 35-39, Catholics, men in urban areas, men in the Gambela, Addis Ababa, and Dire Dawa regions, men with secondary education, and men in the highest wealth quintile. It must be noted that in Gambela the HIV prevalence among the uncircumcised men is almost double that of the circumcised men (7.9 percent versus 4.1 percent).

Table 13.11 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether they are circumcised, according to background characteristics, Ethiopia 2011

Background characteristic	Circumcised			Not circumcised		
	Percentage HIV positive	Weighted number	Unweighted number	Percentage HIV positive	Weighted number	Unweighted number
Age						
15-19	0.0	2,565	2,321	0.0	359	296
20-24	0.2	2,086	1,998	0.0	190	151
25-29	1.0	2,112	1,927	0.4	143	153
30-34	1.0	1,372	1,442	1.2	95	102
35-39	2.9	1,531	1,363	5.3	98	93
40-44	2.1	1,035	1,044	2.3	58	69
45-49	1.4	862	819	0.5	44	61
Religion						
Orthodox	1.5	5,797	4,905	0.6	218	173
Catholic	2.3	97	81	(0.3)	18	34
Protestant	0.7	1,924	1,416	1.4	499	530
Muslim	0.4	3,541	4,346	0.0	151	97
Traditional	0.0	69	58	*	20	19
Residence						
Urban	3.0	2,766	3,322	1.2	51	65
Rural	0.4	8,796	7,592	0.8	937	860
Region						
Tigray	1.1	726	1,141	(2.6)	20	34
Affar	1.7	98	852	*	1	9
Amhara	1.1	3,246	1,538	0.0	167	84
Oromiya	0.6	4,544	1,690	1.2	302	106
Somali	0.4	236	546	*	1	2
Benishangul-Gumuz	0.9	128	934	0.0	7	52
SNNP	0.7	1,785	1,130	0.6	469	319
Gambela	4.1	45	512	7.9	13	305
Harari	1.7	39	762	*	0	0
Addis Ababa	4.2	662	1,068	*	7	11
Dire Dawa	3.7	52	741	*	0	3
Education						
No education	0.8	3,438	3,214	0.0	265	207
Primary	0.9	6,053	5,307	1.3	638	579
Secondary	2.2	1,220	1,315	0.3	58	82
More than secondary	1.2	851	1,078	0.4	26	57
Wealth quintile						
Lowest	0.1	1,852	2,060	0.7	242	361
Second	0.4	2,083	1,608	0.1	240	183
Middle	0.4	2,199	1,688	2.5	223	155
Fourth	0.5	2,436	1,908	0.2	181	147
Highest	2.8	2,992	3,650	0.5	102	79
Total 15-49	1.0	11,563	10,914	0.9	988	925
50-59	0.7	1,199	1,072	0.0	56	72
Total 15-59	1.0	12,761	11,986	0.8	1,044	997

Note: Total includes 2 cases with missing information on religion. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

13.5 HIV PREVALENCE AMONG COHABITING COUPLES

In the 2011 EDHS more than 6,000 cohabiting couples were interviewed and tested for HIV. Table 13.12 shows that 98.3 percent of cohabiting couples are HIV negative, while in 0.6 percent of couples both partners are HIV positive. Discordant couples, that is, one partner infected and the other not infected, constitute 1.1 percent of those tested. In 0.4 percent of couples the male partner is HIV positive and the female partner is HIV negative, and in 0.7 percent of couples the reverse is the case.

Discordance is most marked in urban areas, among couples in the highest wealth quintile, and in Addis Ababa, Gambela, and Dire Dawa. A higher percentage of couples are discordant when the woman is older, when the woman or the man has a secondary education, and when the couple is in the wealthiest quintile.

Table 13.12 HIV prevalence among couples

Percent distribution of couples in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, Ethiopia 2011

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Weighted number	Unweighted number
Woman's age							
15-19	0.0	0.0	0.0	99.9	100.0	508	438
20-29	0.5	0.1	0.7	98.7	100.0	3,080	2,730
30-39	1.0	1.0	1.0	97.0	100.0	2,247	2,072
40-49	0.4	0.3	0.2	99.1	100.0	1,073	943
Man's age							
15-19	(0.0)	(0.0)	(0.0)	(100.0)	100.0	34	30
20-29	0.2	0.0	0.2	99.6	100.0	1,767	1,481
30-39	0.8	0.8	1.1	97.3	100.0	2,493	2,237
40-49	1.0	0.5	0.4	98.0	100.0	1,706	1,611
50-59	0.0	0.1	0.7	99.2	100.0	908	824
Age difference between partners							
Woman older	0.4	0.6	2.6	96.4	100.0	357	350
Same age/man older by 0-4 years	0.9	0.5	0.8	97.8	100.0	2,011	1,722
Man older by 5-9 years	0.3	0.5	0.3	98.9	100.0	2,660	2,345
Man older by 10-14 years	0.6	0.2	0.3	98.8	100.0	1,314	1,172
Man older by 15+ years	1.0	0.4	1.3	97.3	100.0	566	594
Type of union							
Non-polygynous	0.7	0.4	0.7	98.3	100.0	6,419	5,642
Polygynous	0.0	0.9	0.5	98.6	100.0	465	516
Multiple partners in past 12 months[1]							
Both no	0.6	0.3	0.7	98.3	100.0	6,499	5,752
Man yes, woman no	0.0	0.9	0.0	99.1	100.0	389	410
Woman yes, man no	*	*	*	*	100.0	15	8
Both yes	*	*	*	*	100.0	0	1
Concurrent sexual partners in past 12 months[2]							
Both no	0.6	0.4	0.7	98.3	100.0	6,572	5,835
Man yes, woman no	0.0	1.1	0.0	98.9	100.0	333	346
Woman yes, man no	*	*	*	*	100.0	3	2
Residence							
Urban	2.7	0.7	3.4	93.1	100.0	1,135	1,235
Rural	0.2	0.4	0.1	99.3	100.0	5,773	4,948
Region							
Tigray	0.6	0.3	0.7	98.4	100.0	380	608
Affar	1.0	1.4	0.4	97.2	100.0	48	422
Amhara	0.4	0.4	1.4	97.7	100.0	1,896	920
Oromiya	0.4	0.4	0.2	99.1	100.0	2,776	1,028
Somali	0.3	0.5	0.4	98.8	100.0	115	284
Benishangul-Gumuz	0.3	0.2	0.4	99.2	100.0	79	591
SNNP	0.6	0.3	0.2	98.9	100.0	1,327	874
Gambela	3.3	1.1	3.5	92.1	100.0	21	383
Harari	0.9	0.3	0.8	97.9	100.0	19	378
Addis Ababa	4.9	2.3	2.7	90.2	100.0	223	338
Dire Dawa	1.6	2.1	1.5	94.8	100.0	23	357
Woman's education							
No education	0.4	0.3	0.3	99.1	100.0	4,555	4,059
Primary	0.9	0.7	1.0	97.4	100.0	1,971	1,689
Secondary	1.4	1.5	4.8	92.3	100.0	229	263
More than secondary	2.5	0.1	0.6	96.8	100.0	154	172
Man's education							
No education	0.3	0.2	0.2	99.3	100.0	3,128	2,804
Primary	0.6	0.5	0.8	98.1	100.0	3,142	2,666
Secondary	3.6	0.9	3.3	92.2	100.0	333	386
More than secondary	0.5	1.4	1.0	97.1	100.0	304	327
Wealth quintile							
Lowest	0.1	0.1	0.1	99.6	100.0	1,357	1,520
Second	0.3	0.1	0.1	99.5	100.0	1,486	1,130
Middle	0.2	0.7	0.0	99.1	100.0	1,468	1,087
Fourth	0.0	0.4	0.6	98.9	100.0	1,363	1,081
Highest	2.6	0.8	2.7	93.8	100.0	1,235	1,365
Total	0.6	0.4	0.7	98.3	100.0	6,908	6,183

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners. Total includes 25 couples with missing information on type of union and 12 couples with missing information on multiple partners in past 12 months. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] A respondent is considered to have had multiple sexual partners in the past 12 months if he or she had sexual intercourse with 2 or more people during this time period. (Respondents with multiple partners include polygynous men who had sexual intercourse with 2 or more wives.)

[2] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

14

Key Findings

- About six currently married women of every ten and almost all currently married men age 15-49 were employed in the 12 months preceding the survey.
- Three of every ten currently married employed women are not paid, compared with about one of every ten men.
- More than one-third of currently married employed women who earn cash make independent decisions about how to spend their earnings.
- About half of currently married women participate in three important decisions, pertaining to the woman's own health care, major household purchases, and visits to her family or relatives.
- Contraceptive use increases with women's empowerment.
- Access to antenatal care and delivery assistance from a skilled provider increase with women's empowerment.

The 2011 EDHS collected data on background characteristics of women, such as age, education, and employment status. Based on this information, earlier discussions in this report showed that Ethiopian women are less educated, have a lower level of literacy, and have less exposure to mass media than men. The EDHS data also indicate that women are predominantly engaged in agricultural occupations, have few manual skills, and are less likely than men to be engaged in professional, technical, or managerial fields. Educational attainment, literacy, exposure to mass media, and employment are critical contributors to women's empowerment and exert considerable influence not only on the development of their personality, but also on solidifying their position in the household and in society in general.

The 2011 EDHS collected additional data on characteristics specific to women's empowerment through their work. These included receipt of cash earnings, magnitude of cash earnings relative to those of a husband or other partner.[1] In addition, female and male survey respondents expressed their attitudes towards specific household decisions such as who makes decisions about major household purchases and about their own health care. Further, respondents expressed their attitudes towards certain actions, such as whether a man is justified in beating his wife if she refuses to have sex with him. Married women and men who received cash earnings were asked who had control over their cash income. This chapter also discusses men's participation in household chores and women's knowledge about law regarding domestic violence.

Finally, two separate indices of empowerment that were developed are presented in this report. They are based on (1) the number of decisions in which the woman participates and (2) the number of situations in which a woman considers wife beating justifiable. The relative ranking of women on these indices is found to predict demographic and health outcomes, including contraceptive use, ideal family size, unmet need for family planning, access to reproductive health care, and, for the woman's children, childhood mortality.

[1] For the remainder of this chapter, the term *husband* refers to both the current/most recent husband (for currently/formerly legally married women) and to the current/most recent partner (for women currently living together with or who formerly lived together with their partner in an informal union).

14.1 EMPLOYMENT AND FORM OF EARNINGS

Employment is one aspect of social life in which gender roles and relationships emerge. Employment can be a source of empowerment for both women and men, especially if they are in control of the income they generate. In the 2011 EDHS respondents were asked whether they were employed at the time of the survey and, if not, whether they were employed in the 12 months preceding the survey.

Table 14.1 shows the distribution of employment and cash earnings of currently married women and men who were employed at any time in the 12 months preceding the survey. Nearly six in every ten currently married women (57 percent) and almost all of currently married men age 15-49 (99 percent) had been employed in the 12 months preceding the survey. The percentage of currently married women who were employed increases with age up to age 44 and then decreases slightly for the oldest age group. The employment status of men does not vary by age, except for the youngest age group, where the proportion of men employed is the lowest.

Table 14.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Ethiopia 2011

	Among currently married respondents:			Percent distribution of currently married respondents employed in the past 12 months, by type of earnings							
Age	Percentage employed in the past 12 months	Weighted number of respondents	Unweighted number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Missing/ don't know	Total	Weighted number of respondents	Unweighted number of respondents
					WOMEN						
Age											
15-19	45.3	765	784	22.4	19.3	13.9	44.5	0.0	100.0	347	313
20-24	54.1	1,762	1,788	38.5	22.5	9.4	29.3	0.3	100.0	953	806
25-29	56.6	2,511	2,480	40.2	25.9	5.8	27.9	0.1	100.0	1,420	1,202
30-34	57.2	1,720	1,722	37.9	27.9	8.4	25.8	0.0	100.0	984	848
35-39	58.5	1,591	1,600	34.7	28.8	7.1	29.2	0.2	100.0	930	832
40-44	62.6	1,033	1,047	33.8	27.9	9.1	29.2	0.0	100.0	647	566
45-49	59.1	905	783	27.8	26.2	6.6	39.0	0.3	100.0	535	414
Total 15-49	56.5	10,287	10,204	35.7	26.0	8.0	30.1	0.1	100.0	5,817	4,981
					MEN						
Age											
15-19	95.9	64	66	13.2	47.6	6.4	32.7	0.0	100.0	61	62
20-24	98.4	583	575	16.6	61.8	9.9	11.7	0.0	100.0	574	558
25-29	99.9	1,481	1,378	26.9	57.7	7.0	8.4	0.0	100.0	1,480	1,366
30-34	99.1	1,274	1,385	25.9	60.4	5.7	8.0	0.0	100.0	1,263	1,367
35-39	99.8	1,516	1,377	22.7	63.7	7.3	6.3	0.0	100.0	1,513	1,369
40-44	99.1	1,061	1,108	23.0	59.2	7.1	10.8	0.0	100.0	1,052	1,092
45-49	99.6	892	886	18.0	64.6	10.2	7.2	0.0	100.0	889	880
Total 15-49	99.4	6,872	6,775	23.0	60.9	7.5	8.6	0.0	100.0	6,832	6,694
50-59	98.5	1,217	1,155	18.4	62.7	9.2	9.7	0.0	100.0	1,198	1,134
Total 15-59	99.3	8,089	7,930	22.3	61.2	7.7	8.7	0.0	100.0	8,030	7,828

Slightly more than one-third (36 percent) of employed women age 15-49 were paid in cash only for their work, compared with 23 percent of men of the same age group. One-quarter (26 percent) of women received payment both in cash and in kind, compared with 61 percent of men. Almost one-third (30 percent) of employed women were not paid, compared with 9 percent of men.

14.2 Control Over and Relative Magnitude of Women's and Husband's Earnings

14.2.1 Control Over Wife's Earnings

Along with access to employment, control over cash earnings is a dimension of gender empowerment. Currently married, employed women who earn cash for their work were asked the relative magnitude of their earnings compared with their husbands' earnings. In addition, they were asked who is the main decision-maker with regard to the use of their earnings. This information may provide some insight into women's empowerment within the family and the extent of their control over decision-making in the household. Women who are employed and who receive cash earnings are more likely to have control over their own earnings.

Table 14.2.1 shows the percent distribution of currently married women who received cash earnings for employment in the past 12 months, according to the woman's perception of who controls their earnings and the magnitude of their earnings relative to those of their husbands. Only 36 percent of women said that they themselves mainly decide how their cash earnings are used. Fifty-five percent indicated that the decision is made jointly with their husbands, and eight percent said that the decision is made mainly by their husbands.

Table 14.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how their cash earnings are used and by whether women earned more or less than their husbands, according to background characteristics, Ethiopia 2011

Background characteristic	Person who decides how wife's cash earnings are used:						Wife's cash earnings compared with husband's cash earnings:							
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband has no earnings	Don't know/ Missing	Total	Weighted number of women	Unweighted number of women
Age														
15-19	31.8	51.3	14.0	1.1	1.8	100.0	3.5	76.5	16.1	0.1	3.8	100.0	145	164
20-24	26.7	62.9	10.1	0.1	0.2	100.0	11.0	64.1	22.8	1.2	0.9	100.0	582	558
25-29	36.1	55.1	8.1	0.0	0.7	100.0	8.7	71.3	17.9	1.0	1.1	100.0	940	874
30-34	37.7	55.1	6.8	0.0	0.4	100.0	10.6	67.7	17.7	2.6	1.4	100.0	648	601
35-39	36.8	54.5	7.4	0.0	1.3	100.0	10.2	63.9	22.0	1.1	2.8	100.0	591	577
40-44	40.1	50.0	9.8	0.0	0.0	100.0	14.2	62.0	20.4	2.1	1.3	100.0	399	384
45-49	44.0	48.8	7.2	0.0	0.0	100.0	10.3	64.3	20.9	1.8	2.7	100.0	289	259
Number of living children														
0	33.0	57.7	8.1	0.4	0.7	100.0	10.9	71.0	15.9	1.4	0.8	100.0	362	407
1-2	33.6	58.7	7.1	0.1	0.5	100.0	10.7	68.0	18.8	1.1	1.3	100.0	1,140	1,215
3-4	36.8	53.4	9.0	0.0	0.8	100.0	8.7	68.6	18.3	2.3	2.1	100.0	997	897
5+	38.4	51.8	9.4	0.0	0.4	100.0	10.7	62.8	23.5	1.1	1.9	100.0	1,093	898
Residence														
Urban	40.2	55.5	3.9	0.0	0.4	100.0	12.0	73.7	10.9	2.1	1.3	100.0	967	1,191
Rural	34.3	54.9	10.1	0.1	0.7	100.0	9.5	64.4	23.1	1.3	1.8	100.0	2,626	2,226
Region														
Tigray	19.9	70.7	8.2	0.9	0.2	100.0	4.0	66.4	29.4	0.0	0.2	100.0	231	361
Affar	21.1	71.0	7.2	0.7	0.0	100.0	9.5	60.4	24.7	1.8	3.6	100.0	17	120
Amhara	32.2	60.0	7.4	0.0	0.4	100.0	8.2	53.5	32.7	2.0	3.5	100.0	749	329
Oromiya	33.7	55.4	10.6	0.0	0.3	100.0	11.8	64.5	21.7	1.1	0.9	100.0	1,422	491
Somali	56.2	35.1	8.7	0.0	0.0	100.0	16.7	55.1	13.2	14.1	0.9	100.0	47	118
Benishangul-Gumuz	22.5	58.2	18.5	0.0	0.8	100.0	10.5	64.2	21.6	1.7	1.9	100.0	47	340
SNNP	45.3	46.8	6.6	0.0	1.3	100.0	10.1	82.0	4.9	1.2	1.7	100.0	862	552
Gambela	45.2	44.3	8.9	0.0	1.7	100.0	11.4	66.2	15.8	4.2	2.4	100.0	18	295
Harari	44.3	45.3	9.0	0.0	1.4	100.0	16.3	71.4	9.8	0.0	2.5	100.0	12	265
Addis Ababa	40.8	56.7	2.2	0.0	0.3	100.0	10.8	75.0	11.2	1.2	1.8	100.0	172	327
Dire Dawa	51.4	44.0	4.1	0.0	0.5	100.0	22.8	59.6	13.3	2.1	2.2	100.0	14	219
Education														
No education	36.6	52.8	10.1	0.0	0.5	100.0	9.5	63.1	23.4	2.0	2.0	100.0	2,083	1,845
Primary	35.5	55.8	7.5	0.2	1.0	100.0	10.3	71.2	16.3	0.6	1.6	100.0	1,061	1,031
Secondary	40.5	55.1	4.3	0.0	0.0	100.0	8.2	78.9	10.2	2.4	0.3	100.0	176	244
More than secondary	29.2	69.3	1.5	0.0	0.0	100.0	16.3	71.3	12.2	0.0	0.2	100.0	273	297
Wealth quintile														
Lowest	35.6	54.6	8.9	0.0	0.8	100.0	9.3	66.0	20.1	1.3	3.4	100.0	576	638
Second	34.2	53.9	11.1	0.1	0.7	100.0	7.5	62.4	27.1	1.9	1.0	100.0	585	450
Middle	33.5	55.5	10.9	0.2	0.0	100.0	10.1	64.2	23.6	1.0	1.1	100.0	678	504
Fourth	36.6	54.1	8.4	0.0	0.9	100.0	9.9	65.7	21.0	1.9	1.5	100.0	674	543
Highest	38.0	56.3	5.2	0.1	0.5	100.0	12.3	72.2	12.5	1.4	1.6	100.0	1,080	1,282
Total	35.9	55.0	8.4	0.1	0.6	100.0	10.2	66.9	19.8	1.5	1.7	100.0	3,592	3,417

Table 14.2.1 also shows that 10 percent of women earn more in cash than their husbands, 67 percent earn less than their husbands, and 20 percent earn about the same amount as their husbands. Only 2 percent of women say that their husbands have no cash earnings.

The likelihood that a currently married woman is the main decision-maker regarding the use of her cash earnings increases with the number of children the woman has. This suggests that women who have more children are more empowered than women with fewer or no children. The table also reveals that older women and women in the highest wealth quintile are more likely than other women to decide by themselves on how their cash earnings are used.

Women in urban areas (40 percent) are more likely than women in rural areas (34 percent) to make independent decisions about the use of the money they earn. In contrast, in both rural and urban areas about the same proportions of currently married women (approximately 55 percent) make joint decisions with their husbands.

There are regional variations in who makes decisions about how women's earnings are used. Among regions the percentage of women who make independent decisions on use of their earnings ranges from 56 percent in Somali to 20 percent in Tigray. Women in Tigray and Affar (both 71 percent) are most likely to decide jointly with their husbands how to spend the money they make. In Benishangul-Gumuz, husbands are the most likely (19 percent) to make decisions on the use of their wives' earnings. The proportion of women who make these decisions jointly with their husbands increases with education.

Women in urban areas are more likely than women in rural areas to earn more than their husbands. Among the regions, Dire Dawa has the highest proportion of women who earn more than their husbands. Similarly, women with more than secondary-level education and those living in households in the highest wealth quintile are more likely than other women to earn more than their husbands. Fourteen percent of women in Somali mentioned that their husbands had no earnings—the highest percentage among the regions.

14.2.2 Control Over Husband's Earnings

Currently married men who receive cash earnings were asked who decides how his cash earnings are spent. As Table 14.2.2 shows, three-fourths of currently married men age 15-49 who receive cash earnings report that they decide jointly with their wives. Twenty-two percent say they mainly make the decisions themselves. Only a small proportion of men (2 percent) say that decisions on how their earnings are used are mainly made by their wives.

Differences in background characteristics have little effect on men's reporting of who decides how a husband's earnings are used.

Sixty-eight percent of currently married women whose husbands receive cash earnings reported that they make joint decisions about how to spend their husbands' earnings. Twenty-seven percent reported that the decision is made by the husband only. Younger women, those living in rural areas, those in the Somali region, those with no education, and those belonging to households in the lowest wealth quintile are the least likely to participate in decision-making about how their husbands' earning are used.

Table 14.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, Ethiopia 2011

	Men							Women						
	Person who decides how husband's cash earnings are used:							Person who decides how husband's cash earnings are used:						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Weighted number of men	Un-weighted number of men	Mainly wife	Husband and wife jointly	Mainly husband	Missing	Total	Weighted number of women	Un-weighted number of women
Age														
15-19	(0.0)	(71.8)	(27.7)	(0.5)	100.0	37	41	4.1	61.5	31.5	0.3	100.0	745	749
20-24	1.5	73.6	22.3	0.0	100.0	450	458	3.0	69.8	26.4	0.3	100.0	1,747	1,763
25-29	2.4	74.8	21.6	0.6	100.0	1,252	1,168	5.0	70.0	24.9	0.1	100.0	2,496	2,454
30-34	1.5	76.3	22.1	0.0	100.0	1,090	1,178	3.7	68.2	27.8	0.3	100.0	1,695	1,691
35-39	2.2	76.5	20.9	0.4	100.0	1,308	1,190	3.6	67.1	29.2	0.1	100.0	1,583	1,583
40-44	3.8	73.0	23.1	0.1	100.0	865	898	7.4	66.6	25.8	0.2	100.0	1,020	1,024
45-49	2.3	72.1	24.9	0.7	100.0	734	721	4.5	69.1	26.1	0.0	100.0	891	768
Number of living children														
0	2.5	71.3	22.2	1.2	100.0	560	600	4.3	64.8	28.0	0.6	100.0	992	1,065
1-2	2.5	77.1	20.2	0.1	100.0	1,908	1,972	4.4	69.4	26.1	0.1	100.0	3,168	3,336
3-4	2.4	76.3	21.0	0.3	100.0	1,672	1,557	3.9	70.3	25.4	0.3	100.0	2,776	2,672
5+	2.0	71.5	26.3	0.3	100.0	1,595	1,525	4.7	66.2	29.0	0.1	100.0	3,241	2,959
Residence														
Urban	3.6	77.2	19.2	0.0	100.0	1,183	1,511	7.0	73.1	19.8	0.1	100.0	1,811	2,375
Rural	2.0	74.1	23.1	0.4	100.0	4,553	4,143	3.8	67.1	28.6	0.2	100.0	8,366	7,657
Region														
Tigray	4.6	78.8	15.5	0.2	100.0	280	443	4.9	75.5	19.1	0.0	100.0	614	975
Affar	4.9	64.4	30.1	0.4	100.0	45	405	7.9	57.5	33.9	0.0	100.0	101	932
Amhara	0.7	84.4	13.0	0.9	100.0	1,422	699	3.0	73.0	22.9	0.3	100.0	2,744	1,316
Oromiya	3.2	72.7	23.9	0.2	100.0	2,322	876	4.8	67.7	27.4	0.1	100.0	3,935	1,394
Somali	8.2	35.7	55.6	0.0	100.0	96	254	13.0	36.6	49.4	0.4	100.0	216	630
Benishangul-Gumuz	1.2	75.5	23.2	0.2	100.0	68	525	2.7	64.6	32.5	0.2	100.0	122	890
SNNP	1.1	68.6	30.2	0.0	100.0	1,182	801	2.8	63.3	33.6	0.2	100.0	2,001	1,281
Gambela	1.9	79.7	17.3	1.0	100.0	26	432	10.6	58.1	31.2	0.1	100.0	39	735
Harari	5.5	68.1	26.4	0.0	100.0	20	455	11.4	61.0	27.0	0.3	100.0	28	634
Addis Ababa	3.3	80.5	16.2	0.0	100.0	254	435	10.0	76.4	13.1	0.5	100.0	339	629
Dire Dawa	8.7	69.7	20.7	0.8	100.0	20	329	15.8	62.3	21.7	0.2	100.0	37	616
Education														
No education	2.3	74.6	21.9	0.8	100.0	2,299	2,129	4.2	65.9	29.4	0.2	100.0	6,652	6,457
Primary	2.0	73.5	24.3	0.0	100.0	2,719	2,559	4.2	71.0	24.2	0.2	100.0	2,844	2,689
Secondary	1.9	79.0	19.1	0.0	100.0	355	480	8.3	73.3	17.9	0.5	100.0	371	521
More than secondary	5.6	81.4	13.1	0.0	100.0	363	486	4.4	83.5	12.0	0.1	100.0	311	365
Wealth quintile														
Lowest	1.8	71.2	26.1	0.2	100.0	1,017	1,207	4.8	61.8	32.8	0.0	100.0	2,062	2,665
Second	1.9	75.9	21.6	0.5	100.0	1,112	875	3.3	69.7	26.4	0.3	100.0	2,095	1,653
Middle	2.4	75.9	20.8	0.3	100.0	1,130	897	3.1	65.8	30.5	0.2	100.0	2,066	1,561
Fourth	1.8	72.3	25.2	0.6	100.0	1,140	998	3.5	71.4	24.9	0.2	100.0	1,895	1,561
Highest	3.5	77.6	18.7	0.0	100.0	1,337	1,677	7.0	72.3	20.3	0.2	100.0	2,060	2,592
Total 15-49	2.3	74.8	22.3	0.3	100.0	5,736	5,654	4.3	68.2	27.0	0.2	100.0	10,177	10,032
50-59	2.1	73.4	24.0	0.5	100.0	972	918	na	na	na	na	na	na	na
Total 15-59	2.3	74.6	22.5	0.3	100.0	6,708	6,572	na	na	na	na	na	na	na

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

14.3 Control Over Married Women's Earnings and Relative Size of Husband's and Wife's Earnings

For currently married women who earned cash in the 12 months before the survey, Table 14.3 shows who decides how the woman's cash earnings are used, according to the relative magnitude of the woman's and the husband's cash earnings. Women whose cash earnings exceed their husbands' are more likely to decide for themselves how their earnings are used (46 percent) than women who earn less than their husbands (42 percent) or who earn the same as their husbands (11 percent). In contrast, women who earn the same as their husbands are the most likely to report that decisions on the use of their earnings are mainly made jointly with their husbands (81 percent). Among women whose husbands have no cash earnings, 37 percent say that they mainly make the decisions regarding the use of their earnings, and 59 percent share the decision with their husbands.

Table 14.3 Women's control over their own earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, Ethiopia 2011

Women's earnings relative to husband's earnings	Person who decides how wife's cash earnings are used:								Person who decides how husband's cash earnings are used:							
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Weighted number of women	Unweighted number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Weighted number of women	Unweighted number of women
More than husband	46.4	50.9	2.3	0.0	0.0	100.0	365	388	13.5	69.3	17.1	0.0	0.0	100.0	365	388
Less than husband	41.7	48.8	9.5	0.1	0.0	100.0	2,403	2,282	4.6	65.0	30.5	0.0	0.0	100.0	2,403	2,282
Same as husband	10.7	80.9	8.3	0.1	0.0	100.0	710	618	3.0	83.7	13.3	0.0	0.0	100.0	710	618
Husband has no cash earnings or did not work	36.6	58.8	0.1	0.0	0.0	100.0	53	65	na	na	na	na	na	na	na	na
Woman worked but has no cash earnings	na	na	na	na	na	na	na	na	3.2	71.2	24.9	0.3	0.4	100.0	2,217	1,555
Woman did not work	na	na	na	na	na	na	na	na	4.3	66.1	29.0	0.5	0.2	100.0	4,421	5,125
Total[1]	35.9	55.0	8.4	0.1	0.6	100.0	3,592	3,417	4.3	68.2	27.0	0.3	0.2	100.0	10,177	10,032

na = Not applicable
[1] Includes cases where a woman does not know whether she earned more or less than her husband

Table 14.3 also shows who decides how the husband's cash earnings are used. Women whose cash earnings exceed their husbands' are more likely to report that they themselves decide how their husbands' earning are used (14 percent) than are those who earn less than their husbands (5 percent) or those who earn the same as their husbands (3 percent). Women who earn the same as their husbands are the most likely to report that decisions on the use of their husbands' earnings are mainly made jointly with their husbands (84 percent). Thirty-one percent of women who earn less their husbands say that their husbands decide on the use of their earnings.

14.4 OWNERSHIP OF ASSETS

Lack of assets makes women vulnerable to various forms of violence and affects her decision-making power in the family. Although Ethiopian laws give equal property rights to women, in fact tradition and women's low social and economic status limits their ownership of assets.

Table 14.4.1 shows that 11 percent of women own a house alone, and 45 percent, jointly. Two percent of women own houses both alone and jointly. Sole ownership of a house or land increases with age and decreases with education and wealth. Rural women are more likely to own assets than urban women. For instance, while 66 percent of rural women own a house alone or jointly, only 30 percent of urban women do. Similarly, 60 percent of rural women own land alone or jointly versus 18 percent of urban women.

As Table 14.4.2 shows, men age 15-49 are more likely than women age 15-49 to own a house or land alone and jointly (26-27 percent compared with 12-13 percent, respectively). Men age 35 or older, those living in rural areas, those with no education, and those living in households in the lowest wealth quintile are more likely than other men to own a house or land jointly.

Table 14.4.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who own a house:			Percentage who do not own a house	Total	Percentage who own land:			Percentage who do not own land	Total	Weighted number of women	Unweighted number of women
	Alone	Jointly	Alone and jointly			Alone	Jointly	Alone and jointly				
Age												
15-19	2.4	12.8	0.4	84.5	100.0	3.5	10.3	0.8	85.4	100.0	4,009	3,835
20-24	6.3	38.4	1.1	53.9	100.0	6.1	32.8	1.7	59.3	100.0	2,931	3,022
25-29	12.2	54.2	1.9	31.5	100.0	9.9	45.4	1.8	42.9	100.0	3,147	3,185
30-34	12.1	61.8	2.4	23.6	100.0	11.3	52.3	1.8	34.5	100.0	2,054	2,100
35-39	17.4	63.9	1.9	16.7	100.0	15.0	55.3	1.9	27.8	100.0	1,916	1,958
40-44	20.8	63.9	1.9	13.4	100.0	20.0	55.5	2.1	22.2	100.0	1,261	1,314
45-49	27.6	59.6	2.7	9.9	100.0	25.2	53.4	2.4	19.0	100.0	1,196	1,101
Residence												
Urban	7.3	21.7	1.2	69.7	100.0	4.9	12.5	0.9	81.6	100.0	3,947	5,329
Rural	12.3	51.7	1.6	34.2	100.0	12.0	46.0	1.8	40.1	100.0	12,568	11,186
Region												
Tigray	11.4	39.6	0.8	48.1	100.0	15.5	31.7	1.1	51.6	100.0	1,104	1,728
Affar	16.8	46.4	1.6	35.1	100.0	5.6	15.2	1.2	78.0	100.0	145	1,291
Amhara	11.4	45.6	1.6	41.3	100.0	12.0	33.7	2.0	52.4	100.0	4,433	2,087
Oromiya	14.6	42.8	1.6	40.8	100.0	12.0	40.7	1.7	45.6	100.0	6,011	2,135
Somali	7.9	51.0	2.9	38.0	100.0	5.5	32.4	3.2	58.7	100.0	329	914
Benishangul-Gumuz	7.6	59.0	1.5	31.8	100.0	7.2	48.7	1.0	42.9	100.0	174	1,259
SNNP	5.9	57.2	1.0	36.0	100.0	6.3	52.9	1.2	39.6	100.0	3,236	2,034
Gambela	26.6	23.7	4.3	45.2	100.0	18.5	18.6	5.0	57.8	100.0	69	1,130
Harari	7.8	22.5	7.1	62.2	100.0	5.2	17.3	6.3	71.0	100.0	49	1,101
Addis Ababa	5.6	10.1	2.4	81.7	100.0	2.5	3.4	0.8	93.2	100.0	896	1,741
Dire Dawa	7.2	24.2	0.5	68.0	100.0	4.2	17.4	0.5	77.8	100.0	69	1,095
Education												
No education	16.1	60.5	1.9	21.4	100.0	15.0	52.6	2.2	30.1	100.0	8,394	8,278
Primary	6.1	31.4	1.1	61.4	100.0	6.2	27.1	0.9	65.8	100.0	6,276	5,858
Secondary	6.2	15.2	0.8	77.7	100.0	3.1	9.3	1.3	86.1	100.0	1,117	1,395
More than secondary	5.2	19.0	2.5	73.2	100.0	2.8	7.8	0.9	88.5	100.0	728	984
Wealth quintile												
Lowest	14.9	55.2	2.2	27.4	100.0	14.3	46.5	2.1	37.0	100.0	2,986	3,711
Second	12.7	55.0	1.8	30.3	100.0	13.0	49.3	2.2	35.5	100.0	3,041	2,402
Middle	11.9	52.8	1.3	34.0	100.0	11.1	47.6	1.7	39.4	100.0	3,031	2,268
Fourth	10.6	46.4	1.3	41.7	100.0	10.0	42.3	1.2	46.5	100.0	3,215	2,505
Highest	7.1	22.2	1.3	69.3	100.0	5.3	13.8	1.0	79.9	100.0	4,242	5,629
Total	11.1	44.6	1.5	42.7	100.0	10.3	38.0	1.6	50.0	100.0	16,515	16,515

Table 14.4.2 Ownership of assets: Men

Percent distribution of men age 15-49 by ownership of housing and land, according to background characteristics, Ethiopia 2011

Background characteristic	Percentage who own a house: Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Percentage who own land: Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	Weighted number of men	Unweighted number of men
Age												
15-19	3.7	8.3	0.2	87.8	100.0	8.2	8.2	0.2	83.3	100.0	3,013	2,832
20-24	17.3	12.2	0.2	70.1	100.0	20.7	13.0	1.0	65.2	100.0	2,319	2,330
25-29	31.5	29.0	0.6	39.0	100.0	29.6	25.2	1.7	43.6	100.0	2,297	2,274
30-34	36.8	40.0	0.4	22.8	100.0	30.0	35.2	1.5	33.3	100.0	1,483	1,682
35-39	40.5	42.0	1.0	16.5	100.0	38.4	35.8	2.0	23.8	100.0	1,648	1,579
40-44	38.6	45.8	1.7	13.8	100.0	37.8	39.0	2.6	20.6	100.0	1,121	1,210
45-49	38.8	50.1	2.0	9.1	100.0	36.6	45.7	1.5	16.1	100.0	952	961
Residence												
Urban	14.5	18.3	0.3	66.9	100.0	12.3	9.5	0.6	77.6	100.0	2,882	3,915
Rural	28.5	29.6	0.8	41.1	100.0	29.2	28.5	1.5	40.8	100.0	9,952	8,953
Region												
Tigray	10.5	30.5	0.4	58.6	100.0	18.0	21.9	0.6	59.5	100.0	770	1,235
Affar	37.6	17.2	0.3	44.9	100.0	17.3	6.0	0.5	76.2	100.0	101	910
Amhara	24.6	27.3	0.5	47.6	100.0	21.8	19.4	1.0	57.7	100.0	3,481	1,739
Oromiya	29.8	23.9	0.7	45.5	100.0	31.9	24.6	0.9	42.5	100.0	4,957	1,889
Somali	41.2	14.7	1.6	42.3	100.0	34.6	15.0	3.1	47.0	100.0	245	653
Benishangul-Gumuz	16.2	39.8	1.3	42.7	100.0	12.8	33.6	1.7	51.8	100.0	138	1,047
SNNP	24.1	38.2	0.8	36.9	100.0	25.3	40.1	2.9	31.7	100.0	2,307	1,550
Gambela	45.4	3.1	0.4	51.2	100.0	38.3	4.9	1.3	55.5	100.0	59	865
Harari	35.5	12.2	0.3	51.9	100.0	24.4	14.1	0.1	61.4	100.0	40	898
Addis Ababa	9.5	15.5	0.2	74.8	100.0	4.6	3.3	0.3	91.7	100.0	682	1,237
Dire Dawa	35.2	4.7	0.6	59.4	100.0	24.9	4.3	1.1	69.7	100.0	53	845
Education												
No education	35.1	37.6	0.7	26.5	100.0	33.5	32.3	1.7	32.4	100.0	3,785	3,659
Primary	22.4	25.2	0.8	51.7	100.0	24.0	24.2	1.3	50.5	100.0	6,813	6,334
Secondary	16.0	15.3	0.4	68.3	100.0	15.2	13.2	0.6	71.0	100.0	1,296	1,565
More than secondary	20.5	14.9	0.1	64.5	100.0	17.0	7.7	0.6	74.8	100.0	940	1,310
Wealth quintile												
Lowest	27.9	36.0	0.4	35.5	100.0	26.9	33.5	1.9	37.6	100.0	2,141	2,563
Second	27.6	33.2	0.7	38.5	100.0	28.7	32.0	1.0	38.3	100.0	2,362	1,891
Middle	32.8	27.8	1.1	38.4	100.0	32.9	25.5	1.5	40.0	100.0	2,454	1,935
Fourth	25.9	26.0	0.8	47.4	100.0	27.3	26.6	1.8	44.3	100.0	2,683	2,203
Highest	15.8	17.0	0.4	66.8	100.0	14.6	9.4	0.5	75.5	100.0	3,194	4,276
Total 15-49	25.3	27.1	0.7	46.9	100.0	25.4	24.3	1.3	49.0	100.0	12,834	12,868
50-59	44.8	45.3	1.3	8.6	100.0	40.8	42.1	3.0	14.1	100.0	1,276	1,242
Total 15-59	27.1	28.7	0.7	43.4	100.0	26.8	25.9	1.5	45.9	100.0	14,110	14,110

14.5 WOMEN'S PARTICIPATION IN DECISION-MAKING

Decision-making can be a complex process, and the ability of women to make decisions that affect the circumstances of their own lives an essential aspect of their empowerment.

In order to assess women's decision-making autonomy, the 2011 EDHS collected information on women's participation in three types of household decisions: respondent's own health care, making major household purchases, and visits to family or relatives. Table 14.5 shows the percent distribution of currently married women according to the person in the household who usually makes decisions concerning these matters. Women are considered to participate in a decision if they usually make that decision alone or jointly with their husbands.

The strength of the role of women in decision-making varies with the type of decision. Thirteen percent of currently married women make their own decisions on their own health care, while one woman of every four said that her husband mainly makes such decisions. Decisions on large household purchases are most likely to be made jointly by wife and husband (60 percent), while for almost half that percentage (33 percent) the husband alone mainly makes those decisions. Only 6 percent of women make these decisions by themselves. Sixty-one percent of women said that decisions to visit family or relatives are made jointly with their husbands.

Currently married men also were asked who makes decisions about two specific issues: their own health care and major household purchases. As Table 14.5 shows, 35 percent of currently married men mainly make decisions on their own health, and 29 percent said that they make the decisions on major household purchases. Two-thirds of men make such decisions jointly with their wives. According to men, only in rare instances are wives the chief decision-makers about their husbands' health care (2 percent) or about major household purchases (3 percent).

Table 14.5 Participation in decision-making

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, Ethiopia 2011

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Weighted number of respondents	Unweighted number of respondents
WOMEN									
Own health care	13.4	61.0	24.9	0.4	0.2	0.2	100.0	10,287	10,204
Major household purchases	5.8	60.4	32.8	0.8	0.1	0.2	100.0	10,287	10,204
Visits to her family or relatives	17.2	60.6	21.3	0.6	0.1	0.2	100.0	10,287	10,204
MEN									
Own health care	2.0	62.7	34.6	0.5	0.1	0.1	100.0	6,872	6,775
Major household purchases	2.7	67.2	29.2	0.7	0.1	0.1	100.0	6,872	6,775

Table 14.6 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husbands, by background characteristics, Ethiopia 2011

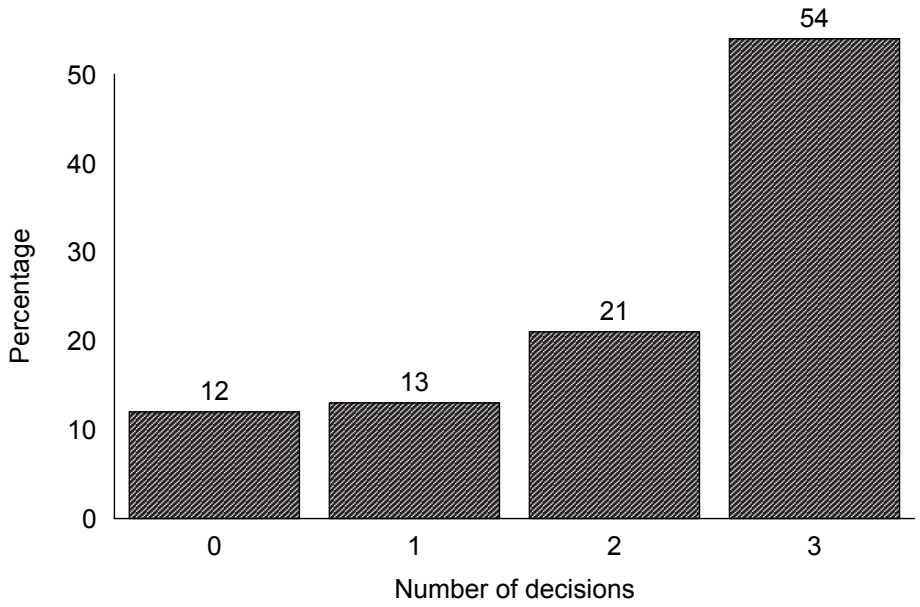
Background characteristic	Specific decisions			Percentage who participate in all three decisions	Percentage who participate in none of the three decisions	Weighted number of women	Unweighted number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives				
Age							
15-19	68.8	61.0	72.8	46.6	14.7	765	784
20-24	72.7	67.0	77.6	54.2	11.3	1,762	1,788
25-29	76.0	68.0	76.9	55.4	11.3	2,511	2,480
30-34	74.2	67.5	80.5	54.9	10.2	1,720	1,722
35-39	76.1	64.7	78.6	56.0	12.2	1,591	1,600
40-44	75.2	65.1	76.6	52.9	10.8	1,033	1,047
45-49	73.9	65.1	79.9	56.1	11.8	905	783
Employment (last 12 months)							
Not employed	70.8	61.9	75.0	50.8	14.6	4,468	5,218
Employed for cash	78.4	71.1	81.9	58.7	7.7	3,592	3,417
Employed not for cash	75.1	66.6	76.8	54.4	11.5	2,216	1,556
Number of living children							
0	73.6	67.7	76.9	53.8	12.3	1,018	1,104
1-2	75.7	68.1	78.4	56.5	10.3	3,193	3,381
3-4	75.0	67.6	78.6	55.1	10.7	2,809	2,718
5+	72.7	62.6	76.9	51.8	13.1	3,267	3,001
Residence							
Urban	86.9	79.3	87.0	70.3	4.6	1,843	2,422
Rural	71.6	63.3	75.8	50.9	13.0	8,444	7,782
Region							
Tigray	87.1	68.9	84.1	61.3	5.9	620	984
Affar	72.8	64.7	70.3	51.5	14.7	104	960
Amhara	79.8	67.9	80.1	58.5	9.3	2,776	1,331
Oromiya	71.9	69.4	77.3	54.8	11.8	3,961	1,403
Somali	54.6	47.4	53.1	31.1	28.0	232	664
Benishangul-Gumuz	70.9	62.3	72.9	50.1	15.6	124	904
SNNP	67.6	55.2	75.0	44.8	15.2	2,022	1,295
Gambela	71.3	61.7	69.6	45.0	12.1	41	768
Harari	81.3	75.9	84.6	65.0	5.5	28	635
Addis Ababa	90.2	87.4	91.2	77.5	1.6	342	634
Dire Dawa	80.5	77.3	78.4	64.3	9.7	38	626
Education							
No education	71.1	63.2	75.3	50.8	13.7	6,735	6,569
Primary	77.5	67.6	80.3	55.8	8.8	2,862	2,739
Secondary	89.5	87.6	89.3	78.0	2.6	378	528
More than secondary	97.0	90.7	96.7	88.1	0.7	313	368
Wealth quintile							
Lowest	68.5	57.4	71.7	47.0	17.1	2,077	2,724
Second	71.8	63.8	75.7	51.4	13.2	2,117	1,676
Middle	70.1	62.9	75.9	49.6	12.6	2,083	1,585
Fourth	76.6	67.3	78.8	54.7	10.1	1,923	1,590
Highest	85.1	79.4	87.1	69.1	4.4	2,087	2,629
Total	74.4	66.1	77.8	54.4	11.5	10,287	10,204

Note: Total includes 13 cases with missing information on employment in the last 12 months.

Table 14.6 shows the percentage of women who participate in the three decisions (woman's health care, making household purchases, and visits to her family or relatives), by background characteristics. Women's participation in decision-making increases with education. Urban women and women who are in the highest wealth quintile are more likely to participate in decision-making than rural women and those in lower wealth quintiles. Similarly, women who are employed for cash are more likely than women not employed or not employed for cash to participate in decision-making. Among regions women in Addis Ababa are the most involved in decision-making, while women in Somali are the least likely to be involved.

Figure 14.1 shows the number of decisions in which currently married women participate. More than half of currently married women (54 percent) participate in three decisions, 21 percent participate in two of three decisions, and 12 percent do not participate in any decisions. Almost all men participate in decision-making regarding their own health (97 percent) as well as in making major household purchases (96 percent) (data not shown).

Figure 14.1 **Number of Decisions in Which Currently Married Women Participate**



EDHS 2011

14.6 ATTITUDE TOWARDS WIFE BEATING

All violence against women has serious consequences for their mental and physical well-being, including their reproductive and sexual health (WHO, 1999). Wife beating is a form of physical violence that particularly degrades women. It is also a violation of women's human rights. Worldwide, abuse by a husband is one of the most common forms of violence against women (Heise et al., 1999). Acceptance of this practice reflects women's low status and the perception that men are superior to women. In addition to adverse physical health outcomes, this form of violence lowers a woman's self-esteem and her image in society, leading to her disempowerment.

Domestic violence is common in Ethiopia, in both urban and rural families. When a society tolerates and accepts violence against women, its eradication is more difficult. The Government of Ethiopia revised its family law in 2000 and its criminal law in 2005 to protect the rights of women and children and to promote gender equality and equity.

Women who believe that a husband is justified in hitting or beating his wife may believe themselves to be of low status. Such a perception could act as a barrier to accessing health care for themselves and their children, affect their attitude towards contraceptive use, and damage their general well-being.

The 2011 EDHS gathered information on attitudes towards wife beating. Women and men were asked whether a husband is justified in beating his wife in various circumstances: if the wife burns the food, argues with him, goes out without telling him, neglects the children, or refuses sexual intercourse with him.

Table 14.7.1 shows that two women of every three (68 percent) agree that wife beating is justified in at least one of the specified situations. The proportion of women who believe that wife beating is justified for at least one of the specified situations has declined from 81 percent in the 2005 EDHS. This trend suggests that Ethiopian women are less likely to accept wife beating than in the past.

Table 14.7.1 Attitude towards wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Ethiopia 2011

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Weighted number of women	Unweighted number of women
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him			
Age								
15-19	41.1	39.1	35.4	45.8	31.2	64.1	4,009	3,835
20-24	43.1	44.1	40.3	51.6	34.9	65.7	2,931	3,022
25-29	48.9	48.0	47.4	52.7	41.5	70.1	3,147	3,185
30-34	49.2	46.6	44.8	53.4	41.5	69.4	2,054	2,100
35-39	52.8	48.1	49.4	54.6	42.0	71.2	1,916	1,958
40-44	52.6	47.7	45.4	55.5	43.3	73.4	1,261	1,314
45-49	56.6	53.4	50.0	57.9	49.0	74.2	1,196	1,101
Employment (last 12 months)								
Not employed	48.4	46.5	43.9	53.2	40.5	68.7	6,971	7,975
Employed for cash	42.3	41.3	39.9	47.1	34.2	63.1	6,015	6,054
Employed not for cash	53.7	50.2	47.3	56.8	42.2	76.9	3,508	2,469
Number of living children								
0	36.4	36.3	33.1	43.1	27.8	59.3	5,708	5,771
1-2	46.3	45.1	43.3	51.2	38.6	67.7	3,987	4,257
3-4	55.6	51.6	50.7	57.9	46.5	75.2	3,219	3,151
5+	58.2	54.3	52.2	60.6	48.5	77.6	3,601	3,336
Marital status								
Never married	33.2	33.3	30.1	41.4	25.0	56.6	4,469	4,413
Married or living together	53.1	50.7	49.4	56.7	44.6	73.7	10,287	10,204
Divorced/separated/widowed	49.4	45.0	40.1	49.3	38.1	67.7	1,758	1,898
Residence								
Urban	21.9	25.6	24.3	34.7	18.1	45.8	3,947	5,329
Rural	55.3	51.6	49.1	57.1	45.0	75.5	12,568	11,186
Region								
Tigray	38.5	42.8	37.5	54.2	24.6	67.1	1,104	1,728
Affar	48.5	59.1	54.7	53.2	56.1	72.6	145	1,291
Amhara	48.9	47.4	41.0	54.0	35.0	75.2	4,433	2,087
Oromiya	47.4	42.9	42.7	48.2	41.6	65.6	6,011	2,135
Somali	48.3	62.2	59.8	66.5	59.4	82.2	329	914
Benishangul-Gumuz	40.4	39.0	38.7	45.8	30.6	62.4	174	1,259
SNNP	60.0	56.2	55.9	63.3	49.7	76.5	3,236	2,034
Gambela	39.5	43.1	43.9	50.1	29.1	65.9	69	1,130
Harari	32.0	35.1	35.7	45.6	34.6	58.4	49	1,101
Addis Ababa	7.2	10.5	12.0	17.0	6.5	23.9	896	1,741
Dire Dawa	25.0	27.7	32.0	33.9	25.4	46.8	69	1,095
Education								
No education	59.5	55.6	53.0	60.6	48.9	78.9	8,394	8,278
Primary	41.5	40.5	38.3	47.5	32.8	64.6	6,276	5,858
Secondary	15.3	19.0	18.9	30.7	14.1	41.6	1,117	1,395
More than secondary	5.9	10.1	9.4	17.9	6.4	21.7	728	984
Wealth quintile								
Lowest	60.4	58.0	53.9	63.4	49.9	80.9	2,986	3,711
Second	58.9	52.4	51.1	58.8	46.4	78.0	3,041	2,402
Middle	56.3	51.4	48.8	56.1	44.0	76.0	3,031	2,268
Fourth	48.6	47.0	44.7	52.6	41.7	70.6	3,215	2,505
Highest	22.3	25.9	24.8	34.8	18.7	45.8	4,242	5,629
Total	47.3	45.4	43.2	51.8	38.6	68.4	16,515	16,515

Note: Total includes 17 cases with missing information on employment in the last 12 months.

The proportion of women who believe that a husband is justified in beating his wife increases with the woman's age. Women who are currently married or living together and women who are employed but not for cash are more likely than other women to believe that there are occasions when wife beating is justified. In addition, the more children a woman has, the more likely she is to believe that wife beating is justified.

Women's attitudes towards wife beating were also examined according to residence and region. In rural areas three women of every four (76 percent) agree with at least one specified justification for wife beating, compared with 46 percent of urban women. Among regions there is a large variation in the proportion of women who agree with at least one specified justification for wife beating, from 82 percent in the Somali region to 24 percent in Addis Ababa.

The acceptance of wife beating inversely correlates with education and wealth. Women with no education are more than three times as likely as women with more than secondary education to agree with at least one specified justification for wife beating (79 percent and 22 percent, respectively). Similarly, 81 percent of women in the lowest wealth quintile agree with at least one specified justification for wife beating, compared with 46 percent of women in the highest wealth quintile.

Table 14.7.2 shows men's attitudes towards wife beating. Forty-five percent of men agree that wife beating is justified in at least one of the specified situations. This proportion is slightly lower than in the 2005 EDHS (52 percent). Although the declines are not large, they may indicate that wife beating is increasingly unacceptable among men.

Table 14.7.2 Attitude towards wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Ethiopia 2011

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Weighted number of men	Unweighted number of men
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him			
Age								
15-19	25.5	28.7	25.6	34.1	25.8	51.0	3,013	2,832
20-24	22.1	25.8	25.0	32.1	21.5	44.1	2,319	2,330
25-29	21.1	25.1	26.4	30.8	21.0	44.4	2,297	2,274
30-34	19.4	23.4	20.4	26.3	18.7	39.4	1,483	1,682
35-39	20.4	25.0	26.8	25.9	19.0	43.2	1,648	1,579
40-44	18.8	22.7	24.7	27.8	17.9	42.0	1,121	1,210
45-49	21.1	26.8	27.8	28.3	19.8	43.0	952	961
Employment (last 12 months)								
Not employed	12.6	17.8	15.7	28.1	14.6	40.9	680	951
Employed for cash	20.9	25.0	24.9	28.6	20.6	43.4	8,615	8,841
Employed not for cash	26.0	29.2	28.2	34.6	24.5	49.2	3,527	3,062
Number of living children								
0	21.6	25.0	23.5	30.2	22.2	44.4	6,465	6,534
1-2	21.7	25.4	26.5	29.9	19.0	43.7	2,338	2,463
3-4	21.2	27.1	27.0	29.9	20.4	47.3	2,038	1,922
5+	23.6	27.3	28.0	30.8	22.4	45.4	1,994	1,949
Marital status								
Never married	21.6	24.5	22.9	29.5	22.0	44.1	5,600	5,641
Married or living together	21.9	26.7	27.0	30.4	20.7	45.3	6,872	6,775
Divorced/separated/widowed	24.9	27.8	28.1	37.9	23.9	49.8	363	452
Residence								
Urban	5.4	9.7	10.4	14.4	7.4	24.8	2,882	3,915
Rural	26.6	30.4	29.6	34.8	25.4	50.7	9,952	8,953
Region								
Tigray	23.2	25.7	27.5	35.5	19.6	46.0	770	1,235
Affar	23.0	29.6	29.4	29.8	26.8	42.6	101	910
Amhara	22.6	27.2	29.5	34.3	20.5	51.3	3,481	1,739
Oromiya	19.1	23.7	19.6	24.6	21.4	39.5	4,957	1,889
Somali	18.9	34.0	31.6	38.3	35.3	57.7	245	653
Benishangul-Gumuz	23.6	25.9	30.1	37.4	19.3	48.7	138	1,047
SNNP	32.7	33.8	35.9	40.6	27.7	55.5	2,307	1,550
Gambela	16.8	18.3	19.2	26.3	12.7	39.4	59	865
Harari	12.8	20.0	18.9	24.2	16.5	36.1	40	898
Addis Ababa	2.4	4.6	4.5	6.5	2.6	11.2	682	1,237
Dire Dawa	8.9	14.8	13.5	15.2	10.2	25.2	53	845
Education								
No education	31.1	36.5	37.1	40.1	29.7	58.8	3,785	3,659
Primary	22.0	25.7	24.1	30.5	21.6	45.2	6,813	6,334
Secondary	8.8	10.5	11.7	16.6	8.8	26.6	1,296	1,565
More than secondary	1.6	3.9	4.8	7.0	3.4	11.5	940	1,310
Wealth quintile								
Lowest	33.3	37.6	36.1	41.1	31.0	57.9	2,141	2,563
Second	29.1	33.7	33.2	39.9	29.2	55.3	2,362	1,891
Middle	26.3	30.6	29.6	33.3	24.5	51.5	2,454	1,935
Fourth	20.6	23.5	22.1	28.5	19.9	42.9	2,683	2,203
Highest	6.4	10.2	11.5	14.8	7.8	24.9	3,194	4,276
Total 15-49	21.8	25.8	25.3	30.2	21.3	44.9	12,834	12,868
50-59	21.5	25.9	27.9	29.6	21.9	42.8	1,276	1,242
Total 15-59	21.8	25.8	25.5	30.1	21.4	44.7	14,110	14,110

Note: Total includes 14 cases with missing information on employment in the last 12 months.

As in the finding for female respondents, there are only small age differentials in men's attitudes towards wife beating. The acceptability of wife beating is slightly higher among divorced, separated, and widowed men than among men who never married or who are currently married or living together with a woman.

As was observed for female respondents, men living in rural areas are more likely than men living in urban areas to accept wife beating (51 percent and 25 percent, respectively). Like women's beliefs, men's beliefs vary greatly among regions. Men in Somali and SNNP are the most likely to agree that wife beating is justified for at least one specified reason (58 percent and 56 percent, respectively).

Among men as among women, the acceptance of wife beating inversely correlates with education and wealth. Fifty-nine percent of men with no education agree with at least one specified reason for wife beating, compared with 12 percent of men with more than secondary education. Likewise, men in the lowest wealth quintile are more than twice as likely as men in the highest quintile to agree with at least one specified reason for wife beating (58 percent and 25 percent, respectively).

14.7 WOMEN'S EMPOWERMENT INDICES

Two women's empowerment indices were created for the 2011 EDHS—namely, women's participation in making household decisions and women's attitudes towards wife beating. The distribution of women by these two indices is then linked to select demographic and health indicators such as contraceptive use, ideal family size, unmet need for family planning, utilization of reproductive health care, and childhood mortality.

The index of women's participation in household decisions ranges in value from 0 to 3 and corresponds with the number of decisions in which women participate alone or jointly with their husbands/partners (see Table 14.6.1 for the list of decisions). This index reflects the degree of decision-making control that women are able to exercise in areas that affect their own lives and environments. A high score on this index indicates a high level of empowerment.

The index of women's attitudes towards wife beating ranges in value from 0 to 5 and corresponds with the total number of reasons for which the respondent feels that a husband is justified in beating his wife (see Table 14.7.1 for the list of reasons). A low score on this index reflects a greater sense of self-worth and higher status of women.

Table 14.8 shows how these two indices relate to each other. In general, the expectation is that women who participate more in making household decisions will be less likely to endorse wife beating. The percentage of women who do not agree with wife beating under any circumstance increases from 15 percent among women who do not participate in any decisions to 33 percent among women who participate in all three decisions. Women who agree with all five justifications for wife beating are the least likely (45 percent) to participate in decision-making, while women who disagree with all of the reasons to justify wife beating are the most likely to participate in all decisions (68 percent). In other words, participation in making household decisions declines as the number of justifications for wife beating increases.

Table 14.8 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decision-making and the percentage who disagree with all of the reasons justifying wife-beating, by value on each of the indices of women's empowerment, Ethiopia 2011

Empowerment index	Percentage who participate in all decision-making	Percentage who disagree with all the reasons justifying wife beating	Weighted number of women	Unweighted number of women
Number of decisions in which women participate[1]				
0	na	14.6	1,183	1,302
1-2	na	19.4	3,513	3,520
3	na	33.1	5,591	5,382
Number of reasons for which wife-beating is justified[2]				
0	68.4	na	2,707	2,990
1-2	53.2	na	2,266	2,122
3-4	50.6	na	2,646	2,499
5	44.8	na	2,669	2,593

na = Not applicable
[1] See Table 14.6 for the list of decisions.
[2] See Table 14.7.1 for the list of reasons.

14.8 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's ability to control her fertility and the method of contraception she uses are likely to be affected by her self-image and sense of empowerment. A woman who feels that she is unable to control other aspects of her life may be less likely to feel she can make decisions regarding fertility. She may also feel the need to choose methods that are easier to conceal from her husband or partner.

Table 14.9 shows the relationship of each of the two empowerment indices to current use of contraceptive methods among currently married women age 15-49. The two empowerment indices and contraceptive use are positively associated. For example, the proportion of currently married women who are using any method of contraception rises, from 16 percent among women who do not participate in any household decision-making to 34 percent among women who participate in all three decisions. Use of any method of contraception decreases with the increase in the number of reasons that a woman thinks wife beating is justified. Four women in every ten (41 percent) who do not feel that wife beating is justified for any reason are using a contraceptive method, compared with two in every ten women (20 percent) who believe that wife beating is justified for all five reasons.

Table 14.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indices of women's status, Ethiopia 2011

Empowerment index	Any method	Modern methods				Any traditional method	Not currently using	Total	Weighted number of women	Unweighted number of women
		Any modern method[1]	Female sterilization	Temporary modern female methods[1]	Male condom					
Number of decisions in which women participate[2]										
0	16.3	16.0	0.1	15.9	0.0	0.3	83.7	100.0	1,183	1,302
1-2	24.6	23.6	0.4	23.0	0.1	1.1	75.4	100.0	3,513	3,520
3	33.7	32.1	0.6	31.3	0.3	1.6	66.3	100.0	5,591	5,382
Number of reasons for which wife-beating is justified[3]										
0	40.8	37.9	1.1	36.2	0.5	2.9	59.2	100.0	2,707	2,990
1-2	31.2	30.0	0.3	29.6	0.1	1.2	68.8	100.0	2,266	2,122
3-4	22.8	22.3	0.2	22.1	0.0	0.5	77.2	100.0	2,646	2,499
5	19.8	19.3	0.2	19.1	0.0	0.5	80.2	100.0	2,669	2,593
Total	28.6	27.3	0.5	26.7	0.2	1.3	71.4	100.0	10,287	10,204

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method
[2] See Table 14.6 for the list of decisions.
[3] See Table 14.7.1 for the list of reasons

14.9 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

As a woman becomes more empowered, she is more likely to have a say in the number (ideal family size) and spacing of children she desires. Table 14.10 depicts how a woman's ideal family size and her unmet need for family planning vary by the two indices of women's empowerment.

There is a positive relationship between the two indices and women's mean ideal number of children. For instance, women who participate in all three decisions desire an average of 4.7 children, compared with 5.6 children among women who do not participate in any decisions. Similarly, women who accept all five reasons for wife beating have the highest mean ideal number of children, at 5.1, compared with 3.9 children for women who do not justify wife beating for any reason.

Table 14.10 further shows that the percentage of currently married women with an unmet need for family planning decreases with an increase in the number of decisions in which women participate and tends to increase with the number of reasons for which women believe wife beating is justified. For example, 29 percent of women who participate in no household decisions have an unmet need for family planning services, compared with 23 percent of women who participate in all three decisions.

Table 14.10 Women's empowerment and ideal number of children, and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indices of women's empowerment, Ethiopia 2011

Empowerment index	Mean ideal number of children[1]	Weighted number of women	Unweighted number of women	Percentage of currently married women with an unmet need for family planning[2]			Weighted number of women	Unweighted number of women
				For spacing	For limiting	Total		
Number of decisions in which women participate[3]								
0	5.6	968	1,072	20.2	8.3	28.5	1,183	1,302
1-2	5.0	3,057	3,041	18.0	9.6	27.5	3,513	3,520
3	4.7	4,869	4,779	14.5	8.7	23.2	5,591	5,382
Number of reasons for which wife-beating is justified[4]								
0	3.9	4,845	5,404	14.0	7.5	21.4	2,707	2,990
1-2	4.1	3,444	3,243	15.1	10.4	25.6	2,266	2,122
3-4	4.5	3,338	3,165	19.1	9.6	28.7	2,646	2,499
5	5.1	3,130	2,983	16.9	8.6	25.5	2,669	2,593
Total	4.3	14,757	14,795	16.3	9.0	25.3	10,287	10,204

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 7.12.1 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 14.6 for the list of decisions.
[4] See Table 14.7.1 for the list of reasons.

14.10 WOMEN'S STATUS AND REPRODUCTIVE HEALTH CARE

In societies where health care is widely available, women's status may not affect their access to health services. In other societies, however, increased empowerment of women is likely to increase their ability to seek and use health services to better meet their own reproductive health needs.

Table 14.11 examines whether the extent to which women receive antenatal, delivery, and postnatal care services from health workers varies by their status as measured on the two women's empowerment indices. The proportion of women who received antenatal care from health personnel for a live birth in the five years before the survey increases with the number of decisions in which the woman participates, from 24 percent of women who do not participate in any decisions to 49 percent of those who have a say in all three decisions.

Similarly, among women who do not justify wife beating for any reason, 58 percent received antenatal care from health personnel, 26 percent received assistance from health personnel at delivery, and 14 percent received postnatal care from a health care provider within the first two days after delivery. In contrast, the corresponding proportions among women who justify wife beating for all five specified reasons were only 33 percent, 5 percent, and 2 percent.

Table 14.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Ethiopia 2011

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days after delivery[1]	Weighted number of women with a child born in the last five years	Unweighted number of women with a child born in the last five years
Number of decisions in which women participate[2]					
0	24.1	3.7	2.4	855	973
1-2	40.1	9.0	5.4	2,543	2,544
3	48.7	16.2	8.1	3,787	3,526
Number of reasons for which wife-beating is justified[3]					
0	58.0	25.9	14.1	1,878	2,085
1-2	44.8	13.0	6.0	1,744	1,582
3-4	36.9	8.5	5.3	2,108	1,966
5	32.9	5.0	2.4	2,177	2,131
Total	42.6	12.7	6.7	7,908	7,764

Note: "Health personnel" includes doctor, nurse, or midwife.
[1] Includes both women who gave birth in a health facility and those who did not give birth in a health facility.
[2] Restricted to currently married women. See Table 14.6 for the list of decisions.
[3] See Table 14.7.1 for the list of reasons.

14.11 DIFFERENTIALS IN INFANT AND CHILD MORTALITY BY WOMEN'S STATUS

The ability of women to access information, make decisions, and act effectively in their own interest, or in the interest of those who depend on them, are essential aspects of the empowerment of women. If women, the primary caretakers of children, are empowered, the health and survival of their infants will be enhanced. In fact, maternal empowerment fits into Mosley and Chen's framework on child survival as an individual-level variable that affects child survival through the proximate determinants (Mosley and Chen, 1984).

Table 14.12 presents childhood mortality rates by the two indices of women's status—participation in household decision-making and attitude towards wife beating. With improvement in women's empowerment status, the likelihood of their children surviving increases. For instance, the infant mortality rate and under-five mortality rate are 69 deaths per 1,000 live births and 101 deaths per 1,000 live births, respectively, for children whose mother participates in all three specified decisions. In contrast, for children whose mothers do not participate in any of the decisions, the infant mortality rate is 84 deaths, and under-five mortality rate is 122 deaths per 1,000 live births.

Table 14.12 Early childhood mortality rates by women's status

Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by indices of women's status, Ethiopia 2011

Empowerment index	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Number of decisions in which women participate[1]			
0	84	42	122
1-2	78	44	119
3	69	35	101
Number of reasons for which wife-beating is justified[2]			
0	73	32	103
1-2	63	41	101
3-4	75	38	110
5	82	45	122

[1] Restricted to currently married women. See Table 14.6 for the list of decisions.
[2] See Table 14.7.1 for the list of reasons.

A similar pattern is seen with women's attitude towards wife beating. Infant and under-five mortality rates are lower for the children of women who do not justify wife beating for any reason than for those who justify wife beating for some or all reasons.

14.12 MEN'S PARTICIPATION IN HOUSEHOLD CHORES

In the 2011 EDHS currently married women were asked whether their husbands help with household chores. As Table 14.13 shows, 43 percent of currently married women reported that their husbands participate in household chores. However, only one woman of every four (24 percent) mentioned that her husband participates every day in doing household chores, while 59 percent say that their husbands rarely participate in doing household chores.

The participation of husband in doing household chores increases with women's education from 38 percent for women with no education to 70 percent for women with more than secondary education. Similarly, women in the highest wealth quintile (52 percent) are considerably more likely to report that their husbands participate in the household chores than women in the lowest quintile (38 percent). Fifty-four percent of currently married women who reside in urban areas say that their husbands participate in household chores, compared with 41 percent of women in rural areas.

Table 14.13 Men's participation in household chores

Percentage of currently married women age 15-49 who report that their husbands help with the household chores, and, among women whose husbands help with household chores, the frequency of that help, by background characteristics, Ethiopia 2011

Background characteristic	Women whose husband participates in household chores	Weighted number of women	Unweighted number of women	Among women whose husband participates in household chores, frequency of the chores: Every day	At least once a week	Rarely	Total	Weighted number of women	Unweighted number of women
Age									
15-19	45.0	765	784	22.9	16.5	60.6	100.0	344	283
20-24	47.2	1,762	1,788	25.9	15.6	58.5	100.0	832	786
25-29	45.2	2,511	2,480	27.2	17.6	55.2	100.0	1,136	1,066
30-34	47.2	1,720	1,722	20.5	19.4	60.1	100.0	813	729
35-39	40.2	1,591	1,600	22.7	15.3	61.9	100.0	639	637
40-44	35.4	1,033	1,047	25.3	15.2	59.5	100.0	366	349
45-49	31.5	905	783	16.4	18.6	64.9	100.0	285	236
Residence									
Urban	53.6	1,843	2,422	22.9	15.7	61.4	100.0	987	1,264
Rural	40.6	8,444	7,782	24.2	17.4	58.5	100.0	3,427	2,822
Region									
Tigray	58.3	620	984	16.9	20.6	62.6	100.0	361	572
Affar	27.1	104	960	31.9	12.6	55.5	100.0	28	226
Amhara	41.2	2,776	1,331	22.0	17.2	60.9	100.0	1,145	542
Oromiya	38.9	3,961	1,403	20.8	17.1	62.1	100.0	1,542	537
Somali	29.1	232	664	21.1	26.3	52.6	100.0	68	185
Benishangul-Gumuz	37.6	124	904	21.3	18.9	59.7	100.0	47	328
SNNP	48.6	2,022	1,295	33.5	15.5	51.1	100.0	983	623
Gambela	42.4	41	768	24.7	19.1	56.0	100.0	17	258
Harari	32.3	28	635	32.2	18.5	49.3	100.0	9	199
Addis Ababa	58.1	342	634	23.9	13.1	63.0	100.0	198	368
Dire Dawa	42.7	38	626	30.1	18.6	50.8	100.0	16	248
Education									
No education	38.3	6,735	6,569	24.9	18.3	56.7	100.0	2,579	2,259
Primary	48.0	2,862	2,739	20.0	16.2	63.8	100.0	1,375	1,238
Secondary	64.5	378	528	23.2	12.7	64.1	100.0	243	325
More than secondary	69.6	313	368	36.5	11.0	52.5	100.0	218	264
Wealth quintile									
Lowest	38.1	2,077	2,724	23.2	17.8	59.0	100.0	791	814
Second	40.8	2,117	1,676	26.2	15.0	58.8	100.0	863	651
Middle	39.8	2,083	1,585	26.5	15.1	58.4	100.0	829	620
Fourth	44.0	1,923	1,590	19.0	22.4	58.6	100.0	846	635
Highest	52.0	2,087	2,629	24.4	15.2	60.4	100.0	1,086	1,366
Total	42.9	10,287	10,204	23.9	17.0	59.1	100.0	4,415	4,086

14.13 LAW AGAINST DOMESTIC VIOLENCE

The Ethiopian Criminal Code of 2005 addresses human rights issues, women's and children's rights in particular. Using various media, concerned government institutions and development partners have been educating the community about these laws, particularly the laws that prevent gender-based violence. The 2011 EDHS collected information on knowledge of the existing law that prevents a husband from beating his wife.

Table 14.14 shows that half of currently married women (49 percent) know there is a law against a husband beating his wife. There are small variations by age in the level of knowledge. Knowledge about the law is positively related to women's education and wealth. For example, 42 percent of women with no education know that there is law against wife beating, compared with 72 percent of women with more than secondary education. Similarly, women belonging to the wealthiest households are nearly twice as likely to know about the law (62 percent) than those in the lowest wealth quintile (37 percent). Knowledge of the law varies with residence and among regions as well. Sixty-two percent of urban women and 45 percent of rural women are aware of the existence of such a law. Among the regions 27 percent in the Somali region know of the law, compared with 72 percent in the Tigray region.

Table 14.14 Knowledge of law against domestic violence

Percentage of women age 15-49 who know that there is a law in Ethiopia against wife beating, by background characteristics, Ethiopia 2011

Background characteristic	Percentage of women who know that there is a law against wife beating	Weighted number of women	Unweighted number of women
Age			
15-19	47.3	4,009	3,835
20-24	49.7	2,931	3,022
25-29	48.2	3,147	3,185
30-34	48.4	2,054	2,100
35-39	50.2	1,916	1,958
40-44	53.0	1,261	1,314
45-49	48.8	1,196	1,101
Residence			
Urban	61.7	3,947	5,329
Rural	44.9	12,568	11,186
Region			
Tigray	72.2	1,104	1,728
Affar	30.5	145	1,291
Amhara	45.2	4,433	2,087
Oromiya	50.8	6,011	2,135
Somali	27.2	329	914
Benishangul-Gumuz	54.6	174	1,259
SNNP	42.9	3,236	2,034
Gambela	36.4	69	1,130
Harari	43.6	49	1,101
Addis Ababa	58.1	896	1,741
Dire Dawa	58.3	69	1,095
Education			
No education	42.0	8,394	8,278
Primary	52.5	6,276	5,858
Secondary	65.6	1,117	1,395
More than secondary	71.6	728	984
Wealth quintile			
Lowest	37.4	2,986	3,711
Second	43.4	3,041	2,402
Middle	47.1	3,031	2,268
Fourth	49.0	3,215	2,505
Highest	62.2	4,242	5,629
Total	48.9	16,515	16,515

ADULT AND MATERNAL MORTALITY 15

Key Findings

- Direct mortality estimates find that the level of adult mortality is slightly higher among men than among women (5.0 deaths and 4.1 deaths per 1,000 population, respectively).
- Sixteen percent of women and 18 percent of men are likely to die between exact ages 15 and 50. These probabilities have decreased for both women and men since 2000, with most of the decreases occurring between 2005 and 2011.
- Maternal deaths account for 30 percent of all deaths to women age 15-49. The maternal mortality rate for the seven-year period preceding the survey was 1.14 maternal deaths per 1,000 woman-years of exposure.
- The maternal mortality ratio was 676 maternal deaths per 100,000 live births for the seven-year period preceding the survey. This ratio is not significantly different from those reported in the 2005 EDHS and the 2000 EDHS.

Adult and maternal mortality rates are key indicators of the health status of a population. In Ethiopia they are also national development indicators. Estimation of these mortality rates requires comprehensive and accurate reporting of adult deaths and maternal deaths. The maternal mortality module included in the EDHS gathers valuable information that fills this gap.

This chapter includes results based on sibling history data collected in the Sibling Survival Module (commonly referred to as the 'Maternal Mortality Module') of the 2011 EDHS Woman's Questionnaire. In addition to adult mortality rates for five-year age groups, this chapter includes a summary measure ($_{35}q_{15}$) that represents the probability of dying between exact ages 15 and 50. For the measurement of trends in adult mortality probabilities, $_{35}q_{15}$ for the 2000 and 2005 EDHS have also been calculated and are presented in Table 15.2.

The term 'maternal mortality' used in this chapter (and in previous EDHS surveys), corresponds to the term 'pregnancy-related mortality' as defined in the latest International Classification of Diseases (ICD-10). The ICD-10 definition of a pregnancy-related death is 'the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.' In keeping with this definition, the Sibling Survival Module used in the DHS surveys measures only the timing of deaths and not the cause of death. The data collected in the EDHS questionnaire are based on information about deaths during the two months following a birth, however, rather than 42 days following a birth.

15.1 ASSESSMENT OF DATA QUALITY

To obtain a sibling history, the 2011 EDHS first asked each female respondent to list all children born to her biological mother, starting with the firstborn. The survey then asked the respondent whether each of these siblings was still alive. For living siblings, the questionnaire asked the current age of each sibling. For deceased siblings, the age at death and the number of years since death were recorded. When a respondent could not provide precise information on age at death or years since death, approximate but quantitative answers were accepted. For sisters who died at age 12 or older, the EDHS asked three questions to determine whether the death was maternal: 'Was [NAME OF SISTER] pregnant when she died?' and, if the response was negative, 'Did she die during

childbirth?' and, if negative again, 'Did she die within two months after the end of a pregnancy or childbirth?'

Table C.8 in Appendix C shows that in the 2011 EDHS a total of 94,361 siblings were recorded in the sibling histories. The survival status was not reported for 91 siblings (0.1 percent). Among surviving siblings current age was not reported for 47 siblings (0.1 percent). For more than 99 percent of deceased siblings, both age at death (AD) and years since death (YSD) were reported. In 0.2 percent of cases both the AD and YSD were missing. The sex ratio of the enumerated siblings (the ratio of brothers to sisters times 100) is 109.4 (Table C.9), which is higher than the expected value of 102–106, a difference that suggests some underreporting of sisters.

15.2 ESTIMATES OF ADULT MORTALITY

One way to assess the quality of data used to estimate maternal mortality is to evaluate the plausibility and stability of overall adult mortality estimates. If the estimated rates of overall adult mortality are implausible, rates based on a subset of deaths—maternal mortality in particular—are likely to have serious problems. Moreover, levels and trends in overall adult mortality have important implications for health and social programmes in Ethiopia in their own right, especially with regard to the potential impact of the AIDS epidemic, other infectious diseases, and noncommunicable diseases.

The direct estimation of adult mortality uses the reported ages at death and years since death of the respondents' brothers and sisters. Mortality rates are calculated by dividing the number of deaths in each age group of women and men by the total person-years of exposure to the risk of dying in that age group during a specified period prior to the survey. To have a sufficiently large number of adult deaths to generate a robust estimate, the rates are calculated for the seven-year period preceding the survey (roughly mid-2004 to mid-2011). Nevertheless, the age-specific mortality rates obtained in this manner are subject to considerable sampling variation.

Table 15.1 shows age-specific mortality rates for women and men age 15-49 for the seven-year period preceding the survey. Overall, the level of adult mortality is slightly higher among men (5.0 deaths per 1,000 population) than among women (4.1 deaths per 1,000 population). Age-specific mortality rates appear to be higher for men than for women in most age groups, but none of the differences are statistically significant. The age-specific mortality rates generally show the expected increases with increasing age, for both women and men. Confidence intervals for these rates can be found in Appendix Table B.16. The confidence intervals for many of the five-year mortality rates overlap.

Table15.1 Adult mortality rates

Direct estimates of female and male mortality for the seven years preceding the survey by five-year age groups, Ethiopia 2011

Age	Deaths	Exposure years	Mortality rates[1]
	WOMEN		
15-19	92	39,187	2.35
20-24	108	41,289	2.63
25-29	129	36,532	3.53
30-34	188	27,449	6.85
35-39	79	19,166	4.15
40-44	85	11,512	7.37
45-49	51	6,899	7.34
15-49	732	182,034	4.13[a]
	MEN		
15-19	136	40,426	3.38
20-24	138	42,577	3.25
25-29	189	37,080	5.11
30-34	166	28,989	5.74
35-39	125	20,030	6.22
40-44	86	12,095	7.11
45-49	70	7,610	9.19
15-49	911	188,808	5.01[a]

[1] Expressed per 1,000 population
[a] Age-adjusted rate

Table 15.2 shows a summary measure of the risk of dying between exact ages 15 and 50 ($_{35}q_{15}$). Based on the 2011 EDHS, 16 percent of women and 18 percent of men are likely to die between age 15 and age 50. Estimates of $_{35}q_{15}$ based on the 2000 and 2005 EDHS also show that in 2000 men had a higher probability of dying between exact ages 15 and 50 than women (28 percent of men versus 22 percent of women) and in 2005 they had similar probabilities of dying between these ages (21 percent of men and 22 percent of women). However, in the eleven years between the 2000 and 2011 EDHS surveys, the probability of dying between exact ages 15 and 50 decreased for both women and men, from 22 percent to 16 percent for women and from 28 percent to 18 percent for men, showing a 29 percent decrease for women and a 34 percent decrease for men. For women, much of this decrease is seen in the most recent six years, between 2005 and 2011, whereas for men the largest decrease is observed between 2000 and 2005. Confidence intervals for the $_{35}q_{15}$ estimates can be found in Appendix Table B.16.

Table 15.2 Adult mortality probabilities

The probability of dying between exact ages 15 and 50 for women and men for the seven years preceding the survey, Ethiopia 2000, 2005, and 2011

Survey	Women	Men
$_{35}q_{15}$[1] (2011 EDHS)	157	181
$_{35}q_{15}$[1] (2005 EDHS)	217	207
$_{35}q_{15}$[1] (2000 EDHS)	221	275

[1] The probability of dying between exact ages 15 and 50, expressed per 1,000 person-years of exposure

15.3 ESTIMATES OF MATERNAL MORTALITY

Maternal mortality in Ethiopia and other developing countries can be estimated using two procedures: the sisterhood method (Graham et al., 1989) and a direct estimation variant of the sisterhood method (Rutenberg and Sullivan, 1991). In this report the direct estimation procedure is applied.

Table 15.3 presents direct estimates of maternal mortality for the seven-year period preceding the survey. The maternal mortality rate among women age 15-49 is 1.14 maternal deaths per 1,000 woman-years of exposure. This rate is 15 percent lower than that reported in the 2005 EDHS and 32 percent lower than in the 2000 EDHS. By five-year age groups, the maternal mortality rate is highest among women 30-34 (2.53), followed by those age 35-39 (1.53). Confidence intervals for the maternal mortality rates can be found in Appendix Table B.16. In the 2011 EDHS maternal deaths represent 30 percent of all deaths to women age 15-49, compared with 21 percent in the 2005 EDHS and 25 percent in the 2000 EDHS. The percentage of female deaths that are maternal varies by age and ranges from 10 percent among women 45-49 to 37 percent of all deaths among women 30-39.

Table 15.3 Maternal mortality

Direct estimates of maternal mortality rates for the seven years preceding the survey, by five-year age groups, Ethiopia 2011

Age	Percentage of female deaths that are maternal	Maternal deaths	Exposure years	Maternal mortality rate[1]
15-19	21.7	20	39,187	0.52
20-24	36.1	39	41,289	0.94
25-29	28.7	37	36,532	1.03
30-34	36.7	69	27,449	2.53
35-39	36.7	29	19,166	1.53
40-44	18.8	16	11,512	1.43
45-49	9.8	5	6,899	0.70
15-49	29.6	217	182,034	1.14[a]

General fertility rate (GFR)[2]
169[a]

Maternal mortality ratio (MMR)3
676 CI: (541, 810)

Lifetime risk of maternal death[4]
0.036

2005 EDHS

Maternal mortality ratio (MMR)[3]
673 CI: (548, 799)

2000 EDHS

Maternal mortality ratio (MMR)[3]
871 CI: (703, 1,039)

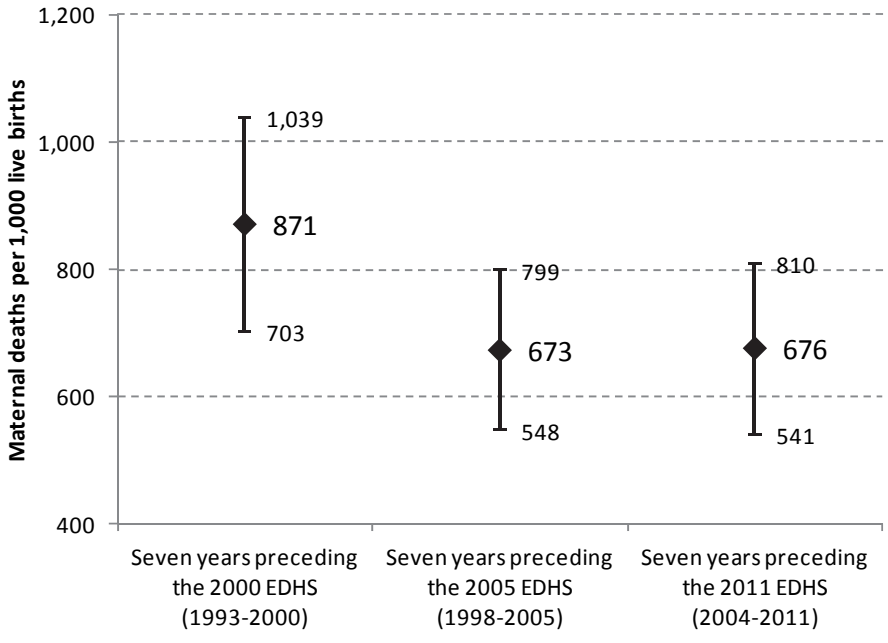
CI: Confidence interval
[1] Expressed per 1,000 woman-years of exposure
[2] Expressed per 1,000 women age 15-49
[3] Expressed per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate
[4] Calculated as $1-(1-MMR)^{TFR}$ where TFR represents the total fertility rate for the seven years preceding the survey
[a] Age-adjusted rate

The maternal mortality rate can be converted to a maternal mortality ratio (expressed as deaths per 100,000 live births) by dividing the maternal mortality rate by the general fertility rate (GFR) of 169 that prevailed during the same time period, and multiplying the result by 100,000. This procedure produces a maternal mortality ratio (MMR) of 676 deaths per 100,000 live births during the seven-year period preceding the survey. In other words, for every 1,000 live births in Ethiopia during the seven years preceding the 2011 EDHS, about seven women (6.76) died during pregnancy, during childbirth, or within two months of childbirth. The lifetime risk of maternal death (0.036) indicates that about 4 percent of women died during pregnancy, during childbirth, or within two months of childbirth.

The estimated maternal mortality ratio is almost the same in the 2011 EDHS (676) as it was in the 2005 EDHS (673). As shown in Table 15.3 and Figure 15.1, the confidence interval surrounding the maternal mortality ratio of 676 deaths per 100,000 live births is 541-810, while the confidence interval for the 2005 ratio of 673 deaths per 100,000 live births is 548-799 deaths. Because the confidence intervals between the two estimates overlap, there is no evidence to suggest that the maternal mortality ratio changed in the six years between surveys. A similar conclusion can be drawn comparing the maternal mortality ratios measured in the 2011 EDHS with those in the 2000 EDHS. Thus, there is no evidence to suggest that the maternal mortality ratio changed decreased in Ethiopia between 2000 and 2011.

It should be kept in mind that maternal mortality is difficult to measure because large sample sizes are required to calculate accurate estimates. The maternal mortality estimates presented here are subject to large sampling errors because cost and time considerations make it impossible to draw a sample large enough to keep sampling errors reasonably small.

Figure 15.1 **Maternal Mortality Ratio (MMR) with Confidence Intervals for the Seven Years Preceding the 2000, 2005, and 2011 Ethiopia DHS**



REFERENCES

Arimond, M., and Marie T. Ruel. 2003. *Generating Indicators of Appropriate Feeding of Children 6 through 23 Months from the KPC 2000+*. Report of the Food and Nutrition Technical Assistance Project (FANTA). Washington, D.C.: Academy for Educational Development. http://pdf.usaid.gov/pdf_docs/PNACW465.pdf.

Auvert, B., A. Buve, E. Lagarde, M. Kahindo, J. Chege, N. Rutenberg, R. Musonda, M. Laourou, E. Akam, and H. A. Weiss. 2001. Male Circumcision and HIV Infection in Four cities in Sub-Saharan Africa. *AIDS* 15(Supplement 4): S31-S40. doi:10.1097/00002030-200108004-00004.

Bailey, R. C., S. Moses, C. B. Parker, K. Agot, I. Maclean, J. N. Krieger, C. F. Williams, R. T. Campbell, and J. O. Ndinya-Achola. 2007. Male Circumcision for HIV Prevention in Young Men in Kisumu, Kenya: A Randomized Controlled Trial. *Lancet* 369(9562): 643-56. doi:10.1016/S0140-6736(07)60312.

Central Statistical Authority [Ethiopia] and ORC Macro. 2001. *Ethiopia Demographic and Health Survey 2000.* Addis Ababa, Ethiopia, and Calverton, Maryland: Central Statistical Authority and ORC Macro.

Central Statistical Agency [Ethiopia] and ORC Macro. 2006. *Ethiopia Demographic and Health Survey 2005.* Addis Ababa, Ethiopia, and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro.

Central Statistical Agency (CSA). [Ethiopia]. 2008. *The 2007 Population and Housing Census of Ethiopia. Statistical Summary Report at National Level*. Addis Ababa, Ethiopia: Central Statistical Agency.

Central Statistical Agency (CSA) [Ethiopia]. 2009. *Statistical Abstract of Ethiopia.* Addis Ababa, Ethiopia: Central Statistical Agency.

Graham, W., W. Brass, and R. W. Snow. 1989. Indirect Estimation of Maternal Mortality: The Sisterhood Method. *Studies in Family Planning* 20(3): 125-135. doi:10.2307/1966567.

Gray, R., G. Kigozi, D. Serwadda, F. Makumbi, S. Watya, F. Nalugoda, N. Kiwanuka, L. Moulton, M. Chaudhary, M. Chen, N. Sewankambo, F. Wabwire-Mangen, M. Bacon, C. Williams, P. Opendi, S. Reynolds, O. Laeyendecker, T. Quinn, and M. Wawer. 2007. Male Circumcision for HIV Prevention in Men in Rakai, Uganda: A randomised trial. *Lancet* 369 (9562): 657-66. doi: 10.1016/S0140-6736(07)60313-4.

Gwatkin, D. R., S. Rutstein, K. Johnson, R. P. Pande, and A. Wagstaff. 2000. *Socioeconomic Differences in Health, Nutrition and Poverty.* HNP/Poverty Thematic Group of the World Bank.Washington, D.C.: The World Bank.

Ministry of Finance and Economic Development (MOFED) [Ethiopia]. 2010. *Growth and Transformation Plan, 20110/11-2014/15.* Addis Ababa, Ethiopia: Ministry of Finance and Economic Development.

Ministry of Health (MoH) [Ethiopia]. November 2010. *Health Sector Development Programme IV, 2010/11-2014/15.* Addis Ababa, Ethiopia: Ministry of Health.

Ministry of Information (MOI) [Ethiopia]. 2004. Facts about Ethiopia. Addis Ababa, Ethiopia: Press and Audiovisual Department, Ministry of Information.

National Bank of Ethiopia (NBE). 2010. *Biritu Quarterly Report.* Addis Ababa, Ethiopia: National Bank of Ethiopia.

Pan American Health Organization (PAHO) and World Health Organization (WHO). 2003. *Guiding Principles for Complementary Feeding of the Breastfed Child.* Washington, D.C. and Geneva, Switzerland: PAHO and WHO.

Rutenberg, N., and J. Sullivan. 1991. Direct and Indirect Estimates of Maternal Mortality from the Sisterhood Method. In *Proceedings of the Demographic and Health Surveys World Conference, 3: 1669-1696.* Columbia, Maryland: IRD/Macro International Inc.

Rutstein S. 1999. *Wealth versus Expenditure: Comparison between the DHS Wealth Index and Household Expenditures in Four Departments of Guatemala.* Calverton, MD: ORC Macro.

Rutstein, S., K. Johnson, and D. Gwatkin. 2000. *Poverty, Health Inequality, and Its Health and Demographic Effects.* Paper presented at the 2000 Annual Meeting of the Population Association of America, Los Angeles, California.

Transitional Government of Ethiopia (TGE). 1993a. *National Population Policy of Ethiopia.* Addis Ababa, Ethiopia: Transitional Government of Ethiopia.

Transitional Government of Ethiopia (TGE). 1993b. *Health Policy of the Transitional Government of Ethiopia.* Addis Ababa, Ethiopia: Transitional Government of Ethiopia.

United Nations General Assembly. 1989. *Convention on the Right of the Child*. New York: United Nations. *http://www2.ohchr.org/english/law/crc.htm*

United Nations General Assembly. 2002. *Road Map towards the Implementation of the United Nations Millennium Declaration: Report of the Secretary-General*. A/56/326. New York: United Nations General Assembly.

World Health Organization (WHO). 2001. *Iron Deficiency Anemia, Assessment, Prevention, and Control. A guide for programme managers.* Geneva, Switzerland. World Health Organization.

World Health Organization (WHO). 2005. *Guiding Principles for Feeding Nonbreastfed Children 6 to 24 Months of Age*, Geneva, Switzerland. http://www.helid.desastres.net/pdf/s13445e/s13445e.pdf.

World Health Organization (WHO), Multicentre Growth Reference Study Group. 2006. *WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Length, Weight-for-Height and Body Mass Index-for-Age: Methods and Development.* Geneva, Switzerland: WHO.

World Health Organization (WHO). 2008. *Indicators for Assessing Infant and Young Child Feeding Practices. Part I: Definitions.* Conclusions of a consensus meeting held 6-8 November 2007 in Washington, D.C., USA. http://whqlibdoc.who.int/publications/2008/9789241596664_eng.pdf.

World Health Organization (WHO) and UNICEF, Joint Monitoring Program for Water Supply and Sanitation. 2010. *Progress on Sanitation and Drinking Water: 2010 Update*. Geneva and New York: WHO and UNICEF.

SAMPLE IMPLEMENTATION

Appendix A

A.1. INTRODUCTION

The Ethiopia Demographic and Health Survey 2011 (2011 EDHS) is the third DHS in Ethiopia, following the 2000 and 2005 EDHS surveys. A nationally representative sample of 17,817 households was selected. All women 15-49 who were usual residents or who slept in the selected households the night before the survey were eligible for the survey. In the selected households, 17,385 eligible women were identified for individual interview. As with prior EDHS surveys, the main objective of the 2011 EDHS is to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness, approval and use of family planning methods; maternal and child health; and knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STIs).

A male survey was also conducted. All men 15-49 who were usual residents or who slept in the selected households the night before the survey were eligible for the male survey. In the selected households, 15,908 eligible men were identified for individual interview.

Height and weight measurements were carried out on women age 15-49, men age 15-59, and children under age 5 in all selected households. Anaemia testing was done for children age 6-59 months, women age 15-49, and men age 15-59, while HIV testing was done for women age 15-49 and men age 15-59 who voluntarily consented to the testing.

The survey is designed to produce representative estimates for the country as a whole, for the urban and the rural areas separately, and for each of the eleven regions.

A.2 SAMPLING FRAME

The sampling frame used for 2011 EDHS is the Population and Housing Census (PHC) conducted in 2007 provided by the Central Statistical Agency (CSA, 2008). CSA has an electronic file consisting of 81,654 Enumeration Areas (EA) created for the 2007 census in 10 of its 11 geographic regions. An EA is a geographic area consisting of a convenient number of dwelling units which served as counting unit for the census. The frame file contains information about the location, the type of residence, and the number of residential households for each of the 81,654 EAs. Sketch maps are also available for each EA which delimitate the geographic boundaries of the EA. The 2007 PHC conducted in the Somali region used a different methodology due to difficulty of access. Therefore, the sampling frame for the Somali region is in a different file and in different format. Due to security concerns in the Somali region, in the beginning it was decided that 2011 EDHS would be conducted only in three of nine zones in the Somali region: Shinile, Jijiga, and Liben, same as in the 2000 and 2005 EDHS. However, a later decision was made to include three other zones: Afder, Gode and Warder. This was the first time that these three zones were included in a major nationwide survey such as the 2011 EDHS. The sampling frame for the 2011 EDHS consists of a total of 85,057 EAs. The sampling frame excluded some special EAs with disputed boundaries. These EAs represent only 0.1% of the total population.

Ethiopia is divided into 11 geographical regions. Each region is sub-divided into zones, each zone into Waredas, each Wareda into towns, and each town into Kebeles. Table A.1 shows the

distribution of the enumeration areas and average EA size in the sampling frame, by region and by residence. Among the 85,057 EAs, 17,548 (21 percent) are in urban areas and 67,509 (79 percent) are in rural areas. The average size of EA in number of households is 169 in an urban EA and 180 in a rural EA, with an overall average of 178 households per EA. Table A.2 shows the distributions of households in the sampling frame, by region and residence. The data show that 81 percent of the Ethiopia's households are concentrated in three regions: Amhara, Oromiya and SNNP, while 4 percent of all households are in the five smallest regions: Afar, Benishangul-Gumuz, Gambela, Harari and Dire Dawa.

Table A.1 Enumeration areas and average EA size in the sampling frame

Distribution of the enumeration areas (EAs) and average EA size in the sampling frame, by region and by residence, Ethiopia 2011

	Number of EAs in the sample frame			Average EA size		
Region	Urban	Rural	Total	Urban	Rural	Total
Tigray	1,541	4,139	5,680	153	177	171
Affar	260	828	1,088	177	233	219
Amhara	3,391	18,016	21,407	183	182	182
Oromiya	5,030	25,800	30,830	172	179	178
Somali[1]	526	2877	3,403	141	148	147
Benishangul-Gumuz	188	786	974	140	152	150
SNNP	2,124	14,490	16,614	166	184	182
Gambela	133	347	480	145	129	134
Harari	172	98	270	163	180	169
Addis Ababa	3,865		3,865	167	0	167
Dire Dawa	318	128	446	163	169	165
Ethiopia	17,548	67,509	85,057	169	180	178

[1]Including six of the nine zones in the region of Somali

Table A.2 Distribution of households in the sampling frame

Distribution of households in the sampling frame, by region and by residence, Ethiopia 2011

	Number of households			Proportion	
Region	Urban	Rural	Total	Urban	Region
Tigray	235,530	734,357	969,887	0.243	0.064
Affar	45,910	192,554	238,464	0.193	0.016
Amhara	619,796	3,284,512	3,904,308	0.159	0.259
Oromiya	864,303	4,630,702	5,495,005	0.157	0.364
Somali[1]	74,119	425,150	499,269	0.148	0.033
Benishangul-Gumuz	26,314	119,446	145,760	0.181	0.010
SNNP	353,554	2,667,787	3,021,341	0.117	0.200
Gambela	19,275	44,879	64,154	0.300	0.004
Harari	27,975	17,651	45,626	0.613	0.003
Addis Ababa	646,216		646,216	1.000	0.043
Dire Dawa	51,991	21,643	73,634	0.706	0.005
Ethiopia	2,964,983	12,138,681	15,103,664	0.196	1.000

[1]Including six of the nine zones in the region of Somali

A.3. SAMPLE DESIGN AND IMPLEMENTATION

The sample for 2011 EDHS used a stratified sample selected in two stages from the Population and Housing Census (PHC) frame. Stratification was achieved by separating each region into urban and rural areas. The Somali region was split into two parts: the first consisting of the initial three zones, and the second part of the additional three zones that were added later. In total, 23 sampling strata have been created because Addis Ababa region is entirely urban.

The sample points were selected independently in each sampling stratum, by a two-stage selection.

In the first stage, 624 EAs were selected with probability proportional to the EA size and with independent selection in each sampling stratum. Because of the time passed since the 2007 PHC, a household listing operation was carried out in all selected EAs before start of fieldwork. The household listing operation consisted of team of listers visiting each of the 624 selected EAs. The team drew a detailed sketch map of each of the EAs and recorded in the household listing forms all households in the EA, their address, and the name of the head of the household. The list of the households that resulted from listing served as the sampling frame for the selection of households in the second stage.

In the second stage, a fixed number of 30 households were selected for each EA. Table A.3 shows the sample allocation of clusters and households by region, according to residence. Among the 624 selected EAs, 187 are in urban areas and 437 are in rural areas. Of all the selected 18,720 households, 5,610 are in urban areas and 13,110 are in rural areas.

The regional household distribution ranges from less than 1 percent in Harari to 36 percent in Oromiya (Table A.2). Therefore, a proportional allocation provides the best precision for national level indictors, but not for regional level indicators. Regions with especially very small population such as Gambela, Harari and Dire Dawa would be allocated a very small sample size. It is estimated that a minimum number of 800 women 15-49 are necessary to have reliable estimates for most of the EDHS indicators by region. However, because of the low vaccination coverage in Affar and Somali, and the low fertility rates in Gambela, Harari, Addis Ababa and Dire Dawa, it was decided to increase the number of individual women interviews to about 1,300 per region. As a result, the final sample allocation reflected a power allocation that is between the proportional allocation and the equal size allocation. In order for the survey precision in urban areas to be comparable with that in rural areas, urban areas were slightly over sampled.

The cluster and household allocation by region and residence are a function of the average number of women 15-49 per household and of the household and individual response rates (obtained from the 2005 EDHS). According to the 2005 EDHS, the average number of women 15-49 per household was 1.28 in urban areas and 1.00 in rural areas. The average number of men 15-49 per household was 1.05 in urban areas and 0.94 in rural areas. The household response rates are 97% in urban areas and 99% in rural areas, the eligible woman response rates were 94% in urban areas and 96% in rural areas, and the eligible man response rates were 84% in urban areas and 91% in rural areas.

Table A.3 Sample allocation of clusters and households

Sample allocation of clusters and households by region, according to residence, Ethiopia 2011

	Allocation of clusters			Allocation of households		
Region	Urban	Rural	Total	Urban	Rural	Total
Tigray	13	47	60	390	1,410	1,800
Affar	10	38	48	300	1,140	1,440
Amhara	10	62	72	300	1,860	2,160
Oromiya	13	62	75	390	1,860	2,250
Somali	13	52	65	390	1,560	1,950
Benishangul-Gumuz	6	42	48	180	1,260	1,440
SNNP	7	65	72	210	1,950	2,160
Gambela	9	37	46	270	1,110	1,380
Harari	25	17	42	750	510	1,260
Addis Ababa	54		54	1,620		1,620
Dire Dawa	27	15	42	810	450	1,260
Ethiopia	187	437	624	5,610	13,110	18,720

Table A.4 Sample allocation of completed interviews with women and men

Sample allocation of expected number of completed interviews with women and men by region, according to residence, Ethiopia 2011

	Women interviewed			Men interviewed		
Statistical Region	Urban	Rural	Region	Urban	Rural	Region
Tigray	434	1,280	1,714	326	1,186	1,512
Affar	333	1,035	1,368	251	959	1,210
Amhara	333	1,689	2,022	251	1,564	1,815
Oromiya	434	1,689	2,123	326	1,564	1,890
Somali	434	1417	1851	326	1,312	1,638
Benishangul-Gumuz	200	1,144	1,344	150	1,060	1,210
SNNP	233	1,771	2,004	176	1,640	1,816
Gambela	299	1,008	1,307	226	934	1,160
Harari	834	463	1,297	627	429	1,056
Addis Ababa	1,800		1,800	1354		1,354
Dire Dawa	901	409	1,310	677	378	1,055
Ethiopia	6,235	11,905	18,140	4690	11,026	15,716

A.4. SELECTION PROBABILITIES AND SAMPLE WEIGHTS

Due to the non-proportional allocation of the sample to the different regions and to their urban and rural areas, sampling weights are required for any analysis using 2011 EDHS data to ensure representativeness of the survey results at the national and regional level. Since the 2011 EDHS sample is a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster. We use the following notations:

P_{1hi}: first-stage sampling probability of the i^{th} cluster in stratum h
P_{2hi}: second -stage sampling probability within the i^{th} cluster (household selection)

Let a_h be the number of clusters selected in stratum h, M_{hi} the number of households according to the sampling frame in the i^{th} cluster, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the i^{th} cluster in the 2011 EDHS sample is calculated as follows:

$$\frac{a_h \, M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected segment compared to the total number of households in the EA i in stratum h if the EA is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h \, M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster *i* in stratum *h*, let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster *i* of stratum *h* is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster *i* of stratum *h* is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

Design weights were adjusted for household non-response and as well as for individual (women and men) non-response to get the sampling weights. The differences of the household sampling weights and the individual sampling weights are introduced by individual non-response. The final sampling weights (both household and individual weights) were normalized in order to give the total number of unweighted cases equal to the total number of weighted cases at the national level. The normalized weights are relative weights which are valid for estimating means, proportions and ratios, but not valid for estimating population totals and for pooled data. The sampling weights for HIV testing were calculated in a similar way, but the normalization of the individual sampling weights was different compared to the individual survey weights. The HIV testing weights were normalized for women and men together at the national level, so that the HIV prevalence calculated for all adults (women and men) are valid.

Sampling errors were calculated for selected indicators for the national sample, for the urban and rural areas separately, and for each of the eleven regions.

A.5. SURVEY IMPLEMENTATION

Table A.5 Sample implementation

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Ethiopia 2011

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul-Gumuz	SNNP	Gambela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	92.6	94.2	96.0	90.1	95.7	96.1	87.8	93.1	94.7	89.1	95.4	94.1	94.2	93.7
Household present but no competent respondent at home (HP)	2.4	1.0	1.1	1.8	0.6	0.5	1.2	2.1	0.5	4.2	1.2	2.0	2.5	1.5
Postponed (P)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.2	0.1	0.2	0.0	0.2	0.0	0.2	0.1	0.0	0.3	0.2	0.4	0.2	0.2
Dwelling not found (DNF)	0.3	0.1	0.0	0.4	0.1	0.0	0.4	0.1	0.1	0.3	0.3	0.3	0.1	0.2
Household absent (HA)	0.8	1.6	0.7	1.4	0.5	0.9	5.6	1.3	1.7	2.9	0.2	0.5	0.5	1.3
Dwelling vacant/address not a dwelling (DV)	2.7	1.4	1.7	1.3	2.0	1.8	1.9	2.7	1.9	1.2	2.0	2.0	1.3	1.8
Dwelling destroyed (DD)	0.5	1.2	0.2	4.8	0.4	0.5	3.0	0.1	1.1	1.3	0.2	0.2	0.6	1.0
Other (O)	0.5	0.3	0.2	0.2	0.5	0.2	0.1	0.4	0.1	0.8	0.6	0.6	0.7	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	5,518	12,299	1,802	1,406	2,163	2,252	1,111	1,421	2,160	1,364	1,259	1,620	1,259	17,817
Household response rate (HRR)[1]	97.0	98.7	98.7	97.6	99.0	99.5	98.1	97.5	99.4	94.9	98.3	97.2	97.1	98.1
Eligible women														
Completed (EWC)	94.2	95.4	97.2	96.3	95.9	97.1	92.6	94.9	95.3	92.0	93.8	93.1	93.4	95.0
Not at home (EWNH)	3.8	3.1	1.7	2.5	2.7	1.8	5.2	2.8	2.7	6.3	4.1	4.2	5.3	3.3
Postponed (EWP)	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.1
Refused (EWR)	1.0	0.4	0.1	0.1	0.3	0.4	0.9	0.8	0.6	1.2	1.2	1.2	0.4	0.6
Partly completed (EWPC)	0.1	0.1	0.0	0.1	0.2	0.0	0.3	0.2	0.0	0.2	0.2	0.1	0.1	0.1
Incapacitated (EWI)	0.4	0.6	0.7	0.9	0.5	0.5	0.6	0.8	0.7	0.2	0.6	0.4	0.2	0.6
Other (EWO)	0.5	0.3	0.3	0.1	0.4	0.1	0.3	0.4	0.6	0.0	0.2	1.0	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,656	11,729	1,778	1,340	2,177	2,198	987	1,326	2,134	1,228	1,174	1,870	1,173	17,385
Eligible women response rate (EWRR)[2]	94.2	95.4	97.2	96.3	95.9	97.1	92.6	94.9	95.3	92.0	93.8	93.1	93.4	95.0
Overall women response rate (ORR)[3]	91.4	94.1	95.9	94.0	94.9	96.6	90.8	92.6	94.7	87.3	92.2	90.5	90.7	93.2

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC)
[3] The overall women response rate (OWRR) is calculated as:
OWRR = HRR * EWRR/100

Table A.6 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Ethiopia 2011

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul-Gumuz	SNNP	Gambela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	92.6	94.2	96.0	90.1	95.7	96.1	87.8	93.1	94.7	89.1	95.4	94.1	94.2	93.7
Household present but no competent respondent at home (HP)	2.4	1.0	1.1	1.8	0.6	0.5	1.2	2.1	0.5	4.2	1.2	2.0	2.5	1.5
Postponed (P)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.2	0.1	0.2	0.0	0.2	0.0	0.2	0.1	0.0	0.3	0.2	0.4	0.2	0.2
Dwelling not found (DNF)	0.3	0.1	0.0	0.4	0.1	0.0	0.4	0.1	0.1	0.3	0.3	0.3	0.1	0.2
Household absent (HA)	0.8	1.6	0.7	1.4	0.5	0.9	5.6	1.3	1.7	2.9	0.2	0.5	0.5	1.3
Dwelling vacant/address not a dwelling (DV)	2.7	1.4	1.7	1.3	2.0	1.8	1.9	2.7	1.9	1.2	2.0	2.0	1.3	1.8
Dwelling destroy (DD)	0.5	1.2	0.2	4.8	0.4	0.5	3.0	0.1	1.1	1.3	0.2	0.2	0.6	1.0
Other (O)	0.5	0.3	0.2	0.2	0.5	0.2	0.1	0.4	0.1	0.8	0.6	0.6	0.7	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	5,518	12,299	1,802	1,406	2,163	2,252	1,111	1,421	2,160	1,364	1,259	1,620	1,259	17,817
Household response rate (HRR)[1]	97.0	98.7	98.7	97.6	99.0	99.5	98.1	97.5	99.4	94.9	98.3	97.2	97.1	98.1
Eligible men														
Completed (EMC)	83.3	91.2	90.5	89.5	91.0	94.5	82.4	91.2	92.7	86.8	84.6	79.9	84.1	88.7
Not at home (EMNH)	13.2	6.7	7.4	8.7	6.9	3.7	13.5	6.6	5.1	11.4	12.6	15.6	12.7	8.8
Postponed (EMP)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.1
Refused (EMR)	2.0	0.6	1.0	0.6	0.6	0.3	2.1	0.8	0.3	0.7	1.0	3.0	1.6	1.0
Partly completed (EMPC)	0.2	0.1	0.1	0.0	0.1	0.1	0.6	0.2	0.2	0.0	0.3	0.0	0.1	0.1
Incapacitated (EMI)	0.5	0.8	0.5	1.2	0.7	0.6	1.3	0.7	0.8	0.3	0.7	0.7	0.4	0.7
Other (EMO)	0.8	0.6	0.5	0.0	0.6	0.8	0.2	0.4	0.8	0.6	0.7	0.8	1.0	0.6
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	5,062	10,846	1,530	1,117	2,159	2,181	868	1,249	1,832	1,083	1,149	1,649	1,091	15,908
Eligible men response rate (EMRR)[2]	83.3	91.2	90.5	89.5	91.0	94.5	82.4	91.2	92.7	86.8	84.6	79.9	84.1	88.7
Overall men response rate (ORR)[3]	80.8	90.0	89.3	87.4	90.1	94.0	80.8	88.9	92.2	82.4	83.1	77.7	81.7	87.1

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC)
[3] The overall men response rate (OMRR) is calculated as:
OMRR = HRR * EMRR/100

Table A.7 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Ethiopia 2011

Characteristic	HIV test status				Total	Number of women
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	91.9	5.6	1.8	0.7	100.0	4,413
Ever had sexual intercourse	91.0	7.2	1.2	0.6	100.0	489
Never had sexual intercourse	92.0	5.4	1.9	0.7	100.0	3,924
Married/living together	95.0	3.8	0.6	0.5	100.0	10,204
Divorced or separated	92.5	4.9	1.9	0.7	100.0	1,317
Widowed	94.0	4.5	0.3	1.2	100.0	581
Type of union						
In polygynous union	96.6	2.7	0.2	0.5	100.0	1,306
In non-polygynous union	94.9	3.9	0.7	0.5	100.0	8,837
Not currently in union	92.2	5.4	1.7	0.7	100.0	6,311
Ever had sexual intercourse						
Yes	94.6	4.1	0.8	0.6	100.0	12,541
No	92.1	5.4	1.8	0.7	100.0	3,957
Currently pregnant						
Pregnant	95.7	3.0	0.5	0.9	100.0	1,277
Not pregnant or not sure	93.8	4.5	1.1	0.6	100.0	15,238
Total	94.0	4.4	1.0	0.6	100.0	16,515

Total includes 61 cases with missing information on type of union and 17 cases with missing information on whether they ever had sexual intercourse.

[1] Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.8 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-49[59] by HIV testing status, according to social and demographic characteristics (unweighted), Ethiopia 2011

Characteristic	HIV test status				Total	Number of men
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	90.9	5.6	2.6	0.9	100.0	5,653
Ever had sexual intercourse	88.1	8.5	2.5	0.9	100.0	1,501
Never had sexual intercourse	91.9	4.5	2.7	0.9	100.0	4,152
Married/living together	93.4	4.5	1.4	0.8	100.0	7,930
Divorced or separated	88.3	8.4	1.9	1.4	100.0	429
Widowed	92.9	5.1	1.0	1.0	100.0	98
Type of union						
In polygynous union	91.7	3.7	3.3	1.3	100.0	544
In non-polygynous union	93.5	4.5	1.2	0.7	100.0	7,359
Not currently in union	90.7	5.8	2.5	1.0	100.0	6,180
Ever had sexual intercourse						
Yes	92.4	5.2	1.6	0.8	100.0	9,919
No	91.9	4.5	2.7	0.9	100.0	4,178
Male circumcision						
Circumcised	92.2	5.2	1.8	0.9	100.0	13,004
Not circumcised	93.3	2.9	3.4	0.5	100.0	1,069
Times slept away from home in past 12 months						
None	91.9	5.2	2.0	0.9	100.0	7,464
1-2	94.4	3.4	1.7	0.6	100.0	2,179
3-4	92.8	4.5	1.9	0.8	100.0	1,300
5+	91.4	5.8	1.8	1.0	100.0	3,096
Time away in past 12 months						
Away for more than 1 month	91.8	4.8	2.3	1.1	100.0	1,481
Away for less than 1 month	93.0	4.7	1.6	0.7	100.0	5,079
No away	91.9	5.2	2.0	0.9	100.0	7,464
Total	92.2	5.0	1.9	0.9	100.0	14,110

Total includes 27 cases with missing information on type of union, 13 cases with missing information on whether ever had sexual intercourse, 71 cases with missing information on times slept away from home in past 12 months, and 86 cases with missing information on time away in past 12 months.

[1] Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.9 Coverage of HIV testing among interviewed women by sexual behavior characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Ethiopia 2011

Sexual behavior characteristic	HIV test status				Total	Number of women
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Age at first sexual intercourse						
<16	95.0	3.8	0.5	0.7	100.0	5,303
16-17	95.8	3.1	0.6	0.5	100.0	2,501
18-19	94.8	3.7	1.0	0.5	100.0	1,925
20+	91.9	6.2	1.3	0.7	100.0	2,112
Inconsistent/missing	94.4	4.1	0.9	0.6	100.0	700
Multiple sexual partners and partner concurrency in past 12 months						
0	92.7	5.1	1.3	0.9	100.0	2,131
1	95.0	3.8	0.7	0.5	100.0	10,320
2+	93.7	5.1	0.0	1.3	100.0	79
Has concurrent partners[2]	100.0	0.0	0.0	0.0	100.0	5
None of the partners are concurrent	93.2	5.4	0.0	1.4	100.0	74
Condom use at last sexual intercourse in past 12 months						
Used condom	89.9	8.6	1.2	0.3	100.0	326
Did not use condom	95.1	3.7	0.6	0.5	100.0	10,070
No sexual intercourse in last 12 months	92.6	5.2	1.3	0.9	100.0	2,142
Number of lifetime partners						
1	94.5	4.1	0.8	0.6	100.0	9,369
2	95.0	4.0	0.6	0.4	100.0	2,312
3-4	94.3	3.9	0.7	1.0	100.0	672
5-9	93.9	5.1	0.0	1.0	100.0	98
10+	96.3	1.9	0.0	1.9	100.0	54
Prior HIV testing						
Ever tested	93.7	4.8	1.0	0.6	100.0	5,450
Received results	93.5	4.9	0.9	0.6	100.0	5,107
Did not received results	95.6	2.9	1.5	0.0	100.0	343
Never tested	95.3	3.5	0.6	0.6	100.0	7,077
Total	94.6	4.1	0.8	0.6	100.0	12,541

Total includes 11 cases with missing information on multiple sexual partners and partner concurrency in past 12 months, 3 cases with missing information on condom use at last sexual intercourse in past 12 months, 36 cases with missing information on number of lifetime partners, and 14 cases with missing information on prior HIV testing.

[1] Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey.

Table A.10 Coverage of HIV testing among interviewed men by sexual behavior characteristics: Men

Percent distribution of interviewed men age 15-54[59] who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), Ethiopia 2011

Sexual behavior characteristic	HIV test status				Total	Number of men
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Age at first sexual intercourse						
<16	93.2	4.5	1.3	1.0	100.0	1,053
16-17	92.0	5.8	1.6	0.7	100.0	1,349
18-19	92.4	4.8	2.0	0.7	100.0	2,116
20+	92.4	5.4	1.4	0.8	100.0	4,974
Inconsistent/missing	92.3	5.4	0.9	1.4	100.0	427
Multiple sexual partners and partner concurrency in past 12 months						
0	88.7	7.7	2.6	1.0	100.0	1,080
1	93.0	4.9	1.3	0.8	100.0	8,168
2+	91.5	4.4	2.7	1.4	100.0	655
Has concurrent partners[2]	94.7	2.7	1.9	0.7	100.0	413
None of the partners are concurrent	86.0	7.4	4.1	2.5	100.0	242
Condom use at last sexual intercourse in past 12 months						
Used condom	87.8	9.1	2.1	1.0	100.0	806
Did not use condom	93.4	4.5	1.4	0.8	100.0	8,015
No sexual intercourse in last 12 months	88.5	7.9	2.6	1.0	100.0	1,096
Paid for sexual intercourse in past 12 months						
Yes	85.6	8.6	3.6	2.2	100.0	139
Used condom	76.9	15.4	3.8	3.8	100.0	26
Did not use condom	87.6	7.1	3.5	1.8	100.0	113
No/no paid sexual intercourse/no sexual intercourse in last 12 months	92.5	5.2	1.5	0.8	100.0	9,780
Number of lifetime partners						
1	93.1	4.7	1.4	0.9	100.0	4,540
2	91.4	5.4	2.1	1.0	100.0	2,337
3-4	92.3	5.4	1.6	0.7	100.0	1,637
5-9	93.2	5.4	0.6	0.8	100.0	792
10+	92.3	5.6	1.7	0.4	100.0	533
Prior HIV testing						
Ever tested	92.4	5.3	1.6	0.6	100.0	4,612
Received results	92.1	5.6	1.7	0.6	100.0	4,270
Did not received results	95.9	2.0	1.5	0.6	100.0	342
Never tested	92.4	5.1	1.5	1.0	100.0	5,306
Total	92.4	5.2	1.6	0.8	100.0	9,919

Total includes 16 cases with missing information on multiple sexual partners and partner concurrency in past 12 months, 2 cases with missing information on condom use at last sexual intercourse in past 12 months, 80 cases with missing information on number of lifetime partners, and 1 case with missing information on prior HIV testing.

[1] Includes all Dried Blood Samples (DBS) tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

[2] Includes: 1) other results of blood collection (e.g. technical problem in the field), 2) lost specimens, 3) non corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

ESTIMATES OF SAMPLING ERRORS *Appendix* B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2011 Ethiopia Demographic and Health Survey (2011 EDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2011 EDHS is only one of many samples that could have been selected from the same population, using the same design and identical size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling error is 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 2011 EDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2011 EDHS is a SAS program. This program used the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1}{x^2}\sum_{h=1}^{H}\left[(1-f_h)\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the h^{th} stratum,
y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
f_h is the sampling fraction of PSU in the h^{th} stratum which is small and ignored

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2011 EDHS, there were 596 non-empty clusters. Hence, 596 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 596 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 595 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the program computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design, such as multistage and cluster selection. The program also computes the relative standard error and the confidence limits for the estimates.

Sampling errors for the 2011 EDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas separately, and for each of the 11 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.16 present the value of the statistic (R), its standard error (SE), the number of unweighted (N-UNWE) and weighted (N-WEIG) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing.

The confidence interval (e.g., as calculated for *children ever born to women over age 40*) can be interpreted as follows: the overall average from the national sample is 6.909 and its standard error is 0.112. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 6.909±2×0.112. There is a high probability (95 percent) that the *true* average number of children ever born to all women over age 40 is between 6.685 and 7.133.

For the total sample, the value of the design effect (DEFT), averaged over all variables for the women survey, is 2.037 which means that, due to multistage and clustering of the sample, the average standard error is increased by a factor of 2.037 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Ethiopia 2011

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women 15-49
Literate	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Net attendance ratio for primary school	Ratio	Children 7-14 years
Never married/in union	Proportion	All women 15-49
Currently married/in union	Proportion	All women 15-49
Married before age 20	Proportion	Women age 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	Women age 40-49
Knows any contraceptive method	Proportion	All women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using rhythm method	Proportion	Currently married women 15-49
Obtained method from public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay birth at least 2 years	Proportion	Currently married women 15-49
Ideal family size	Mean	All women 15-49
Mothers received tetanus injection for last birth	Proportion	Women with at least 1 live birth in past 5 years
Mothers received medical assistance at delivery	Proportion	Births in last 5 years
Had diarrhoea in two weeks before survey	Proportion	Children under 5 years
Treated with oral rehydration salts (ORS)	Proportion	Children under 5 years with diarrhoea in past two weeks
Taken to a health provider	Proportion	Children with diarrhoea in past two weeks
Vaccination card seen	Proportion	Children age 12-23 months
Received BCG vaccination	Proportion	Children age 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children age 12-23 months
Received polio vaccination (3 doses)	Proportion	Children age 12-23 months
Received measles vaccination	Proportion	Children age 12-23 months
Received all vaccinations	Proportion	Children age 12-23 months
Height-for-age (below -2SD)	Proportion	Children under 5 years who were measured
Weight-for-height (below -2SD)	Proportion	Children under 5 years who were measured
Weight-for-age (below -2SD)	Proportion	Children under 5 years who were measured
Prevalence of anaemia (children 6-59 months)	Proportion	Children 6-59 months who were tested
Prevalence of anaemia (women 15-49)	Proportion	All women 15-49
Body Mass Index (BMI) <18.5	Proportion	All women 15-49
Had 2+ sex partners in past 12 months	Proportion	All women 15-49
Abstinence among youth (never had sex)	Proportion	All never married women 15-24
Sexually active in past 12 months among never-married youth	Proportion	All never married women 15-24
Had an injection in past 12 months	Proportion	All women 15-49
Had an HIV test and received results in past 12 months	Proportion	All women 15-49
Accepting attitudes towards people with HIV	Proportion	All women 15-49 who have heard of HIV/AIDS
Knows about condoms	Proportion	All women 15-49
Knows about limiting partners	Proportion	All women 15-49
HIV prevalence among all women 15-49	Proportion	All interviewed women with Dried Blood Sample (DBS) tested at the lab
Total fertility rate (3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality[1]	Rate	Children exposed to the risk of mortality
Post-neonatal mortality[1]	Rate	Children exposed to the risk of mortality
Infant mortality[1]	Rate	Children exposed to the risk of mortality
Child mortality[1]	Rate	Children exposed to the risk of mortality
Under five mortality[1]	Rate	Children exposed to the risk of mortality

[1] The mortality rates are calculated for 5 years and 10 years before the survey for the national sample and regional samples, respectively

	MEN	
Urban residence	Proportion	All men 15-59
Literate	Proportion	All men 15-59
No education	Proportion	All men 15-59
Secondary education or higher	Proportion	All men 15-59
Never married/in union	Proportion	All men 15-59
Currently married/in union	Proportion	All men 15-59
Want no more children	Proportion	Currently married men 15-59
Want to delay birth at least 2 years	Proportion	Currently married men 15-59
Ideal family size	Mean	All men 15-59
Had 2+ sex partners in past 12 months	Proportion	All men 15-49
Condom use at last sex	Proportion	Men 15-49 with 2+ sex partners in past 12 months
Abstinence among youth (never had sex)	Proportion	All never married men 15-24
Sexually active in past 12 months among never-married youth	Proportion	All never married men 15-24
Had an injection in past 12 months	Proportion	All men 15-49
HIV test and received results past 12 months	Proportion	All men 15-49
Accepting attitudes towards people with HIV	Proportion	All men 15-49 who have heard of HIV/AIDS
Knows about condoms	Proportion	All men 15-49
Knows about limiting partners	Proportion	All men 15-49
HIV prevalence among all men 15-49	Proportion	All interviewed men 15-49 with Dried Blood Sample (DBS) tested at the lab
HIV prevalence among all men 15-59	Proportion	All interviewed men 15-59 with DBS tested at the lab
	MEN AND WOMEN	
HIV prevalence among all respondents 15-49	Proportion	All interviewed women and men 15-49 with DBS tested at the lab

Table B.2 Sampling errors for national sample, Ethiopia 2011

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	0.239	0.011	16515	16515	3.280	0.046	0.217	0.261
Literate	0.384	0.011	16515	16515	2.793	0.028	0.363	0.405
No education	0.508	0.011	16515	16515	2.808	0.021	0.486	0.530
Secondary education or higher	0.112	0.005	16515	16515	2.079	0.046	0.102	0.122
Net attendance ratio for primary school	0.645	0.013	18062	18932	3.199	0.019	0.620	0.670
Never married/in union	0.271	0.007	16515	16515	2.043	0.026	0.256	0.285
Currently married/in union	0.623	0.008	16515	16515	2.130	0.013	0.607	0.639
Married before age 20	0.767	0.008	9658	9575	1.924	0.011	0.750	0.783
Currently pregnant	0.073	0.003	16515	16515	1.594	0.044	0.067	0.079
Children ever born	2.882	0.044	16515	16515	1.832	0.015	2.795	2.969
Children surviving	2.423	0.034	16515	16515	1.755	0.014	2.354	2.491
Children ever born to women age 40-49	6.909	0.112	2415	2457	1.848	0.016	6.686	7.133
Knows any contraceptive method	0.976	0.004	10204	10287	2.627	0.004	0.968	0.984
Currently using any contraceptive method	0.286	0.012	10204	10287	2.576	0.040	0.263	0.309
Currently using pill	0.021	0.002	10204	10287	1.467	0.099	0.017	0.025
Currently using IUD	0.003	0.001	10204	10287	1.378	0.233	0.002	0.005
Currently using female sterilization	0.005	0.001	10204	10287	1.580	0.230	0.002	0.007
Currently using rhythm method	0.009	0.002	10204	10287	1.590	0.163	0.006	0.012
Obtained method from public sector source	0.820	0.014	2796	3086	1.942	0.017	0.792	0.848
Want no more children	0.370	0.010	10204	10287	1.998	0.026	0.351	0.389
Want to delay birth at least 2 years	0.382	0.009	10204	10287	1.828	0.023	0.364	0.400
Ideal family size	4.317	0.063	14795	14757	2.750	0.015	4.191	4.444
Mothers received tetanus injection for last birth	0.483	0.014	7764	7908	2.562	0.030	0.454	0.512
Mothers received medical assistance at delivery	0.100	0.007	11654	11872	2.204	0.069	0.086	0.114
Had diarrhoea in two weeks before survey	0.134	0.006	10808	11042	1.806	0.046	0.122	0.147
Treated with oral rehydration salts (ORS)	0.263	0.017	1620	1483	1.447	0.065	0.229	0.297
Taken to a health provider	0.318	0.021	1620	1483	1.667	0.065	0.276	0.359
Vaccination card seen	0.287	0.019	1927	1930	1.787	0.065	0.250	0.324
Received BCG vaccination	0.663	0.021	1927	1930	1.904	0.031	0.622	0.704
Received DPT vaccination (3 doses)	0.365	0.019	1927	1930	1.748	0.053	0.326	0.404
Received polio vaccination (3 doses)	0.443	0.021	1927	1930	1.799	0.046	0.402	0.484
Received measles vaccination	0.557	0.021	1927	1930	1.854	0.038	0.515	0.600
Received all vaccinations	0.243	0.017	1927	1930	1.713	0.069	0.209	0.277
Height-for-age (below -2SD)	0.444	0.009	10282	10883	1.787	0.020	0.426	0.462
Weight-for-height (below -2SD)	0.097	0.005	10282	10883	1.675	0.051	0.087	0.107
Weight-for-age (below -2SD)	0.287	0.009	10282	10883	1.899	0.031	0.269	0.305
Prevalence of anaemia (children 6-59 months)	0.442	0.011	9157	9800	2.087	0.025	0.420	0.464
Prevalence of anaemia (women 15-49)	0.166	0.006	15568	15782	2.154	0.038	0.153	0.179
Body Mass Index (BMI) <18.5	0.269	0.007	14381	14505	1.927	0.026	0.255	0.283
Had 2+ sex partners in past 12 months	0.004	0.001	16515	16515	1.813	0.230	0.002	0.005
Abstinence among youth (never had sex)	0.944	0.005	3866	4022	1.348	0.005	0.934	0.954
Sexually active in past 12 months among never-married youth	0.036	0.005	3866	4022	1.552	0.129	0.027	0.045
Had an injection in past 12 months	0.395	0.009	16515	16515	2.450	0.024	0.377	0.414
Had an HIV test and received results in past 12 months	0.358	0.013	16515	16515	3.356	0.035	0.333	0.383
Accepting attitudes towards people with HIV	0.171	0.007	15898	15934	2.445	0.043	0.157	0.186
Knows about condoms	0.559	0.011	16515	16515	2.884	0.020	0.537	0.582
Knows about limiting partners	0.646	0.012	16515	16515	3.173	0.018	0.623	0.670
HIV prevalence among all women 15-49	0.019	0.002	15517	14695	1.728	0.101	0.015	0.022
Total fertility rate (3 years)	4.803	0.154	45595	45308	2.476	0.032	4.495	5.111
Neonatal mortality	37.420	2.678	11737	11971	1.408	0.072	32.064	42.777
Post-neonatal mortality	21.767	1.945	11752	11930	1.376	0.089	17.876	25.657
Infant mortality	59.187	3.269	11762	11988	1.414	0.055	52.650	65.725
Child mortality	30.661	2.659	11594	11656	1.548	0.087	25.343	35.979
Under-five mortality	88.033	4.374	11947	12141	1.572	0.050	79.284	96.782
MEN								
Urban residence	0.225	0.011	12868	12834	2.897	0.047	0.203	0.246
Literate	0.665	0.010	12868	12834	2.426	0.015	0.645	0.686
No education	0.295	0.011	12868	12834	2.653	0.036	0.274	0.316
Secondary education or higher	0.174	0.008	12868	12834	2.288	0.044	0.159	0.190
Never married/in union	0.436	0.009	12868	12834	2.146	0.022	0.418	0.455
Currently married/in union	0.535	0.009	12868	12834	2.066	0.017	0.517	0.554
Want no more children	0.289	0.011	6775	6872	1.912	0.036	0.268	0.310
Want to delay birth at least 2 years	0.489	0.010	6775	6872	1.656	0.021	0.469	0.509
Ideal family size	4.825	0.083	11940	12068	2.488	0.017	4.660	4.990
Had 2+ sex partners in past 12 months	0.035	0.003	12868	12834	1.693	0.079	0.029	0.040
Condom use at last sex	0.155	0.026	564	446	1.703	0.168	0.103	0.207
Abstinence among youth (never had sex)	0.873	0.008	4446	4622	1.517	0.009	0.858	0.888
Sexually active in past 12 months among never-married youth	0.078	0.006	4446	4622	1.494	0.077	0.066	0.090
Had an injection in past 12 months	0.238	0.009	12868	12834	2.293	0.036	0.221	0.255
HIV test and received results past 12 months	0.376	0.011	12868	12834	2.490	0.028	0.354	0.397
Accepting attitudes towards people with HIV	0.284	0.011	12691	12676	2.865	0.040	0.261	0.307
Knows about condoms	0.815	0.009	12868	12834	2.548	0.011	0.797	0.832
Knows about limiting partners	0.739	0.012	12868	12834	3.165	0.017	0.714	0.763
HIV prevalence among all men 15-49	0.010	0.001	11869	12582	1.479	0.135	0.007	0.013
HIV prevalence among all men 15-59	0.010	0.001	13015	13837	1.450	0.128	0.007	0.012
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.015	0.001	27386	27277	1.904	0.094	0.012	0.017

Table B.3 Sampling errors for urban sample, Ethiopia 2011

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	1.000	0.000	5329	3947	na	0.000	1.000	1.000
Literate	0.690	0.018	5329	3947	2.791	0.026	0.655	0.726
No education	0.222	0.016	5329	3947	2.808	0.072	0.190	0.254
Secondary education or higher	0.352	0.018	5329	3947	2.811	0.052	0.315	0.388
Net attendance ratio for primary school	0.838	0.013	3485	2793	2.039	0.016	0.811	0.864
Never married/in union	0.404	0.017	5329	3947	2.464	0.041	0.371	0.437
Currently married/in union	0.467	0.021	5329	3947	3.092	0.045	0.425	0.509
Married before age 20	0.610	0.021	2881	2070	2.288	0.034	0.568	0.651
Currently pregnant	0.038	0.004	5329	3947	1.590	0.110	0.030	0.046
Children ever born	1.643	0.080	5329	3947	2.577	0.048	1.483	1.802
Children surviving	1.459	0.065	5329	3947	2.431	0.044	1.330	1.589
Children ever born to women age 40-49	4.998	0.333	588	417	2.632	0.067	4.332	5.664
Knows any contraceptive method	0.993	0.003	2422	1843	1.601	0.003	0.988	0.999
Currently using any contraceptive method	0.525	0.021	2422	1843	2.060	0.040	0.483	0.567
Currently using pill	0.067	0.008	2422	1843	1.536	0.116	0.052	0.083
Currently using IUD	0.009	0.002	2422	1843	1.336	0.293	0.004	0.014
Currently using female sterilization	0.015	0.004	2422	1843	1.782	0.293	0.006	0.024
Currently using rhythm method	0.024	0.006	2422	1843	1.883	0.244	0.012	0.036
Obtained method from public sector source	0.666	0.031	1273	1009	2.340	0.047	0.604	0.728
Want no more children	0.371	0.025	2422	1843	2.504	0.066	0.322	0.420
Want to delay birth at least 2 years	0.350	0.020	2422	1843	2.041	0.057	0.310	0.390
Ideal family size	3.698	0.082	4985	3708	2.550	0.022	3.535	3.861
Mothers received tetanus injection for last birth	0.675	0.019	1513	1188	1.620	0.028	0.637	0.714
Mothers received medical assistance at delivery	0.508	0.039	1986	1528	2.976	0.076	0.431	0.585
Had diarrhoea in two weeks before survey	0.110	0.012	1865	1436	1.540	0.105	0.087	0.133
Treated with oral rehydration salts (ORS)	0.446	0.061	228	158	1.723	0.138	0.323	0.569
Taken to a health provider	0.535	0.056	228	158	1.616	0.104	0.423	0.646
Vaccination card seen	0.548	0.050	350	274	1.897	0.091	0.448	0.647
Received BCG vaccination	0.816	0.039	350	274	1.925	0.048	0.737	0.895
Received DPT vaccination (3 doses)	0.605	0.049	350	274	1.912	0.081	0.507	0.704
Received polio vaccination (3 doses)	0.657	0.039	350	274	1.554	0.059	0.578	0.735
Received measles vaccination	0.796	0.041	350	274	1.919	0.051	0.714	0.877
Received all vaccinations	0.481	0.049	350	274	1.849	0.101	0.384	0.579
Height-for-age (below -2SD)	0.315	0.026	1655	1342	2.192	0.081	0.264	0.367
Weight-for-height (below -2SD)	0.057	0.008	1655	1342	1.413	0.141	0.041	0.072
Weight-for-age (below -2SD)	0.163	0.025	1655	1342	2.645	0.151	0.114	0.212
Prevalence of anaemia (children 6-59 months)	0.352	0.024	1388	1139	1.888	0.067	0.305	0.399
Prevalence of anaemia (women 15-49)	0.109	0.010	4780	3621	2.282	0.093	0.089	0.129
Body Mass Index (BMI) <18.5	0.201	0.017	4752	3569	2.885	0.083	0.167	0.234
Had 2+ sex partners in past 12 months	0.007	0.002	5329	3947	1.928	0.307	0.003	0.012
Abstinence among youth (never had sex)	0.896	0.010	1769	1366	1.426	0.012	0.875	0.917
Sexually active in past 12 months among never-married youth	0.064	0.010	1769	1366	1.722	0.157	0.044	0.084
Had an injection in past 12 months	0.511	0.017	5329	3947	2.450	0.033	0.477	0.544
Had an HIV test and received results in past 12 months	0.612	0.020	5329	3947	2.935	0.032	0.573	0.651
Accepting attitudes towards people with HIV	0.378	0.017	5285	3915	2.481	0.044	0.345	0.412
Knows about condoms	0.766	0.015	5329	3947	2.535	0.019	0.736	0.795
Knows about limiting partners	0.730	0.022	5329	3947	3.661	0.031	0.685	0.774
HIV prevalence among all women 15-49	0.052	0.006	4754	3512	1.878	0.116	0.040	0.064
Total fertility rate (3 years)	2.634	0.201	14841	10879	1.866	0.076	2.232	3.036
Neonatal mortality	40.754	5.555	4077	3153	1.766	0.136	29.645	51.863
Post-neonatal mortality	18.636	3.132	4093	3160	1.387	0.168	12.372	24.901
Infant mortality	59.390	7.288	4084	3158	1.931	0.123	44.814	73.967
Child mortality	25.421	5.242	4052	3147	1.605	0.206	14.937	35.906
Under-five mortality	83.302	10.154	4100	3176	2.033	0.122	62.993	103.610
MEN								
Urban residence	1.000	0.000	3915	2882	na	0.000	1.000	1.000
Literate	0.900	0.012	3915	2882	2.580	0.014	0.875	0.924
No education	0.082	0.013	3915	2882	2.918	0.156	0.057	0.108
Secondary education or higher	0.497	0.031	3915	2882	3.812	0.061	0.436	0.558
Never married/in union	0.534	0.025	3915	2882	3.104	0.046	0.484	0.583
Currently married/in union	0.428	0.023	3915	2882	2.946	0.054	0.382	0.475
Want no more children	0.327	0.022	1580	1235	1.849	0.067	0.284	0.371
Want to delay birth at least 2 years	0.434	0.022	1580	1235	1.784	0.051	0.389	0.479
Ideal family size	3.791	0.078	3699	2767	1.611	0.021	3.635	3.947
Had 2+ sex partners in past 12 months	0.032	0.005	3915	2882	1.612	0.141	0.023	0.041
Condom use at last sex	0.539	0.096	148	93	2.305	0.178	0.347	0.732
Abstinence among youth (never had sex)	0.791	0.019	1453	1152	1.784	0.024	0.753	0.829
Sexually active in past 12 months among never-married youth	0.126	0.017	1453	1152	1.966	0.136	0.092	0.160
Had an injection in past 12 months	0.358	0.024	3915	2882	3.138	0.067	0.310	0.406
HIV test and received results past 12 months	0.563	0.020	3915	2882	2.576	0.036	0.522	0.604
Accepting attitudes towards people with HIV	0.511	0.025	3908	2876	3.168	0.050	0.461	0.562
Knows about condoms	0.900	0.012	3915	2882	2.537	0.014	0.876	0.924
Knows about limiting partners	0.754	0.022	3915	2882	3.228	0.029	0.710	0.799
HIV prevalence among all men 15-49	0.029	0.005	3393	2825	1.689	0.167	0.019	0.039
HIV prevalence among all men 15-59	0.029	0.005	3647	3039	1.657	0.158	0.020	0.038
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.042	0.005	8147	6337	2.156	0.114	0.032	0.052

Table B.4 Sampling errors for rural sample, Ethiopia 2011

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	0.000	0.000	11186	12568	na	na	0.000	0.000
Literate	0.288	0.013	11186	12568	3.088	0.046	0.261	0.314
No education	0.598	0.014	11186	12568	2.923	0.023	0.571	0.625
Secondary education or higher	0.036	0.004	11186	12568	2.239	0.109	0.028	0.044
Net attendance ratio for primary school	0.612	0.014	14577	16138	3.077	0.023	0.584	0.640
Never married/in union	0.229	0.008	11186	12568	1.996	0.035	0.213	0.245
Currently married/in union	0.672	0.009	11186	12568	1.961	0.013	0.654	0.689
Married before age 20	0.810	0.009	6777	7505	1.881	0.011	0.792	0.828
Currently pregnant	0.084	0.004	11186	12568	1.479	0.046	0.076	0.092
Children ever born	3.271	0.046	11186	12568	1.539	0.014	3.179	3.364
Children surviving	2.725	0.037	11186	12568	1.493	0.013	2.652	2.799
Children ever born to women age 40-49	7.300	0.117	1827	2040	1.792	0.016	7.066	7.535
Knows any contraceptive method	0.972	0.005	7782	8444	2.565	0.005	0.962	0.982
Currently using any contraceptive method	0.234	0.013	7782	8444	2.656	0.054	0.209	0.260
Currently using pill	0.011	0.002	7782	8444	1.512	0.162	0.008	0.015
Currently using IUD	0.002	0.001	7782	8444	1.499	0.353	0.001	0.004
Currently using female sterilization	0.002	0.001	7782	8444	1.234	0.290	0.001	0.004
Currently using rhythm method	0.006	0.001	7782	8444	1.516	0.222	0.003	0.009
Obtained method from public sector source	0.895	0.013	1523	2077	1.664	0.015	0.869	0.921
Want no more children	0.369	0.010	7782	8444	1.884	0.028	0.349	0.390
Want to delay birth at least 2 years	0.389	0.010	7782	8444	1.737	0.025	0.370	0.408
Ideal family size	4.525	0.079	9810	11049	2.665	0.017	4.368	4.682
Mothers received tetanus injection for last birth	0.449	0.016	6251	6720	2.578	0.036	0.416	0.481
Mothers received medical assistance at delivery	0.040	0.005	9668	10344	2.241	0.125	0.030	0.050
Had diarrhoea in two weeks before survey	0.138	0.007	8943	9606	1.781	0.050	0.124	0.152
Treated with oral rehydration salts (ORS)	0.241	0.018	1392	1326	1.395	0.074	0.206	0.277
Taken to a health provider	0.292	0.022	1392	1326	1.664	0.077	0.247	0.337
Vaccination card seen	0.244	0.019	1577	1656	1.724	0.079	0.205	0.282
Received BCG vaccination	0.638	0.023	1577	1656	1.849	0.036	0.592	0.684
Received DPT vaccination (3 doses)	0.325	0.020	1577	1656	1.683	0.063	0.284	0.366
Received polio vaccination (3 doses)	0.408	0.023	1577	1656	1.774	0.055	0.363	0.453
Received measles vaccination	0.518	0.023	1577	1656	1.770	0.044	0.472	0.564
Received all vaccinations	0.204	0.017	1577	1656	1.655	0.085	0.169	0.238
Height-for-age (below -2SD)	0.462	0.010	8627	9541	1.699	0.021	0.443	0.482
Weight-for-height (below -2SD)	0.102	0.006	8627	9541	1.625	0.054	0.091	0.113
Weight-for-age (below -2SD)	0.304	0.010	8627	9541	1.798	0.032	0.285	0.324
Prevalence of anaemia (children 6-59 months)	0.454	0.012	7769	8661	2.003	0.026	0.431	0.478
Prevalence of anaemia (women 15-49)	0.183	0.008	10788	12161	2.022	0.041	0.168	0.198
Body Mass Index (BMI) <18.5	0.291	0.008	9629	10936	1.646	0.026	0.276	0.306
Had 2+ sex partners in past 12 months	0.003	0.001	11186	12568	1.848	0.340	0.001	0.004
Abstinence among youth (never had sex)	0.968	0.005	2097	2657	1.417	0.006	0.958	0.979
Sexually active in past 12 months among never-married youth	0.022	0.005	2097	2657	1.504	0.221	0.012	0.031
Had an injection in past 12 months	0.359	0.011	11186	12568	2.521	0.032	0.336	0.382
Had an HIV test and received results in past 12 months	0.278	0.014	11186	12568	3.408	0.052	0.249	0.307
Accepting attitudes towards people with HIV	0.104	0.007	10613	12019	2.266	0.065	0.090	0.117
Knows about condoms	0.494	0.013	11186	12568	2.836	0.027	0.468	0.521
Knows about limiting partners	0.620	0.014	11186	12568	2.942	0.022	0.593	0.647
HIV prevalence among all women 15-49	0.008	0.001	10763	11183	1.511	0.162	0.005	0.011
Total fertility rate (3 years)	5.463	0.167	30754	34429	2.442	0.031	5.130	5.797
Neonatal mortality	42.847	2.315	19582	20940	1.334	0.054	38.218	47.477
Post-neonatal mortality	33.069	2.254	19589	20922	1.566	0.068	28.561	37.576
Infant mortality	75.916	3.460	19614	20967	1.588	0.046	68.995	82.837
Child mortality	41.711	2.948	19563	20792	1.730	0.071	35.815	47.608
Under-five mortality	114.460	4.373	19812	21171	1.657	0.038	105.72	123.210
MEN								
Urban residence	0.000	0.000	8953	9952	na	na	0.000	0.000
Literate	0.598	0.012	8953	9952	2.364	0.021	0.573	0.622
No education	0.357	0.013	8953	9952	2.632	0.037	0.330	0.383
Secondary education or higher	0.081	0.007	8953	9952	2.281	0.081	0.068	0.094
Never married/in union	0.408	0.010	8953	9952	1.994	0.025	0.387	0.429
Currently married/in union	0.566	0.010	8953	9952	1.948	0.018	0.546	0.587
Want no more children	0.280	0.012	5195	5637	1.874	0.042	0.257	0.304
Want to delay birth at least 2 years	0.501	0.011	5195	5637	1.594	0.022	0.479	0.523
Ideal family size	5.132	0.103	8241	9302	2.494	0.020	4.926	5.338
Had 2+ sex partners in past 12 months	0.035	0.003	8953	9952	1.671	0.092	0.029	0.042
Condom use at last sex	0.055	0.017	416	353	1.539	0.315	0.020	0.089
Abstinence among youth (never had sex)	0.900	0.008	2993	3470	1.532	0.009	0.884	0.917
Sexually active in past 12 months among never-married youth	0.062	0.006	2993	3470	1.368	0.098	0.050	0.074
Had an injection in past 12 months	0.203	0.009	8953	9952	2.174	0.045	0.185	0.222
HIV test and received results past 12 months	0.321	0.012	8953	9952	2.466	0.038	0.297	0.346
Accepting attitudes towards people with HIV	0.218	0.013	8783	9800	2.969	0.060	0.192	0.244
Knows about condoms	0.790	0.011	8953	9952	2.476	0.013	0.769	0.811
Knows about limiting partners	0.735	0.014	8953	9952	3.101	0.020	0.706	0.764
HIV prevalence among all men 15-49	0.005	0.001	8476	9757	1.352	0.217	0.003	0.007
HIV prevalence among all men 15-59	0.004	0.001	9368	10798	1.340	0.211	0.002	0.006
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.006	0.001	19239	20940	1.509	0.136	0.005	0.008

Table B.5 Sampling errors for Tigray region, Ethiopia 2011

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	0.270	0.019	1728	1104	1.804	0.071	0.232	0.309
Literate	0.450	0.022	1728	1104	1.841	0.049	0.406	0.494
No education	0.494	0.021	1728	1104	1.768	0.043	0.451	0.536
Secondary education or higher	0.123	0.016	1728	1104	2.004	0.129	0.092	0.155
Net attendance ratio for primary school	0.748	0.025	1847	1180	2.182	0.034	0.697	0.798
Never married/in union	0.264	0.017	1728	1104	1.565	0.063	0.231	0.298
Currently married/in union	0.561	0.018	1728	1104	1.535	0.033	0.525	0.598
Married before age 20	0.789	0.020	966	610	1.550	0.026	0.749	0.830
Currently pregnant	0.072	0.008	1728	1104	1.313	0.114	0.055	0.088
Children ever born	2.788	0.071	1728	1104	1.012	0.025	2.646	2.929
Children surviving	2.372	0.058	1728	1104	0.999	0.025	2.256	2.489
Children ever born to women age 40-49	6.449	0.153	283	176	0.947	0.024	6.144	6.754
Knows any contraceptive method	0.991	0.003	984	620	0.959	0.003	0.985	0.996
Currently using any contraceptive method	0.222	0.019	984	620	1.400	0.084	0.185	0.259
Currently using pill	0.021	0.005	984	620	1.039	0.228	0.011	0.030
Currently using IUD	0.000	0.000	984	620	na	na	0.000	0.000
Currently using female sterilization	0.003	0.003	984	620	1.603	0.996	0.000	0.008
Currently using rhythm method	0.008	0.003	984	620	1.009	0.354	0.002	0.014
Obtained method from public sector source	0.877	0.041	267	172	2.050	0.047	0.794	0.960
Want no more children	0.263	0.016	984	620	1.150	0.061	0.231	0.295
Want to delay birth at least 2 years	0.462	0.020	984	620	1.270	0.044	0.422	0.503
Ideal family size	4.803	0.099	1519	973	1.583	0.021	4.606	5.000
Mothers received tetanus injection for last birth	0.680	0.022	847	530	1.351	0.032	0.637	0.724
Mothers received medical assistance at delivery	0.116	0.019	1202	753	1.795	0.162	0.079	0.154
Had diarrhoea in two weeks before survey	0.134	0.012	1123	702	1.115	0.090	0.110	0.158
Treated with oral rehydration salts (ORS)	0.292	0.035	152	94	0.902	0.120	0.222	0.363
Taken to a health provider	0.341	0.050	152	94	1.259	0.146	0.241	0.440
Vaccination card seen	0.583	0.041	203	129	1.164	0.070	0.502	0.664
Received BCG vaccination	0.959	0.015	203	129	1.095	0.016	0.928	0.989
Received DPT vaccination (3 doses)	0.734	0.038	203	129	1.237	0.052	0.657	0.811
Received polio vaccination (3 doses)	0.764	0.034	203	129	1.147	0.045	0.695	0.832
Received measles vaccination	0.837	0.030	203	129	1.154	0.036	0.778	0.897
Received all vaccinations	0.589	0.045	203	129	1.281	0.076	0.500	0.678
Height-for-age (below -2SD)	0.514	0.019	1140	733	1.191	0.036	0.477	0.552
Weight-for-height (below -2SD)	0.103	0.010	1140	733	1.092	0.098	0.083	0.123
Weight-for-age (below -2SD)	0.351	0.022	1140	733	1.410	0.063	0.307	0.395
Prevalence of anaemia (children 6-59 months)	0.375	0.018	1027	661	1.167	0.048	0.339	0.410
Prevalence of anaemia (women 15-49)	0.124	0.011	1688	1077	1.392	0.090	0.102	0.146
Body Mass Index (BMI) <18.5	0.400	0.018	1565	1001	1.493	0.046	0.363	0.437
Had 2+ sex partners in past 12 months	0.009	0.005	1728	1104	2.105	0.538	0.000	0.018
Abstinence among youth (never had sex)	0.946	0.014	418	276	1.224	0.014	0.918	0.973
Sexually active in past 12 months among never-married youth	0.041	0.010	418	276	1.030	0.243	0.021	0.061
Had an injection in past 12 months	0.401	0.021	1728	1104	1.793	0.053	0.358	0.443
Had an HIV test and received results in past 12 months	0.555	0.025	1728	1104	2.117	0.046	0.504	0.606
Accepting attitudes towards people with HIV	0.252	0.016	1723	1100	1.510	0.063	0.221	0.284
Knows about condoms	0.739	0.017	1728	1104	1.577	0.023	0.706	0.772
Knows about limiting partners	0.816	0.019	1728	1104	2.085	0.024	0.777	0.855
HIV prevalence among all women 15-49	0.022	0.005	1685	982	1.306	0.212	0.013	0.031
Total fertility rate (3 years)	4.565	0.248	4682	2991	1.439	0.054	4.069	5.061
Neonatal mortality	43.835	5.677	2411	1499	1.097	0.130	32.481	55.190
Post-neonatal mortality	20.005	3.086	2413	1500	1.038	0.154	13.833	26.177
Infant mortality	63.840	6.225	2413	1500	1.039	0.098	51.390	76.291
Child mortality	22.789	3.395	2385	1481	1.021	0.149	15.999	29.579
Under-five mortality	85.175	7.258	2425	1506	1.098	0.085	70.658	99.691
MEN								
Urban residence	0.244	0.025	1235	770	2.003	0.100	0.195	0.293
Literate	0.718	0.022	1235	770	1.687	0.030	0.675	0.761
No education	0.307	0.023	1235	770	1.714	0.073	0.262	0.352
Secondary education or higher	0.181	0.020	1235	770	1.796	0.109	0.141	0.220
Never married/in union	0.468	0.022	1235	770	1.580	0.048	0.423	0.513
Currently married/in union	0.489	0.023	1235	770	1.615	0.047	0.443	0.535
Want no more children	0.224	0.023	613	377	1.337	0.101	0.179	0.269
Want to delay birth at least 2 years	0.588	0.025	613	377	1.247	0.042	0.539	0.638
Ideal family size	4.686	0.126	1136	708	1.598	0.027	4.433	4.938
Had 2+ sex partners in past 12 months	0.017	0.004	1235	770	1.032	0.221	0.010	0.025
Condom use at last sex	0.521	0.097	21	13	0.874	0.186	0.327	0.716
Abstinence among youth (never had sex)	0.837	0.021	490	309	1.235	0.025	0.795	0.878
Sexually active in past 12 months among never-married youth	0.118	0.018	490	309	1.233	0.152	0.082	0.154
Had an injection in past 12 months	0.215	0.016	1235	770	1.355	0.074	0.184	0.247
HIV test and received results past 12 months	0.491	0.023	1235	770	1.611	0.047	0.445	0.536
Accepting attitudes towards people with HIV	0.248	0.020	1232	768	1.664	0.083	0.207	0.289
Knows about condoms	0.899	0.014	1235	770	1.601	0.015	0.871	0.926
Knows about limiting partners	0.847	0.020	1235	770	1.952	0.024	0.807	0.887
HIV prevalence among all men 15-49	0.013	0.004	1188	755	1.139	0.293	0.005	0.020
HIV prevalence among all men 15-59	0.011	0.003	1331	845	1.140	0.293	0.005	0.018
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.018	0.004	2873	1738	1.443	0.199	0.011	0.025

Table B.6 Sampling errors for Affar region, Ethiopia 2011

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	0.270	0.030	1291	145	2.433	0.112	0.209	0.330
Literate	0.203	0.020	1291	145	1.776	0.098	0.163	0.243
No education	0.746	0.024	1291	145	1.983	0.032	0.698	0.794
Secondary education or higher	0.068	0.012	1291	145	1.689	0.174	0.045	0.092
Net attendance ratio for primary school	0.518	0.042	1517	163	2.429	0.080	0.435	0.601
Never married/in union	0.171	0.015	1291	145	1.441	0.088	0.141	0.202
Currently married/in union	0.722	0.020	1291	145	1.604	0.028	0.682	0.762
Married before age 20	0.766	0.026	777	86	1.726	0.034	0.713	0.818
Currently pregnant	0.099	0.010	1291	145	1.151	0.097	0.080	0.118
Children ever born	3.198	0.125	1291	145	1.424	0.039	2.949	3.447
Children surviving	2.605	0.096	1291	145	1.358	0.037	2.413	2.797
Children ever born to women age 40-49	7.255	0.269	206	22	1.365	0.037	6.716	7.793
Knows any contraceptive method	0.861	0.023	960	104	2.025	0.026	0.816	0.906
Currently using any contraceptive method	0.095	0.017	960	104	1.835	0.183	0.060	0.130
Currently using pill	0.013	0.004	960	104	1.090	0.312	0.005	0.020
Currently using IUD	0.000	0.000	960	104	na	na	0.000	0.000
Currently using female sterilization	0.000	0.000	960	104	na	na	0.000	0.000
Currently using rhythm method	0.002	0.002	960	104	1.333	0.999	0.000	0.006
Obtained method from public sector source	0.802	0.052	71	11	1.087	0.065	0.698	0.906
Want no more children	0.151	0.017	960	104	1.477	0.113	0.117	0.185
Want to delay birth at least 2 years	0.310	0.021	960	104	1.397	0.067	0.268	0.352
Ideal family size	7.358	0.327	1118	127	2.067	0.044	6.705	8.011
Mothers received tetanus injection for last birth	0.267	0.034	714	78	2.038	0.127	0.199	0.335
Mothers received medical assistance at delivery	0.072	0.017	1130	121	1.897	0.242	0.037	0.107
Had diarrhoea in two weeks before survey	0.127	0.014	1033	112	1.274	0.111	0.099	0.155
Treated with oral rehydration salts (ORS)	0.328	0.067	128	14	1.523	0.204	0.194	0.461
Taken to a health provider	0.399	0.060	128	14	1.373	0.151	0.278	0.520
Vaccination card seen	0.135	0.030	174	18	1.133	0.226	0.074	0.196
Received BCG vaccination	0.381	0.051	174	18	1.333	0.134	0.279	0.484
Received DPT vaccination (3 doses)	0.103	0.027	174	18	1.133	0.263	0.049	0.158
Received polio vaccination (3 doses)	0.184	0.032	174	18	1.039	0.172	0.120	0.247
Received measles vaccination	0.303	0.046	174	18	1.259	0.150	0.212	0.394
Received all vaccinations	0.086	0.025	174	18	1.130	0.291	0.036	0.135
Height-for-age (below -2SD)	0.502	0.022	962	105	1.287	0.044	0.458	0.545
Weight-for-height (below -2SD)	0.195	0.013	962	105	0.958	0.067	0.169	0.221
Weight-for-age (below -2SD)	0.402	0.025	962	105	1.464	0.061	0.353	0.451
Prevalence of anaemia (children 6-59 months)	0.747	0.020	877	95	1.289	0.026	0.708	0.787
Prevalence of anaemia (women 15-49)	0.348	0.023	1260	141	1.710	0.066	0.302	0.393
Body Mass Index (BMI) <18.5	0.435	0.024	1102	125	1.611	0.055	0.387	0.483
Had 2+ sex partners in past 12 months	0.000	0.000	1291	145	na	na	0.000	0.000
Abstinence among youth (never had sex)	0.965	0.019	190	23	1.427	0.020	0.927	1.003
Sexually active in past 12 months among never-married youth	0.035	0.019	190	23	1.427	0.550	0.000	0.073
Had an injection in past 12 months	0.262	0.020	1291	145	1.600	0.075	0.223	0.301
Had an HIV test and received results in past 12 months	0.294	0.031	1291	145	2.462	0.106	0.232	0.357
Accepting attitudes towards people with HIV	0.244	0.034	1250	140	2.778	0.139	0.176	0.312
Knows about condoms	0.361	0.033	1291	145	2.493	0.093	0.294	0.428
Knows about limiting partners	0.323	0.033	1291	145	2.503	0.101	0.257	0.388
HIV prevalence among all women 15-49	0.020	0.007	1249	129	1.682	0.337	0.006	0.033
Total fertility rate (3 years)	4.951	0.304	3570	401	1.319	0.061	4.342	5.559
Neonatal mortality	33.496	4.514	2226	240	1.070	0.135	24.468	42.523
Post-neonatal mortality	30.268	4.910	2233	240	1.147	0.162	20.448	40.089
Infant mortality	63.764	6.861	2229	240	1.198	0.108	50.042	77.486
Child mortality	67.450	8.584	2273	243	1.312	0.127	50.281	84.618
Under-five mortality	126.910	10.903	2252	242	1.306	0.086	105.110	148.720
MEN								
Urban residence	0.330	0.039	910	101	2.468	0.117	0.253	0.407
Literate	0.525	0.030	910	101	1.797	0.057	0.466	0.585
No education	0.489	0.035	910	101	2.079	0.071	0.420	0.558
Secondary education or higher	0.169	0.019	910	101	1.538	0.113	0.131	0.207
Never married/in union	0.448	0.023	910	101	1.393	0.051	0.402	0.494
Currently married/in union	0.518	0.023	910	101	1.407	0.045	0.471	0.565
Want no more children	0.080	0.012	492	52	1.013	0.155	0.055	0.104
Want to delay birth at least 2 years	0.419	0.055	492	52	2.467	0.132	0.309	0.530
Ideal family size	9.103	0.537	840	94	1.922	0.059	8.028	10.178
Had 2+ sex partners in past 12 months	0.077	0.013	910	101	1.513	0.173	0.051	0.104
Condom use at last sex	0.202	0.056	78	8	1.218	0.277	0.090	0.313
Abstinence among youth (never had sex)	0.694	0.044	296	35	1.633	0.063	0.606	0.782
Sexually active in past 12 months among never-married youth	0.259	0.047	296	35	1.837	0.182	0.165	0.353
Had an injection in past 12 months	0.261	0.033	910	101	2.286	0.128	0.194	0.328
HIV test and received results past 12 months	0.350	0.029	910	101	1.824	0.082	0.293	0.408
Accepting attitudes towards people with HIV	0.303	0.027	898	100	1.781	0.090	0.249	0.358
Knows about condoms	0.736	0.029	910	101	1.995	0.040	0.678	0.794
Knows about limiting partners	0.629	0.035	910	101	2.152	0.055	0.560	0.698
HIV prevalence among all men 15-49	0.017	0.005	861	99	1.121	0.290	0.007	0.027
HIV prevalence among all men 15-59	0.017	0.005	946	109	1.145	0.284	0.007	0.026
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.018	0.005	2110	228	1.820	0.289	0.008	0.029

Table B.7 Sampling errors for Amhara region, Ethiopia 2011

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	0.215	0.036	2087	4433	4.006	0.168	0.143	0.287
Literate	0.364	0.019	2087	4433	1.790	0.052	0.326	0.402
No education	0.614	0.019	2087	4433	1.816	0.032	0.575	0.653
Secondary education or higher	0.092	0.010	2087	4433	1.654	0.114	0.071	0.113
Net attendance ratio for primary school	0.685	0.023	2177	4548	2.179	0.034	0.638	0.732
Never married/in union	0.231	0.014	2087	4433	1.500	0.060	0.203	0.258
Currently married/in union	0.626	0.017	2087	4433	1.613	0.027	0.592	0.660
Married before age 20	0.876	0.015	1211	2545	1.582	0.017	0.845	0.906
Currently pregnant	0.047	0.006	2087	4433	1.205	0.119	0.036	0.058
Children ever born	2.854	0.092	2087	4433	1.383	0.032	2.670	3.039
Children surviving	2.379	0.069	2087	4433	1.270	0.029	2.240	2.517
Children ever born to women age 40-49	6.920	0.173	369	736	1.146	0.025	6.575	7.266
Knows any contraceptive method	0.992	0.002	1331	2776	1.028	0.003	0.987	0.997
Currently using any contraceptive method	0.339	0.022	1331	2776	1.725	0.066	0.294	0.384
Currently using pill	0.015	0.004	1331	2776	1.084	0.240	0.008	0.022
Currently using IUD	0.003	0.002	1331	2776	1.029	0.504	0.000	0.006
Currently using female sterilization	0.006	0.003	1331	2776	1.402	0.486	0.000	0.012
Currently using rhythm method	0.005	0.003	1331	2776	1.599	0.641	0.000	0.011
Obtained method from public sector source	0.870	0.021	463	1001	1.334	0.024	0.829	0.912
Want no more children	0.396	0.019	1331	2776	1.416	0.048	0.358	0.434
Want to delay birth at least 2 years	0.334	0.016	1331	2776	1.224	0.047	0.303	0.366
Ideal family size	4.004	0.101	1860	3968	1.703	0.025	3.802	4.205
Mothers received tetanus injection for last birth	0.432	0.029	965	1991	1.796	0.067	0.374	0.489
Mothers received medical assistance at delivery	0.101	0.016	1294	2656	1.726	0.156	0.069	0.133
Had diarrhoea in two weeks before survey	0.137	0.014	1203	2478	1.398	0.105	0.108	0.165
Treated with oral rehydration salts (ORS)	0.276	0.041	172	339	1.142	0.148	0.195	0.358
Taken to a health provider	0.254	0.039	172	339	1.146	0.156	0.175	0.333
Vaccination card seen	0.311	0.039	222	446	1.224	0.125	0.234	0.389
Received BCG vaccination	0.677	0.039	222	446	1.218	0.058	0.598	0.756
Received DPT vaccination (3 doses)	0.384	0.040	222	446	1.199	0.105	0.303	0.464
Received polio vaccination (3 doses)	0.470	0.042	222	446	1.213	0.089	0.387	0.554
Received measles vaccination	0.620	0.044	222	446	1.313	0.071	0.532	0.708
Received all vaccinations	0.263	0.039	222	446	1.286	0.149	0.184	0.341
Height-for-age (below -2SD)	0.520	0.016	1120	2325	1.021	0.031	0.488	0.552
Weight-for-height (below -2SD)	0.099	0.011	1120	2325	1.199	0.110	0.077	0.121
Weight-for-age (below -2SD)	0.334	0.018	1120	2325	1.177	0.053	0.299	0.369
Prevalence of anaemia (children 6-59 months)	0.351	0.017	1041	2148	1.119	0.049	0.316	0.385
Prevalence of anaemia (women 15-49)	0.166	0.013	1989	4219	1.503	0.076	0.141	0.191
Body Mass Index (BMI) <18.5	0.298	0.018	1871	3985	1.680	0.060	0.262	0.333
Had 2+ sex partners in past 12 months	0.003	0.001	2087	4433	1.119	0.477	0.000	0.005
Abstinence among youth (never had sex)	0.947	0.010	421	949	0.945	0.011	0.926	0.967
Sexually active in past 12 months among never-married youth	0.026	0.009	421	949	1.122	0.334	0.009	0.044
Had an injection in past 12 months	0.375	0.015	2087	4433	1.421	0.040	0.344	0.405
Had an HIV test and received results in past 12 months	0.345	0.028	2087	4433	2.664	0.081	0.289	0.400
Accepting attitudes towards people with HIV	0.164	0.017	2002	4272	2.047	0.103	0.130	0.198
Knows about condoms	0.543	0.026	2087	4433	2.422	0.049	0.491	0.596
Knows about limiting partners	0.589	0.032	2087	4433	2.930	0.054	0.526	0.652
HIV prevalence among all women 15-49	0.022	0.005	1973	3945	1.592	0.241	0.011	0.032
Total fertility rate (3 years)	4.1530	0.231	5642	11982	1.380	0.056	3.692	4.615
Neonatal mortality	53.695	5.414	2666	5450	1.101	0.101	42.866	64.524
Post-neonatal mortality	22.725	3.150	2657	5426	1.031	0.139	16.426	29.025
Infant mortality	76.421	7.239	2667	5452	1.273	0.095	61.943	90.898
Child mortality	34.460	4.718	2710	5531	1.145	0.137	25.024	43.896
Under-five mortality	108.250	9.421	2701	5518	1.353	0.087	89.410	127.090
MEN								
Urban residence	0.196	0.031	1739	3481	3.207	0.156	0.135	0.258
Literate	0.619	0.021	1739	3481	1.787	0.034	0.577	0.660
No education	0.451	0.020	1739	3481	1.703	0.045	0.410	0.492
Secondary education or higher	0.115	0.013	1739	3481	1.660	0.110	0.090	0.141
Never married/in union	0.419	0.020	1739	3481	1.697	0.048	0.379	0.459
Currently married/in union	0.536	0.018	1739	3481	1.533	0.034	0.500	0.573
Want no more children	0.348	0.019	936	1867	1.245	0.056	0.309	0.386
Want to delay birth at least 2 years	0.431	0.018	936	1867	1.135	0.043	0.394	0.468
Ideal family size	4.053	0.089	1554	3133	1.484	0.022	3.874	4.232
Had 2+ sex partners in past 12 months	0.015	0.004	1739	3481	1.201	0.231	0.008	0.022
Condom use at last sex	0.243	0.122	25	54	1.372	0.504	0.000	0.488
Abstinence among youth (never had sex)	0.929	0.011	656	1327	1.062	0.011	0.908	0.951
Sexually active in past 12 months among never-married youth	0.046	0.010	656	1327	1.177	0.208	0.027	0.066
Had an injection in past 12 months	0.178	0.017	1739	3481	1.882	0.097	0.144	0.213
HIV test and received results past 12 months	0.406	0.021	1739	3481	1.771	0.051	0.364	0.447
Accepting attitudes towards people with HIV	0.251	0.018	1706	3418	1.748	0.073	0.214	0.288
Knows about condoms	0.790	0.017	1739	3481	1.710	0.021	0.756	0.823
Knows about limiting partners	0.664	0.024	1739	3481	2.112	0.036	0.616	0.711
HIV prevalence among all men 15-49	0.010	0.003	1624	3419	1.090	0.269	0.005	0.015
HIV prevalence among all men 15-59	0.009	0.002	1832	3835	1.093	0.262	0.004	0.014
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.016	0.004	3597	7364	1.759	0.228	0.009	0.024

Table B.8 Sampling errors for Oromiya region, Ethiopia 2011

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	0.156	0.009	2135	6011	1.198	0.060	0.137	0.175
Literate	0.380	0.023	2135	6011	2.182	0.060	0.334	0.426
No education	0.494	0.023	2135	6011	2.096	0.046	0.448	0.539
Secondary education or higher	0.092	0.009	2135	6011	1.386	0.094	0.075	0.110
Net attendance ratio for primary school	0.602	0.026	2530	7246	2.323	0.043	0.550	0.654
Never married/in union	0.259	0.014	2135	6011	1.479	0.054	0.231	0.288
Currently married/in union	0.659	0.016	2135	6011	1.558	0.024	0.627	0.691
Married before age 20	0.772	0.016	1240	3479	1.301	0.020	0.741	0.803
Currently pregnant	0.083	0.006	2135	6011	1.069	0.077	0.071	0.096
Children ever born	3.042	0.083	2135	6011	1.238	0.027	2.877	3.207
Children surviving	2.564	0.066	2135	6011	1.200	0.026	2.431	2.696
Children ever born to women age 40-49	7.119	0.256	304	844	1.472	0.036	6.606	7.631
Knows any contraceptive method	0.966	0.010	1403	3961	2.006	0.010	0.946	0.985
Currently using any contraceptive method	0.262	0.022	1403	3961	1.841	0.083	0.219	0.305
Currently using pill	0.022	0.004	1403	3961	1.059	0.190	0.013	0.030
Currently using IUD	0.003	0.001	1403	3961	0.962	0.499	0.000	0.005
Currently using female sterilization	0.002	0.001	1403	3961	0.956	0.554	0.000	0.004
Currently using rhythm method	0.011	0.003	1403	3961	1.067	0.275	0.005	0.016
Obtained method from public sector source	0.826	0.028	375	1056	1.404	0.033	0.771	0.881
Want no more children	0.371	0.018	1403	3961	1.425	0.050	0.334	0.407
Want to delay birth at least 2 years	0.401	0.017	1403	3961	1.274	0.042	0.368	0.435
Ideal family size	4.258	0.141	1893	5342	2.166	0.033	3.977	4.540
Mothers received tetanus injection for last birth	0.459	0.028	1100	3116	1.866	0.061	0.403	0.515
Mothers received medical assistance at delivery	0.081	0.011	1761	5014	1.496	0.138	0.059	0.104
Had diarrhoea in two weeks before survey	0.113	0.010	1637	4665	1.277	0.092	0.093	0.134
Treated with oral rehydration salts (ORS)	0.238	0.031	195	529	0.967	0.129	0.177	0.300
Taken to a health provider	0.353	0.042	195	529	1.203	0.120	0.268	0.438
Vaccination card seen	0.229	0.032	290	811	1.310	0.142	0.164	0.294
Received BCG vaccination	0.574	0.039	290	811	1.324	0.067	0.496	0.651
Received DPT vaccination (3 doses)	0.268	0.032	290	811	1.195	0.118	0.205	0.331
Received polio vaccination (3 doses)	0.358	0.036	290	811	1.278	0.101	0.285	0.430
Received measles vaccination	0.459	0.037	290	811	1.247	0.080	0.385	0.532
Received all vaccinations	0.156	0.026	290	811	1.221	0.168	0.103	0.208
Height-for-age (below -2SD)	0.414	0.016	1619	4723	1.292	0.039	0.381	0.446
Weight-for-height (below -2SD)	0.097	0.009	1619	4723	1.179	0.092	0.079	0.115
Weight-for-age (below -2SD)	0.260	0.016	1619	4723	1.359	0.061	0.228	0.291
Prevalence of anaemia (children 6-59 months)	0.517	0.021	1442	4199	1.582	0.041	0.474	0.560
Prevalence of anaemia (women 15-49)	0.192	0.013	2068	5834	1.547	0.070	0.165	0.218
Body Mass Index (BMI) <18.5	0.269	0.012	1872	5258	1.149	0.044	0.246	0.293
Had 2+ sex partners in past 12 months	0.002	0.001	2135	6011	1.036	0.450	0.000	0.005
Abstinence among youth (never had sex)	0.953	0.009	515	1445	0.923	0.009	0.936	0.971
Sexually active in past 12 months among never-married youth	0.030	0.009	515	1445	1.159	0.290	0.013	0.048
Had an injection in past 12 months	0.416	0.020	2135	6011	1.883	0.048	0.375	0.456
Had an HIV test and received results in past 12 months	0.325	0.025	2135	6011	2.434	0.076	0.275	0.374
Accepting attitudes towards people with HIV	0.166	0.014	2032	5716	1.681	0.084	0.138	0.193
Knows about condoms	0.521	0.020	2135	6011	1.878	0.039	0.481	0.562
Knows about limiting partners	0.646	0.019	2135	6011	1.844	0.030	0.608	0.685
HIV prevalence among all women 15-49	0.013	0.003	2065	5348	1.067	0.206	0.008	0.018
Total fertility rate (3 years)	5.640	0.324	5847	16472	1.878	0.057	4.992	6.287
Neonatal mortality	40.374	3.517	3506	9899	0.934	0.087	33.340	47.407
Post-neonatal mortality	32.452	3.866	3498	9876	1.193	0.119	24.721	40.184
Infant mortality	72.826	5.707	3511	9913	1.157	0.078	61.413	84.239
Child mortality	42.463	5.428	3434	9674	1.313	0.128	31.608	53.318
Under-five mortality	112.200	7.227	3541	9995	1.193	0.064	97.74	126.65
MEN								
Urban residence	0.142	0.012	1889	4957	1.504	0.085	0.118	0.166
Literate	0.668	0.020	1889	4957	1.830	0.030	0.628	0.707
No education	0.261	0.022	1889	4957	2.138	0.083	0.218	0.305
Secondary education or higher	0.156	0.014	1889	4957	1.640	0.088	0.129	0.184
Never married/in union	0.428	0.018	1889	4957	1.541	0.041	0.393	0.464
Currently married/in union	0.552	0.018	1889	4957	1.537	0.032	0.517	0.587
Want no more children	0.263	0.019	1040	2738	1.417	0.074	0.224	0.302
Want to delay birth at least 2 years	0.518	0.019	1040	2738	1.215	0.036	0.480	0.555
Ideal family size	5.145	0.177	1830	4798	2.062	0.034	4.791	5.498
Had 2+ sex partners in past 12 months	0.041	0.006	1889	4957	1.237	0.139	0.029	0.052
Condom use at last sex	0.108	0.037	81	201	1.064	0.342	0.034	0.182
Abstinence among youth (never had sex)	0.874	0.016	661	1714	1.252	0.018	0.842	0.907
Sexually active in past 12 months among never-married youth	0.074	0.012	661	1714	1.161	0.160	0.050	0.098
Had an injection in past 12 months	0.232	0.017	1889	4957	1.704	0.071	0.199	0.266
HIV test and received results past 12 months	0.319	0.021	1889	4957	1.954	0.066	0.277	0.361
Accepting attitudes towards people with HIV	0.336	0.025	1863	4890	2.298	0.075	0.286	0.387
Knows about condoms	0.820	0.017	1889	4957	1.870	0.020	0.787	0.853
Knows about limiting partners	0.795	0.023	1889	4957	2.422	0.028	0.750	0.840
HIV prevalence among all men 15-49	0.006	0.002	1798	4853	1.331	0.393	0.001	0.011
HIV prevalence among all men 15-59	0.006	0.002	1964	5291	1.277	0.357	0.002	0.011
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.010	0.002	3863	10202	1.281	0.208	0.006	0.014

Table B.9 Sampling errors for Somali region, Ethiopia 2011

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	0.447	0.041	914	329	2.475	0.091	0.366	0.529
Literate	0.198	0.027	914	329	2.072	0.138	0.143	0.253
No education	0.742	0.038	914	329	2.611	0.051	0.666	0.818
Secondary education or higher	0.051	0.018	914	329	2.473	0.356	0.015	0.087
Net attendance ratio for primary school	0.580	0.031	1389	488	1.704	0.053	0.519	0.641
Never married/in union	0.195	0.016	914	329	1.211	0.081	0.164	0.227
Currently married/in union	0.704	0.022	914	329	1.427	0.031	0.661	0.747
Married before age 20	0.764	0.022	579	208	1.234	0.029	0.720	0.807
Currently pregnant	0.124	0.016	914	329	1.438	0.127	0.093	0.155
Children ever born	3.806	0.176	914	329	1.552	0.046	3.454	4.158
Children surviving	3.221	0.134	914	329	1.387	0.042	2.954	3.489
Children ever born to women age 40-49	7.895	0.253	138	49	1.029	0.032	7.389	8.400
Knows any contraceptive method	0.783	0.032	664	232	2.000	0.041	0.719	0.847
Currently using any contraceptive method	0.043	0.018	664	232	2.219	0.407	0.008	0.078
Currently using pill	0.008	0.003	664	232	0.863	0.364	0.002	0.015
Currently using IUD	0.000	0.000	664	232	na	na	0.000	0.000
Currently using female sterilization	0.000	0.000	664	232	na	na	0.000	0.000
Currently using rhythm method	0.005	0.003	664	232	1.105	0.613	0.000	0.011
Obtained method from public sector source	0.461	0.094	28	10	0.977	0.203	0.274	0.648
Want no more children	0.107	0.021	664	232	1.729	0.194	0.065	0.149
Want to delay birth at least 2 years	0.347	0.030	664	232	1.607	0.086	0.287	0.406
Ideal family size	9.737	0.423	619	217	2.044	0.043	8.891	10.583
Mothers received tetanus injection for last birth	0.337	0.041	559	198	2.052	0.122	0.255	0.420
Mothers received medical assistance at delivery	0.084	0.028	1027	364	2.558	0.335	0.028	0.141
Had diarrhoea in two weeks before survey	0.195	0.021	951	339	1.500	0.110	0.152	0.238
Treated with oral rehydration salts (ORS)	0.306	0.059	179	66	1.533	0.192	0.189	0.423
Taken to a health provider	0.197	0.062	179	66	1.922	0.313	0.074	0.320
Vaccination card seen	0.237	0.062	150	51	1.701	0.263	0.112	0.361
Received BCG vaccination	0.457	0.063	150	51	1.489	0.137	0.331	0.582
Received DPT vaccination (3 doses)	0.253	0.058	150	51	1.619	0.231	0.136	0.370
Received polio vaccination (3 doses)	0.279	0.051	150	51	1.341	0.181	0.178	0.380
Received measles vaccination	0.395	0.067	150	51	1.622	0.170	0.260	0.530
Received all vaccinations	0.166	0.041	150	51	1.319	0.248	0.084	0.248
Height-for-age (below -2SD)	0.330	0.022	798	278	1.242	0.067	0.285	0.374
Weight-for-height (below -2SD)	0.222	0.019	798	278	1.221	0.087	0.183	0.260
Weight-for-age (below -2SD)	0.335	0.025	798	278	1.352	0.073	0.286	0.384
Prevalence of anaemia (children 6-59 months)	0.687	0.020	691	241	1.126	0.030	0.647	0.728
Prevalence of anaemia (women 15-49)	0.440	0.035	813	292	2.014	0.080	0.370	0.511
Body Mass Index (BMI) <18.5	0.327	0.023	717	255	1.309	0.071	0.281	0.373
Had 2+ sex partners in past 12 months	0.006	0.004	914	329	1.483	0.639	0.000	0.013
Abstinence among youth (never had sex)	0.976	0.014	161	60	1.185	0.015	0.948	1.005
Sexually active in past 12 months among never-married youth	0.024	0.014	161	60	1.185	0.601	0.000	0.052
Had an injection in past 12 months	0.184	0.026	914	329	2.027	0.141	0.132	0.236
Had an HIV test and received results in past 12 months	0.106	0.029	914	329	2.853	0.275	0.048	0.164
Accepting attitudes towards people with HIV	0.144	0.032	724	269	2.409	0.219	0.081	0.208
Knows about condoms	0.208	0.032	914	329	2.353	0.152	0.145	0.272
Knows about limiting partners	0.363	0.045	914	329	2.801	0.123	0.273	0.452
HIV prevalence among all women 15-49	0.016	0.007	804	293	1.520	0.418	0.003	0.030
Total fertility rate (3 years)	7.074	0.481	2544	918	1.511	0.068	6.112	8.036
Neonatal mortality	34.275	5.704	2108	753	1.008	0.166	22.868	45.683
Post-neonatal mortality	36.437	4.005	2107	753	0.866	0.110	28.426	44.447
Infant mortality	70.712	6.693	2114	755	0.943	0.095	57.325	84.098
Child mortality	55.710	6.372	2062	738	0.997	0.114	42.965	68.454
Under-five mortality	122.480	7.339	2140	766	0.889	0.060	107.810	137.160
MEN								
Urban residence	0.370	0.046	653	245	2.430	0.125	0.278	0.463
Literate	0.512	0.028	653	245	1.427	0.055	0.457	0.568
No education	0.424	0.036	653	245	1.881	0.086	0.351	0.497
Secondary education or higher	0.160	0.038	653	245	2.619	0.236	0.085	0.236
Never married/in union	0.367	0.022	653	245	1.170	0.060	0.322	0.411
Currently married/in union	0.593	0.024	653	245	1.224	0.040	0.546	0.640
Want no more children	0.040	0.013	391	145	1.348	0.337	0.013	0.066
Want to delay birth at least 2 years	0.383	0.039	391	145	1.573	0.101	0.305	0.460
Ideal family size	12.917	0.878	447	163	1.728	0.068	11.161	14.673
Had 2+ sex partners in past 12 months	0.062	0.013	653	245	1.378	0.211	0.036	0.088
Condom use at last sex	0.056	0.054	39	15	1.422	0.962	0.000	0.163
Abstinence among youth (never had sex)	0.888	0.024	199	76	1.076	0.027	0.840	0.936
Sexually active in past 12 months among never-married youth	0.035	0.015	199	76	1.163	0.434	0.005	0.065
Had an injection in past 12 months	0.121	0.022	653	245	1.740	0.184	0.076	0.165
HIV test and received results past 12 months	0.171	0.026	653	245	1.747	0.151	0.119	0.222
Accepting attitudes towards people with HIV	0.219	0.028	602	228	1.660	0.128	0.163	0.275
Knows about condoms	0.512	0.046	653	245	2.353	0.090	0.420	0.604
Knows about limiting partners	0.599	0.028	653	245	1.450	0.046	0.544	0.655
HIV prevalence among all men 15-49	0.004	0.003	551	240	1.045	0.706	0.000	0.010
HIV prevalence among all men 15-59	0.008	0.004	601	263	1.194	0.559	0.000	0.016
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.011	0.004	1355	532	1.546	0.404	0.002	0.019

Table B.10 Sampling errors for Benishangul-Gumuz region, Ethiopia 2011

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	0.224	0.025	1259	174	2.142	0.112	0.174	0.275
Literate	0.294	0.032	1259	174	2.496	0.109	0.230	0.358
No education	0.577	0.032	1259	174	2.267	0.055	0.514	0.640
Secondary education or higher	0.094	0.025	1259	174	3.038	0.266	0.044	0.145
Net attendance ratio for primary school	0.698	0.026	1420	189	1.822	0.037	0.646	0.749
Never married/in union	0.188	0.013	1259	174	1.146	0.067	0.163	0.213
Currently married/in union	0.714	0.016	1259	174	1.278	0.023	0.681	0.746
Married before age 20	0.836	0.018	745	102	1.313	0.021	0.801	0.872
Currently pregnant	0.102	0.011	1259	174	1.324	0.111	0.079	0.124
Children ever born	3.040	0.112	1259	174	1.344	0.037	2.816	3.265
Children surviving	2.414	0.082	1259	174	1.278	0.034	2.250	2.578
Children ever born to women age 40-49	6.634	0.259	182	23	1.211	0.039	6.116	7.152
Knows any contraceptive method	0.912	0.022	904	124	2.376	0.025	0.867	0.957
Currently using any contraceptive method	0.270	0.027	904	124	1.849	0.101	0.216	0.325
Currently using pill	0.027	0.006	904	124	1.069	0.213	0.016	0.039
Currently using IUD	0.000	0.000	904	124	na	na	0.000	0.000
Currently using female sterilization	0.006	0.003	904	124	1.187	0.517	0.000	0.012
Currently using rhythm method	0.006	0.004	904	124	1.641	0.692	0.000	0.015
Obtained method from public sector source	0.677	0.048	223	35	1.531	0.071	0.581	0.774
Want no more children	0.344	0.022	904	124	1.398	0.064	0.300	0.388
Want to delay birth at least 2 years	0.393	0.022	904	124	1.323	0.055	0.350	0.436
Ideal family size	4.888	0.157	1146	160	1.784	0.032	4.573	5.202
Mothers received tetanus injection for last birth	0.481	0.032	674	92	1.651	0.066	0.418	0.545
Mothers received medical assistance at delivery	0.089	0.012	1020	140	1.153	0.132	0.065	0.112
Had diarrhoea in two weeks before survey	0.227	0.021	925	127	1.498	0.093	0.185	0.270
Treated with oral rehydration salts (ORS)	0.287	0.039	204	29	1.245	0.136	0.209	0.364
Taken to a health provider	0.501	0.047	204	29	1.303	0.094	0.407	0.594
Vaccination card seen	0.289	0.046	170	23	1.294	0.158	0.198	0.380
Received BCG vaccination	0.687	0.064	170	23	1.790	0.094	0.558	0.816
Received DPT vaccination (3 doses)	0.417	0.054	170	23	1.406	0.129	0.309	0.524
Received polio vaccination (3 doses)	0.457	0.049	170	23	1.264	0.107	0.359	0.555
Received measles vaccination	0.672	0.045	170	23	1.236	0.067	0.582	0.762
Received all vaccinations	0.236	0.043	170	23	1.293	0.180	0.151	0.321
Height-for-age (below -2SD)	0.486	0.022	893	123	1.281	0.046	0.441	0.530
Weight-for-height (below -2SD)	0.099	0.011	893	123	1.130	0.113	0.076	0.121
Weight-for-age (below -2SD)	0.319	0.025	893	123	1.602	0.079	0.268	0.369
Prevalence of anaemia (children 6-59 months)	0.465	0.024	808	111	1.340	0.051	0.417	0.512
Prevalence of anaemia (women 15-49)	0.191	0.016	1213	167	1.388	0.082	0.159	0.222
Body Mass Index (BMI) <18.5	0.278	0.014	1063	148	1.017	0.050	0.250	0.306
Had 2+ sex partners in past 12 months	0.005	0.002	1259	174	0.935	0.383	0.001	0.008
Abstinence among youth (never had sex)	0.941	0.018	221	31	1.159	0.020	0.904	0.978
Sexually active in past 12 months among never-married youth	0.045	0.017	221	31	1.193	0.370	0.012	0.079
Had an injection in past 12 months	0.420	0.019	1259	174	1.384	0.046	0.382	0.459
Had an HIV test and received results in past 12 months	0.367	0.032	1259	174	2.362	0.088	0.303	0.431
Accepting attitudes towards people with HIV	0.165	0.021	1154	161	1.900	0.126	0.123	0.206
Knows about condoms	0.535	0.031	1259	174	2.182	0.057	0.474	0.596
Knows about limiting partners	0.532	0.034	1259	174	2.440	0.065	0.463	0.601
HIV prevalence among all women 15-49	0.017	0.006	1213	155	1.510	0.333	0.006	0.028
Total fertility rate (3 years)	5.197	0.413	3463	478	1.809	0.080	4.371	6.023
Neonatal mortality	62.477	5.847	2054	279	0.895	0.094	50.783	74.170
Post-neonatal mortality	38.706	5.146	2049	279	1.046	0.133	28.414	48.997
Infant mortality	101.180	7.630	2058	280	0.902	0.075	85.920	116.440
Child mortality	75.860	8.692	2064	279	1.183	0.115	58.477	93.244
Under-five mortality	169.370	13.102	2092	284	1.230	0.077	143.160	195.57
MEN								
Urban residence	0.245	0.041	1047	138	3.042	0.166	0.164	0.326
Literate	0.623	0.027	1047	138	1.831	0.044	0.568	0.678
No education	0.316	0.024	1047	138	1.681	0.076	0.268	0.365
Secondary education or higher	0.139	0.025	1047	138	2.307	0.178	0.090	0.188
Never married/in union	0.378	0.019	1047	138	1.272	0.050	0.340	0.416
Currently married/in union	0.586	0.021	1047	138	1.351	0.035	0.544	0.627
Want no more children	0.265	0.026	614	81	1.462	0.098	0.213	0.317
Want to delay birth at least 2 years	0.475	0.024	614	81	1.198	0.051	0.426	0.523
Ideal family size	5.297	0.217	991	131	1.466	0.041	4.863	5.731
Had 2+ sex partners in past 12 months	0.084	0.012	1047	138	1.361	0.139	0.060	0.107
Condom use at last sex	0.037	0.019	90	12	0.952	0.513	0.000	0.075
Abstinence among youth (never had sex)	0.878	0.023	356	47	1.329	0.026	0.832	0.924
Sexually active in past 12 months among never-married youth	0.083	0.021	356	47	1.410	0.249	0.042	0.125
Had an injection in past 12 months	0.350	0.021	1047	138	1.419	0.060	0.308	0.392
HIV test and received results past 12 months	0.399	0.035	1047	138	2.293	0.087	0.329	0.468
Accepting attitudes towards people with HIV	0.223	0.021	1013	135	1.617	0.095	0.181	0.265
Knows about condoms	0.779	0.023	1047	138	1.827	0.030	0.732	0.826
Knows about limiting partners	0.719	0.037	1047	138	2.654	0.051	0.645	0.793
HIV prevalence among all men 15-49	0.008	0.005	987	135	1.728	0.612	0.000	0.018
HIV prevalence among all men 15-59	0.007	0.005	1076	146	1.739	0.614	0.000	0.017
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.013	0.005	2200	290	2.050	0.386	0.003	0.022

Table B.11 Sampling errors for SNNP region, Ethiopia 2011

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	0.165	0.016	2034	3236	1.949	0.097	0.133	0.197
Literate	0.309	0.019	2034	3236	1.836	0.061	0.272	0.347
No education	0.466	0.024	2034	3236	2.194	0.052	0.418	0.515
Secondary education or higher	0.084	0.012	2034	3236	1.987	0.146	0.059	0.108
Net attendance ratio for primary school	0.632	0.018	2847	4486	1.803	0.029	0.595	0.668
Never married/in union	0.301	0.015	2034	3236	1.478	0.050	0.271	0.331
Currently married/in union	0.625	0.014	2034	3236	1.321	0.023	0.596	0.653
Married before age 20	0.693	0.022	1245	1960	1.655	0.031	0.649	0.736
Currently pregnant	0.093	0.006	2034	3236	0.980	0.068	0.080	0.105
Children ever born	3.091	0.093	2034	3236	1.326	0.030	2.905	3.277
Children surviving	2.586	0.075	2034	3236	1.295	0.029	2.436	2.736
Children ever born to women age 40-49	7.281	0.202	327	501	1.328	0.028	6.877	7.685
Knows any contraceptive method	0.997	0.002	1295	2022	1.045	0.002	0.993	1.000
Currently using any contraceptive method	0.258	0.023	1295	2022	1.900	0.090	0.212	0.305
Currently using pill	0.014	0.003	1295	2022	0.970	0.228	0.008	0.020
Currently using IUD	0.003	0.002	1295	2022	1.220	0.604	0.000	0.007
Currently using female sterilization	0.005	0.002	1295	2022	0.969	0.363	0.002	0.009
Currently using rhythm method	0.007	0.002	1295	2022	1.029	0.353	0.002	0.011
Obtained method from public sector source	0.845	0.040	317	533	1.977	0.048	0.764	0.926
Want no more children	0.413	0.017	1295	2022	1.217	0.040	0.380	0.447
Want to delay birth at least 2 years	0.397	0.017	1295	2022	1.268	0.043	0.363	0.432
Ideal family size	4.396	0.103	1834	2932	1.860	0.024	4.189	4.603
Mothers received tetanus injection for last birth	0.508	0.026	1053	1634	1.693	0.052	0.455	0.560
Mothers received medical assistance at delivery	0.061	0.013	1614	2494	1.910	0.207	0.036	0.086
Had diarrhoea in two weeks before survey	0.164	0.012	1491	2305	1.226	0.075	0.139	0.189
Treated with oral rehydration salts (ORS)	0.251	0.034	255	378	1.138	0.134	0.184	0.318
Taken to a health provider	0.310	0.036	255	378	1.132	0.115	0.239	0.381
Vaccination card seen	0.234	0.034	253	391	1.235	0.146	0.166	0.302
Received BCG vaccination	0.734	0.035	253	391	1.241	0.048	0.664	0.804
Received DPT vaccination (3 doses)	0.381	0.041	253	391	1.303	0.107	0.300	0.462
Received polio vaccination (3 doses)	0.469	0.034	253	391	1.049	0.072	0.402	0.536
Received measles vaccination	0.578	0.038	253	391	1.205	0.066	0.501	0.655
Received all vaccinations	0.241	0.034	253	391	1.255	0.142	0.172	0.309
Height-for-age (below -2SD)	0.441	0.019	1477	2311	1.341	0.043	0.403	0.478
Weight-for-height (below -2SD)	0.076	0.008	1477	2311	1.043	0.103	0.061	0.092
Weight-for-age (below -2SD)	0.283	0.017	1477	2311	1.351	0.062	0.248	0.318
Prevalence of anaemia (children 6-59 months)	0.369	0.017	1352	2111	1.226	0.046	0.335	0.403
Prevalence of anaemia (women 15-49)	0.113	0.009	1943	3090	1.269	0.081	0.094	0.131
Body Mass Index (BMI) <18.5	0.203	0.013	1731	2760	1.337	0.064	0.177	0.229
Had 2+ sex partners in past 12 months	0.004	0.002	2034	3236	1.351	0.456	0.000	0.008
Abstinence among youth (never had sex)	0.956	0.011	530	864	1.219	0.011	0.934	0.977
Sexually active in past 12 months among never-married youth	0.029	0.010	530	864	1.409	0.352	0.009	0.050
Had an injection in past 12 months	0.359	0.017	2034	3236	1.627	0.048	0.325	0.394
Had an HIV test and received results in past 12 months	0.305	0.022	2034	3236	2.135	0.071	0.262	0.349
Accepting attitudes towards people with HIV	0.076	0.012	2007	3197	1.994	0.155	0.052	0.100
Knows about condoms	0.561	0.021	2034	3236	1.934	0.038	0.518	0.603
Knows about limiting partners	0.718	0.021	2034	3236	2.146	0.030	0.675	0.761
HIV prevalence among all women 15-49	0.010	0.003	1943	2880	1.116	0.246	0.005	0.016
Total fertility rate (3 years)	4.876	0.268	5667	9014	1.503	0.055	4.339	5.412
Neonatal mortality	37.617	3.950	3431	5301	1.056	0.105	29.717	45.517
Post-neonatal mortality	40.552	4.392	3453	5334	1.128	0.108	31.769	49.335
Infant mortality	78.169	6.050	3439	5312	1.179	0.077	66.068	90.269
Child mortality	40.947	4.585	3446	5334	1.125	0.112	31.778	50.116
Under-five mortality	115.920	7.991	3469	5358	1.262	0.069	99.930	131.900
MEN								
Urban residence	0.166	0.021	1550	2307	2.214	0.126	0.124	0.208
Literate	0.648	0.017	1550	2307	1.434	0.027	0.614	0.683
No education	0.190	0.018	1550	2307	1.845	0.097	0.153	0.226
Secondary education or higher	0.172	0.020	1550	2307	2.079	0.116	0.132	0.212
Never married/in union	0.433	0.017	1550	2307	1.322	0.038	0.399	0.466
Currently married/in union	0.554	0.017	1550	2307	1.322	0.030	0.521	0.588
Want no more children	0.314	0.021	870	1279	1.315	0.066	0.273	0.356
Want to delay birth at least 2 years	0.508	0.019	870	1279	1.110	0.037	0.470	0.546
Ideal family size	4.957	0.149	1504	2242	1.832	0.030	4.659	5.256
Had 2+ sex partners in past 12 months	0.050	0.007	1550	2307	1.263	0.140	0.036	0.064
Condom use at last sex	0.054	0.034	79	115	1.312	0.622	0.000	0.122
Abstinence among youth (never had sex)	0.868	0.014	542	814	0.988	0.017	0.839	0.897
Sexually active in past 12 months among never-married youth	0.073	0.011	542	814	1.002	0.153	0.051	0.096
Had an injection in past 12 months	0.257	0.014	1550	2307	1.293	0.056	0.228	0.286
HIV test and received results past 12 months	0.363	0.019	1550	2307	1.520	0.051	0.326	0.400
Accepting attitudes towards people with HIV	0.167	0.015	1547	2303	1.564	0.089	0.137	0.196
Knows about condoms	0.812	0.020	1550	2307	2.023	0.025	0.771	0.852
Knows about limiting partners	0.729	0.028	1550	2307	2.461	0.038	0.674	0.785
HIV prevalence among all men 15-49	0.006	0.002	1454	2261	0.940	0.308	0.002	0.010
HIV prevalence among all men 15-59	0.006	0.002	1596	2475	0.935	0.306	0.002	0.009
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.009	0.002	3397	5141	1.105	0.203	0.005	0.012

Table B.12 Sampling errors for Gambela region, Ethiopia 2011

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	0.307	0.068	1130	69	4.928	0.223	0.170	0.444
Literate	0.363	0.035	1130	69	2.457	0.097	0.293	0.433
No education	0.307	0.037	1130	69	2.671	0.120	0.234	0.381
Secondary education or higher	0.130	0.028	1130	69	2.774	0.214	0.075	0.186
Net attendance ratio for primary school	0.803	0.033	1349	59	2.418	0.042	0.737	0.870
Never married/in union	0.234	0.039	1130	69	3.069	0.166	0.156	0.311
Currently married/in union	0.586	0.079	1130	69	5.301	0.134	0.429	0.744
Married before age 20	0.760	0.025	674	34	1.519	0.033	0.710	0.810
Currently pregnant	0.057	0.010	1130	69	1.388	0.169	0.038	0.076
Children ever born	2.060	0.365	1130	69	5.154	0.177	1.329	2.791
Children surviving	1.725	0.294	1130	69	5.066	0.170	1.137	2.312
Children ever born to women age 40-49	5.551	0.271	165	7	1.357	0.049	5.010	6.093
Knows any contraceptive method	0.938	0.018	768	41	2.044	0.019	0.902	0.974
Currently using any contraceptive method	0.338	0.050	768	41	2.896	0.147	0.239	0.437
Currently using pill	0.044	0.007	768	41	0.956	0.161	0.030	0.058
Currently using IUD	0.007	0.006	768	41	2.061	0.921	0.000	0.018
Currently using female sterilization	0.005	0.003	768	41	1.177	0.614	0.000	0.011
Currently using rhythm method	0.006	0.004	768	41	1.517	0.704	0.000	0.015
Obtained method from public sector source	0.384	0.128	228	23	3.833	0.333	0.129	0.639
Want no more children	0.300	0.027	768	41	1.626	0.090	0.246	0.354
Want to delay birth at least 2 years	0.394	0.020	768	41	1.155	0.052	0.353	0.435
Ideal family size	4.367	0.362	1090	67	3.777	0.083	3.642	5.091
Mothers received tetanus injection for last birth	0.584	0.044	608	31	2.160	0.076	0.496	0.673
Mothers received medical assistance at delivery	0.274	0.036	851	40	2.037	0.132	0.202	0.346
Had diarrhoea in two weeks before survey	0.226	0.028	782	37	1.664	0.122	0.171	0.281
Treated with oral rehydration salts (ORS)	0.453	0.063	177	8	1.631	0.140	0.326	0.580
Taken to a health provider	0.477	0.055	177	8	1.356	0.116	0.366	0.587
Vaccination card seen	0.237	0.057	151	8	1.616	0.240	0.123	0.351
Received BCG vaccination	0.720	0.062	151	8	1.686	0.087	0.595	0.845
Received DPT vaccination (3 doses)	0.276	0.048	151	8	1.310	0.175	0.180	0.373
Received polio vaccination (3 doses)	0.415	0.049	151	8	1.196	0.117	0.318	0.513
Received measles vaccination	0.517	0.054	151	8	1.308	0.105	0.409	0.626
Received all vaccinations	0.155	0.054	151	8	1.823	0.351	0.046	0.263
Height-for-age (below -2SD)	0.273	0.024	735	33	1.283	0.088	0.225	0.321
Weight-for-height (below -2SD)	0.125	0.021	735	33	1.451	0.166	0.084	0.167
Weight-for-age (below -2SD)	0.207	0.025	735	33	1.490	0.122	0.157	0.258
Prevalence of anaemia (children 6-59 months)	0.509	0.046	637	29	1.993	0.091	0.416	0.601
Prevalence of anaemia (women 15-49)	0.194	0.023	1092	67	1.927	0.119	0.148	0.240
Body Mass Index (BMI) <18.5	0.310	0.049	1001	63	3.381	0.158	0.212	0.408
Had 2+ sex partners in past 12 months	0.112	0.087	1130	69	8.968	0.781	0.000	0.286
Abstinence among youth (never had sex)	0.509	0.143	187	15	3.750	0.280	0.223	0.794
Sexually active in past 12 months among never-married youth	0.399	0.157	187	15	4.176	0.394	0.085	0.713
Had an injection in past 12 months	0.585	0.068	1130	69	4.576	0.116	0.450	0.721
Had an HIV test and received results in past 12 months	0.466	0.041	1130	69	2.780	0.089	0.383	0.549
Accepting attitudes towards people with HIV	0.176	0.016	1086	68	1.365	0.090	0.144	0.207
Knows about condoms	0.551	0.039	1130	69	2.624	0.071	0.473	0.629
Knows about limiting partners	0.463	0.023	1130	69	1.556	0.050	0.417	0.509
HIV prevalence among all women 15-49	0.079	0.030	1092	61	3.623	0.375	0.020	0.139
Total fertility rate (3 years)	3.951	0.555	3121	190	3.646	0.140	2.841	5.061
Neonatal mortality	39.298	7.264	1717	81	1.264	0.185	24.770	53.826
Post-neonatal mortality	36.453	7.730	1717	82	1.290	0.212	20.993	51.912
Infant mortality	75.751	12.706	1722	82	1.480	0.168	50.340	101.162
Child mortality	51.139	8.100	1741	83	1.074	0.158	34.940	67.339
Under-five mortality	123.020	15.578	1733	82	1.400	0.127	91.860	154.170
MEN								
Urban residence	0.317	0.103	865	59	6.330	0.324	0.112	0.522
Literate	0.733	0.015	865	59	1.010	0.021	0.702	0.763
No education	0.128	0.018	865	59	1.560	0.139	0.093	0.164
Secondary education or higher	0.331	0.028	865	59	1.751	0.085	0.274	0.387
Never married/in union	0.449	0.058	865	59	3.398	0.129	0.333	0.565
Currently married/in union	0.482	0.061	865	59	3.570	0.127	0.360	0.604
Want no more children	0.178	0.022	488	29	1.288	0.125	0.133	0.223
Want to delay birth at least 2 years	0.511	0.029	488	29	1.266	0.056	0.454	0.568
Ideal family size	4.933	0.505	845	58	2.828	0.102	3.923	5.943
Had 2+ sex partners in past 12 months	0.085	0.012	865	59	1.283	0.143	0.060	0.109
Condom use at last sex	0.303	0.088	72	5	1.598	0.291	0.126	0.479
Abstinence among youth (never had sex)	0.593	0.025	259	20	0.815	0.042	0.543	0.643
Sexually active in past 12 months among never-married youth	0.332	0.040	259	20	1.348	0.119	0.253	0.411
Had an injection in past 12 months	0.387	0.034	865	59	2.029	0.087	0.320	0.455
HIV test and received results past 12 months	0.519	0.042	865	59	2.485	0.082	0.435	0.604
Accepting attitudes towards people with HIV	0.419	0.022	855	59	1.293	0.052	0.376	0.463
Knows about condoms	0.858	0.012	865	59	1.021	0.014	0.834	0.883
Knows about limiting partners	0.724	0.017	865	59	1.104	0.023	0.691	0.758
HIV prevalence among all men 15-49	0.049	0.009	817	58	1.247	0.192	0.030	0.068
HIV prevalence among all men 15-59	0.048	0.009	889	62	1.274	0.191	0.029	0.066
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.065	0.018	1909	119	3.171	0.276	0.029	0.101

Table B.13 Sampling errors for Harari region, Ethiopia 2011

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	0.617	0.019	1101	49	1.319	0.031	0.578	0.656
Literate	0.540	0.021	1101	49	1.413	0.039	0.497	0.582
No education	0.356	0.022	1101	49	1.504	0.061	0.312	0.399
Secondary education or higher	0.303	0.022	1101	49	1.554	0.071	0.260	0.347
Net attendance ratio for primary school	0.739	0.036	1048	46	2.157	0.049	0.666	0.812
Never married/in union	0.301	0.017	1101	49	1.253	0.058	0.266	0.336
Currently married/in union	0.575	0.019	1101	49	1.305	0.034	0.536	0.614
Married before age 20	0.670	0.020	630	28	1.087	0.030	0.629	0.711
Currently pregnant	0.067	0.009	1101	49	1.147	0.129	0.050	0.084
Children ever born	2.236	0.116	1101	49	1.423	0.052	2.004	2.469
Children surviving	1.917	0.079	1101	49	1.163	0.041	1.760	2.075
Children ever born to women age 40-49	5.511	0.354	146	7	1.251	0.064	4.803	6.219
Knows any contraceptive method	0.995	0.003	635	28	1.095	0.003	0.989	1.001
Currently using any contraceptive method	0.347	0.026	635	28	1.400	0.076	0.294	0.400
Currently using pill	0.067	0.012	635	28	1.183	0.175	0.044	0.091
Currently using IUD	0.012	0.004	635	28	0.942	0.341	0.004	0.020
Currently using female sterilization	0.003	0.002	635	28	1.009	0.711	0.000	0.008
Currently using rhythm method	0.029	0.008	635	28	1.259	0.288	0.012	0.046
Obtained method from public sector source	0.635	0.037	220	10	1.149	0.059	0.560	0.710
Want no more children	0.359	0.024	635	28	1.245	0.066	0.312	0.407
Want to delay birth at least 2 years	0.384	0.022	635	28	1.148	0.058	0.340	0.429
Ideal family size	4.666	0.156	1070	47	1.802	0.033	4.353	4.978
Mothers received tetanus injection for last birth	0.695	0.037	440	19	1.652	0.053	0.622	0.768
Mothers received medical assistance at delivery	0.325	0.028	659	29	1.249	0.085	0.270	0.381
Had diarrhoea in two weeks before survey	0.118	0.015	616	27	1.148	0.130	0.087	0.148
Treated with oral rehydration salts (ORS)	0.386	0.064	73	3	1.097	0.166	0.258	0.515
Taken to a health provider	0.450	0.062	73	3	1.034	0.137	0.326	0.574
Vaccination card seen	0.371	0.053	115	5	1.151	0.143	0.264	0.477
Received BCG vaccination	0.729	0.062	115	5	1.430	0.084	0.606	0.853
Received DPT vaccination (3 doses)	0.518	0.059	115	5	1.233	0.113	0.401	0.636
Received polio vaccination (3 doses)	0.596	0.057	115	5	1.217	0.096	0.482	0.711
Received measles vaccination	0.647	0.061	115	5	1.325	0.094	0.526	0.769
Received all vaccinations	0.341	0.052	115	5	1.139	0.151	0.238	0.444
Height-for-age (below -2SD)	0.298	0.024	537	23	1.185	0.081	0.249	0.346
Weight-for-height (below -2SD)	0.091	0.016	537	23	1.308	0.172	0.059	0.122
Weight-for-age (below -2SD)	0.215	0.025	537	23	1.385	0.118	0.164	0.266
Prevalence of anaemia (children 6-59 months)	0.555	0.025	451	19	1.033	0.046	0.504	0.605
Prevalence of anaemia (women 15-49)	0.194	0.016	980	43	1.291	0.084	0.161	0.226
Body Mass Index (BMI) <18.5	0.221	0.016	949	42	1.209	0.074	0.188	0.254
Had 2+ sex partners in past 12 months	0.001	0.001	1101	49	0.961	0.998	0.000	0.003
Abstinence among youth (never had sex)	0.923	0.016	281	13	1.022	0.018	0.891	0.956
Sexually active in past 12 months among never-married youth	0.059	0.014	281	13	1.025	0.245	0.030	0.088
Had an injection in past 12 months	0.384	0.017	1101	49	1.127	0.043	0.351	0.417
Had an HIV test and received results in past 12 months	0.554	0.021	1101	49	1.388	0.038	0.512	0.596
Accepting attitudes towards people with HIV	0.376	0.019	1096	49	1.310	0.051	0.337	0.414
Knows about condoms	0.585	0.020	1101	49	1.334	0.034	0.545	0.624
Knows about limiting partners	0.531	0.022	1101	49	1.471	0.042	0.486	0.575
HIV prevalence among all women 15-49	0.038	0.007	980	43	1.228	0.198	0.023	0.053
Total fertility rate (3 years)	3.816	0.371	3095	137	1.190	0.097	3.075	4.557
Neonatal mortality	35.333	5.045	1328	58	0.757	0.143	25.243	45.423
Post-neonatal mortality	29.157	4.782	1336	59	0.961	0.164	19.593	38.721
Infant mortality	64.490	7.095	1330	58	0.890	0.110	50.300	78.680
Child mortality	32.067	6.408	1322	58	1.200	0.200	19.251	44.883
Under-five mortality	94.489	10.247	1337	59	1.037	0.108	73.994	114.983
MEN								
Urban residence	0.621	0.021	898	40	1.327	0.035	0.578	0.664
Literate	0.821	0.018	898	40	1.430	0.022	0.784	0.858
No education	0.130	0.018	898	40	1.602	0.139	0.094	0.166
Secondary education or higher	0.421	0.020	898	40	1.232	0.048	0.381	0.462
Never married/in union	0.457	0.018	898	40	1.065	0.039	0.422	0.493
Currently married/in union	0.505	0.018	898	40	1.065	0.035	0.469	0.540
Want no more children	0.280	0.026	460	20	1.237	0.093	0.228	0.332
Want to delay birth at least 2 years	0.501	0.030	460	20	1.273	0.059	0.441	0.560
Ideal family size	4.497	0.217	860	38	1.538	0.048	4.063	4.930
Had 2+ sex partners in past 12 months	0.017	0.005	898	40	1.062	0.267	0.008	0.027
Condom use at last sex	0.363	0.079	15	1	0.630	0.218	0.204	0.521
Abstinence among youth (never had sex)	0.794	0.027	281	13	1.108	0.034	0.740	0.848
Sexually active in past 12 months among never-married youth	0.141	0.023	281	13	1.093	0.161	0.096	0.187
Had an injection in past 12 months	0.268	0.020	898	40	1.368	0.076	0.228	0.309
HIV test and received results past 12 months	0.428	0.025	898	40	1.542	0.060	0.377	0.479
Accepting attitudes towards people with HIV	0.466	0.026	896	40	1.563	0.056	0.414	0.518
Knows about condoms	0.750	0.021	898	40	1.487	0.029	0.707	0.793
Knows about limiting partners	0.493	0.037	898	40	2.187	0.074	0.419	0.566
HIV prevalence among all men 15-49	0.017	0.005	765	39	1.128	0.312	0.006	0.027
HIV prevalence among all men 15-59	0.017	0.005	826	43	1.085	0.287	0.007	0.027
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.028	0.005	1745	83	1.181	0.167	0.018	0.037

Table B.14 Sampling errors for Addis Ababa region, Ethiopia 2011

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	1.000	0.000	1741	896	na	0.000	1.000	1.000
Literate	0.797	0.015	1741	896	1.573	0.019	0.767	0.827
No education	0.149	0.013	1741	896	1.532	0.088	0.123	0.175
Secondary education or higher	0.435	0.024	1741	896	2.008	0.055	0.387	0.483
Net attendance ratio for primary school	0.847	0.012	892	466	0.968	0.014	0.823	0.871
Never married/in union	0.497	0.017	1741	896	1.419	0.034	0.463	0.531
Currently married/in union	0.381	0.019	1741	896	1.625	0.050	0.343	0.419
Married before age 20	0.432	0.023	939	483	1.391	0.052	0.387	0.477
Currently pregnant	0.036	0.006	1741	896	1.235	0.154	0.025	0.047
Children ever born	1.055	0.053	1741	896	1.362	0.050	0.950	1.161
Children surviving	0.981	0.047	1741	896	1.317	0.048	0.887	1.074
Children ever born to women age 40-49	3.267	0.196	171	83	1.103	0.060	2.874	3.660
Knows any contraceptive method	1.000	0.000	634	342	na	0.000	1.000	1.000
Currently using any contraceptive method	0.625	0.020	634	342	1.044	0.032	0.585	0.665
Currently using pill	0.109	0.018	634	342	1.443	0.164	0.073	0.145
Currently using IUD	0.026	0.007	634	342	1.085	0.266	0.012	0.039
Currently using female sterilization	0.023	0.006	634	342	1.073	0.278	0.010	0.036
Currently using rhythm method	0.051	0.010	634	342	1.127	0.194	0.031	0.071
Obtained method from public sector source	0.566	0.032	408	222	1.297	0.056	0.503	0.630
Want no more children	0.344	0.023	634	342	1.226	0.067	0.298	0.390
Want to delay birth at least 2 years	0.349	0.028	634	342	1.502	0.082	0.292	0.406
Ideal family size	3.349	0.060	1673	861	1.333	0.018	3.229	3.468
Mothers received tetanus injection for last birth	0.823	0.022	348	193	1.077	0.026	0.779	0.866
Mothers received medical assistance at delivery	0.839	0.030	400	222	1.557	0.036	0.779	0.900
Had diarrhoea in two weeks before survey	0.094	0.018	386	214	1.093	0.187	0.059	0.129
Treated with oral rehydration salts (ORS)	0.434	0.097	36	20	1.110	0.223	0.240	0.628
Taken to a health provider	0.472	0.087	36	20	1.002	0.184	0.298	0.645
Vaccination card seen	0.799	0.037	81	43	0.815	0.046	0.725	0.872
Received BCG vaccination	0.975	0.017	81	43	0.972	0.018	0.941	1.009
Received DPT vaccination (3 doses)	0.892	0.039	81	43	1.123	0.044	0.814	0.970
Received polio vaccination (3 doses)	0.817	0.042	81	43	0.964	0.051	0.733	0.901
Received measles vaccination	0.935	0.027	81	43	0.964	0.029	0.881	0.988
Received all vaccinations	0.787	0.043	81	43	0.924	0.054	0.702	0.872
Height-for-age (below -2SD)	0.220	0.025	357	194	1.042	0.111	0.171	0.269
Weight-for-height (below -2SD)	0.046	0.012	357	194	1.103	0.259	0.022	0.069
Weight-for-age (below -2SD)	0.064	0.015	357	194	1.121	0.226	0.035	0.093
Prevalence of anaemia (children 6-59 months)	0.332	0.024	281	155	0.897	0.073	0.283	0.381
Prevalence of anaemia (women 15-49)	0.093	0.010	1525	788	1.350	0.108	0.073	0.113
Body Mass Index (BMI) <18.5	0.144	0.010	1583	810	1.084	0.067	0.125	0.163
Had 2+ sex partners in past 12 months	0.002	0.001	1741	896	0.936	0.564	0.000	0.003
Abstinence among youth (never had sex)	0.878	0.014	653	329	1.065	0.016	0.851	0.905
Sexually active in past 12 months among never-married youth	0.084	0.012	653	329	1.077	0.139	0.061	0.108
Had an injection in past 12 months	0.573	0.018	1741	896	1.504	0.031	0.537	0.608
Had an HIV test and received results in past 12 months	0.652	0.013	1741	896	1.116	0.020	0.626	0.677
Accepting attitudes towards people with HIV	0.449	0.012	1739	895	0.970	0.026	0.426	0.472
Knows about condoms	0.824	0.011	1741	896	1.222	0.014	0.802	0.847
Knows about limiting partners	0.654	0.018	1741	896	1.578	0.028	0.618	0.690
HIV prevalence among all women 15-49	0.060	0.007	1517	797	1.151	0.117	0.046	0.074
Total fertility rate (3 years)	1.512	0.106	4908	2532	1.393	0.070	1.299	1.724
Neonatal mortality	21.098	5.987	835	456	0.944	0.284	9.125	33.071
Post-neonatal mortality	18.915	4.885	834	455	0.985	0.258	9.144	28.685
Infant mortality	40.013	7.511	835	456	0.948	0.188	24.991	55.035
Child mortality	13.508	4.816	814	441	1.144	0.357	3.876	23.141
Under-five mortality	52.980	9.449	837	457	1.065	0.178	34.082	71.879
MEN								
Urban residence	1.000	0.000	1237	682	na	0.000	1.000	1.000
Literate	0.945	0.010	1237	682	1.556	0.011	0.924	0.965
No education	0.041	0.008	1237	682	1.482	0.203	0.024	0.058
Secondary education or higher	0.572	0.030	1237	682	2.106	0.052	0.512	0.631
Never married/in union	0.588	0.025	1237	682	1.789	0.043	0.537	0.638
Currently married/in union	0.380	0.026	1237	682	1.858	0.068	0.328	0.431
Want no more children	0.314	0.024	442	259	1.073	0.076	0.266	0.361
Want to delay birth at least 2 years	0.431	0.030	442	259	1.269	0.069	0.372	0.491
Ideal family size	3.163	0.077	1187	654	1.613	0.024	3.008	3.318
Had 2+ sex partners in past 12 months	0.032	0.006	1237	682	1.294	0.202	0.019	0.045
Condom use at last sex	0.718	0.101	42	22	1.425	0.141	0.515	0.921
Abstinence among youth (never had sex)	0.682	0.029	460	251	1.335	0.043	0.624	0.740
Sexually active in past 12 months among never-married youth	0.191	0.026	460	251	1.433	0.138	0.138	0.243
Had an injection in past 12 months	0.543	0.018	1237	682	1.246	0.033	0.507	0.578
HIV test and received results past 12 months	0.589	0.017	1237	682	1.187	0.028	0.556	0.623
Accepting attitudes towards people with HIV	0.508	0.015	1237	682	1.028	0.029	0.479	0.537
Knows about condoms	0.941	0.008	1237	682	1.170	0.008	0.925	0.957
Knows about limiting partners	0.707	0.031	1237	682	2.411	0.044	0.644	0.769
HIV prevalence among all men 15-49								
HIV prevalence among all men 15-59	0.043	0.007	1079	669	1.116	0.161	0.029	0.057
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.052	0.006	2596	1466	1.378	0.115	0.040	0.064

Table B.15 Sampling errors for Dire Dawa region, Ethiopia 2011

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	0.730	0.018	1095	69	1.347	0.025	0.694	0.766
Literate	0.508	0.038	1095	69	2.527	0.075	0.432	0.585
No education	0.370	0.034	1095	69	2.307	0.091	0.302	0.437
Secondary education or higher	0.278	0.033	1095	69	2.445	0.119	0.211	0.344
Net attendance ratio for primary school	0.748	0.023	1046	61	1.465	0.030	0.702	0.793
Never married/in union	0.327	0.019	1095	69	1.368	0.059	0.288	0.366
Currently married/in union	0.548	0.023	1095	69	1.536	0.042	0.501	0.594
Married before age 20	0.577	0.020	652	41	1.043	0.035	0.537	0.617
Currently pregnant	0.072	0.009	1095	69	1.155	0.125	0.054	0.090
Children ever born	1.997	0.115	1095	69	1.564	0.058	1.767	2.227
Children surviving	1.702	0.090	1095	69	1.491	0.053	1.522	1.882
Children ever born to women age 40-49	4.837	0.357	124	8	1.285	0.074	4.122	5.552
Knows any contraceptive method	0.993	0.003	626	38	0.979	0.003	0.987	1.000
Currently using any contraceptive method	0.339	0.031	626	38	1.650	0.092	0.276	0.401
Currently using pill	0.047	0.010	626	38	1.207	0.218	0.026	0.067
Currently using IUD	0.011	0.004	626	38	0.976	0.362	0.003	0.020
Currently using female sterilization	0.002	0.002	626	38	1.166	0.993	0.000	0.007
Currently using rhythm method	0.020	0.007	626	38	1.163	0.322	0.007	0.034
Obtained method from public sector source	0.621	0.051	196	13	1.461	0.082	0.519	0.723
Want no more children	0.372	0.027	626	38	1.412	0.074	0.317	0.426
Want to delay birth at least 2 years	0.363	0.024	626	38	1.242	0.066	0.315	0.411
Ideal family size	4.552	0.235	973	62	2.024	0.052	4.083	5.021
Mothers received tetanus injection for last birth	0.587	0.035	456	26	1.465	0.059	0.517	0.656
Mothers received medical assistance at delivery	0.403	0.034	696	39	1.426	0.085	0.335	0.471
Had diarrhoea in two weeks before survey	0.078	0.012	661	37	1.089	0.156	0.054	0.103
Treated with oral rehydration salts (ORS)	0.428	0.050	49	3	0.701	0.117	0.328	0.528
Taken to a health provider	0.464	0.068	49	3	0.948	0.147	0.327	0.601
Vaccination card seen	0.521	0.043	118	7	0.899	0.082	0.435	0.606
Received BCG vaccination	0.875	0.040	118	7	1.283	0.046	0.794	0.955
Received DPT vaccination (3 doses)	0.753	0.043	118	7	1.057	0.058	0.666	0.839
Received polio vaccination (3 doses)	0.793	0.038	118	7	0.991	0.048	0.717	0.869
Received measles vaccination	0.799	0.040	118	7	1.049	0.050	0.719	0.879
Received all vaccinations	0.586	0.051	118	7	1.098	0.088	0.484	0.689
Height-for-age (below -2SD)	0.363	0.025	644	35	1.180	0.069	0.313	0.413
Weight-for-height (below -2SD)	0.123	0.016	644	35	1.159	0.133	0.090	0.155
Weight-for-age (below -2SD)	0.276	0.027	644	35	1.350	0.098	0.222	0.330
Prevalence of anaemia (children 6-59 months)	0.629	0.025	550	30	1.091	0.039	0.580	0.678
Prevalence of anaemia (women 15-49)	0.288	0.019	997	63	1.321	0.066	0.250	0.326
Body Mass Index (BMI) <18.5	0.249	0.018	927	59	1.242	0.070	0.214	0.284
Had 2+ sex partners in past 12 months	0.001	0.001	1095	69	1.067	1.009	0.000	0.003
Abstinence among youth (never had sex)	0.896	0.022	289	19	1.245	0.025	0.852	0.941
Sexually active in past 12 months among never-married youth	0.073	0.022	289	19	1.426	0.299	0.029	0.117
Had an injection in past 12 months	0.331	0.017	1095	69	1.185	0.051	0.298	0.365
Had an HIV test and received results in past 12 months	0.629	0.023	1095	69	1.558	0.036	0.584	0.675
Accepting attitudes towards people with HIV	0.379	0.028	1085	68	1.898	0.074	0.323	0.435
Knows about condoms	0.646	0.026	1095	69	1.792	0.040	0.594	0.698
Knows about limiting partners	0.695	0.027	1095	69	1.956	0.039	0.641	0.750
HIV prevalence among all women 15-49	0.043	0.008	996	61	1.282	0.192	0.026	0.059
Total fertility rate (3 years)	3.362	0.329	3056	192	1.260	0.098	2.705	4.019
Neonatal mortality	30.406	4.956	1377	79	0.917	0.163	20.495	40.317
Post-neonatal mortality	29.669	6.434	1385	79	1.132	0.217	16.801	42.537
Infant mortality	60.075	7.483	1380	79	0.933	0.125	45.109	75.041
Child mortality	39.141	5.866	1364	78	0.938	0.150	27.408	50.873
Under-five mortality	96.864	9.509	1385	79	0.990	0.098	77.847	115.882
MEN								
Urban residence	0.703	0.022	845	53	1.416	0.032	0.658	0.747
Literate	0.786	0.025	845	53	1.788	0.032	0.736	0.837
No education	0.161	0.021	845	53	1.678	0.132	0.118	0.203
Secondary education or higher	0.439	0.035	845	53	2.026	0.079	0.370	0.509
Never married/in union	0.473	0.021	845	53	1.242	0.045	0.430	0.516
Currently married/in union	0.476	0.023	845	53	1.319	0.048	0.430	0.521
Want no more children	0.255	0.028	429	25	1.316	0.109	0.200	0.311
Want to delay birth at least 2 years	0.507	0.031	429	25	1.268	0.061	0.445	0.568
Ideal family size	4.714	0.247	746	48	1.534	0.052	4.219	5.208
Had 2+ sex partners in past 12 months	0.027	0.006	845	53	1.025	0.212	0.016	0.038
Condom use at last sex	0.630	0.097	22	1	0.923	0.154	0.436	0.824
Abstinence among youth (never had sex)	0.749	0.031	246	16	1.127	0.042	0.687	0.812
Sexually active in past 12 months among never-married youth	0.145	0.025	246	16	1.097	0.170	0.096	0.195
Had an injection in past 12 months	0.294	0.020	845	53	1.255	0.067	0.255	0.333
HIV test and received results past 12 months	0.601	0.029	845	53	1.722	0.048	0.543	0.660
Accepting attitudes towards people with HIV	0.511	0.022	842	53	1.274	0.043	0.467	0.555
Knows about condoms	0.869	0.015	845	53	1.259	0.017	0.840	0.898
Knows about limiting partners	0.824	0.029	845	53	2.231	0.036	0.766	0.883
HIV prevalence among all men 15-49	0.037	0.009	745	53	1.246	0.234	0.019	0.054
HIV prevalence among all men 15-59	0.038	0.008	804	57	1.187	0.211	0.022	0.054
MEN AND WOMEN								
HIV prevalence among all respondents 15-49	0.040	0.007	1741	114	1.459	0.171	0.026	0.054

Table B.16 Sampling errors for adult and maternal mortality rates, Ethiopia 2011

Variable	Value (R)	Standard Error (SE)	Number of cases: Un-weighted Number	Number of cases: Weighted Number	Design Effect DEFT	Relative Error SE/R	Confidence limits: Lower R-2SE	Confidence limits: Upper R+2SE
			WOMEN					
Adult mortality rates								
15-19	2.347	0.350	37580	39187	1.427	0.149	1.647	3.047
20-24	2.628	0.401	40262	41289	1.562	0.153	1.825	3.430
25-29	3.531	0.412	35158	36532	1.311	0.117	2.708	4.355
30-34	6.845	0.727	26029	27449	1.410	0.106	5.391	8.299
35-39	4.145	0.682	18089	19166	1.450	0.165	2.780	5.510
40-44	7.366	1.350	10725	11512	1.652	0.183	4.667	10.065
45-49	7.342	1.526	6307	6899	1.498	0.208	4.290	10.394
15-49 (age-adjusted)	4.136	0.249	174152	182034	1.474	0.060	3.638	4.633
Adult mortality probabilities								
$_{35}q_{15}$ 2011	157	10	174152	182033	2.158	0.065	137	178
$_{35}q_{15}$ 2005	217	11	143091	147433	1.893	0.051	195	239
$_{35}q_{15}$ 2000	221	11	152279	156334	1.852	0.049	200	243
Maternal mortality rates								
15-19	0.522	0.161	37580	39187	1.364	0.308	0.200	0.843
20-24	0.937	0.241	40262	41289	1.599	0.257	0.455	1.418
25-29	1.025	0.224	35158	36532	1.337	0.218	0.578	1.473
30-34	2.529	0.440	26029	27449	1.451	0.174	1.649	3.408
35-39	1.526	0.362	18089	19166	1.267	0.237	0.802	2.250
40-44	1.433	0.719	10725	11512	2.036	0.501	0.000	2.870
45-49	0.701	0.406	6307	6899	1.273	0.579	0.000	1.514
15-49 (age-adjusted)	1.140	0.114	174152	182034	1.476	0.100	0.913	1.367
Maternal mortality ratio (MMR) 2011	676	67	174152	182033	1.477	0.100	541	810
Maternal mortality ratio (MMR) 2005	673	63	143091	147433	1.373	0.093	548	799
Maternal mortality ratio (MMR) 2000	871	84	152279	156334	1.380	0.097	703	1039
			MEN					
Adult mortality rates								
15-19	3.376	0.536	38716	40426	1.683	0.159	2.303	4.448
20-24	3.251	0.461	40774	42577	1.565	0.142	2.329	4.172
25-29	5.109	0.962	35803	37080	2.519	0.188	3.184	7.033
30-34	5.739	0.649	27891	28989	1.388	0.113	4.442	7.037
35-39	6.224	0.825	19582	20030	1.429	0.133	4.574	7.875
40-44	7.105	0.997	12002	12095	1.254	0.140	5.111	9.100
45-49	9.187	1.548	7172	7610	1.378	0.168	6.092	12.283
15-49 (age-adjusted)	5.014	0.277	181940	188808	1.684	0.055	4.461	5.567
Adult mortality probabilities								
$_{35}q_{15}$ 2011	181	10	181941	188808	2.442	0.053	162	201
$_{35}q_{15}$ 2005	207	11	150979	157613	1.849	0.053	184	229
$_{35}q_{15}$ 2000	275	13	153736	158429	2.321	0.046	250	301

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 2011

	Women		Men	
Age	Number	Percent	Number	Percent
0	1,240	3.2	1,254	3.4
1	915	2.3	1,024	2.8
2	1,025	2.6	1,104	3.0
3	1,353	3.4	1,337	3.6
4	1,201	3.1	1,310	3.5
5	1,049	2.7	1,138	3.1
6	1,417	3.6	1,342	3.6
7	1,340	3.4	1,412	3.8
8	1,401	3.6	1,362	3.7
9	1,030	2.6	1,102	3.0
10	1,416	3.6	1,378	3.7
11	753	1.9	818	2.2
12	1,352	3.4	1,342	3.6
13	1,175	3.0	1,270	3.4
14	704	1.8	904	2.4
15	1,041	2.7	773	2.1
16	872	2.2	748	2.0
17	726	1.9	603	1.6
18	1,113	2.8	867	2.3
19	569	1.5	458	1.2
20	1,188	3.0	992	2.7
21	389	1.0	343	0.9
22	686	1.7	614	1.7
23	509	1.3	442	1.2
24	498	1.3	445	1.2
25	1,225	3.1	867	2.3
26	603	1.5	507	1.4
27	432	1.1	428	1.2
28	761	1.9	592	1.6
29	304	0.8	220	0.6
30	1,002	2.6	846	2.3
31	186	0.5	185	0.5
32	433	1.1	387	1.0
33	271	0.7	194	0.5
34	213	0.5	211	0.6
35	927	2.4	742	2.0
36	307	0.8	325	0.9
37	219	0.6	292	0.8
38	398	1.0	390	1.1
39	152	0.4	158	0.4
40	634	1.6	672	1.8
41	138	0.4	131	0.4
42	249	0.6	240	0.6
43	193	0.5	163	0.4
44	117	0.3	153	0.4
45	471	1.2	460	1.2
46	162	0.4	139	0.4
47	126	0.3	135	0.4
48	199	0.5	187	0.5
49	141	0.4	108	0.3
50	200	0.5	360	1.0
51	209	0.5	87	0.2
52	408	1.0	159	0.4
53	281	0.7	109	0.3
54	170	0.4	77	0.2
55	475	1.2	242	0.7
56	220	0.6	141	0.4
57	133	0.3	62	0.2
58	191	0.5	143	0.4
59	59	0.2	38	0.1
60	456	1.2	207	0.6
61	50	0.1	97	0.3
62	103	0.3	194	0.5
63	60	0.2	161	0.4
64	31	0.1	120	0.3
65	242	0.6	358	1.0
66	50	0.1	72	0.2
67	58	0.1	89	0.2
68	77	0.2	102	0.3
69	18	0.0	60	0.2
70+	897	2.3	1,075	2.9
Don't know/missing	5	0.0	9	0.0
Total	39,219	100.0	37,077	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Ethiopia 2011

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	5,401	na	na	na
15-19	4,321	4,125	24.6	95.5
20-24	3,271	3,124	18.6	95.5
25-29	3,324	3,193	19.0	96.0
30-34	2,105	2,041	12.2	97.0
35-39	2,004	1,930	11.5	96.3
40-44	1,331	1,284	7.7	96.5
45-49	1,099	1,074	6.4	97.7
50-54	1,268	na	na	na
15-49	17,455	16,772	100.0	96.1

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64 and interviewed men age 15-59; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, Ethiopia 2011

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percentage	
10-14	5,712	na	na	na
15-19	3,449	3,174	21.0	92.0
20-24	2,837	2,535	16.8	89.4
25-29	2,616	2,390	15.8	91.4
30-34	1,824	1,680	11.1	92.1
35-39	1,906	1,780	11.8	93.4
40-44	1,358	1,239	8.2	91.2
45-49	1,029	977	6.5	95.0
50-54	792	726	4.8	91.7
55-59	625	597	4.0	95.5
60-64	780	na	na	na
15-59	16,435	15,098	100.0	91.9

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Ethiopia 2011

Subject	Reference group	Percentage with information missing	Number of cases
Birth date			
Month Only	Births in the 15 years preceding the survey	1.62	33,929
Month and Year	Births in the 15 years preceding the survey	0.14	33,929
Age at Death	Deceased children born in the 15 years preceding the survey	0.05	4,043
Age/date at first union[1]	Ever married women age 15-49	0.44	12,046
	Ever married men age 15-54	0.34	8,505
Respondent's education	All women age 15-49	0.00	16,515
	All men age 15-59	0.05	14,110
Diarrhoea in last 2 weeks	Living children 0-59 months	0.87	11,042
Anthropometry	Living children age 0-59 months (from the Household Questionnaire)		
Height		5.19	11,805
Weight		4.66	11,805
Height or weight		5.19	11,805
Anemia			
Children	Living children age 6-59 months (from the Household Questionnaire)	6.59	10,492
Women	All women (from the Household Questionnaire)	8.07	17,455
Men	All men (from the Household Questionnaire)	13.28	16,435

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by Meskerem calendar year, according to living, dead, and total children (weighted), Ethiopia 2011

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
(Meskerem)	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2003	1,356	82	1,438	100.0	100.0	100.0	113.3	187.4	116.5	na	na	na
2002	2,139	139	2,278	100.0	100.0	100.0	96.9	155.9	99.7	na	na	na
2001	1,918	133	2,051	100.0	100.0	100.0	110.5	179.0	113.9	84.6	76.7	84.0
2000	2,398	207	2,605	100.0	100.0	100.0	98.7	135.8	101.2	114.9	133.1	116.2
1999	2,255	178	2,433	100.0	99.9	100.0	107.0	101.2	106.6	99.7	97.5	99.6
1998	2,124	159	2,282	100.0	100.0	100.0	108.8	159.9	111.7	92.2	64.2	89.5
1997	2,352	317	2,668	98.6	97.2	98.5	99.5	153.8	104.7	107.9	140.9	111.0
1996	2,235	291	2,525	98.5	92.9	97.8	109.1	114.1	109.7	97.4	85.2	95.8
1995	2,235	366	2,601	97.3	93.9	96.8	89.7	108.1	92.1	109.8	123.1	111.4
1994	1,839	304	2,142	97.4	93.1	96.8	111.2	156.8	116.7	83.5	79.9	82.9
1999-2003	10,065	739	10,805	100.0	100.0	100.0	104.2	140.8	106.4	na	na	na
1994-1998	10,784	1,435	12,219	98.4	94.9	98.0	103.0	133.2	106.1	na	na	na
1989-1993	8,503	1,731	10,235	97.8	91.7	96.8	106.0	118.2	107.9	na	na	na
1984-1988	5,284	1,562	6,846	97.4	92.0	96.2	95.8	144.7	105.1	na	na	na
<1983	5,373	2,122	7,495	95.5	93.1	94.8	107.5	126.2	112.4	na	na	na
All	40,010	7,589	47,599	98.1	93.6	97.4	103.5	130.5	107.4	na	na	na

NA = Not applicable
[1] Both year and month of birth given
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Ethiopia 2011

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	181	197	174	137	689
1	63	70	61	33	227
2	21	31	32	28	112
3	40	56	61	38	195
4	20	17	17	7	61
5	18	30	21	18	87
6	4	2	8	6	21
7	31	28	45	38	143
8	4	7	15	8	34
9	4	10	6	4	24
10	4	15	9	14	43
11	0	0	3	1	4
12	2	3	0	4	9
13	0	4	0	3	7
14	11	9	11	3	34
15	11	40	26	37	114
16	2	2	4	1	9
17	3	7	2	5	17
18	1	0	0	0	2
19	0	0	0	0	0
20	4	12	16	9	42
21	9	14	7	12	43
22	2	0	0	0	2
23	0	0	7	0	7
25	0	0	2	2	5
26	0	2	0	0	2
27	0	0	0	0	0
28	1	7	0	1	10
29	0	1	0	2	3
30	0	0	0	2	2
31+	0	5	2	0	7
Total 0-30	438	566	528	414	1,946
Percentage early neonatal[1]	79.3	71.4	70.9	64.4	71.6

[1] ≤6 days/≤30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Ethiopia 2011

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	438	566	528	414	1,946
1	58	87	108	82	335
2	20	74	71	43	208
3	22	57	38	31	148
4	26	35	25	21	108
5	19	30	39	28	116
6	43	51	54	36	183
7	12	33	34	22	100
8	9	37	25	22	93
9	11	35	35	22	104
10	3	11	4	13	32
11	8	17	14	19	59
12	25	60	75	69	229
13	3	11	4	6	25
14	6	19	14	13	51
15	5	7	6	10	28
16	0	0	5	14	19
17	7	4	8	5	24
18	3	25	26	28	82
19	2	6	4	4	16
20	3	2	1	4	10
21	5	1	0	1	7
22	3	4	4	1	13
23	4	3	7	1	16
24+	1	2	0	0	4
1 Year	11	18	43	18	90
Total 0-11	669	1,033	977	754	3,432
Percentage neonatal[1]	65.4	54.8	54.1	55.0	56.7

[a] Includes deaths under one month reported in days
[1] Under one month/under one year

Table C.7 Nutritional status of children based on NCHS/CDC/WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on NCHS/CDC/WHO International Reference Population, Ethiopia 2011

Background characteristic	Height-for-age[1]			Weight-for-height				Weight-for-age				Weighted number of children	Un-weighted number of children
	Per-centage below -3 SD	Per-centage below -2 SD[2]	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD[2]	Per-centage above +2 SD	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD[2]	Per-centage above +2 SD	Mean Z-score (SD)		
Age in months													
<6	0.6	3.5	0.0	0.3	3.4	3.5	-0.1	0.0	2.1	5.0	0.1	1,050	1,014
6-8	1.8	8.6	-0.5	1.1	9.3	0.9	-0.7	1.8	11.5	0.6	-0.9	585	572
9-11	10.9	27.8	-1.3	1.0	13.0	1.8	-0.9	10.2	41.0	0.3	-1.7	501	430
12-17	13.5	37.5	-1.5	1.6	16.7	0.9	-1.0	12.1	40.0	1.2	-1.7	1,008	1,040
18-23	20.7	48.9	-1.9	2.3	16.7	2.2	-0.9	9.9	45.5	1.2	-1.7	904	826
24-35	19.0	42.7	-1.8	1.4	8.6	0.8	-0.9	14.0	41.8	0.3	-1.8	2,090	2,074
36-47	18.7	48.0	-2.0	0.7	5.5	0.2	-0.7	8.0	37.3	0.2	-1.7	2,480	2,306
48-59	21.6	46.1	-2.0	1.0	5.7	0.7	-0.7	7.2	36.2	0.1	-1.7	2,356	2,212
Sex													
Male	16.1	39.1	-1.6	1.3	9.2	0.8	-0.8	8.3	34.8	0.6	-1.5	5,638	5,349
Female	16.0	37.7	-1.6	1.0	7.6	1.4	-0.7	8.7	33.7	1.1	-1.5	5,336	5,125
Birth interval in months[3]													
First birth[4]	13.6	37.3	-1.5	1.1	8.1	1.7	-0.6	7.2	32.3	0.7	-1.4	1,854	1,818
<24	20.7	45.6	-1.7	0.8	9.1	1.7	-0.6	9.6	38.1	1.0	-1.5	1,618	1,643
24-47	16.9	39.0	-1.5	1.3	9.1	0.8	-0.7	9.5	36.2	0.9	-1.5	4,912	4,407
48+	12.4	32.7	-1.4	0.8	7.6	1.0	-0.6	6.7	30.2	0.9	-1.3	1,760	1,722
Size at birth[3]													
Very small	20.4	44.9	-1.7	1.3	11.4	1.1	-0.9	14.2	44.9	0.7	-1.7	2,089	2,157
Small	17.0	38.8	-1.7	1.8	10.5	1.1	-0.8	10.2	42.5	0.6	-1.7	904	857
Average or larger	14.8	36.8	-1.4	0.9	7.7	1.2	-0.6	6.7	30.8	1.0	-1.3	7,129	6,548
Mother's interview status													
Interviewed	16.1	38.6	-1.5	1.1	8.7	1.1	-0.7	8.6	34.8	0.9	-1.4	10,144	9,590
Not interviewed but in household	13.6	28.7	-3.6	2.1	5.5	0.2	-3.0	10.0	27.3	1.6	-3.5	305	373
Not interviewed, and not in the household[5]	16.6	40.0	-2.1	1.2	5.2	0.2	-1.0	6.0	29.1	0.0	-1.9	525	511
Mother's nutritional status[6]													
Thin (BMI<18.5)	17.6	42.5	-1.6	1.5	13.2	0.6	-1.0	12.1	45.0	0.3	-1.7	2,138	2,549
Normal (BMI 18.5-24.9)	16.3	38.5	-1.5	1.0	7.5	1.2	-0.6	8.1	33.1	0.9	-1.4	7,561	6,509
Overweight/obese (BMI ≥ 25)	6.8	22.0	-0.9	0.2	5.0	3.4	-0.2	0.7	13.8	3.9	-0.7	456	561
Missing	11.6	27.7	-4.0	2.5	9.9	0.0	-3.6	10.6	27.7	0.0	-4.0	250	305
Residence													
Urban	9.7	25.7	-1.3	0.2	4.7	2.4	-0.6	4.6	20.3	1.8	-1.2	1,353	1,692
Rural	17.0	40.2	-1.6	1.2	9.0	0.9	-0.8	9.1	36.2	0.7	-1.6	9,620	8,782
Region													
Tigray	16.2	45.1	-1.8	1.0	8.3	0.7	-0.8	9.4	41.2	0.2	-1.7	735	1,142
Affar	25.2	43.7	-1.7	2.6	16.3	1.4	-1.0	16.8	44.6	0.9	-1.7	105	970
Amhara	17.7	44.3	-1.9	1.2	9.3	1.1	-0.8	9.6	39.6	0.4	-1.8	2,343	1,129
Oromiya	14.2	35.7	-1.4	1.2	8.1	0.9	-0.7	7.3	31.7	0.9	-1.4	4,749	1,627
Somali	11.7	27.9	-1.2	2.8	20.4	1.2	-1.3	11.8	37.2	1.6	-1.7	286	816
Benishangul-Gumuz	22.6	42.8	-1.8	1.0	8.2	1.0	-0.8	11.8	38.0	0.5	-1.7	124	900
SNNP	19.3	39.2	-1.7	0.7	6.9	1.3	-0.6	9.3	33.4	1.2	-1.5	2,338	1,496
Gambela	8.7	20.5	-1.5	1.6	10.6	0.9	-1.5	7.7	21.7	1.1	-1.8	36	812
Harari	8.5	24.4	-1.2	0.7	7.1	1.1	-1.0	4.5	24.6	1.3	-1.4	24	556
Addis Ababa	4.2	16.0	-0.9	0.6	3.6	3.6	-0.4	1.2	9.5	3.6	-0.8	198	363
Dire Dawa	15.3	31.9	-1.5	1.1	11.4	1.3	-1.0	9.9	31.6	0.8	-1.6	36	663
Mother's education													
No education	17.9	40.9	-1.7	1.3	9.6	0.9	-0.8	9.8	37.7	0.7	-1.6	7,259	6,972
Primary	13.0	35.2	-1.4	0.8	6.8	1.1	-0.6	6.6	29.8	1.1	-1.3	2,795	2,498
Secondary	4.8	14.8	-1.3	0.1	1.9	3.5	-0.7	0.4	13.0	2.7	-1.1	241	323
More than secondary	2.6	12.6	-0.9	0.0	2.8	5.4	-0.4	1.0	5.6	2.5	-0.8	153	169
Wealth quintile													
Lowest	21.0	43.2	-1.8	1.6	9.7	1.0	-0.9	11.5	41.0	0.9	-1.7	2,485	3,260
Second	18.4	41.8	-1.7	1.7	11.4	1.0	-0.8	10.7	39.8	0.5	-1.6	2,394	1,900
Middle	16.1	40.2	-1.6	1.2	8.7	0.7	-0.7	9.0	34.9	0.9	-1.5	2,303	1,721
Fourth	12.9	38.0	-1.6	0.6	6.7	0.9	-0.7	5.1	30.9	0.5	-1.5	2,185	1,743
Highest	9.4	24.0	-1.3	0.2	4.1	2.0	-0.5	4.4	19.4	1.6	-1.1	1,606	1,850
Total	16.1	38.4	-1.6	1.1	8.4	1.1	-0.7	8.5	34.3	0.8	-1.5	10,974	10,474

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

[2] Excludes children whose mothers were not interviewed

[3] First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

[4] Includes children whose mothers are deceased

[5] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10

[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Table C.8 Completeness of Information on Siblings

Completeness of data on survival status of sisters and brothers reported by interviewed women, age of living siblings and age at death (AD) and years since death (YSD) of dead siblings, (unweighted), Ethiopia 2011

	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	45,066	100.0	49,295	100.0	94,361	100.0
Living	34,984	77.6	36,796	74.6	71,780	76.1
Dead	10,054	22.3	12,436	25.2	22,490	23.8
Survival status unknown	28	0.1	63	0.1	91	0.1
Living siblings	34,984	100.0	36,796	100.0	71,780	100.0
Age reported	34,966	99.9	36,767	99.9	71,733	99.9
Age missing	18	0.1	29	0.1	47	0.1
Dead siblings	10,054	100.0	12,436	100.0	22,490	100.0
AD and YSD reported	9,988	99.3	12,351	99.3	22,339	99.3
Missing only AD	38	0.4	29	0.2	67	0.3
Missing only YSD	7	0.1	21	0.2	28	0.1
Missing AD and YSD	21	0.2	35	0.3	56	0.2

Table C.9 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of siblings at birth, Ethiopia 2011

	Mean sibship size[1]	Sex ratio of siblings at birth[2]
Age of respondents		
15-19	6.9	109.4
20-24	6.9	110.2
25-29	7.0	107.0
30-34	7.1	108.4
35-39	7.1	114.1
40-44	7.0	108.4
45-49	7.0	109.6
Total	7.0	109.4

[1] Includes the respondent
[2] Excludes the respondent

PERSONS INVOLVED IN THE 2011 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY

APPENDIX D

CENTRAL STATISTICAL AGENCY

Ms. Samia Zekaria, Director General (Project Director)
Ato Gebeyeu Abelti, Survey Director
Ato Yakob Mudesir, National Statistics System Coordination & Operation Deputy Director General
Ato Yasin Mussa, Statistical Surveys and Census Deputy Director General

ICF INTERNATIONAL

Dr. Ann Way, Vice President and Deputy Director
Dr. Pav Govindasamy, Regional Coordinator
Mr. Guillermo Rojas, Chief of Data Processing
Dr. Dean Garrett, Biomarker Specialist
Ms. Lyndsey Wilson-Williams, Country Manager
Dr. Ruilin Ren, Sampling Specialist
Mr. Elliott Hoel, Data Processing Specialist
Mr. Blake Zachhary, GIS Specialist
Mr. Bernard Ghaleb, Consultant
Ms. Alemtsehay Beru, Consultant
Dr. Fred Arnold, Senior Fellow
Ms. Zhuzhi Moore, Senior Research Associate
Ms. Anjushree Pradhan, Country Manager (Report Reviewer)
Ms. Velma Lopez, Country Manager (Report Reviewer)
Ms. Joy Fishel, Country Manager (Report Reviewer)
Ms. Sri Poedjastoeti, Country Manager (Report Reviewer)
Dr. Jean de Dieu Bizimana, Country Manager (Report Reviewer)
Ms. Sarah Schneider, Communication Specialist
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Mr. Ward Rinehart, Editor
Mr. Bryant Robey, Editor

MINISTRY OF HEALTH/ ETHIOPIAN HEALTH AND NUTRITION RESEARCH INSTITUTE/CDC ETHIOPIA

Dr. Kesetebrihan Admassu	State Minister, Federal Ministry of Health
Dr. Amha Kebede	Acting Director General, EHNRI
Ms. Wegene Tamene	Surveillance and Survey Coordinator, EHNRI
Dr. Almaz Abebe	Director Infectious and Non-infectious Diseases Research Directorate, EHNRI
Dr. Tsehaynesh Messele	Former Director General, EHNRI
Dr. Aseged Woldu	Former Surveillance and Survey Coordinator, EHNRI
Mr. Tesfaye Tilahun	Laboratory Mentor, EHNRI
Ms. Yodit Alemayehu	Laboratory Technologist, EHNRI
Mr. Mesfin Nigussie	Laboratory Technologist, EHNRI
Mr. Nigussie Gezhaegn	Laboratory Technologist, EHNRI
Mr. G/Medhin G/Micheal	Laboratory Technologist, EHNRI
Mr. Tefera Gebeyehu	Laboratory Technologist, EHNRI
Mr. Atsebeha G/Egziabher	Laboratory Technologist, EHNRI
Mr. Feyissa Challa	Laboratory Technologist, EHNRI
Mr. Ermias Hailu	Laboratory Technologist, EHNRI
Ms. Mullu Girma	Laboratory Technologist, EHNRI
Mr. Asfaw Adane	Laboratory Technologist, EHNRI
Mr. Peter Fonjungo	Associate Director of the Laboratory, CDC Ethiopia
Mr. Yenew Kebede	Laboratory Branch Head, CDC Ethiopia
Ato Yihalem Tamiru	Senior HCT Advisor, Federal Ministry of Health

EDHS STEERING COMMITTEE AND TECHNICAL COMMITTEE

Ms. Samia Zekaria	CSA	Ms. Premila Bartlett	USAID
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Ms. Eleni Seyoum	HAPCO	Mr. Ghaleb Bernard	ICF
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Ms. Meron Tewfik	UNFPA	Mr. Sahilu Tilahun	CSA
Mr. Yihalem Tamiru	MOH	Ms. Wegene Tamene	EHNRI
Dr. Sofonias Getachew	WHO	Ms. Martha Kibur	UNICEF

VOLUNTARY COUNSELLING AND TESTING TASK FORCE

Mr.Yihalem Tamiru	MOH
Mr. Gebeyeu Abelti	CSA
Ms. Premila Bartlet	USAID
Dr.Tekeste Kebede	CDC
Mr. Jelaludin Ahmed	CDC
Ms. Alemtsehay Beru	ICF International

HOUSEHOLD LISTING STAFF

Team 1: Tigray Region	**Position**
Hilaye Gebru	Supervisor
Atebeha Mebrhatu	Lister
Zenabu Ayalew	Lister
Amdom Girmaye	Lister
Ashnafi Asebeha	Lister
Team 2: Affar Region	
Eskender Mekonnen	Supervisor
Temesgen Eshetu	Lister
Tsegaye Melaku	Lister
Seid Yemer	Lister
Team 3: Amhara region	
Tsegaye Haile	Supervisor
Sileshi Alemkere	Lister
Mohammed Getachew	Lister
Birikti G/Selase	Lister
Abel Amare	Lister
Aynekulu Yalew	Lister
Yedeg Agomas	Lister
Team 4: Oromiya Region	
Assefa Tesema	Supervisor
Derege Gobena	Lister
Yassin Abadura	Lister
Getahun Girma	Lister
Shimeles Degene	Lister
Yishak Tegene	Lister
Getnet Kumbi	Lister
Team 5: Gambella Region	
Getachew Worku	Supervisor
Tariku Kena	Lister
Belaye Shifiraw	Lister
Girma Assefa	Lister
Tamre Yesuf	Lister
Getnet Kumbi	Lister
Team 6 : Harari	
Bahiru Sinke	Supervisor
Shimeles Asefa	Lister
Habtamu Legesse	Lister
Team 7: Dire Dawa	
Fisha Aklilu	Supervisor
Shewangzaw Behabtu	Lister
Mesfin Getachew	Lister

Team 8: Somali Region	
Jijiga Zone	
Bekele Abdi	Supervisor
Wegayeu Kidane	Lister
Yilma Lakew	Lister
Abdurazak Ali	Lister
Afework Tekle	Lister
Gode Zone	
Bahiru Sinke	Supervisor
Shimeles Asefa	Lister
Habetamu legesse	Lister
Mesfin H/Selase	Lister
Alemayeu Husen	Lister
Afder Zone	
Ayele Worku	Supervisor
H/Micheal Dibore	Lister
Newaye Hiruye	Lister
Tewodros Mesfin	Lister
Moges Melese	Lister
Team 9: Benshangul Gumuz	
Fiyessa Bulte	Supervisor
Deressa Woyosa	Lister
Tesfaye Bezyneh	Lister
Team 10: Addis Ababa	
Bulcha Gurmessa	Supervisor
Legesse Mekeksa	Lister
Mesfin H/Selasse	Lister
Teshome Zewde	Lister
Alemayeu Hussen	Lister
Team 11: SNNPR	
Ayele Worku	Supervisor
Dagem Desalegn	Lister
H/Micheal Gebre	Lister
Amare Melaku	Lister
Newaye Hiruye	Lister
Tewodrows Mesfin	Lister
Mogos Meles	Lister
Listing Trainers & Field coordinators	
Legesse Hadish	
Munir Nureden	
Bichaka Geleti	

PRETEST

Team 1: Tigray	
Abrhan Mesele	Field Coordinator
Gedeye Mekonen	Interviewer
Abrha G/Giorgise	Interviewer
Enyew Leyew	Biomarker
Ataklt Gebreegziabher	Interviewer
Seid Abdulkader	Interviewer
Regibe G/Eyesus	Interviewer
Berhanu Mogos	Biomarker

Team 2: Oromiya	
Teshale Edossa	Field Coordinator
Kassahun Mengistu	Expert/main office/
Dawit Tessientu	Field Coordinator
Elsabet Getahun	Interviewer
Faiza Abubeker	Interviewer
Obssa Guduru	Interviewer
Teshome Kebeta	Interviewer
Mulu Bekele	Biomarker
Demessew Bogale	Biomarker
Sebele Mulugeta	Interviewer

Team 3: Addis Ababa	
Mesfin Tadesse	Field Coordinator
Desalegn Getachew	Field Coordinator
Girum Haile	Expert /main office/
Hussen Beshir	Interviewer
Abrham Ayele	Interviewer
Hiwot Alemayeu	Interviewer
Tewodros Tamiru	Biomarker
Zegale Hibiltu	Biomarker

Team 4: Amhara	
Eshete Taddesse	Field Coordinator
Endeshaw feleke	Expert /Main Office
Endale Gebre	Interviewer
Hiwot Garedew	Interviewer
Bisrat Taddesse	Interviewer
Meseret Mamo	Interviewer
H/Biorgise Gedamu	Biomarker
Solomon Gizaw	Biomarker

Team 5: Amhara	
Yohannes Tilahun	Field Coordinator
Mekonnen Abegaz	Expert /main office/
Abatihun Mulugeta	Interviewer
Eden Amare	Interviewer
Melkam Ayenew	Interviewer
Meaza Genetu	Biomarker
Brook Daniel	Biomarker

Team 6: SNNP	
Wondwessen Negassa	Field Coordinator
Wondwessen Demisse	Expert / main office/
Edmealem Abatyihun	Field Coordinator
Fisum Tariku	Interviewer
Seifu Yineda	Interviewer
Tigist Abera	Interviewer
Bezawit W/Yohannes	Biomarker

Team 7: SNNP	
Bement Woldu	Field Coordinator
Teketelew Behayilu	Expert/ main office/
Dawit Demissie	Interviewer
Mahilet Sentayehu	Interviewer
Abdulmegid Mohammed	Interviewer
Elisabeth Tasew	Biomarker
Zelalem Taddese	Biomarker

TECHNICAL AND BIOMARKER TRAINERS

Girum Haile	C SA	Wondessen Negassa	C SA
Teketelew Behalu	C SA	Mekonnen Zebene	C SA
Kassahun Mengistu	C SA	Mesfin Tadesse	C SA
Menur Hussein	C SA	Eshetie Tadesse	C SA
Dawit Tesintu	C SA	Endeshaw Feleke	C SA
Desalegn Getachew	C SA	Bement Woldu	C SA
Teshale Edosa	C SA	Atakilit G/Egeziabher	C SA
Abrha Mesele	C SA	Edimealem Abateneh	C SA
Wondessen Demise	C SA	Tesfaye Tilahun	EHNRI (Biomarker)
Nigussie Gezhaegn	EHNRI (Biomarker)	Dr. Aseged Woldu	EHNRI (Biomarker)
Mulu Girma	EHNRI (Biomarker)		

REGIONAL FIELD COORDINATORS

Abrham Mesele	Wondwessen Negassa	Teketelew Behailu
Mesfin Tadesse	Tagel Assefa	Endesahw Feleke
Teshale Edossa	Dawit Tessientu	
Bement Woldu	Desalegn Getachew	
Eshete Taddesse	Edmealem Abatyihun	
Ataklt Gebreegziabher		

INTERVIEWER QUALITY CONTROL TEAM

Hiwot Garedew	Fitsum Tariku
Gedeye Mekonen	Teshome Kebeta
Abrha G/Giorgise	Endale Gebre
Sied Abdulkader	Bisrat Taddesse
Regebe G/Eyesus	Meseret Mamo
Elsabet Getahun	Melkam Ayene
Hiwot Alemayeu	Tigist Abera
Faiza Abubeke	Dawit Demissie
Eden Amare	Mahilet Sentayeu
Obssa Guduru	Abdulmegid Mohammed
Seifu Yineda	Abatihun Mulugeta

BIOMARKER QUALITY CONTROL

Bezwit W/Yohannes	Zelalem Tadesse
Mulu Bekele	Solomon Gizaw
Enyew Leyew	H/Giorgise Gedamu
Demeisew Bogale	Meaza Genetu
Elisabeth Teshome	Berhanu Mogos
Brook Daniel	

EDHS FIELD TEAMS (35 TEAMSs)

TIGRAY: Team 1	
Mengistu Eyasu	Supervisor
Adeyam Tsegaye	Editor
Woldu Kiros	Biomarker
Gedete Tebeje	Biomarker
Gideye Fissha	Biomarker
G/selase Aregawi	Interviewer
Sinedu Mehari	Interviewer
Tsehaynesh Teklu	Interviewer
TIGRAY: Team 2	
Hamid Sied	Supervisor
Tsige Gezai	Editor
Tekue G/Yohannes	Biomarker
Sisay W/Giorgise	Biomarker
Mebrhit Tsegaye	Biomarker
Abdulkader Ahemed	Interviewer
Senayet Girmaye	Interviewer
Awtash G/Michelal	Interviewer
Samrawit Tsegay	Interviewer
TIGRAY: Team 3	
Berhane G/Mariam	Supervisor
Rahel Ezra	Editor
Haftom Wolday	Biomarker
Genet G/Kidan	Biomarker
Hiwot G/Meskel	Biomarker
G/Meskel Hadera	Interviewer
Zewdu Sertse	Interviewer
Genet Teklay	Interviewer
AMHARA: Team 1	
Aseged G/Mariam	Supervisor
Maheder Adamu	Editor
Gizachew Aklaw	Interviewer
Andualem Demisse	Biomarker
Aden Geremew	Interviewer
Semera Endris	Biomarker
Helen Ayalew	Biomarker
Serawork Asreda	Interviewer
AMHARA: Team 2	
Teshome Gizaw	Supervisor
Martha Yassin	Editor
Lebsework Abebaw	Biomarker
Aseged Geberu	Interviewer
Ikram Sebri	Biomarker
Worke Alem	Biomarker
Tege Derseh	Interviewer
Fetfete Meteke	Interviewer
Aberash Teshome	Interviewer
AMHARA: Team 3	
Mulusew Admasu	Supervisor
Bantayeu Zeleke	Editor
Petros Belete	Biomarker
Befekadu Mekuria	Interviewer
Tigist Abetew	Biomarker

AFFAR: Team 1	
Seyoum Haile	Supervisor
Birtukan Alemu	Editor
Dubale Yemer	Interviewer
Mohamed Ali	Biomarker
Toyba Hussen	Interviewer
Alem Seid	Interviewer
Sofia Yimam	Biomarker
Hiwot Zemene	Biomarker
AFFAR: Team 2	
Mulugeta Beweketu	Supervisor
Toyba Sied	Interviewer
Mekonnen Tadesse	Interviewer
Ayele Shimeles	Biomarker
Gezework Nega	Biomarker
Tigist Desalegn	Biomarker
Rahel Getachew	Interviewer
Senknesh Feleke	
AFFAR: Team 3	
Tewodros Mulatu	Supervisor
Woynshet Amha	Editor
Anwar Habibe	Biomarker
Abubker Habib	Interviewer
Birtukan Haile	Biomarker
Hawa Adm	Interviewer
Hassena Ali	Biomarker
Ayechew Gesite	Interviewer
OROMIYA: Team 1	
Eshetu Alemayhu	Supervisor
Hensene Gomera	Editor
Wagari Ayana	Biomarker
Mulugeta Leta	Interviewer
Zeyneba Abatemam	Biomarker
Fikirte Senkneh	Interviewer
Fantu Dabi	Biomarker
Azeb Arega	Interviewer
OROMIYA: Team 2	
Mamedteyib Mussa	Supervisor
Aster Shimelis	Editor
Kadi Hussen	Biomarker
Mohammed Redi	Interviewer
Woyeneshet Taye	Biomarker
Nejat Abdela	Biomarker
Seblewengel Habtamu	Interviewer
Alemtsehay Tadesse	Interviewer
Meresa Teshome	Interviewer
OROMIYA: Team 3	
Bacha Olkeba	Supervisor
Mahilet Adugna	Editor
Abdulaziz Yenus	Biomarker
Abdulahi Abdi	Interviewer
Belaynesh Mamo	Interviewer

Rehana Kedir	Biomarker
Serawit Asreda	Interviewer
Tafach Getnet	Interviewer
AMHARA: Team 4	
Desta Hagos	Supervisor
Mahelet Negasa	Editor
Desalege Bayessa	Interviewer
Hassen Besher	Biomarker
Seada Abdi	Biomarker
Tiruken Melese	Biomarker
Seida Endres	Interviewer
Tizita Goshu	Interviewer
AMHARA: Team 5	
Hiwot Timerga	Supervisor
Tigist Jegnaw	Editor
Adane Dagnaw	Biomarker
Tefera Semachew	Biomarker
Nurseba Mohammed	Interviewer
Yamlakerk Takele	Interviewer
Rabia Hussen	Biomarker
Kedan Mola	Biomarker
Teketaye Achaw	Supervisor
Meleak Abera	Interviewer
SOMALI: Team 1	
Muhamed Abdulahi	Supervisor
Emebet Alemayeu	Editor
Danel Abebe	Interviewer
Danachew Sheferaw	Biomarker
Dereb Molla	Biomarker
Gelela Tilahun	Biomarker
Tigist Eliyas	Interviewer
Sofiya Sied	Interviewer
SOMALI: Team 2	
Alemu tesfaye	Supervisor
Bizunesh Lakew	Editor
Abera Esubalew	Interviewer
Wondemu Legesse	Biomarker
Tigist Worku	Biomarker
Selam Mamo	Biomarker
Lina Ibrahim	Interviewer
Mahilet Mekonnen	Interviewer

Emebet Taye	Biomarker
Tiru Bekele	Biomarker
Yirgalem Abdisa	Interviewer
OROMIYA: Team 4	
Zerihun Kura	Supervisor
Kebebush Chala	Editor
Nasir Kelifa	Biomarker
Habib Beriso	Interviewer
Ayelech Tafese	Biomarker
Aynalem Daba	Biomarker
Sufe Leta	Interviewer
Aynalem Kindenew	Interviewer
OROMIYA : Team 5	
Kassahun Beneber	Supervisor
Mekdes Shemelis	Editor
Alemseged Assefa	Biomarker
Mesfin Bekele	Interviewer
Tsegereda Asefa	Biomarker
Lensa Melaku	Biomarker
Senayit Degefu	Interviewer
Meseret Lemma	Interviewer
Semira Osman	Interviewer
SNNPR: Team 1	
Muhaba Adege	Supervisor
Selamawit Yihsak	Editor
Yehualawork Tilahun	Biomarker
Bantayeu Negash	Interviewer
Meklit Wondimu	Biomarker
Tsehaynesh Tirchafo	Interviewer
Samrawit Gomoro	Biomarker
Meaza Daei	Interviewer
SNNPR: Team 2	
Tsegaye Chele	Supervisor
Zeneb Legesse	Editor
Tesfaye Dengiya	Interviewer
Muluwork Egegu	Biomarker
Mahlet Ayele	Biomarker
Merema Mohammed	Interviewer
Ayelech Belgu	Interviewer

SOMALI: Team 3	
Omer Abdulahi	Supervisor
Tena Tesfaye	Editor
Begashaw Tekele	Biomarker
Getahun Abegaz	Interviewer
Fetiya Reshid	Biomarker
Mebrat Abrha	Interviewer
Muluembet Egegu	Biomarker
BENSHANGUL-GUMUZ: Team 1	
Zekariyas Beyene	Supervisor
Tsega G/Selase	Editor
Meresa Teshome	Biomarker
Wondmu Heluf	Interviewer
Meseret Emana	Interviewer
Selamawit Abera	Biomarker
Emebet Petros	Interviewer
Birtukan Ayeru	Biomarker
BENSHANGUL-GUM: Team 2	
Tesfahun Tessema	Supervisor
Mekoya Tarekegn	Editor
Chemdessa Kenia	Biomarker
Addisu Kenate	Interviewer
Eskdar Melkamu	Biomarker
Etaferahu Benti	Interviewer
Terefwork Kassahun	Biomarker
GAMBELLA: Team 1	
Mebrhatu Abrham	Supervisor
Feleku Zwede	Editor
Amare Mesganaw	Biomarker
Melaku Gebre	Interviewer
Abyot Tadele	Biomarker
Tigist Amare	Biomarker
Yakuta Hassen	Interviewer
Yeshiembet Mengistu	Interviewer
GAMBELLA: Team 2	
Fekadu Zeleke	Supervisor
Gebeyanesh Mersha	Editor
Benyam Degefu	Biomarker
Gutema Etana	Biomarker
Meteke Endeshaw	Biomarker
Hirut Alemayeu	Interviewer
Salelesh Dubale	Interviewer
Gelela Kassaye	Biomarker

SNNPR: Team 3	
Melkamu Tekele	Supervisor
Hawi Belete	Editor
Wondimu Abebe	Interviewer
Wondwessen Ayele	Biomarker
Wessen Million	Biomarker
Meskerm Tadesse	Biomarker
Manyahelshal Tilaye	Interviewer
SNNPR: Team 4	
Selamu Bulado	Supervisor
Zeyneba Hussen	Editor
Ayele Tsegaye	Biomarker
Maze Gsalo	Interviewer
Asegash Asefa	Biomarker
Tigist Debebe	Biomarker
Tirunesh Teshome	Interviewer
Aster Eyob	Interviewer
HARAR: Team 1	
Kumera Mekonnen	Supervisor
Gojam Tilahun	Editor
Yemaneh Gizaw	Biomarker
Feleke Taye	Interviewer
Hiwot Mulugeta	Biomarker
Shartu Nure	Biomarker
Tsehay Mesfin	Interviewer
Senayit Mebratu	Interviewer
HARAR: Team 2	
Gebeyeu Gadissa	Supervisor
Frehiwot Getahun	Editor
Behalu Tesfaye	Biomarker
Bisrat Getachew	Interviewer
Asnakech Debasu	Biomarker
Hana Tesfaye	Interviewer
Meka Hassen	Interviewer
Hiwot Zelalem	Biomarker
GAMBELLA :Team 3	
Solomon Danel	Supervisor
Atekelt Mulualem	Editor
Belelegn W/Giorgise	Interviewer
Gidaye Beyene	Biomarker
Tigist Abera	Biomarker
Sutume Befekadu	Biomarker
Mugela kedanemariam	Interviewer
Haymanot W/Mariam	Interviewer

DIRE DAWA: Team 1	
Dagnu Solomon	Supervisor
Mahelet Tesfaye	Editor
Mesfin Girma	Interviewer
Ibrahim Kiyar	Biomarker
Gelela Negede	Biomarker
Meskerem Abebe	Interviewer
Selam Kebede	Biomarker
Hiwot Abyneh	Interviewer

DIRE DAWA: Team2	
Asheber Fekadu	Supervisor
Fisum Fekadu	Editor
Wosenseged Abdisa	Biomarker
G/Mikael Tolossa	Interviewer
Aklelework Tadesse	Biomarker
Fikerte Workalemau	Interviewer
Tigist Gizaw	Interviewer
Wegen Teshome	Biomarker

ADDIS ABABA: Team 1	
Ayana Bezabeh	Supervisor
Berut Begna	Editor
Damte Zena	Interviewer
Atikelt G/Tadik	Biomarker
Martha Asfaw	Biomarker
konjet Gizaw	Biomarker
Hilena Lakew	Interviewer
Banchiayeu Andualem	Interviewer

ADDIS ABABA: Team 2	
Aynalem Nesere	Supervisor
Munira Sultan	Editor
Tewdros Seyoum	Biomarker
Mohammed Adam	Interviewer
Wobalem Workeye	Biomarker
Hilina Kebede	Biomarker
Eyerusalem Getachew	Interviewer
Amleset K/Mariam	Interviewer

ADDIS ABABA: Team 3	
Tamrat Deneke	Supervisor
Bizunesh Alemayu	Editor
Keflu Lesane	Biomarker
Samuel Shumye	Interviewer
Rahel Tadele	Biomarker
Sentayeu Gurmessa	Biomarker
Aden Sahelemariam	Interviewer
Ayneshet Wodajo	Interviewer

EDHS DATA PROCESSING AND GIS STAFF

Data Processing Supervisors	**GIS STAFF**
Abbas Shelemew	Sisay Guta
Asres Abayneh	Abiy Wegderess
Etalemahu Gebre	Meron Mebrtu
Negatu Legesse	Atreshewal Girma

DATA ENTRY TEAM

Abel G/ Alif
Addisalem Mindaye
Alemtsehay Ayalew
Alemtsehayb Kesela
Ali Indris
Ayda Yohannes
Beluynesh Fekadu
Bruktawit Wondimagegen
Biruk Yehenew
Belen Tesfaye
Elsa G/Medhin
Elias Kassa
Fasika Workieye
Firehiwot Tamiru
Frehiwot Tesfaye
Getachew Tafese
Getent Hailu
Hanna G/Yohannes
Hagere W/Mariam
Marta G/Cherkos
Mekdes Girma
Miraf Tesfaye
Meaza G/Medhin
Meskerem Ferissa
Meskerm Zenebe
Meheret Berhe
Mihret Asfaw
Meaza Beyene
Meskerem Wendafrash
Meseret Mamao
Miskark Tadesse
Samuel Tesfaye
Sisaye Kassaye
Timnit Kidane
Tigist Eshetu
Yohanes Fekere Selase

Data entry Supervisors
Yeworkwha Mohamed
Zemed Wolde
Frehiwot Legesse
Meseret Tegegn
Ashenafi T/ Birhan

Office Editors
Berhanu Hailegeorgis
Alemseged Tekletsion
Nurhussen Issa
Habtamu Bilew
Fekeremariam Dega
Genet Berhanu
Etefwork Yilma *(Documentation)*

QUESTIONNAIRES

Appendix **E**

CENTRAL STATISTICAL AGENCY
2010 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

01 September 2010

IMPLEMENTING ORGANIZATION: CSA

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

REGION . . . . . | |

ALTITUDE (METRES) . . . . . | | | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
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 | |

LANGUAGE OF QUESTIONNAIRE: 6

LANGUAGE OF INTERVIEW: | |

LANGUAGE OF RESPONDENT: | |

LANGUAGE CODES: AMARIGNA = 1, OROMIGNA = 2, TIGRIGNA = 3, OTHER = 6

TRANSLATOR USED: (YES = 1, NO = 2) |

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE | |

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

HH 1

Introduction and Consent

Hello. My name is _____ and I am working with the Central Statistical Agency (CSA). We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes between 10 and 15 minutes to complete. As part of the survey we would first like to ask some questions about your household. Whatever information you provide will be kept strictly confidential, and will not be shared with anyone other than members of our survey team.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-19 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME'S) current marital status? 1 = MARRIED 2 = LIVING TOGETHER 3 = DIVORCED/ SEPARATED 4 = WIDOWED 5 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 5-14
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(11A)
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01	01
02			1 2	1 2	1 2			02	02	02	02
03			1 2	1 2	1 2			03	03	03	03
04			1 2	1 2	1 2			04	04	04	04
05			1 2	1 2	1 2			05	05	05	05
06			1 2	1 2	1 2			06	06	06	06
07			1 2	1 2	1 2			07	07	07	07
08			1 2	1 2	1 2			08	08	08	08
09			1 2	1 2	1 2			09	09	09	09
10			1 2	1 2	1 2			10	10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW
10 = OTHER RELATIVE
11= ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 18-59	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS	
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				CHRONIC ILLNESS	EVER ATTENDED SCHOOL		CURRENT SCHOOL ATTENDANCE	
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) been very sick for at least 3 months in the last 12 months? By very sick I mean has (NAME) been too sick to work or to carry out his/her normal activities at home?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade/ number of years (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2003 E.C. school year?	During this school year, what level and grade/year is (NAME) attending? SEE CODES BELOW.
	(12)	(13)	(14)	(15)	(15A)	(16)	(17)	(18)	(19)
	Y N DK		Y N DK		Y N DK	Y N	LEVEL GRADE	Y N	LEVEL GRADE
01	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
02	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
03	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
04	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
05	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
06	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
07	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
08	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
09	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
10	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	

CODES FOR Qs. 17 AND 19: EDUCATION

1 = PRIMARY
2 = SECONDARY
3 = TECHNICAL/VOCATIONAL
4 = HIGHER
8 = DON'T KNOW

GRADE

00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 17 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 19)
98 = DON'T KNOW

NOTE:
IF PRIMARY OR SECONDARY, RECORD COMPLETED GRADE.
IF TECHNICAL/VOCATIONAL OR HIGHER, RECORD YEARS COMPLETED.

							IF AGE 15 OR OLDER				
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	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. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-19 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME'S) current marital status? 1 = MARRIED 2 = LIVING TOGETHER 3 = DIVORCED/ SEPARATED 4 = WIDOWED 5 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 5-14
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(11A)
			M F	Y N	Y N	IN YEARS					
11			1 2	1 2	1 2			11	11	11	11
12			1 2	1 2	1 2			12	12	12	12
13			1 2	1 2	1 2			13	13	13	13
14			1 2	1 2	1 2			14	14	14	14
15			1 2	1 2	1 2			15	15	15	15
16			1 2	1 2	1 2			16	16	16	16
17			1 2	1 2	1 2			17	17	17	17
18			1 2	1 2	1 2			18	18	18	18
19			1 2	1 2	1 2			19	19	19	19
20			1 2	1 2	1 2			20	20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? YES ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guest or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

	IF AGE 0-17 YEARS				IF AGE 18-59	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS	
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				CHRONIC ILLNESS	EVER ATTENDED SCHOOL		CURRENT SCHOOL ATTENDANCE	
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) been very sick for at least 3 months in the last 12 months? By very sick I mean has (NAME) been too sick to work or to carry out his/her normal activities at home?	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade/ number of years (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2003 E.C. school year?	During this school year, what level and grade/year is (NAME) attending? SEE CODES BELOW.
	(12)	(13)	(14)	(15)	(15A)	(16)	(17)	(18)	(19)
	Y N DK		Y N DK		Y N DK	Y N	LEVEL GRADE	Y N	LEVEL GRADE
11	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
12	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
13	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
14	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
15	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
16	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
17	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
18	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
19	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	
20	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 8	1 2 NEXT LINE		1 2 NEXT LINE	

CODES FOR Qs. 17 AND 19: EDUCATION

	GRADE
1 = PRIMARY	00 = LESS THAN 1 YEAR COMPLETED
2 = SECONDARY	(USE '00' FOR Q. 17 ONLY.
3 = TECHNICAL/VOC CERTIF	THIS CODE IS NOT ALLOWED
4 = HIGHER	FOR Q. 19).
8 = DON'T KNOW	98 = DON'T KNOW

NOTE:
IF PRIMARY OR SECONDARY, RECORD COMPLETED GRADE.
IF TECHNICAL/VOCATIONAL OR HIGHER, RECORD YEARS COMPLETED.

QUESTIONS ON CHILD LABOUR FOR CHILDREN AGE 5-14

20	CHECK COLUMN 11A. RECORD THE LINE NUMBER AND AGE FOR ALL ELIGIBLE CHILDREN 5-14 YEARS IN QUESTION 21. IF MORE THAN THREE CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S). THEN PROCEED TO ASK QUESTIONS 22-28 OF MOTHERS OR CARETAKERS OF THE CHILDREN.			
		CHILD 1	CHILD 2	CHILD 3
21	LINE NUMBER FROM COLUMN 1 NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____
22	During the past week, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was (NAME) paid in cash, kind, or not paid?	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)
23	During the past week about how many hours did (NAME) do this work for someone who is not a member of this household? IF MORE THAN ONE JOB INCLUDE ALL HOURS AT ALL JOBS	NO OF HOURS ☐☐	NO OF HOURS ☐☐	NO OF HOURS ☐☐
24	At any time during the past year did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was (NAME) paid in cash, kind, or not paid?	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3
25	During the past week did (NAME) help with household chores such as shopping, collecting fire wood, cleaning, or fetching water?	YES . . . . . 1 NO . . . . . 2 (GO TO 27)	YES . . . . . 1 NO . . . . . 2 (GO TO 27)	YES . . . . . 1 NO . . . . . 2 (GO TO 27)
26	During the past week how many hours did (NAME) spend doing these chores?	NO OF HOURS ☐☐	NO OF HOURS ☐☐	NO OF HOURS ☐☐
27	During the past week did (NAME) do any other family work, such as on the farm or in a business or selling goods in the street?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN THE FIRST COLUMN OF THE NEXT PAGE;OR, IF NO MORE CHILDREN, GO TO 101)
28	During the past week how many hours did (NAME) do this work?	NO OF HOURS ☐☐ (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	NO OF HOURS ☐☐ (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	NO OF HOURS ☐☐ (GO BACK TO 22 IN THE FIRST COLUMN OF THE NEXT PAGE;OR, IF NO MORE CHILDREN, GO TO 101)

QUESTIONS ON CHILD LABOUR FOR CHILDREN AGE 5-14

20	CHECK COLUMN 11A. RECORD THE LINE NUMBER AND AGE FOR ALL ELIGIBLE CHILDREN 5-14 YEARS IN QUESTION 21. IF MORE THAN THREE CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S). THEN PROCEED TO ASK QUESTIONS 22-28 OF MOTHERS OR CARETAKERS OF THE CHILDREN.			
		CHILD 4	CHILD 5	CHILD 6
21	LINE NUMBER FROM COLUMN 1 NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____
22	During the past week, did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was (NAME) paid in cash, kind, or not paid?	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO . . . . . 3 (GO TO 24)
23	During the past week about how many hours did (NAME) do this work for someone who is not a member of this household? IF MORE THAN ONE JOB INCLUDE ALL HOURS AT ALL JOBS	NO OF HOURS ☐☐	NO OF HOURS ☐☐	NO OF HOURS ☐☐
24	At any time during the past year did (NAME) do any kind of work for someone who is not a member of this household? IF YES: Was (NAME) paid in cash, kind, or not paid?	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3	YES, PAID IN CASH/ KIND . . . . . 1 YES, UNPAID . . . . . 2 NO 3
25	During the past week did (NAME) help with household chores such as shopping, collecting fire wood, cleaning, or fetching water?	YES . . . . . 1 NO . . . . . 2 (GO TO 27)	YES . . . . . 1 NO . . . . . 2 (GO TO 27)	YES . . . . . 1 NO . . . . . 2 (GO TO 27)
26	During the past week how many hours did (NAME) spend doing these chores?	NO OF HOURS ☐☐	NO OF HOURS ☐☐	NO OF HOURS ☐☐
27	During the past week did (NAME) do any other family work, such as on the farm or in a business or selling goods in the street?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 22 IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; OR , IF NO MORE CHILDREN, GO TO 101)
28	During the past week how many hours did (NAME) do this work?	NO OF HOURS ☐☐ (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	NO OF HOURS ☐☐ (GO BACK TO 22 IN NEXTCOLUMN ; OR IF NO MORE CHILDREN GO TO 101)	NO OF HOURS ☐☐ (GO BACK TO 22 IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; OR , IF NO MORE CHILDREN, GO TO 101)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less than monthly, or never?	DAILY . . . . . 1 WEEKLY . . . . . 2 MONTHLY . . . . . 3 LESS THAN MONTHLY . . . . . 4 NEVER 5	
102	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER RIVER/LAKE/POND/STREAM/DAM . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	→ 105 → 103 → 105 → 103 → 103
102A	What is the main source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER RIVER/LAKE/POND/STREAM/DAM . . . . . 81 OTHER _____ 96 (SPECIFY)	→ 105 → 105
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 105
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
104A	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
105	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 107
106	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE/ WATER GUARD/PUR/ BISHAN GARI/AQUATABS . . . . . B STRAIN THROUGH A CLOTH . . . . . C BIO SAND /COMPOSITE/ CERAMIC POT FILTER . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
107	What kind of toilet facility do members of your household usually use? IF THE RESPONDENT DOES NOT UNDERSTAND WHICH TYPE OF TOILET THEY HAVE, ASK TO OBSERVE THE TOILET FACILITY AND CIRCLE THE APPROPRIATE CODE.	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 110
108	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 110
109	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . 0 _ _ 10 OF MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
110	Does your household have: Electricity? A watch/clock? A radio? A television? A mobile telephone? A non-mobile telephone? A refrigerator? A table? A chair? A bed with cotton/sponge/spring mattress? An electric mitad? A kerosene lamp/pressure lamp?	YES NO ELECTRICITY . . . . . 1 2 WATCH/CLOCK . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 MOBILE TELEPHONE . . . . . 1 2 NON-MOBILE TELEPHONE . . . . . 1 2 REFRIGERATOR . . . . . 1 2 TABLE . . . . . 1 2 CHAIR . . . . . 1 2 A BED WITH COTTON/SPONGE/ SPRING MATTRESS . . . . . 1 2 ELECTRIC MITAD . . . . . 1 2 KEROSENE LAMP/PRESSURE LAMP 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 NATURAL GAS . . . . . 03 BIOGAS . . . . . 04 KEROSENE . . . . . 05 CHARCOAL . . . . . 06 WOOD . . . . . 07 STRAW/SHRUBS/GRASS . . . . . 08 AGRICULTURAL CROP . . . . . 09 ANIMAL DUNG . . . . . 10 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	→ 114
112	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 114
113	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
114	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 DUNG . . . . . 12 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
115	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 THATCH/LEAF/MUD . . . . . 12 RUDIMENTARY ROOFING RUSTIC MAT/PLASTIC SHEETS . . . . . 21 REED/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 FINISHED ROOFING CORRUGATED IRON /METAL . . . . . 31 WOOD . . . . . 32 ASBESTOS/CEMENT FIBER . . . . . 33 CEMENT/CONCRETE . . . . . 34 ROOFING SHINGLES . . . . . 35 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 CANE/TRUNKS/BAMBOO/REED . . . . . 12 DIRT . . . . . 13 RUDIMENTARY WALLS BAMBOO/WOOD WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 UNCOVERED ADOBE . . . . . 23 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 REUSED WOOD . . . . . 26 FINISHED WALLS CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
117	How many rooms in this household are used for sleeping?	ROOMS	
118	Does any member of this household own: A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck?	YES NO BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . . 1 2 ANIMAL-DRAWN CART . . . . . 1 2 CAR/TRUCK 1 2	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many (LOCAL UNITS) of agricultural land do members of this household own? LOCAL UNITS _____ (SPECIFY) IF 95 OR MORE CIRCLE '950'	LOCAL UNITS . . 95 OR MORE LOCAL UNITS . . . . . 950 DON'T KNOW 998	
121	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 123
122	How many of the following animals does this household own? IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'. Milk cows, oxen or bulls? Horses, donkeys, or mules? Camels? Goats? Sheep? Chickens? Beehives?	COWS/BULLS/OXEN . . . . . . HORSES/DONKEYS/MULES . . . . . CAMELS . . . . . . GOATS . . . . . . SHEEP . . . . . . CHICKENS . . . . . . BEEHIVES	
123	Does any member of this household have a bank or microfinance saving account?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
124	Please show me where members of your household most often wash their hands.	OBSERVED . . . . . 1 NOT OBSERVED NOT IN DWELLING/YARD/PLOT . . . . . 2 NOT OBSERVED NO PERMISSION TO SEE . . . . . 3 NOT OBSERVED, OTHER REASON 4	→ 127
125	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE SPECIFIC PLACE FOR HANDWASHING.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2	
126	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B NONE C	
127	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HOUSEHOLD . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)	

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 1	CHILD 2	CHILD 3
201	CHECK COLUMN 11. RECORD THE LINE NUMBER AND AGE FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . NAME _____	LINE NUMBER . . . NAME _____	LINE NUMBER . . . NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . MONTH . . . . . YEAR	DAY . . . . . MONTH . . . . . YEAR	DAY . . . . . MONTH . . . . . YEAR
204	CHECK 203: CHILD BORN IN MESKEREM 1998 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GOTO Q214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO Q214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO Q214)
205	WEIGHT IN KILOGRAMS.	KG. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORECHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . .	LINE NUMBER . . .	LINE NUMBER . . .
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We request that all children born in Meskerem 1998 or later participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 (SIGN) REFUSED 2	GRANTED 1 (SIGN) REFUSED 2	GRANTED 1 (SIGN) REFUSED 2
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____	LINE NUMBER . . . ☐☐ NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
204	CHECK 203: CHILD BORN IN MESKEREM 1998 OR LATER	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS.	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. ☐☐.☐☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. ☐☐☐.☐ NOT PRESENT . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
208	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILDREN, GO TO 214) OLDER 2
209	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . ☐☐	LINE NUMBER . . . ☐☐	LINE NUMBER . . . ☐☐
210	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 209 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We request that all children born in Meskerem 1998 or later participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediate The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?		
211	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2	GRANTED 1 _____ (SIGN) REFUSED 2
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
213	GO BACK TO 203 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE. IF NO MORE CHILDREN, GO TO 214.			

214	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 215. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
215	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
216	WEIGHT IN KILOGRAMS	KG. [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. [ ][ ][ ].[ ][ ] NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
217	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ].[ ] NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
218	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 223) ↵
219	MARITAL STATUS: CHECK COLUMN 8.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 5 (NEVER IN UNION) 1 OTHER . . . . . 2 (GO TO 223) ↵	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 223) ↵
220	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]
221	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result told to you and to (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the anemia test?		
222	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228).	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228).	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 228).

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
223	ASK CONSENT FOR ANEMIA TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the anemia test?		
224	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226).	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226).	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 226).
225	PREGNANCY STATUS: CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
226	AGE: CHECK CHECK 218.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 230)
227	MARITAL STATUS: CHECK 219.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 230)
228	ASK CONSENT FOR DBS COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER IN UNION WOMEN AGE 15-17.	As part of the survey we are also asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Ethiopia. For the HIV test, we need a few (more) drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know (NAME OF ADOLESCENT)'s test results either. If (NAME OF ADOLESCENT) wants to know her HIV status, I can provide a list of [nearby] facilities offering counseling and testing for HIV. I will also give her a voucher for free services that can be used at any of these facilities. FOR SAMPLE CLUSTERS IN WHICH MOBILE VCT SERVICES WILL BE AVAILABLE: The Ministry of Health has also arranged for health workers to offer VCT services in this community shortly after our survey team leaves the area. The kebele leader will know when and where the VCT service will be available. Do you have any questions? If you want to ask more questions later or want to know who to talk with if (NAME OF ADOLESCENT) has any problem due to the study, I can give you information about how to contact the Regional Office of the CSA. PROVIDE CARD WITH CONTACT INFORMATION FOR CSA REGIONAL OFFICE IF REQUESTED. You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the HIV test?		
229	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 239)

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
230	ASK CONSENT FOR DBS COLLECTION FROM RESPONDENT.	As part of the survey we are also asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Ethiopia. For the HIV test, we need a few (more) drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. FOR SAMPLE CLUSTERS IN WHICH MOBILE VCT SERVICES WILL BE AVAILABLE: The Ministry of Health has also arranged for health workers to offer VCT services in this community shortly after our survey team leaves the area. The kebele leader will know when and where the VCT service will be available. Do you have any questions? If you want to ask more questions later or want to know who to talk with if you have any problem due to the study, I can give you information about how to contact the Regional Office of the CSA. PROVIDE CARD WITH CONTACT INFORMATION FOR CSA REGIONAL OFFICE IF REQUESTED. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the HIV test?		
231	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) ☐☐☐ (IF REFUSED, GO TO 239)
232	AGE: CHECK 218.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 236)
233	MARITAL STATUS: CHECK 219.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 236)
234	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER-IN-UNION WOMEN AGE 15-17.	We ask you to allow the Ministry of Health to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify (NAME OF ADOLESCENT). Therefore, we will not be able to tell (NAME OF ADOLESCENT) the results of any test that is done. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
235	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 238)

		WOMAN 1	WOMAN 2	WOMAN 3
	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
236	ASK CONSENT FOR ADDITIONAL TESTING FROM RESPONDENT.	We ask you to allow the Ministry of Health to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify you. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
237	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 239)
238	ADDITIONAL TESTS	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 235 AND 237: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
239	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
240	RECORD HEMO-GLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
241	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
242	GO BACK TO 216 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, GO TO 243.			

MINIMUM HEMOGLOBIN LEVELS FOR ANEMIA

CHECK THE COVER PAGE OF THE HOUSEHOLD QUESTIONNAIRE FOR THE ALTITUDE MEASUREMENT OF THE HOUSEHOLD

ADJUST THE CUTOFF POINT OF THE READING FROM THE HEMOCUE MACHINE BASED ON THE ALTITUDE MEASUREMENT

HEMOGLOBIN ADJUSTMENTS FOR ALTITUDE

Altitude of the Place	Severe	Moderate	Mild (non-pregnant)	Mild (pregnant)	Not anemic (non-pregnant)	Not anemic (pregnant)
Less than 1000 metres	*<7.0 g/dl*	7.0-9.9	10.0-11.9	10.0-10.9	12.0>	11.0>
1000 metres – 1499 metres	*<7.2 g/dl*	7.2-10.1	10.2-12.1	10.2-11.1	12.2>	11.2>
1500 metres – 1999 metres	*<7.5 g/dl*	7.5-10.4	10.5-12.4	10.5-11.4	12.5>	11.5>
2000 metres – 2499 metres	*<7.8 g/dl*	7.8-10.7	10.8-12.7	10.8-11.7	12.8>	11.8>
2500 metres – 2999 metres	*<8.3 g/dl*	8.3-11.2	11.3-13.2	11.3-12.2	13.3>	12.3>
3000 metres – 3499 metres	*<8.9 g/dl*	8.9-11.8	11.9-13.8	11.9-12.8	13.9>	12.9>
3500 metres – 3999 metres	*<9.7 g/dl*	9.7-12.6	12.7-14.6	12.7-13.6	14.7>	13.7>

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

243	CHECK COLUMN 10 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN 244. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		MAN 1	MAN 2	MAN 3
244	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
245	WEIGHT IN KILOGRAMS	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. ☐☐☐.☐☐ NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
246	HEIGHT IN CENTIMETERS	CM. . . . . ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . . . ☐☐☐.☐ NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
247	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 252)
248	MARITAL STATUS: CHECK COLUMN 8.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 252)
249	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐
250	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ OTHER ADULT IDENTIFIED IN 249 AS RESPONSIBLE FOR NEVER IN UNION MEN AGE 15-17.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the anemia test?		
251	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 256)

		MAN 1	MAN 2	MAN 3
	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
252	ASK CONSENT FOR ANEMIA TEST FROM RESPONDENT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the anemia test?		
253	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN)
254	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 258)
255	MARITAL STATUS: CHECK COLUMN 8.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 258)
256	ASK CONSENT FOR DBS COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 247 AS RESPONSIBLE FOR NEVER IN UNION MEN AGE 15-17.	As part of the survey we are also asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Ethiopia. For the HIV test, we need a few (more) drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know (NAME OF ADOLESCENT)'s test results either. If (NAME OF ADOLESCENT) wants to know his HIV status, I can provide a list of [nearby] facilities offering counseling and testing for HIV. I will also give him a voucher for free services that can be used at any of these facilities. FOR SAMPLE CLUSTERS IN WHICH MOBILE VCT SEERVICES WILL BE AVAILABLE: The Ministry of Health has also arranged for health workers to offer VCT services in this communicty shortly after our survey team leaves the area. The kebele leader will know when and where the VCT service will be available. Do you have any questions? If you want to ask more questions later or want to know who to talk with if (NAME OF ADOLESCENT) has any problem due to the study, I can give you information about how to contact the Regional Office of the CSA. PROVIDE CARD WITH CONTACT INFORMATION FOR CSA REGIONAL OFFICE IF REQUESTED. You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF ADOLESCENT) to take the HIV test?		
257	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)

		MAN 1	MAN 2	MAN 3
	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . NAME _____	LINE NUMBER . . . . . NAME _____	LINE NUMBER . . . . . NAME _____
258	ASK CONSENT FOR DBS COLLECTION FROM RESPONDENT.	As part of the survey we are also asking people all over the country to take an HIV test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Ethiopia. For the HIV test, we need a few (more) drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. FOR SAMPLE CLUSTERS IN WHICH MOBILE VCT SERVICES WILL BE AVAILABLE: The Ministry of Health has also arranged for health workers to offer VCT services in this community shortly after our survey team leaves the area. The kebele leader will know when and where the VCT service will be available. Do you have any questions? If you want to ask more questions later or want to know who to talk with if you have any problem due to the study, I can give you information about how to contact the Regional Office of the CSA. PROVIDE CARD WITH CONTACT INFORMATION FOR CSA REGIONAL OFFICE IF REQUESTED. Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you take the HIV test?	
259	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 267)
260	AGE: CHECK COLUMN 7.	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 264)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 264)	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (GO TO 264)
261	MARITAL STATUS: CHECK COLUMN 8.	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)	CODE 5 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 (GO TO 264)
262	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/OTHER ADULT IDENTIFIED IN 220 AS RESPONSIBLE FOR NEVER-IN-UNION MEN AGE 15-17.	We ask you to allow the Ministry of Health to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify (NAME OF ADOLESCENT). Therefore, we will not be able to tell (NAME OF ADOLESCENT) the results of any test that is done. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
263	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 266)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 266)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, GO TO 266)
264	ASK CONSENT FOR ADDITIONAL TESTING FROM RESPONDENT.	We ask you to allow the Ministry of Health to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify you. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		

		MAN 1	MAN 2	MAN 3
	LINE NUMBER FROM COLUMN 10 NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
265	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 267)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF GRANTED, GO TO 267)
266	ADDITIONAL TESTS	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.	CHECK 263 AND 265: IF CONSENT HAS NOT BEEN GRANTED WRITE "NO ADDITIONAL TEST" ON THE FILTER PAPER.
267	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
268	RECORD HEMO-GLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ NOT PRESENT . . . . . 994 REFUSED . . . . . 995 OTHER 996
269	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER . . . . . 99996 PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.
270	GO BACK TO 245 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE MEN, END INTERVIEW.			

CENTRAL STATISTICAL AGENCY
2010 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY
WOMAN'S QUESTIONNAIRE

01 September 2010

IMPLEMENTING ORGANIZATION: CSA

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

REGION . . . . . | | |

NAME AND LINE NUMBER OF WOMAN _____ | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY | | MONTH | | YEAR | | | |
INTERVIEWER'S NAME				INT. NUMBER | | |
RESULT*				RESULT |
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS |
TIME				

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QUESTIONNAIRE: 6 LANGUAGE OF INTERVIEW: [ ] LANGUAGE OF RESPONDENT: [ ]

LANGUAGE CODES: AMARIGNA = 1, OROMIGNA = 2, TIGRIGNA = 3, OTHER = 6

TRANSLATOR USED: (YES = 1, NO = 2) [ ]

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____ | |	DATE _____ | |	| |	| |

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the Central Statistical Agency (CSA). We are conducting a survey about health all over Ethiopia. The information we collect will help the government to plan health services. Your household was selected for the survey. The survey usually takes about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

Do you have any questions?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING . . . . . ☐ HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	
101A	COLLECT ANY RELEVANT DOCUMENTS THAT MAY HAVE INFORMATION ON THE RESPONDENT AND HER CHILDREN'S AGE AND IMMUNIZATIONS.		
102	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS ☐☐	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL . . . . . 3 HIGHER 4	
106	What is the highest grade/number of years you completed at that level? IF COMPLETED PRIMARY OR SECONDARY, RECORD COMPLETED GRADE. IF TECHNICAL/VOCATIONAL OR HIGHER, RECORD YEARS COMPLETED. IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL RECORD '00'.	GRADE/NUMBER OF YEARS ☐☐	
107	CHECK 105: PRIMARY ☐ ↓ SECONDARY AND ABOVE ☐ →		110
107A	Have you ever attended a Bible school or Koranic school or any other informal school that involves learning to read and/or write (not including primary school) ?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ☐ CODE '1' OR '5' CIRCLED ☐ → 111		
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	ORTHODOX . . . . . 1 CATHOLIC . . . . . 2 PROTESTANT . . . . . 3 MOSLEM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 6 (SPECIFY)	
114	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP. CODE FOR ETHNIC GROUP WILL BE FILLED IN BY OFFICE EDITOR.	_____ ☐☐	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . ☐☐ DAUGHTERS AT HOME . . . . . ☐☐	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . ☐☐ DAUGHTERS ELSEWHERE . ☐☐	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . ☐☐ GIRLS DEAD . . . . . ☐☐	
208	SUM ANSWERS TO 203, 205, AND 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 ROWS.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

212 What name was given to your (first/next) baby? (NAME)	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 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	BOY 1 GIRL 2	SING 1 MULT 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 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

212 What name was given to your next baby? (NAME)	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	BOY 1 GIRL 2	SING 1 MULT 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 220	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 221)	DAYS . . . 1 ☐☐ MONTHS 2 ☐☐ YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN THE ABOVE TABLE.	YES . . . . . 1 NO 2
223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐↓ NUMBERS ARE DIFFERENT ☐→ (PROBE AND RECONCILE)	
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 1998 E.C. OR LATER. ☐ IF NONE, CIRCLE '0' AND SKIP TO 226. NONE . . . . . 0 → 226	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	**C** FOR EACH BIRTH SINCE MESKEREM 1998, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 230
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. **C** ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . ☐☐	
228	When you got pregnant, did you want to get pregnant at that time?	YES . . . . . 1 NO 2	→ 230
229	Did you want to have a baby later on or did you not want any (more) children?	LATER . . . . . 1 NO MORE 2	
230	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 238
231	When did the last such pregnancy end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
231A	Did you seek medical advice or treatment when this pregnancy ended? IF YES: Where did you seek medical advice or treatment?	HEALTH FACILITY . . . . . 1 TRADITIONAL HEALER . . . . . 2 NO ADVICE/TREATMENT . . . . . 3 OTHER _____ 6 (SPECIFY)	
232	CHECK 231: LAST PREGNANCY ENDED IN MESKEREM 1998 OR LATER ☐ ↓ LAST PREGNANCY ENDED BEFORE MESKEREM 1998 ☐		→ 238
233	How many months pregnant were you when the last such pregnancy ended? **C** RECORD NUMBER OF COMPLETED MONTHS. ENTER T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . ☐☐	
234	Since Meskerem 1998, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 236
235	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO MESKEREM 1998 **C** ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
236	Did you have any miscarriages, abortions or stillbirths that ended before 1998 E.C.?	YES . . . . . 1 NO 2	→ 238

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
237	When did the last such pregnancy that terminated before 1998 E.C. end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
238	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
239	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
240	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female sterilization** PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	**Male sterilization** PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
03	**IUD** PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
04	**Injectables** PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
05	**Implants (Implanon/Jadelle/ Norplants)** PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
06	**Pill** PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
07	**Male condom** PROBE Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	
08	**Female Condom** PROBE Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Standard Days Method** PROBE: Women can use a cycle of beads to count the days they are most likely to get pregnant and avoid sexual intercourse during those days.	YES . . . . . 1 NO 2	
09A	**Lactational Amenorrhea Method (LAM)**	YES . . . . . 1 NO 2	
10	**Rhythm Method** PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	
11	**Withdrawal** PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
12	**Emergency Contraception** PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy	YES . . . . . 1 NO 2	
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	
302	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ → 311		
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO . . . . . 2 → 311	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F MALE CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM/FOAM/JELLY . . . . . I STANDARD DAYS METHOD . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . Y	→ 308A → 308A → 306 → 308A
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	CHOICE/ROSELLE . . . . . 01 TRIGESTREL . . . . . 02 HYAN . . . . . 03 NORDETTE . . . . . 04 DUOFEM . . . . . 05 NEOGYNON . . . . . 06 EXLUTON . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	HIWOT TRUST . . . . . 01 SENSATION RIBBED . . . . . 02 SENSATION COFFEE . . . . . 03 SENSATION HONEY . . . . . 04 FRENCH FEELING . . . . . 05 JEANS . . . . . 06 UNIDUS/SOUTH KOREA . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
308A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
309	CHECK 308A, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308A — YES ↓ / NO ↓ GO BACK TO 308A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		
310	CHECK 308A: YEAR IS 1998 E.C. OR LATER ↓ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. YEAR IS 1997 E.C. OR EARLIER ↓ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO MESKEREM 1998. THEN SKIP TO → 322		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
311	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO MESKEREM 1998. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **C** IN COLUMN 1, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then?		
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐↓ ANY METHOD USED ☐→		314
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 324
314	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 MALE CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD . . . 96	→ 324 → 317 → 326 → 315A → 326
315	You first started using (CURRENT METHOD FROM Q.314) in (DATE FROM Q.308A). Where did you get it at that time?	PUBLIC SECTOR GOVT.HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH STATION/CLINIC . . 13 GOVT. HEALTH POST/HEW . . . . . 14 OTHER PUBLIC _____ 15 (SPECIFY) NGO NGO HEALTH FACILITY . . . . . 21 VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . 22 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL _____ 34 (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE 41 SHOP . . . . . 42 FRIEND/RELATIVE . . . . . 43 OTHER _____ 96 (SPECIFY)	
315A	Where did you learn how to use the standard days method/rhythm/ lactational amenorhea method? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 MALE CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD 12	→ 323 → 320 → 326
317	At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 319
318	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 320
319	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
320	CHECK 317: CODE '1' CIRCLED At that time, were you told about other methods of family planning that you could use? CODE '1' NOT CIRCLED When you obtained (CURRENT METHOD FROM 314) from (SOURCE OF METHOD FROM 315) were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 322
321	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
322	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 MALE CONDOM 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM/FOAM/JELLY . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 326 → 326 → 326

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
323	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT.HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH STATION/CLINIC . . . 13 GOVT. HEALTH POST/HEW . . . . . 14 OTHER PUBLIC _____ 15 (SPECIFY) NGO NGO HEALTH FACILITY . . . . . 21 VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . 22 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . 41 SHOP . . . . . 42 FRIEND/RELATIVE . . . . . 43 OTHER _____ 96 (SPECIFY)	→ 326
324	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 326
325	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH STATION/CLINIC . . C GOVT.HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . J PHARMACY . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE M SHOP . . . . . N FRIEND/RELATIVE . . . . . O OTHER _____ X (SPECIFY)	
326	In the last 12 months,were you visited by a HEW/VCHW or others who talked to you about family planning?	YES . . . . . 1 NO 2	
327	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
328	Did any staff member/HEW at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. MATERNITY CARE

401	CHECK 224: ONE OR MORE BIRTHS IN MESKERM 1998 E.C. OR LATER ↓ NO BIRTHS IN MESKERM 1998 E.C. OR LATER → 556			
402	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1998 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask some questions about your children born in the last five years. (We will talk about each separately.)			
403	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER ☐☐	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES . . . . . 1 (SKIP TO 408) NO 2	YES . . . . . 1 (SKIP TO 430) NO 2	YES . . . . . 1 (SKIP TO 430) NO 2
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 408)	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430)	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430)
407	How much longer did you want to wait?	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998	MONTHS . .1 ☐☐ YEARS . .2 ☐☐ DON'T KNOW . . . 998
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415)		
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . . . . B HEW . . . . . C OTHER HEALTH PERSONNEL_____ D (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTENDANT . . . . E UNTRAINED TRAD BIRTH ATTENDANT . . . . F VCHW . . . . . G OTHER_____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S). IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . . . A OTHER HOME . . . . . B PUBLIC SECTOR GOVT. HOSPITAL . . C GOVT. HEALTH CENTER . . . . . D GOVT. HEALTH STATION /CLINIC . . . . . E GOVT. HEALTH POST . . . . . F OTHER PUBLIC _____ G (SPECIFY) NGO HEALTH FACILITY . . H PRIVATE MED. SECTOR PVT. HOSPITAL . . . . I PVT. CLINIC . . . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER _____ X (SPECIFY)		
411	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . [ ][ ] DON'T KNOW 98		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . . . [ ][ ] DON'T KNOW 98		
413	As part of your antenatal care during this pregnancy, were any of the following done at least once? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD 1 2		
414	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DON'T KNOW 8		
414A	Which signs of pregnancy complications were you told about?	VAGINAL BLEEDING . . A VAGINAL GUSH OF FLUID. . . . . B SEVERE HEAD ACHE C BLURRED VISION. . . . . D FEVER . . . . . E ABDOMINAL PAIN. . . . . F OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) DON'T KNOW 8		
416	During this pregnancy, how many times did you get this tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8		
417	CHECK 416:	2 OR MORE TIMES [ ] → (SKIP TO 421) OTHER [ ] →		
418	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8		
419	Before this pregnancy, how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8		
420	How many years ago did you receive the last tetanus injection before this pregnancy?	YEARS AGO . . . . . [ ][ ]		
421	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLETS.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NO. OF DAYS . . . [ ][ ][ ] DON'T KNOW 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
430	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . 1 LARGER THAN AVERAGE . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . 4 VERY SMALL . . . 5 DON'T KNOW . . . 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
431	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW . . . 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
432	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW . . . 99.998	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW 99.998	KG FROM CARD 1 ☐☐.☐☐☐ KG FROM RECALL 2 ☐☐.☐☐☐ DON'T KNOW . 99.998
433	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . . . . B HEW . . . . . C OTHER HEALTH PERSONNEL _____ D (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTENDANT . . . E UNTRAINED TRAD BIRTH ATTENDANT F VCHW . . . . . G RELATIVE/FRIEND . . . . H OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . . B HEW . . . . . C OTHER HEALTH PERSONNEL _____ D (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTENDANT . . . E UNTRAINED TRAD BIRTH ATTENDANT F VCHW . . . . . G RELATIVE/FRIEND . . . H OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . . B HEW . . . . . C OTHER HEALTH PERSONNEL _____ D (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTENDANT . . . E UNTRAINED TRAD BIRTH ATTENDANT F VCHW . . . . . G RELATIVE/FRIEND . . . H OTHER _____ X (SPECIFY) NO ONE . . . . . Y
434	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . . . 11 (SKIP TO 437A) ← OTHER HOME . . . . . 12 PUBLIC SECTOR. GOVT. HOSPITAL . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH STAT/CLINIC . . . . 23 GOVT. HEALTH POST . . . . . 24 OTHER PUBLIC . . . . 26 _____ (SPECIFY) NGO HEALTH FACILITY . . 31 PRIVATE MED. SECTOR PVT. HOSPITAL . . . . 41 PVT. CLINIC . . . . 42 OTHER PRIVATE MED. _____ 43 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 437A) ←	HOME YOUR HOME . . . 11 (SKIP TO 448) ← OTHER HOME . . . 12 PUBLIC SECTOR. GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH STAT/CLINIC . . . 23 GOVT. HEALTH POST . . . . . 24 OTHER PUBLIC 26 _____ (SPECIFY) NGO HEALTH FACILITY 31 PRIVATE MED. SECTOR PVT. HOSPITAL . 41 PVT. CLINIC . . . 42 OTHER PRIVATE MED. _____ 43 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←	HOME YOUR HOME . . . 11 (SKIP TO 448) ← OTHER HOME . . . 12 PUBLIC SECTOR. GOVT. HOSPITAL 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH STAT/CLINIC . . . 23 GOVT. HEALTH POST . . . . . 24 OTHER PUBLIC 26 _____ (SPECIFY) NGO HEALTH FACILITY 31 PRIVATE MED. SECTOR PVT. HOSPITAL 41 PVT. CLINIC . . . 42 OTHER PRIVATE MED. _____ 43 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←
435	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
436	After you gave birth to (NAME), did anyone check on your health while you were still in the facility?	YES . . . . . 1 (SKIP TO 439) ←┘ NO 2		
437	Did anyone check on your health after you left the facility?	YES . . . . . 1 (SKIP TO 439) ←┘ NO . . . . . 2 (SKIP TO 446) ←┘		
437A	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANS- PORTATION . . . . . C DON'T TRUST FACILITY/POOR QUALITY SERVICE . D NO FEMALE PROVID- ER AT FACILITY . . . . E HUSBAND/FAMILY DID NOT ALLOW . . . . F NOT NECESSARY . . . . G NOT CUSTOMARY . . . . H OTHER _____ X (SPECIFY)		
438	After you gave birth to (NAME), did anyone check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442) ←┘		
439	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PRERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . 12 HEW . . . . . 13 OTHER HEALTH PERSONNEL _____ 14 (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTEND . . . . . 21 UNTRAINED TRAD BIRTH ATTEND . 22 VCHW . . . . . 23 OTHER _____ 96 (SPECIFY)		
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 DAYS 2 WEEKS 3 DON'T KNOW . . . 998		
441	CHECK 434:	11, 12 OR 96 CIRCLED ☐ OTHER ☐ (SKIP TO 446)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
442	In the two months after (NAME) was born, did any Doctor/Nurse/ HEW or other health personnel or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 446) ← DON'T KNOW 8		
443	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 ☐☐ DAYS 2 ☐☐ WEEKS 3 ☐☐ DON'T KNOW . . . 998		
444	Who checked on (NAME'S) health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PRERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . 12 HEW . . . . . 13 OTHER HEALTH PERSONNEL _____ 14 (SPECIFY) OTHER PERSON TRAINED TRAD BIRTH ATTEND . . . . . 21 UNTRAINED TRAD BIRTH ATTEND . 22 VCHW . . . . . 23 OTHER _____ 96 (SPECIFY)		
445	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 PUBLIC SECTOR. GOVT. HOSPITAL . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH STAT /CLINIC . . . . . 23 GOVT. HEALTH POST . . . . . 24 OTHER PUBLIC . . . . 26 _____ (SPECIFY) NGO HEALTH FACILITY . . 31 PRIVATE MED. SECTOR PVT. HOSPITAL . . . . 41 PVT. CLINIC . . . . 42 OTHER PRIVATE MED. _____ 43 (SPECIFY) OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
446	In the first two months after delivery, did you receive a vitamin A dose (like this)? SHOW CAPSULES	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
447	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 450)		
448	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)
449	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
450	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT ☐ (SKIP TO 451) PREGNANT OR UNSURE ☐ (SKIP TO 452)		
451	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
453	Did you ever breastfeed (NAME)?	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
454	CHECK 404: IS CHILD LIVING?	LIVING ☐ (SKIP T0 460) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ (SKIP T0 460) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ (SKIP T0 460) DEAD ☐ (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF AN ADDITIONAL QNNAIRE; OR IF NO MORE BIRTHS, GO TO 501)
455	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . 000 HOURS 1 [ ][ ] DAYS 2 [ ][ ]		
456	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 458)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
457	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) .... A PLAIN WATER ..... B SUGAR OR GLUCOSE WATER ..... C GRIPE WATER ..... D SUGAR-SALT-WATER SOLUTION ..... E FRUIT JUICE ..... F INFANT FORMULA .... G TEA/INFUSIONS ..... H HONEY ..... I FRESH BUTTER ..... J FENUGREEK ..... K OTHER _____ X (SPECIFY)		
458	CHECK 404: IS CHILD LIVING?	LIVING ☐ → DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)		
459	Are you still breastfeeding (NAME)?	YES ..... 1 NO 2		
460	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
461		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

501 ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 1998 E.C. OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH.
(IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
502	BIRTH HISTORY NUMBER FROM 212	BIRTH HISTORY NUMBER . . . . . [ ][ ]	BIRTH HISTORY NUMBER . . . . . [ ][ ]	BIRTH HISTORY NUMBER . . . . . [ ][ ]
503	FROM 212 AND 216	NAME _____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 553)	NAME _____ LIVING [ ] DEAD [ ] → (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 553)
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) ← YES, NOT SEEN . . . . . 2 (SKIP TO 509) ← NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2	YES . . . . . 1 (SKIP TO 509) ← NO 2

506 (1) COPY DATE FROM THE CARD FOR EACH VACCINE.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR	NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR	SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	BCG [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	BCG [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
POLIO 0 (POLIO GIVEN AT BIRTH)	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P0 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P0 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
POLIO 1	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
POLIO 2	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
POLIO 3	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	P3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT 1	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT 2	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT 3	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT-HepB-Hib1	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib1 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT-HepB-Hib 2	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib2 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
DPT-HepB-Hib 3	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	D-Hep B-Hib3 [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
MEASLES	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	MEA [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	MEA [ ][ ]	[ ][ ]	[ ][ ][ ][ ]
VITAMIN A (MOST RECENT)	[ ][ ]	[ ][ ]	[ ][ ][ ][ ]	VIT A [ ][ ]	[ ][ ]	[ ][ ][ ][ ]	VIT A [ ][ ]	[ ][ ]	[ ][ ][ ][ ]

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
507	CHECK 506:	BCG TO VITAMIN A ALL RECORDED [ ] → (GO TO 511) OTHER [ ]	BCG TO VITAMIN A ALL RECORDED [ ] → (GO TO 511) OTHER [ ]	BCG TO VITAMIN A ALL RECORDED [ ] → (GO TO 511) OTHER [ ]

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
508	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations given in a national immunization day campaign? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 506 THAT ARE NOT RECORDED AS HAVING BEEN GIVEN	YES . . . . . 1 (PROBE FOR VACCINATIONS SHOWN IN 506 AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS SHOWN IN 506 WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS SHOWN IN 506 WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 511) NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
509	Did (NAME) ever have any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8
510	Please tell me if (NAME) had any of the following vaccinations:			
510A	A BCG vaccination against tuberculosis, that is, an injection in the right arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8
510C	Was the first polio vaccine given in the first two weeks after birth or later?	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2	FIRST 2 WEEKS . . . 1 LATER 2
510D	How many times was the polio vaccine received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
510E	A DPT or DPT-HepB-Hib vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8
510F	How many times was a DPT or DPT-HepB-Hib vaccination given ?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES . . . . .
510G	A measles injection or an MMR injection - that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510H	Did (NAME) receive a vaccination certificate for completing the schedule for all vaccinations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
511	Within the last six months has (NAME) received a vitamin A dose like this? SHOW CAPSULES.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
512	In the last seven days, was (NAME) given iron pills like this? SHOW COMMON TYPES OF IRON PILLS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
513	Was (NAME)given any drug for intestinal worms in the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
514	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8
515	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
516	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
517	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 ABOUT THE SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
518	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
519	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER B GOVT.HEALTH STATION/CLINIC . . C GOVT.HEALTH POST/HEW D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSPITAL H PRIVATE CLINIC I PHARMACY J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE L SHOP . . . . . M TRADITIONAL HEALER . N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . A GOVT. H.CENTER B GOVT.HEALTH STATION/CLINIC . C GOVT.HEALTH POST/H D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSP . H PRIVATE CLINIC ... I PHARMACY . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE L SHOP . . . . . M TRADITIONAL HEALER . N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . A GOVT. H CENTER B GOVT.HEALTH STATION/CLINIC . C GOVT.HEALTH POST/H D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSP . H PRIVATE CLINIC ... I PHARMACY . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE L SHOP . . . . . M TRADITIONAL HEALER . N OTHER _____ X (SPECIFY)
520	CHECK 519:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 522)
521	Where did you first seek advice or treatment? USE LETTER CODE FROM 519.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special ORS packet like LEMLEM? b) A government-recommended homemade fluid?	YES NO DK FLUID FROM ORS PKT . . . . . 1 2 8 HOMEMADE FLUID 1 2 8	YES NO DK FLUID FROM ORS PKT . . 1 2 8 HOMEMADE FLUID . . . 1 2 8	YES NO DK FLUID FROM ORS PKT . . 1 2 8 HOMEMADE FLUID . . . 1 2 8
523	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)
525	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
527	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8
528	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8
529	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)
530	CHECK 525: HAD FEVER?	YES / NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES / NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553)	YES / NO OR DK (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553)
531	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
532	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE . . . . . 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
533	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)
534	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER B GOVT.HEALTH STATION/CLINIC . . . C GOVT.HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSPITAL H PRIVATE CLINIC . . . . . I PHARMACY . . . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE . . . . . L SHOP . . . . . M TRADITIONAL HEALER . . . . . N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . A GOVT. H. CENTER . B GOVT.HEALTH STATION/CLINIC . C GOVT.HEALTH POST/HEW . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSP . H PRIVATE . . . . . I PHARMACY . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE . . . . . L SHOP . . . . . M TRADITIONAL HEALER . . . . . N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL . A GOVT. H. CENTER . B GOVT.HEALTH STATION/ CLINIC . C GOVT.HEALTH POST/HEW . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY F VCHW . . . . . G PRIVATE MED.SECTOR PRIVATE. HOSP . H PRIVATE . . . . . I PHARMACY . . . J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE DRUG VENDOR/ STORE . . . . . L SHOP . . . . . M TRADITIONAL HEALER . . . . . N OTHER _____ X (SPECIFY)
535	CHECK 534:	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)	TWO OR MORE CODES CIRCLED ONLY ONE CODE CIRCLED (SKIP TO 537)
536	Where did you first seek advice or treatment? USE LETTER CODE FROM 534.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
537	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
538	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS SP/FANSIDAR . . . . . A CHLOROQUINE . . . . . B ARTEMETHER-LUMEFANTRINE (COARTEM /ARTEFAN) . . . . . C QUININE . . . . . D OTHER ANTI-MALARIAL _____ (SPECIFY) . . . E ANTIBIOTIC DRUGS INJECTION . . . . . F BACTRIM (COTRIM) . . . . G AMPICILIN . . . . . H AMOXYCILIN . . . . . I CHLORIAM-PHENICOL . . . . . J TETRACYCLINE . . . . K OTHER ANTI-BIOTIC . . . . . L OTHER DRUGS PARACETAMOL . . . . . M ASPIRIN (PARAMOL) . . . . . N ACETA-MINOPHEN . . . . . O IBUPROFEN . . . P OTHER _____ (SPECIFY) X DON'T KNOW Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B ARTEMETHER-LUMEFANTRINE (COARTEM /ARTEFAN) . . . C QUININE . . . . . D OTHER ANTI-MALARIAL _____ (SPECIFY) . . . E ANTIBIOTIC DRUGS INJECTION . . . . . F BACTRIM (COTRIM) . . . . . G AMPICILIN . . . . . H AMOXYCILIN . . . I CHLORIAM-PHENICOL . . . . . J TETRACYCLINE K OTHER ANTI-BIOTIC . . . . . L OTHER DRUGS PARACETAMOL. . M ASPIRIN (PARAMOL) . . . . N ACETA-MINOPHEN . . . O IBUPROFEN . . . P OTHER _____ (SPECIFY) X DON'T KNOW Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . B ARTEMETHER-LUMEFANTRINE (COARTEM /ARTEFAN) . . C QUININE . . . . . D OTHER ANTI-MALARIAL _____ (SPECIFY) . . . E ANTIBIOTIC DRUGS INJECTION . . . . . F BACTRIM (COTRIM) . . . . . G AMPICILIN . . . . . H AMOXYCILIN . . . I CHLORIAM-PHENICOL . . . . . J TETRACYCLINE K OTHER ANTI-BIOTIC . . . . . L OTHER DRUGS PARACETAMOL. . M ASPIRIN (PARAMOL) . . . . N ACETA-MINOPHEN . . . O IBUPROFEN . . . P OTHER _____ (SPECIFY) X DON'T KNOW Z
552		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 553.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 553.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
553	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 1998 E.C. OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ NONE ☐ → 556 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 554) _____ (NAME)		
554	The last time (NAME FROM 553) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY)	
555	CHECK 522(a), ALL COLUMNS: NOT ASKED ☐ NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ → 557		
556	Have you ever heard of a special fluid made from an ORS packet, like LEMLEM, that you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
557	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2001 E.C. OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ NONE ☐ → 601 RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 558) _____ (NAME)		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

558 Now I would like to ask you about (other) liquids or foods that (NAME FROM 557) had yesterday during the day or at night. I am interested in whether your child had the item even if it was combined with other foods.

	Did (NAME FROM 557) (drink/eat):		YES	NO	DK
a)	Plain water?	**a)**	1	2	8
b)	Juice or juice drinks?	**b)**	1	2	8
c)	Soup?	**c)**	1	2	8
d)	Milk such as tinned, powdered, or fresh animal milk?	**d)**	1	2	8
	IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK MILK			
e)	Infant formula such as Plan, S-26?	**e)**	1	2	8
	IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK FORMULA			
f)	Any other liquids?	**f)**	1	2	8
g)	Yogurt?	**g)**	1	2	8
	IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE YOGURT			
h)	Any commercially fortified baby food, like Fafa, Hilina, Cerilak, Cerifam,Mother Choice?	**h)**	1	2	8
i)	Injera, bread, rice, noodles, or other foods made from grains, such as, tef, oats, maize, barley, wheat, sorghum, millet or other grains?	**i)**	1	2	8
j)	Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	**j)**	1	2	8
k)	White potatoes, white yams, bulla, kocho, manioc, cassava, or any other foods made from roots?	**k)**	1	2	8
l)	Any dark green, leafy vegetables like kale, spinach, or amaranth leaves?	**l)**	1	2	8
m)	Ripe mangoes or papayas?	**m)**	1	2	8
n)	Any other fruits or vegetables?	**n)**	1	2	8
o)	Liver, kidney, heart or other organ meats?	**o)**	1	2	8
p)	Any meat, such as beef, pork, lamb, goat, chicken, or duck?	**p)**	1	2	8
q)	Eggs?	**q)**	1	2	8
r)	Fresh or dried fish or shellfish?	**r)**	1	2	8
s)	Any foods made from beans, peas, lentils, or nuts?	**s)**	1	2	8
t)	Cheese or other food made from milk?	**t)**	1	2	8
u)	Any other solid, semi-solid, or soft food?	**u)**	1	2	8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
559	CHECK 558 (CATEGORIES "h" THROUGH "u"): NOT A SINGLE "YES" ☐ ↓ AT LEAST ONE "YES" ☐ → 561		
560	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF 'YES' PROBE: What kind of solid,semi-solid or soft foods did (NAME), eat?	YES . . . . . 1 (GO BACK TO 558 TO RECORD FOOD EATEN YESTERDAY) ← NO . . . . . 2 → 601	
561	How many times did (NAME FROM 557) eat solid, semisolid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 612
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 609
604	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO.	
606	Does your husband/partner have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 609
607	Including yourself, in total, how many wives or partners does your husband live with now as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . DON'T KNOW 98	
608	Are you the first, second, … wife?	RANK	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
610	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about when you started living with your first husband/partner. In what month and year was that?	MONTH . . . . . DON'T KNOW MONTH . . . . . 98 YEAR . . . . . DON'T KNOW YEAR 9998	→ 612
611	How old were you when you first started living with him?	AGE	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
613	Now I would like to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 628
614	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
615	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 627

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
616	When was the last time you had sexual intercourse with this person?		DAYS 1 ☐☐ WEEKS 2 ☐☐ MONTHS 3 ☐☐	DAYS 1 ☐☐ WEEKS 2 ☐☐ MONTHS 3 ☐☐
617	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 619)
618	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
619	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COMMERCIAL SEX WORKER. . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COMMERCIAL SEX WORKER. . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COMMERCIAL SEX WORKER. . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 622)
620	CHECK 609:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE (SKIP TO 622)
621	CHECK 613:	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)	FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND OTHER (SKIP TO 623)
622	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 ☐☐ WEEKS AGO 2 ☐☐ MONTHS AGO. 3 ☐☐ YEARS AGO. 4 ☐☐	DAYS AGO 1 ☐☐ WEEKS AGO 2 ☐☐ MONTHS AGO 3 ☐☐ YEARS AGO 4 ☐☐	DAYS AGO 1 ☐☐ WEEKS AGO 2 ☐☐ MONTHS AGO 3 ☐☐ YEARS AGO 4 ☐☐
623	How many times during the last 12 months did you have sexual intercourse with this person? IF 95 OR MORE, WRITE '95'.	NUMBER OF TIMES ☐☐	NUMBER OF TIMES ☐☐	NUMBER OF TIMES ☐☐
623A	The last time you had sexual intercourse (with this other person), did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 623C)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 623C)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 623C)
623B	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4
623C	The last time you had sexual intercourse (with this other person), did you or this person chew chat any time during that day?	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4
623D	Are you still having sex with this person?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
624	How old is this person?	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98
625	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	YES . . . . . 1 (GO BACK TO 616 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 627)	
626	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . . ☐☐ DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
627	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
628	PRESENCE OF OTHERS DURING THIS SECTION	YES NO MALE ADULTS . . . . . 1 2 FEMALE ADULTS . . . . . 1 2 MALE YOUTHS . . . . . 1 2 FEMALE YOUTHS . . . . . 1 2 CHILDREN 1 2	
629	Do you know of a place where a person can get male condoms ?	YES . . . . . 1 NO 2	→ 632
630	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT.HEALTH STATION/CLINIC . . . . . C GOVT.HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F VOLUNTARY COMMUNITY HEALTH WORKERS G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K ANTI-AIDS CLUB/ASSOCIATION . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . N SHOP/BAR/HOTEL/GROCERY/ . . . . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	
631	If you wanted to, could you yourself get a male condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
631A	CHECK 301 (08) KNOWS FEMALE CONDOM YES ☐ ↓ NO ☐ →		701

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
632	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 701
633	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVTHEALTH CENTER . . . . . B GOVT. HEALTH STATION/CLINIC . . . . . C GOVT. HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F VOLUNTARY COMMUNITY HEALTH WORKERS G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATEHOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K ANTI-AIDS CLUB/ASSOCIATION . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . N SHOP/BAR/HOTEL/GROCERY/ . . . . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	
634	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 304: NEITHER STERILIZED ☐ → NOT ASKED ☐ → HE OR SHE STERILIZED ☐ → 712		
702	CHECK 226: PREGNANT ☐ → NOT PREGNANT OR UNSURE ☐ → 704		
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 705 → 711 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . 3 UNDECIDED/DON'T KNOW 8	 → 707 → 712 → 710
705	CHECK 226: NOT PREGNANT OR UNSURE ☐ → How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ → After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 710 → 712 → 710
706	CHECK 226: NOT PREGNANT OR UNSURE ☐ → PREGNANT ☐ → 711		
707	CHECK 303: USING CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐ → CURRENTLY USING ☐ → 712		
708	CHECK 705: NOT ASKED ☐ → 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ → 00-23 MONTHS OR 00-01 YEAR ☐ → 711		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
709	CHECK 703 AND 704: WANTS TO HAVE A/ANOTHER CHILD ☐ → You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? WANTS NO MORE/ NONE ☐ → You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D CAN'T GET PREGNANT . . . . . E NOT MENSTRUATED SINCE LAST BIRTH . . . . . F BREASTFEEDING . . . . . G UP TO GOD/FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS SIDE EFFECTS/HEALTH CONCERNS O LACK OF ACCESS/TOO FAR . . . . . P COSTS TOO MUCH . . . . . Q PREFERRED METHOD NOT AVAILABLE . . . . . R NO METHOD AVAILABLE . . . . . S INCONVENIENT TO USE . . . . . T INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . U OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
710	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ · NO, NOT CURRENTLY USING ☐ · YES, CURRENTLY USING ☐		→ 712
711	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 → 714 NUMBER . . . . . ☐☐ OTHER _____ 96 → 714 (SPECIFY)	
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it was a boy or girl?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
714	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in a pamphlet/Posters/Leaflets? Heard about family planning at community event/conversation?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2 PAMPHLET/POSTER/LEAFLETS . 1 2 COMMUNITY EVENT/CONV. . . . 1 2	
715	In the last few months have you heard or seen the following media messages on family planning ? Its wise to have a balanced family life Your family happiness is in your hands Spacing of birth will be a source for a loving,caring and healthy family Chidren by choice not by chance	YES NO Its wise to have a balanced family life 1 2 Your family happiness is in your hands 1 2 Spacing of birth will be a source for a loving,caring and healthy family 1 2 Children by choice not by chance 1 2	
716	CHECK 601: YES, CURRENTLY MARRIED ☐ ↓ YES, LIVING WITH A MAN ☐ ↓ NO, NOT IN UNION ☐ → 801		
717	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ ↓ NOT CURRENTLY USING OR NOT ASKED ☐ → 720		
718	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
719	CHECK 304: NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐ → 801		
720	Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ FORMERLY MARRIED/ LIVED WITH A MAN ☐ → 803 NEVER MARRIED AND NEVER LIVED WITH A MAN ☐ → 807		
802	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO . . . . . 2 → 806	
804	What is the highest level of school your husband attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL . . . . . 3 HIGHER . . . . . 4 DON'T KNOW . . . . . 8 → 806	
805	What is the highest grade/number of years he completed at that level? IF COMPLETED PRIMARY OR SECONDARY, RECORD COMPLETED GRADE. IF TECHNICAL/VOCATIONAL OR HIGHER, RECORD YEARS COMPLETED. IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL RECORD '00'.	GRADE/NUMBER OF YEARS ☐☐	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ ↓ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO . . . . . 2 → 811	
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO . . . . . 2 → 811	
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO . . . . . 2 → 811	
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO . . . . . 2 → 815	
811	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF EMPLOYED. 3	
813	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
814	Are you paid in cash or in kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
815	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN ☐ NOT IN UNION ☐		→ 823
816	CHECK 814: CODE 1 OR 2 CIRCLED ☐ OTHER ☐		→ 819
817	Who usually decides how the money you earn will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
818	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T EARN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 820
819	Who usually decides how your husband's/partner's earnings will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
820	Who usually makes decisions about health care for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
821	Who usually makes decisions about making major household purchases: you, your husband/partner, you and your husband/partner jointly or someone else?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
822	Who usually makes decisions about visits to your family or relatives: you , your husband/partner, you and your husband/partner jointly or someone else?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
822A	Does your husband help you with household chores like looking after the children, cooking, cleaning the house, and doing other work around the house?	YES . . . . . 1 NO 2	→ 823
822B	Does he help almost every day, at least once a week, or rarely?	EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 RARELY 3	
823	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
824	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
825	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES . . . 1 2 3	
826	In your opinion, is a husband justified in hitting or beating his wife in the following situations: If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES / NO / DK GOES OUT . . . . . 1 2 8 NEGL. CHILDREN . . . 1 2 8 ARGUES . . . . . 1 2 8 REFUSES SEX . . . . . 1 2 8 BURNS FOOD 1 2 8	
826A	Is there a law in Ethiopia that prevents a husband from beating his wife?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 937
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905A	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people get the AIDS virus because of witchcraft, God's curse, or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907A	Can people get the AIDS virus by sharing sharp materials such as razors/blades or through injection with non sterilized needles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BREASTFEEDING 1 2 8	
909	CHECK 908: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 911
910	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
910A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
911	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE MESKEREM 2001 ☐ LAST BIRTH BEFORE MESKEREM 2001 ☐		→ 926 → 926
912	CHECK 408 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		→ 926

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
914	During any of the antenatal visits for your last birth, did anyone talk to you about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO 1 2 8 TESTED FOR AIDS 1 2 8	
915	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . 1 NO . . . 2	
916	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . 1 NO . . . 2	→ 926
917	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . 11 GOVT. HEALTH CENTER . . . 12 GOVT.HEALTH STATION/CLINIC . . . 13 STAND-ALONE VCT CENTER . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) NGO NGO HEALTH FACILITY . . . 21 STAND-ALONE VCT CENTER . . . 22 MOBILE . . . 23 OTHER NGO _____ 24 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . 31 PRIVATECLINIC . . . 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
918	I don't want to know the results, but did you get the results of the test?	YES . . . 1 NO . . . 2	
924	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . 1 NO . . . 2	→ 927
925	How many months ago was your most recent HIV test?	MONTHS AGO . . . ☐☐ TWO OR MORE YEARS . . . 96	→ 929B
926	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . 1 NO . . . 2	→ 930
927	How many months ago was your most recent HIV test?	MONTHS AGO . . . ☐☐ TWO OR MORE YEARS . . . 96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
928	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
929	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT.HEALTH CENTER . . . . . 12 GOVT.HEALTH STATION/CLINIC . . . . . 13 STAND-ALONE VCT CENTER . . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) NGO NGO HEALTH FACILITY . . . . . 21 STAND-ALONE VCT CENTER . . . . . 22 MOBILE . . . . . 23 OTHER NGO 24 _____ (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
929B	CHECK 918 OR 928: EVER RECEIVED HIV TEST RESULTS ☐ DID NOT RECEIVE HIV TEST RESULTS ☐ → 932		
929C	CHECK 601 AND 602: EVER MARRIED OR LIVED WITH A PARTNER ☐ NEVER MARRIED NOR LIVED WITH A PARTNER ☐ → 932		
929D	The last time you were tested, did you share the results with your husband/partner?	YES . . . . . 1 NO, DID NOT SHARE RESULT . . . . . 2 → 932 NO HUSBAND/PARTNER AT THAT TIME 3	
930	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 → 932	
931	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT.HOSPITAL . . . . . A GOVT.HEALTH CENTER . . . . . B GOVT.HEALTH STATION/CLINIC . . . . . C STAND-ALONE VCT CENTER . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F STAND-ALONE VCT CENTER . . . . . G MOBILE . . . . . H OTHER NGO . . . . . I _____ (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . J PRIVATE CLINIC . . . . . K OTHER PRIVATE MEDICAL L _____ (SPECIFY) OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
932	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus ?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
933	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
934	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
935	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
936	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
937	CHECK 901: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
938	CHECK 613: HAS HAD SEXUAL INTERCOURSE → HAS NOT HAD SEXUAL INTERCOURSE → 946		
939	CHECK 937: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES → NO → 941		
940	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
941	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
942	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
943	CHECK 940, 941, AND 942: HAS HAD AN INFECTION (ANY 'YES') → HAS NOT HAD AN INFECTION OR DOES NOT KNOW → 946		
944	The last time you had (PROBLEM FROM 940/941/942), did you seek any kind of advice or treatment?	YES . . . . . 1 NO . . . . . 2 → 946	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
945	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH STATION/CLINC . . . . . C GOVT. HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY . . . . . F PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H PHARMACY . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . K SHOP . . . . . L TRADITIONAL HEALER . . . . . M OTHER _____ X (SPECIFY)	
946	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
947	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
948	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		1000A
949	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
950	Could you ask your husband/partner to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1000A	Have you ever heard of the Community Conversation program?	YES . . . . . 1 NO 2	→ 1000C
1000B	Have you ever attended any Community Conversation meeting? IF YES: When was the last time you attended?	WITHIN LAST THREE MONTHS . . . . . 1 4-11 MONTHS AGO . . . . . 2 ONE YEAR OR MORE AGO . . . . . 3 NEVER ATTENDED 4	
1000C	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 1001
1000D	How can a person get tuberculosis or TB ? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH DRINKING UNBOILED MILK . . . G EXPOSURE TO COLD . . . . . H OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
1000E	What symptoms will a person with tuberculosis or TB have? Anything else? RECORD ALL MENTIONED.	PERSISTENT COUGH (GREATER THAN TWO WEEKS)..... A WEIGHT LOSS..... B POOR APPETITE..... C NIGHT SWEATING..... D CHEST PAIN..... E FEVER..... F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
1000F	Can tuberculosis or TB be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1000G	If a member of your family got tuberculosis or TB, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
1001	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 1004
1002	Among these injections, how many were administered by a: a) doctor, a nurse, a pharmacist, a dentist, or any other health worker? b) traditional practioner/injectior? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NONE RECORD '00'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS HEALTH WORKER . . . . . ☐☐ NUMBER OF INJECTIONS TRADITIONAL PRACTITIONEF . . . ☐☐	
1002A	The last time you got an injection, who administered the injection?	HEALTH WORKER . . . . . 1 TRADITIONAL PRACTITIONEF 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1003	The last time you got an injection, did the person who gave you the injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 1006
1005	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES	
1006	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 1007A
1007	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF/SURET . . . . . C SHISHA . . . . . D GAYA . . . . . E OTHER _____ X (SPECIFY)	
1007A	Have you ever chewed chat?	YES . . . . . 1 NO 2	→ 1007C
1007B	During the last 30 days how many days did you chew chat?	DAYS	
1007C	Have you ever taken a drink that contains alcohol (Tella/Tegi/ Areke/Beer/Wine, etc...)?	YES . . . . . 1 NO 2	→ 1008
1007D	During the last 30 days, how many days did you take a drink that contains alcohol?	DAYS	
1008	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	Getting permission to go to the doctor?	PERMISSION TO GO 1 2	
	Getting money needed for treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Having to take transport?	TAKING TRANSPORT 1 2	
	Workload inside /outside home?	WORK LOAD 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
	Concern that there may not be a female health provider?	NO FEMALE PROV. 1 2	
	Concern that there may not be any health provider?	NO PROVIDER 1 2	
	Concern that there may be no drugs available?	NO DRUGS 1 2	
1009	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 1101
1010	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D OTHER _____ X (SPECIFY)	

SECTION 11. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER	
1102	CHECK 1101: TWO OR MORE BIRTHS ☐ ↓ ONLY ONE BIRTH (RESPONDENT ONLY) ☐ →		1114
1103	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS	

1104	What was the name given to your oldest (next oldest) brother or sister?	(1) _____	(2) _____	(3) _____	(4) _____	(5) _____	(6) _____
1105	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (2)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (3)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (4)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (5)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (6)	YES . . . 1 NO . . . 2 GO TO 1108 DK . . . 8 GO TO (7)
1107	How old is (NAME)?	☐☐ GO TO (2)	☐☐ GO TO (3)	☐☐ GO TO (4)	☐☐ GO TO (5)	☐☐ GO TO (6)	☐☐ GO TO (7)
1108	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1109	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (2)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (3)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (4)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (5)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (6)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (7)
1110	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2	YES . . . 1 GO TO1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO 1114.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
1104	What was the name given to your oldest (next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1105	Is (NAME) male or female?	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2	MALE 1 FEMALE 2
1106	Is (NAME) still alive?	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (8)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (9)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (10)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (11)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (12)	YES . . . 1 NO . . . 2 → GO TO 1108 DK . . . 8 → GO TO (13)
1107	How old is (NAME)?	☐☐ GO TO (8)	☐☐ GO TO (9)	☐☐ GO TO (10)	☐☐ GO TO (11)	☐☐ GO TO (12)	☐☐ GO TO (13)
1108	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1109	How old was (NAME) when he/she died?	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (9)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (10)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (11)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (12)	☐☐ IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO (13)
1110	Was (NAME) pregnant when she died?	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2
1111	Did (NAME) die during childbirth?	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2	YES . . . 1 → GO TO 1113 NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO 1114.

1114	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING ☐ HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES, CONTRACEPTIVE USE **

- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 FEMALE STERILIZATION
- 2 MALE STERILIZATION
- 3 IUD
- 4 INJECTABLES
- 5 IMPLANTS
- 6 PILL
- 7 MALE CONDOM
- 8 FEMALE CONDOM
- 9 DIAPHRAGM/FOAM/JELLY
- J STANDARD DAYS METHOD
- K LACTATIONAL AMENORRHEA METHOD
- L RHYTHM METHOD
- M WITHDRAWAL
- X OTHER MODERN _____ (SPECIFY)

OTHER TRADITIONAL _____ (SPECIFY)

	13	PAG	01		
	12	NEH	02		
	11	HAM	03		
	10	SENE	04		
	09	GEN	05		
2	08	MEI	06		2
0	07	MEG	07		0
0	06	YEK	08		0
3	05	TIRR	09		3
E.	04	TAH	10		E.
C.	03	HID	11		C.
	02	TIK	12		
	01	MES	13		
	13	PAG	14		
	12	NEH	15		
	11	HAM	16		
	10	SENE	17		
2	09	GEN	18		2
0	08	MEI	19		0
0	07	MEG	20		0
2	06	YEK	21		2
E.	05	TIRR	22		E.
C.	04	TAH	23		C.
	03	HID	24		
	02	TIK	25		
	01	MES	26		
	13	PAG	27		
	12	NEH	28		
	11	HAM	29		
	10	SENE	30		
2	09	GEN	31		2
0	08	MEI	32		0
0	07	MEG	33		0
1	06	YEK	34		1
E.	05	TIRR	35		E.
C.	04	TAH	36		C.
	03	HID	37		
	02	TIK	38		
	01	MES	39		
	13	PAG	40		
	12	NEH	41		
	11	HAM	42		
	10	SENE	43		
	09	GEN	44		
2	08	MEI	45		2
0	07	MEG	46		0
0	06	YEK	47		0
0	05	TIRR	48		0
E.	04	TAH	49		E.
C.	03	HID	50		C.
	02	TIK	51		
	01	MES	52		
	13	PAG	53		
	12	NEH	54		
	11	HAM	55		
	10	SENE	56		
	09	GEN	57		
1	08	MEI	58		1
9	07	MEG	59		9
9	06	YEK	60		9
9	05	TIRR	61		9
E.	04	TAH	62		E.
C.	03	HID	63		C.
	02	TIK	64		
	01	MES	65		
	13	PAG	66		
	12	NEH	67		
	11	HAM	68		
	10	SENE	69		
	09	GEN	70		
1	08	MEI	71		1
9	07	MEG	72		9
9	06	YEK	73		9
8	05	TIRR	74		8
E.	04	TAH	75		E.
C.	03	HID	76		C.
	02	TIK	77		
	01	MES	78		

CENTRAL STATISTICAL AGENCY 22 November 2010
2010 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY
MAN'S QUESTIONNAIRE

IMPLEMENTING ORGANIZATION: CSA

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

REGION . . . . . | | |

NAME AND LINE NUMBER OF MAN _____ | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE OF QUESTIONNAIRE: 6
LANGUAGE OF INTERVIEW: | |
LANGUAGE OF RESPONDENT: | |

LANGUAGE CODES: AMARIGNA = 1, OROMIGNA = 2, TIGRIGNA = 3, OTHER = 6

TRANSLATOR USED: (YES = 1, NO = 2) | |

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____. I am working with the Central Statistical Agency (CSA). We are conducting a survey about health all over Ethiopia. The information we collect will help the government to plan health services. Your household was selected for the survey. The survey usually takes about 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important.

If I ask any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

Do you have any questions?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING . . . . . ☐ HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND /OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS ☐☐	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 107A
105	What is the highest level of school you attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL . . . . . 3 HIGHER 4	
106	What is the highest grade/number of years you completed at that level? IF COMPLETED PRIMARY OR SECONDARY, RECORD COMPLETED GRADE. IF TECHNICAL/VOCATIONAL OR HIGHER, RECORD YEARS COMPLETED. IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL RECORD '00'.	GRADE/NUMBER OF YEARS ☐☐	
107	CHECK 105: PRIMARY ☐ ↓ SECONDARY AND ABOVE ☐ →		110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107A	Have you ever attended a Bible school or Koranic school or any other informal school that involves learning to read and/or write (not including primary school)?	YES . . . . . 1 NO 2	
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ☐ CODE '1' OR '5' CIRCLED ☐ → 111		
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	ORTHODOX . . . . . 1 CATHOLIC . . . . . 2 PROTESTANT . . . . . 3 MOSLEM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 6 (SPECIFY)	
114	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP. CODE FOR ETHNIC GROUP WILL BE FILLED IN BY OFFICE EDITOR.	_____ ☐☐	
115	In the last 12 months, how many times have you been away from home for one or more nights? IF NUMBER OF TIMES IS 90 OR MORE, RECORD '90'.	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
116	In the last 12 months, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	→ 201
116A	The last time you were away from home for more than one month were you mainly staying in a city, town or rural areas?	CITY/TOWN.....1 RURAL AREA.....2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD NO LIVING CHILDREN → 301		
214	How many years old is your (youngest) child?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
215	CHECK 214: (YOUNGEST) CHILD IS AGE 0-2 YEARS ☐ OTHER ☐ → 301		
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 3 → 219	
218	Were you ever present during any of those antenatal check-ups?	PRESENT . . . . . 1 NOT PRESENT 2	
219	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female Sterilization** PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	**Male Sterilization** PROBE: Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
03	**IUD** PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
04	**Injectables** PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
05	**Implants (Implanon/Jadelle/ Norplants)** PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
06	**Pill** PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
07	**Male Condom** PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	
08	**Female Condom** PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Standard Days Method** PROBE: Women can use a cycle of beads to count the days they are most likely to get pregnant and avoid sexual intercourse during those days.	YES . . . . . 1 NO 2	
09A	**Lactational Amenorrhea Method (LAM)**	YES . . . . . 1 NO 2	
10	**Rhythm Method** PROBE: Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	
11	**Withdrawal** PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	
12	**Emergency Contraception** PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES . . . . . 1 NO 2	
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	
302	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in a pamphlet/Posters/Leaflets? Heard about family planning at community event/conversation?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2 PAMPHLET/POSTER/LEAFLETS . 1 2 COMMUNITY EVENT/CONV. . . . 1 2	
302B	In the last few months have you heard or seen the following media messages on family planning? Its wise to have a balanced family life Your family happiness is in your hands Spacing of births will be a source for a loving, caring and healthy family Chidren by choice not by chance	YES NO Its wise to have a balanced family life 1 2 Your family happiness is in your hands 1 2 Spacing of birth will be a source for loving,caring and healthy family 1 2 Children by choice not by chance 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	In the last few months, have you discussed the practice of family planning with a HEW/VCHW or other health worker?	YES . . . . . 1 NO 2	
304	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 306
305	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
306	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	AGREE / DISAGREE / DK CONTRACEPTION WOMAN'S BUSINESS . 1 2 8 WOMAN MAY BECOME PROMISCUOUS . . . 1 2 8	
307	CHECK 301 (07) KNOWS MALE CONDOM YES ↓ NO →		→ 311
308	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	→ 311
309	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT.HEALTH STATION/CLINIC . C GOVT.HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . I PRIVATE CLINIC . . . . . J PHARMACY . . . . . K ANTI-AIDS CLUB/ASSOCIATION . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . N SHOP/BAR/HOTEL/GROCERY . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
310	If you wanted to, could you yourself get a male condom?	YES . . . . . 1 NO 2	
311	CHECK 301 (08) KNOWS FEMALE CONDOM YES ☐ NO ☐ → 401		
312	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 401
313	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT.HEALTH STATION/CLINIC . C GOVT.HEALTH POST/HEW . . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . F VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . I PRIVATE CLINIC . . . J PHARMACY . . . . . K ANTI-AIDS CLUB/ASSOCIATION L OTHER PRIVATE MEDICAL _____ M (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . N SHOP/BAR/HOTEL/GROCERY . . . O FRIEND/RELATIVE . . . . . P OTHER _____ X (SPECIFY)	
314	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO 2	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your wife/partner living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have more than one wife or woman you live with as if married?	YES . . . . . 1 NO 2	→ 407
406	Altogether, how many wives do you have or other partners do you live with as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . ☐☐	
407	CHECK 405: ONE WIFE/ PARTNER ☐ Please tell me the name of your wife (the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER ☐ Please tell me the name of each of your wives or each woman you are living with as if married. RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'. ASK 408 FOR EACH PERSON.	NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐	408 How old was (NAME) on her last birthday? AGE ☐☐ AGE ☐☐ AGE ☐☐ AGE ☐☐	
409	CHECK 407: ONE WIFE/ PARTNER ☐ MORE THAN ONE WIFE/ PARTNER ☐		→ 411A
410	Have you been married or lived with a woman only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 411A
411 411A	In what month and year did you start living with your (wife/ partner)? Now I would like to ask 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	→ 413
412	How old were you when you first started living with her?	AGE . . . . . ☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	→ 501
415	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
416	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 430

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
417	When was the last time you had sexual intercourse with this person?		DAYS 1 WEEKS 2 MONTHS 3	DAYS 1 WEEKS 2 MONTHS 3
418	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420)
419	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
420	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COM. SEX WKR. . . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COMM. SEX WKR. . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . 4 COMM. SEX WKR. . . . 5 OTHER _____ 6 (SPECIFY) (SKIP TO 423)
421	CHECK 410:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 423)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 423)
422	CHECK 414:	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE OTHER (SKIP TO 424)	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE OTHER (SKIP TO 424)	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE OTHER (SKIP TO 424)
423	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
424	How many times during the last 12 months did you have sexual intercourse with this person? IF 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
424A	The last time you had sexual intercourse (with this other person), did you or this person drink alcohol?	YES . . . . . 1 NO. . . . . 2 (SKIP TO 424C)	YES . . . . . 1 NO. . . . . 2 (SKIP TO 424C)	YES . . . . . 1 NO. . . . . 2 (SKIP TO 424C)
424B	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
424C	The last time you had sexual intercourse (with this other person), did you or this person chew chat any time during that day?	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY 2 RESPONDENT AND PARTNER BOTH 3 NEITHER 4
424D	Are you still having sex with this person?	YES . . . . . 1 NO. 2	YES . . . . . 1 NO. 2	YES . . . . . 1 NO. 2
425	How old is this person?	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98
426	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 (GO BACK TO 417 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 428)	
427	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS . . . . ☐☐ DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
428	CHECK 420 (ALL COLUMNS): AT LEAST ONE PARTNER IS COMMERCIAL SEX WORKER ☐ NO PARTNERS ARE COMMERCIAL SEX WORKER ☐ → 430		
429	CHECK 420 AND 418 (ALL COLUMNS): CONDOM USED WITH EVERY COMMERCIAL SEX WORKER ☐ → 433 OTHER ☐ → 434		
430	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 432
431	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 434
432	The last time you paid someone in exchange for having sexual intercourse, was a male or female condom used?	YES . . . . . 1 NO 2	→ 434
433	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
434	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
435	CHECK 418, MOST RECENT PARTNER (FIRST COLUMN): NOT ASKED ☐ → 438 CONDOM USED ☐ NO CONDOM USED ☐ → 438		
436	You told me that a condom was used the last time you had sex. What is the brand name of the condom used at that time? IF BRAND NOT KNOWN ASK TO SEE THE PACKAGE.	HIWOT TRUST . . . . . 01 SENSATION RIBBED . . . . . 02 SENSATION COFFEE . . . . . 03 SENSATION HONEY . . . . . 04 FRENCH FEELING . . . . . 05 JEANS . . . . . 06 UNIDUS/SOUTH KOREA . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
437	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT.HEALTH STATION/CLINIC . 13 GOVT.HEALTH POST/HEW . . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) NGO NGO HEALTH FACILITY . . . . . 21 VOLUNTARY COMMUNITY HEALTH WORKERS . . . . . 22 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PHARMACY . . . . . 33 ANTI-AIDS CLUB/ASSOCIATION 34 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . 41 SHOP/BAR/HOTEL/GROCERY . 42 FRIEND/RELATIVE . . . . . 43 OTHER _____ 46 (SPECIFY)	
438	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 501
439	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F FEMALE CONDOM . . . . . G DIAPHRAGM/FOAM/JELLY . . . . . H STANDARD DAYS METHOD . . . . . I LAM . . . . . J RHYTHM METHOD . . . . . K WITHDRAWAL . . . . . L OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER		→ 509
502	CHECK 439: NOT ASKED MAN NOT STERILIZED MAN STERILIZED		→ 509
503	(Is your wife (partner)/Are any of your wives (partners)) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 505
504	Now I have some questions about the future. After the child(ren) you and your (wife(wives)/partner(s)) are expecting now, would you like to have another child, or would you prefer not have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE/NONE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 506 → 509
505	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 509
506	CHECK 407: ONE WIFE/ PARTNER MORE THAN ONE WIFE/ PARTNER		→ 508
507	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 YEARS . . . . . 2 SOON/NOW . . . . . 993 COUPLE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 509
508	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 YEARS . . . . . 2 SOON/NOW . . . . . 993 HE/ALL HIS WIVES/PARTNERS ARE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
509	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 601 → 601
510	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it is a boy or a girl?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 607
604	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
607	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐ →		612
608	CHECK 606: CODE 1 OR 2 CIRCLED ☐ ↓ OTHER ☐ →		610
609	Who usually decides how the money you earn will be used: mainly you, mainly your (wife (wives)/partner(s)), or you and your (wife (wives)/partner(s)) jointly?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	
610	Who usually makes decisions about health care for yourself: you, your wife/partner, you and your wife/partner jointly, or someone else?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 SPECIFY	
611	Who usually makes decisions about making major household purchases: you, your wife/partner, you and your wife/partner jointly, or someone else?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
612	Do you own this or any other house either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
613	Do you own any land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	
614	In your opinion, is a husband justified in hitting or beating his wife in the following situations:	YES NO DK	
	If she goes out without telling him?	GOES OUT 1 2 8	
	If she neglects the children?	NEGL. CHILDREN . . . 1 2 8	
	If she argues with him?	ARGUES 1 2 8	
	If she refuses to have sex with him?	REFUSES SEX 1 2 8	
	If she burns the food?	BURNS FOOD 1 2 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 723
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705A	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people get the AIDS virus because of witchcraft, God's curse, or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707A	Can people get the AIDS virus by sharing sharp materials such as razors/blades or through injection with non-sterilized needles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BREASTFEEDING 1 2 8	
709	CHECK 708: AT LEAST ONE 'YES' ☐ OTHER ☐	→ 711	
710	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
711	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
712	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 716
713	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 96	
714	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 GOVT.HEALTH CENTER . . . . 12 GOVT.HEALTH STATION/CL . . . . . 13 STAND-ALONE VCT CENTER . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) NGO NGO HEALTH FACILITY . . . . . 21 STAND-ALONE VCT CENTER . . 22 MOBILE CLINIC . . . . . 23 OTHER NGO 24 _____ (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
715A	CHECK 714: EVER RECEIVED HIV TEST RESULTS DID NOT RECEIVE HIV TEST RESULTS → 718		
715B	CHECK 401 AND 402: EVER MARRIED OR LIVED WITH A PARTNER NEVER MARRIED NOR LIVED WITH A PARTNER → 718		
715C	The last time you were tested, did you share the results with your wife/partner?	YES . . . . . 1 NO, DID NOT SHARE RESULT . . . . . 2 → 718 NO WIFE/PARTNER AT THAT TIME . . . 3	
716	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 → 718	
717	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT.HOSPITAL . . . . . A GOVT.HEALTH CENTER . . . . . B GOVT.HEALTH STATION/CLINIC . C STAND-ALONE VCT CENTER . . . . D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . . . F STAND-ALONE VCT CENTER . . . . . G MOBILE CLINIC . . . . . H OTHER NGO _____ I (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . J PRIVATE CLINIC . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER _____ X (SPECIFY)	
718	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
720	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
721	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
722	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
723	CHECK 701: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
724	CHECK 414: HAS HAD SEXUAL INTERCOURSE HAS NOT HAD SEXUAL INTERCOURSE		→ 732
725	CHECK 723: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES NO		→ 727
726	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
727	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
728	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
729	CHECK 726, 727, AND 728: HAS HAD AN INFECTION (ANY 'YES') HAS NOT HAD AN INFECTION OR DOES NOT KNOW		→ 732
730	The last time you had (PROBLEM FROM 726/727/728), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 732

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
731	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH STATION/CLINC C GOVT. HEALTH POST/HEW . . . D OTHER PUBLIC _____ E (SPECIFY) NGO HEALTH FACILITY . . . . . F PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H PHARMACY . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER SOURCE DRUG VENDOR/STORE . . . . . K SHOP . . . . . L TRADITIONAL HEALER . . . . . M OTHER _____ X (SPECIFY)	
732	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
733	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with women other than his wife?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
800A	Have you ever heard of the Community Conversation program?	YES . . . . . 1 NO 2	→ 800C
800B	Have you ever attended any Community Conversation meeting? IF YES: When was the last time you attended?	WITHIN LAST THREE MONTHS . . . . . 1 4-11 MONTHS AGO . . . . . 2 ONE YEAR OR MORE AGO . . . . . 3 NEVER ATTENDED 4	
800C	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 801
800D	How can a person get tuberculosis or TB ? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH DRINKING UNBOILED MILK ... G EXPOSURE TO COLD . . . . . H OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
800E	What symptoms will a person with tuberculosis or TB have? Anything else?	PERSISTENT COUGH (GREATER THAN TWO WEEKS)..... A WEIGHT LOSS..... B POOR APPETITE..... C NIGHT SWEATING..... D CHEST PAIN..... E FEVER..... F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
800F	Can tuberculosis or TB be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
800G	If a member of your family got tuberculosis or TB, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
801	Some men are circumcised, that is, the foreskin is completely removed from the penis. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 805
802	How old were you when circumcision occurred?	AGE IN COMPLETED YEARS . . . . . [ ][ ] DURING CHILDHOOD (<5 YEARS) . 95 DON'T KNOW 98	
803	Who did the circumcision?	TRADITIONAL PRACTITIONER/ FAMILY/FRIENDS . . . . . 1 HEALTH WORKER/PROFESSIONAL . 2 OTHER . . . . . 3 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
804	Where was the circumcision done?	HEALTH FACILITY . . . . . 1 HOME OF A HEALTH WORKER/ PROFESSIONAL . . . . . 2 CIRCUMCISION DONE AT HOME . . . 3 RITUAL SITE . . . . . 4 OTHER HOME/PLACE . . . . . 5 DON'T KNOW 8	
805	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 808
806	Among these injections, how many were administered by a: a) doctor, a nurse, a pharmacist, a dentist, or any other health worker? b) traditional practioner/injector? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF "NONE" RECORD "00" IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS HEALTH WORKER . . . . . ☐☐ NUMBER OF INJECTIONS TRADITIONAL PRACTITIONI . . . ☐☐	
806A	The last time you got an injection, who administered the injection?	HEALTH WORKER . . . . . 1 TRADITIONAL PRACTITIONI 2	
807	The last time you got an injection, did the person who gave you the injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 810
809	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . ☐☐	
810	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 811A
811	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF/SURET . . . . . C SHISHA . . . . . D GAYA . . . . . E OTHER _____ X (SPECIFY)	
811A	Have you chewed chat?	YES . . . . . 1 NO 2	→ 811C
811B	During the last 30 days, how many days did you chew chat?	DAYS . . . . . ☐☐	
811C	Have you ever taken a drink that contains alcohol (Tella/Tegi/ Areke/Berr/Wine, etc...)?	YES . . . . . 1 NO 2	→ 812

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
811D	During the last 30 days, how many days did you take a drink that contains alcohol?	DAYS . . . . . ☐☐	
812	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 814
813	What type of health insurance do you have? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE. D OTHER _____ X (SPECIFY)	
814	RECORD THE TIME. MORNING = 1 EVENING = 2	MORNING/EVENING . . . . . ☐ HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____