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FOREWORD

The 2016 Ethiopia Demographic and Health Survey (EDHS) is the fourth survey implemented by the Central Statistical Agency (CSA). By virtue of its mandate, the CSA has conducted the survey in collaboration with the Federal Ministry of Health (FMoH) and the Ethiopian Public Health Institute (EPHI) with technical assistance from ICF International, and financial as well as technical support from development partners. All actors in this effort have exerted themselves to get reliable, accurate, and up-to-date data to measure the success of the national development agenda— Growth and Transformation Plan II as well as the Sustainable Development Goals.

The survey was conducted from January 18, 2016, to June 27, 2016, based on a nationally representative sample that provides estimates at the national and regional levels and for urban and rural areas. The survey target groups were women age 15-49 and men age 15-59 in randomly selected households across Ethiopia. Detailed information was collected on background characteristics of the respondents, fertility, marriage, fertility preferences, awareness and the use of family planning methods, child feeding practices, nutritional status of women and children, adult and childhood mortality, awareness and attitudes regarding HIV/AIDS, female genital mutilation, domestic violence, and height and weight of women and children age 0-5 from 16,650 households, 15,683 female respondents, and 12,688 male respondents. This report presents comprehensive, detailed, final outcomes of the survey at the national level, for the nine regional states and two city administrations of Ethiopia. Information can be used for various purposes, including program planning and evaluation.

The success of the 2016 EDHS was made possible by a number of local government, nongovernmental, and international development partners, and individuals. In this regard, the Agency is grateful for the commitment of the government of Ethiopia, the United States Agency for International Development (USAID), and the government of the Netherlands, the Global Fund, HAPCO, Irish Aid, the World Bank, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), World Health Organization (WHO), and UN Women. Special thanks go to the Federal Ministry of Health and its allies. We would like to extend our gratitude to the Ethiopian Public Health Institute (EPHI) for providing technical support on dried blood sample taking and testing, height and weight measurement of women and children during the training, and Survey Steering Committee & Technical Working Group Members, who were instrumental in guiding the resource mobilization process, implementation, and technical aspects of the survey. Similarly, we wish to express appreciation to ICF for its technical assistance in all stages of the survey. We greatly appreciate Ms. Yodit Bekele (ICF DHS Country Manager) for the commitment and great expertise with which she managed all the components of this survey.

Finally, we would like to acknowledge the 2016 EDHS Project Director Mr. Asalfew Abera (survey director); Mr. Sahelu Tilahun and technical team members; finance, procurement, human resources, and operation units; and others for the management of all technical, administrative, and logistical phases of the survey. We are also thankful to CSA and field staffs, data processing specialists, and, in particular, survey respondents who generously provided data, without which it would have been impossible to produce this report.

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ACRONYMS AND ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome
ANC	antenatal care
ARI	acute respiratory infections
BCG	Bacille Calmette-Guerin (vaccine)
CAPI	computer-assisted personal interview
CHTTS	CSPro HIV test tracking system
CPR	contraceptive prevalence rate
CSA	Central Statistical Agency
CSPro	Census Survey Program
DBS	dried blood spots
DPT	diphtheria, pertussis, tetanus vaccine
EAs	enumeration areas
EDHS	Ethiopia Demographic and Health Survey
EPHC	Ethiopian Population and Housing Census
EPHI	Ethiopia Public Health Institute
FGC	female genital cutting
FGM	female genital mutilation
HepB	hepatitis B (vaccine)
HEW	health extension worker
HF	health facility
Hib	*haemophilus influenzae* type B (vaccine)
HIV	human immunodeficiency virus
IFSS	internet file streaming system
IUD	intrauterine device
IYCF	infant and young child feeding
LAM	lactational amenorrhoea method
MOFED	Ministry of Finance and Economic Development
MoH	Ministry of Health
NRERC	National Research Ethics Review Committee
ORS	oral rehydration salts
ORT	oral rehydration therapy
PBS	Promoting Basic Services (PROJECT)
PCV	pneumococcal conjugate vaccine
PMTCT	prevention of mother-to-child transmission
PNC	postnatal care

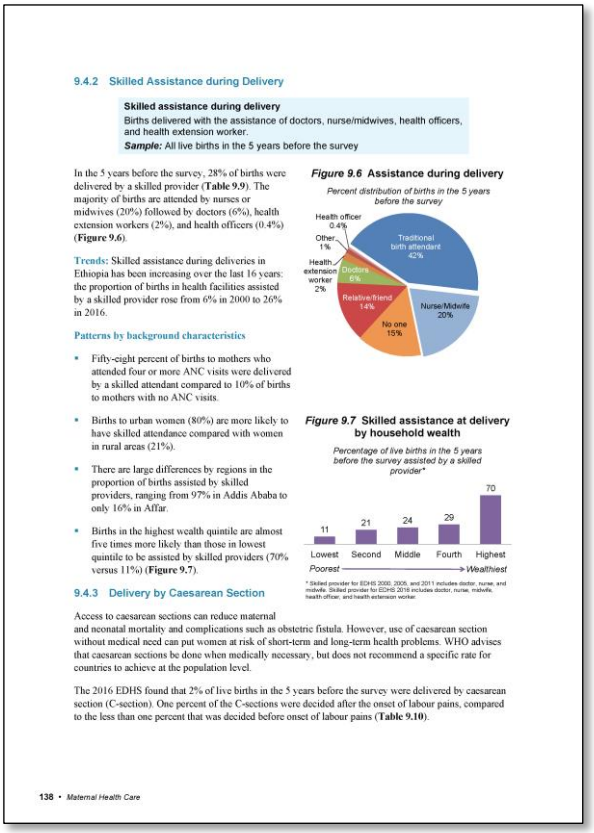
RV1	rotavirus vaccine
SDM	standard days method
SNNPR	southern nations, nationalities, and people's region
STDs	sexually transmitted diseases
TFR	total fertility rate
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UN Women	United Nations Entity on Gender Equality and the Empowerment of Women
USAID	United States Agency for International Development
VAW	violence against women
VCT	voluntary counselling and testing
WHO	World Health Organization

READING AND UNDERSTANDING TABLES FROM THE 2016 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY (EDHS)

The new format of the 2016 Ethiopia Demographic and Health Survey (EDHS) final report is based on approximately 200 tables of data. They are located for quick reference through links in the text (electronic version) and at the end of each chapter. Additionally, this more reader-friendly version features about 90 figures that clearly highlight trends, subnational patterns, and background characteristics. The text has been simplified to highlight key points in bullets and to clearly identify indicator definitions in boxes.

While the text and figures featured in each chapter highlight some of the most important findings from the tables, not every finding can be discussed or displayed graphically. For this reason, EDHS data users should be comfortable reading and interpreting tables.

The following pages provide an introduction to the organization of EDHS tables, the presentation of background characteristics, and a brief summary of sampling and understanding denominators. In addition, this section provides some exercises for users as they practice their new skills in interpreting EDHS tables.



9.4.2 Skilled Assistance during Delivery

Skilled assistance during delivery
Births delivered with the assistance of doctors, nurse/midwives, health officers, and health extension worker.
Sample: All live births in the 5 years before the survey

In the 5 years before the survey, 28% of births were delivered by a skilled provider (**Table 9.9**). The majority of births are attended by nurses or midwives (20%) followed by doctors (6%), health extension workers (2%), and health officers (0.4%) (**Figure 9.6**).

Trends: Skilled assistance during deliveries in Ethiopia has been increasing over the last 16 years: the proportion of births in health facilities assisted by a skilled provider rose from 6% in 2000 to 26% in 2016.

Patterns by background characteristics

- Fifty-eight percent of births to mothers who attended four or more ANC visits were delivered by a skilled attendant compared to 10% of births to mothers with no ANC visits.
- Births to urban women (80%) are more likely to have skilled attendance compared with women in rural areas (21%).
- There are large differences by regions in the proportion of births assisted by skilled providers, ranging from 97% in Addis Ababa to only 16% in Affar.
- Births in the highest wealth quintile are almost five times more likely than those in lowest quintile to be assisted by skilled providers (70% versus 11%) (**Figure 9.7**).

Figure 9.6 **Assistance during delivery**
Percent distribution of births in the 5 years before the survey

Figure 9.7 **Skilled assistance at delivery by household wealth**
*Percentage of live births in the 5 years before the survey assisted by a skilled provider**

* Skilled provider for EDHS 2000, 2005, and 2011 includes doctor, nurse, and midwife. Skilled provider for EDHS 2016 includes doctor, nurse, midwife, health officer, and health extension worker.

9.4.3 Delivery by Caesarean Section

Access to caesarean sections can reduce maternal and neonatal mortality and complications such as obstetric fistula. However, use of caesarean section without medical need can put women at risk of short-term and long-term health problems. WHO advises that caesarean sections be done when medically necessary, but does not recommend a specific rate for countries to achieve at the population level.

The 2016 EDHS found that 2% of live births in the 5 years before the survey were delivered by caesarean section (C-section). One percent of the C-sections were decided after the onset of labour pains, compared to the less than one percent that was decided before onset of labour pains (**Table 9.10**).

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Example 1: Women's Exposure to Mass Media
A Question Asked of All Survey Respondents

Table 3.4.1 Exposure to mass media: Women (1)

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, according to background characteristics, Ethiopia DHS 2016

Background characteristic (3)	Reads a newspaper at least once a week (2)	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 (5)	Number of women
Age						
15-19	6.9	18.1	17.3	1.2	68.9	3,381
20-24	4.3	18.5	18.2	1.6	70.6	2,762
25-29	4.3	17.5	18.9	1.7	70.4	2,957
30-34	2.0	14.8	16.9	1.1	75.0	2,345
35-39	3.1	12.0	13.2	1.3	79.6	1,932
40-44	1.2	10.7	11.4	0.9	82.7	1,290
45-49	1.8	12.5	13.4	1.0	80.1	1,017
Residence						
Urban	10.4	60.7	32.4	5.3	31.8	3,476
Rural	2.1	3.1	11.9	0.2	85.5	12,207
Region						
Tigray	4.4	18.9	15.4	1.7	71.6	1,129
Affar	3.0	15.6	13.3	1.3	74.3	128
Amhara	1.7	10.3	8.4	0.3	83.5	3,714
Oromiya	4.2	12.5	20.2	1.2	72.3	5,701
Somali	1.3	7.9	4.1	0.5	89.3	459
Benishangul-Gumuz	3.4	9.3	11.4	0.4	80.4	160
SNNPR	4.4	8.4	13.3	1.1	80.7	3,288
Gambela	3.5	25.6	13.8	1.1	65.9	44
Harari	5.8	41.6	18.1	4.1	54.6	38
Addis Ababa	10.5	81.1	45.3	6.8	14.1	930
Dire Dawa	5.8	51.5	20.0	2.9	44.2	90
Education						
No education	0.1	3.6	8.8	0.1	89.0	7,498
Primary	4.1	15.2	17.5	0.7	71.5	5,490
Secondary	11.8	44.5	32.7	4.5	41.0	1,817
More than secondary	19.9	65.6	42.1	9.6	22.4	877
Wealth quintile						
Lowest	0.9	0.7	3.8	0.0	95.5	2,633
Second	1.6	0.7	6.6	0.0	91.8	2,809
Middle	2.0	1.7	10.7	0.2	87.5	2,978
Fourth	3.1	3.7	18.4	0.5	77.9	3,100
Highest	9.5	54.9	33.8	4.5	34.3	4,163
Total (4)	3.9	15.8	16.5	1.3	73.6	15,683

Step 1: Read the title and subtitle. They tell you the topic and the specific population group being described. In this case, the table is about women age 15-49 and their exposure to different types of media. All eligible female respondents age 15-49 were asked these questions.

Step 2: Scan the column headings—highlighted in green in Example 1.They describe how the information is categorized. In this table, the first three columns of data show different types of media that women access at least once a week. The fourth column shows women who access all three types of media, while the fifth column is women who do not access any of the three types of media at least once a week. The last column lists the number of women interviewed in the survey.

Step 3: Scan the row headings—the first vertical column highlighted in blue in Example 1. These show the different ways the data are divided into categories based on population characteristics. In this case, the table presents women's exposure to media by age, urban-rural residence, region, educational level, and wealth quintile. Most of the tables in the EDHS report will be divided into these same categories.

Step 4: Look at the row at the bottom of the table highlighted in pink. These percentages represent the totals of all women age 15-49 and their access to different types of media. In this case, 3.9%* of women age 15-49 read a newspaper at least once a week, 15.8% watch television weekly, and 16.5% listen to the radio weekly.

Step 5: To find out what percentage of women age 15-49 with more than secondary education access all three media weekly, draw two imaginary lines, as shown on the table. This shows that 9.6% of women age 15-49 with more than secondary education access all three types of media weekly.

Step 6: By looking at patterns by background characteristics, we can see how exposure to mass media varies across Ethiopia. Mass media are often used to communicate health messages. Knowing how mass media exposure varies among different groups can help program planners and policy makers determine how to most effectively reach their target populations.

*For the purpose of this document data are presented exactly as they appear in the table including decimal places. However, the text in the remainder of this report rounds data to the nearest whole percentage point.

Practice: Use the table in Example 1 to answer the following questions:

a) What percentage of women in Ethiopia do not access any of the three media at least once a week?
b) What age group of women are most likely to read a newspaper weekly?
c) Compare women in urban areas and women in rural areas—which group is more likely to watch television weekly?
d) What are the lowest and highest percentages (range) of women who do not access any of the three media at least once a week by region?
e) Is there a clear pattern in exposure to television on a weekly basis by education level?
f) Is there a clear pattern in exposure to radio on a weekly basis by wealth quintile?

Answers:
a) 73.6%
b) Women age 15-19: 6.9% of women in this age group read a newspaper at least once a week.
c) Women in urban areas, 60.7% watch television weekly, compared to 3.1% of women in rural areas.
d) 14.1% of women in Addis Ababa do not access any of the three media on a weekly basis, compared to 89.3% of women in Somali region.
e) Exposure to television on a weekly basis increases with a woman's level of education; 3.6% of women with no education watch television weekly, compared to 65.6% of women with more than secondary education.
f) Exposure to radio on a weekly basis increases as household wealth increases; 3.8% of women in the lowest wealth quintile listen to the radio on a weekly basis, compared to 33.8% of women in the highest wealth quintile.

Example 2: Prevalence and Treatment of Symptoms of ARI

A Question Asked of a Subgroup of Survey Respondents

Table 10.8 Prevalence and treatment of symptoms of ARI 1

Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey; and among children with symptoms of ARI in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, Ethiopia DHS 2016

	2 Among children under age 5:		Among children under age 5 with symptoms of ARI:		
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[2]	Percentage for whom treatment was sought same or next day	Number of children
Age in months					
<6	6.0	1,200	(33.5)	(3.5)	72
6-11	8.9	1,071	43.1	0.7	95
12-23	9.1	2,004	33.7	3.2	183
24-35	5.9	1,944	27.0	2.3	114
36-47	6.7	2,007	22.5	4.8	135
48-59	4.2	2,191	30.5	3.7	91
Sex					
Male	6.5	5,342	34.1	2.7	349
Female	6.7	5,075	28.4	3.5	342
Cooking fuel					
Electricity or gas	3.5	350	*	*	12
Kerosene	(0.0)	7	*	*	0
Charcoal	4.2	475	(39.3)	(5.0)	20
Wood/straw[3]	7.0	8,964	30.9	3.0	631
Animal dung	4.4	614	*	*	27
Other fuel	*	7	*	*	0
Residence					
Urban	4.1	1,163	59.1	4.8	48
Rural	6.9	9,254	29.2	3.0	643
Region					
Tigray	7.7	686	33.6	4.7	53
Affar	4.3	105	(44.3)	(5.7)	4
Amhara	8.0	1,967	29.1	2.9	157
Oromiya	7.4	4,571	26.4	0.7	339
Somali	2.1	476	(32.2)	(2.9)	10
Benishangul-Gumuz	1.8	113	*	*	2
SNNPR	5.4	2,169	43.2	8.3	117
Gambela	3.5	25	*	*	1
Harari	0.7	24	*	*	0
Addis Ababa	2.7	236	*	*	6
Dire Dawa	3.9	44	*	*	2
Mother's education					
No education	6.9	6,858	26.7	2.4	476
Primary	6.3	2,807	40.7	3.3	177
Secondary	5.3	493	*	*	26
More than secondary	4.4	260	*	*	11
Wealth quintile					
Lowest	5.3	2,499	25.0	3.1	133
Second	7.2	2,386	26.9	4.4	172
Middle	8.1	2,159	28.9	1.2	176
Fourth	7.9	1,860	41.0	3.5	147
Highest	4.1	1,513	40.2	3.6	63
Total	3 6.6	10,417	31.3	3.1	691

a b 4

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] Symptoms of ARI include cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related.

[2] Includes advice or treatment from the following sources: public sector, private medical sector, NGO medical sector, shop, drug vendor, and market. Excludes advice or treatment from a traditional practitioner. Excludes pharmacy, shop, market, traditional practitioner, and itinerant drug peddler.

[3] Includes grass, shrubs, crop residues

Step 1: Read the title and subtitle. In this case, the table is about two separate groups of children: all children under age five (a) and children under age five who had symptoms of acute respiratory infection (ARI) in the two weeks before the survey (b).

Step 2: Identify the two panels. First, identify the columns that refer to all children under age five (a), and then isolate the columns that refer only to children under age five who had symptoms of acute respiratory infection (ARI) in the two weeks before the survey (b).

Step 3: Look at the first panel. What percentage of children under age five had symptoms of ARI in the two weeks before the survey? It's 6.6%. Now look at the second panel. How many children under age five are there who had symptoms of ARI in the two weeks before the survey? It's 691 children or 6.6% of the 10,417 children under age five (with rounding). The second panel is a subset of the first panel.

Step 4: Only 6.6% of children under age five had symptoms of ARI in the two weeks before the survey. Once these children are further divided into the background characteristic categories, there may be too few cases for the percentages to be reliable.

- What percentage of children under age five in the Somali region with symptoms of ARI in the two weeks before the survey sought advice or treatment from a health facility or provider? It's 32.2%. This percentage is in parentheses because there are between 25 and 49 children under age five in Somali who had symptoms of ARI in the two weeks before the survey (unweighted). Readers should use this number with caution—it may not be reliable. (For more information on weighted and unweighted numbers, see Example 4.)
- What percentage of children under age five in Gambela with symptoms of ARI in the two weeks before the survey sought advice or treatment from a health facility or provider? There is no number in this cell—only an asterisk. This is because fewer than 25 children under age five in Gambela had symptoms of ARI in the two weeks before the survey (unweighted). Results for this group are not reported. The subgroup is too small, and therefore the data are not reliable.

Note: When parentheses or asterisks are used in a table, the explanation will be noted under the table. If there are no parentheses or asterisks in a table, you can proceed with confidence that enough cases were included in all categories that the data are reliable.

Example 3: Understanding Sampling Weights in EDHS Tables

A sample is a group of people who have been selected for a survey. In the EDHS, the sample is designed to represent the national population age 15-49. In addition to national data, most countries want to collect and report data on smaller geographical or administrative areas. However, doing so requires a minimum sample size per area. For the 2016 EDHS, the survey sample is representative at the national and regional levels, and for urban and rural areas.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Ethiopia DHS 2016

Background characteristic	Women		
	Weighted percent	Weighted number	Unweighted number
Region			
Tigray	7.2	1,129	1,682
Affar	0.8	128	1,128
Amhara	23.7	3,714	1,719
Oromiya	36.4	5,701	1,892
Somali	2.9	459	1,391
Benishangul-Gumuz	1.0	160	1,126
SNNPR	21.0	3,288	1,849
Gambela	0.3	44	1,035
Harari	0.2	38	906
Addis Ababa	5.9	930	1,824
Dire Dawa	0.6	90	1,131
Total 15-49	100.0	15,683	15,683

3 2 1

To generate statistics that are representative of the Ethiopia as a whole and the 11 regions, the number of women surveyed in each region should contribute to the size of the total (national) sample in proportion to size of the region. However, if some regions have small populations, then a sample allocated in proportion to each region's population may not include sufficient women from each region for analysis. To solve this problem, regions with small populations are oversampled. For example, let's say that you have enough money to interview 15,683 women and want to produce results that are representative of Ethiopia as a whole and its regions (as in Table 3.1). However, the total population of Ethiopia is not evenly distributed among the regions: some regions, such as Oromiya, are heavily populated while others, such as Harari are not. Thus, Harari must be oversampled.

A sampling statistician determines how many women should be interviewed in each region in order to get reliable statistics. The **blue column (1)** in the table at the right shows the actual number of women interviewed in each region. Within the regions, the number of women interviewed ranges from 906 in Harari to 1,892 in Oromiya. The number of interviews is sufficient to get reliable results in each region.

With this distribution of interviews, some regions are overrepresented and some regions are underrepresented. For example, the population in Oromiya is about 36% of the population in Ethiopia, while Harari's population contributes only 0.2% of the population in Ethiopia. But as the blue column shows, the number of women interviewed in Oromiya accounts for only about 12% of the total sample of women interviewed (1,892/15,683) and the number of women interviewed in Harari accounts for about 6% of women interviewed (906 /15,683). This unweighted distribution of women does not accurately represent the population.

In order to get statistics that are representative of Ethiopia, the distribution of the women in the sample needs to be weighted (or mathematically adjusted) such that it resembles the true distribution in the Ethiopia. Women from a small region, like Harari, should only contribute a small amount to the national total. Women from a large region, like Oromiya, should contribute much more. Therefore, DHS statisticians mathematically calculate a "weight" which is used to adjust the number of women from each region so that each region's contribution to the total is proportional to the actual population of the region. The numbers in the **purple column (2)** represent the "weighted" values. The weighted values can be smaller or larger than the unweighted values at regional level. The total national sample size of 15,683 women has not changed after weighting, but the distribution of the women in the regions has been changed to represent their contribution to the total population size.

How do statisticians weight each category? They take into account the probability that a woman was selected in the sample. If you were to compare the **green column (3)** to the actual population distribution of Ethiopia, you would see that women in each region are contributing to the total sample with the same weight that they contribute to the population of the Ethiopia. The weighted number of women in the survey now accurately represents the proportion of women who live in Oromiya and the proportion of women who live in Harari.

With sampling and weighting, it is possible to interview enough women to provide reliable statistics at national and regional levels. In general, only the weighted numbers are shown in each of the EDHS tables, so don't be surprised if these numbers seem low: they may actually represent a larger number of women interviewed.

INTRODUCTION AND SURVEY METHODOLOGY 1

The 2016 Ethiopia Demographic and Health Survey (EDHS) is the fourth Demographic and Health Survey conducted in Ethiopia. It was implemented by the Central Statistical Agency (CSA) at the request of the Federal Ministry of Health (FMoH). Data collection took place from January 18, 2016, to June 27, 2016.

ICF provided technical assistance through the DHS Program, which is funded by the United States Agency for International Development (USAID) and offers support and technical assistance for the implementation of population and health surveys in countries worldwide.

Financial support for the 2016 EDHS was provided by the government of Ethiopia, USAID, the government of the Netherlands, the Global Fund via the FMoH and the Ministry of Finance and Economic Development (MOFED), the World Bank via MOFED and Promoting Basic Services (PBS), Irish Aid, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and UN Women.

1.1 SURVEY OBJECTIVES

The primary objective of the 2016 EDHS is to provide up-to-date estimates of key demographic and health indicators. The EDHS provides a comprehensive overview of population, maternal, and child health issues in Ethiopia. More specifically, the 2016 EDHS:

- Collected data at the national level that allowed calculation of key demographic indicators, particularly fertility and under-5 and adult mortality rates
- Explored the direct and indirect factors that determine levels and trends of fertility and child mortality
- Measured levels of contraceptive knowledge and practice
- Collected data on key aspects of family health, including immunisation coverage among children, prevalence and treatment of diarrhoea and other diseases among children under age 5, and maternity care indicators such as antenatal visits and assistance at delivery
- Obtained data on child feeding practices, including breastfeeding
- Collected anthropometric measures to assess the nutritional status of children under age 5, women age 15-49, and men age 15-59
- Conducted haemoglobin testing on eligible children age 6-59 months, women age 15-49, and men age 15-59 to provide information on the prevalence of anaemia in these groups
- Collected data on knowledge and attitudes of women and men about sexually transmitted diseases and HIV/AIDS and evaluated potential exposure to the risk of HIV infection by exploring high-risk behaviours and condom use
- Conducted HIV testing of dried blood spot (DBS) samples collected from women age 15-49 and men age 15-59 to provide information on the prevalence of HIV among adults of reproductive age
- Collected data on the prevalence of injuries and accidents among all household members

- Collected data on knowledge and prevalence of fistula and female genital mutilation or cutting (FGM/C) among women age 15-49 and their daughters age 0-14
- Obtained data on women's experience of emotional, physical, and sexual violence.

As the fourth DHS conducted in Ethiopia, following the 2000, 2005, and 2011 EDHS surveys, the 2016 EDHS provides valuable information on trends in key demographic and health indicators over time. The information collected through the 2016 EDHS is intended to assist policymakers and programme managers in evaluating and designing programmes and strategies for improving the health of the country's population.

Additionally, the 2016 EDHS included a health facility component that recorded data on children's vaccinations, which were then combined with the household data on vaccinations.

1.2 SAMPLE DESIGN

The sampling frame used for the 2016 EDHS is the Ethiopia Population and Housing Census (PHC), which was conducted in 2007 by the Ethiopia Central Statistical Agency. The census frame is a complete list of 84,915 *enumeration areas* (EAs) created for the 2007 PHC. An EA is a geographic area covering on average 181 households. The sampling frame contains information about the EA location, type of residence (urban or rural), and estimated number of residential households. With the exception of EAs in six zones of the Somali region, each EA has accompanying cartographic materials. These materials delineate geographic locations, boundaries, main access, and landmarks in or outside the EA that help identify the EA. In Somali, a cartographic frame was used in three zones where sketch maps delineating the EA geographic boundaries were available for each EA; in the remaining six zones, satellite image maps were used to provide a map for each EA.

Administratively, Ethiopia is divided into nine geographical regions and two administrative cities. The sample for the 2016 EDHS was designed to provide estimates of key indicators for the country as a whole, for urban and rural areas separately, and for each of the nine regions and the two administrative cities.

The 2016 EDHS sample was stratified and selected in two stages. Each region was stratified into urban and rural areas, yielding 21 sampling strata. Samples of EAs were selected independently in each stratum in two stages. Implicit stratification and proportional allocation were achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before sample selection, according to administrative units in different levels, and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, a total of 645 EAs (202 in urban areas and 443 in rural areas) were selected with probability proportional to EA size (based on the 2007 PHC) and with independent selection in each sampling stratum. A household listing operation was carried out in all of the selected EAs from September to December 2015. The resulting lists of households served as a sampling frame for the selection of households in the second stage. Some of the selected EAs were large, consisting of more than 300 households. To minimise the task of household listing, each large EA selected for the 2016 EDHS was segmented. Only one segment was selected for the survey with probability proportional to segment size. Household listing was conducted only in the selected segment; that is, a 2016 EDHS cluster is either an EA or a segment of an EA.

In the second stage of selection, a fixed number of 28 households per cluster were selected with an equal probability systematic selection from the newly created household listing. All women age 15-49 and all men age 15-59 who were either permanent residents of the selected households or visitors who stayed in the household the night before the survey were eligible to be interviewed. In half of the selected households, all women age 15-49 were eligible for the FGM/C module, and only one woman per household was selected for the domestic violence module. In all of the selected households, height and

weight measurements were collected from children age 0-59 months, women age 15-49, and men age 15-59. Anaemia testing was performed on consenting women age 15-49 and men age 15-59 and on children age 6-59 months whose parent/guardian consented to the testing. In addition, DBS samples were collected for HIV testing in the laboratory from women age 15-49 and men age 15-59 who consented to testing.

1.3 QUESTIONNAIRES

Five questionnaires were used for the 2016 EDHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, the Biomarker Questionnaire, and the Health Facility Questionnaire. These questionnaires, based on the DHS Program's standard Demographic and Health Survey questionnaires, were adapted to reflect the population and health issues relevant to Ethiopia. Input was solicited from various stakeholders representing government ministries and agencies, nongovernmental organisations, and international donors. After all questionnaires were finalised in English, they were translated into Amarigna, Tigrigna, and Oromiffa.

The Household Questionnaire was used to list all members of and visitors to selected households. Basic demographic information was collected on the characteristics of each person listed, including his or her age, sex, marital status, education, and relationship to the head of the household. For children under age 18, parents' survival status was determined. The data on age and sex of household members obtained in the Household Questionnaire were used to identify women and men who were eligible for individual interviews. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of water, type of toilet facilities, and flooring materials, as well as on ownership of various durable goods. The Household Questionnaire included an additional module developed by the DHS Program to estimate the prevalence of injuries/accidents among all household members.

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

- Background characteristics (including age, education, and media exposure)
- Birth history and childhood mortality
- Family planning, including knowledge, use, and sources of contraceptive methods
- Fertility preferences
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Women's work and husbands' background characteristics
- Knowledge, awareness, and behaviour regarding HIV/AIDS and other sexually transmitted diseases (STDs)
- Knowledge, attitudes, and behaviours related to other health issues (e.g., injections, smoking, use of chat)
- Adult and maternal mortality
- Female genital mutilation or cutting
- Fistula
- Violence against women

The Man's Questionnaire was administered to all eligible men age 15-59. This questionnaire collected much of the same information elicited from the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history, questions on maternal and child health, or questions on domestic violence.

The Biomarker Questionnaire was used to record biomarker data collected from respondents by health technicians.

For the first time, the 2016 EDHS also included a Health Facility Questionnaire. This questionnaire was used to record vaccination information for all children without a vaccination card identified through the Woman's Questionnaire.

The 2016 EDHS interviewers used tablet computers to record responses during the interviews. The tablets were equipped with Bluetooth technology to enable remote electronic transfer of files (transfer of assignment sheets from team editors to interviewers and transfer of completed questionnaires from interviewers to editors). The computer-assisted personal interviewing (CAPI) data collection system employed in the 2016 EDHS was developed by the DHS Program using the mobile version of CSPro. The CSPro software was developed jointly by the U.S. Census Bureau, the DHS Program, and Serpro S.A.

1.4 ANTHROPOMETRY, ANAEMIA TESTING, AND HIV TESTING

The 2016 EDHS incorporated the following biomarkers: anthropometry, anaemia testing, and HIV testing. These biomarkers were collected in all households. In contrast with the data collection procedures for the household and individual interviews, biomarker data were initially recorded on the paper-based Biomarker Questionnaire and subsequently entered into interviewers' tablet computers. The survey protocol, including biomarker collection, was reviewed and approved by the Federal Democratic Republic of Ethiopia Ministry of Science and Technology and the Institutional Review Board of ICF International.

1.4.1 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 Shorr measuring board. Children younger than 24 months were measured for height while lying down, and older children were measured while standing.

1.4.2 Anaemia Testing

Blood specimens for anaemia testing were collected from women age 15-49 and men age 15-59 who voluntarily consented to be tested and from all children age 6-59 months for whom consent was obtained from their parents or other adults responsible for them. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of children age 6-11 months) and collected in a microcuvette. Haemoglobin analysis was carried out on-site using a battery-operated portable HemoCue analyser. Results were provided verbally and in writing. Parents or responsible adults of children whose haemoglobin level was below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women and pregnant women were referred for follow-up care if their haemoglobin levels were below 7 g/dl and 9 g/dl, respectively. All households in which anaemia testing was conducted were given a brochure explaining the causes and prevention of anaemia.

1.4.3 HIV Testing

Interviewers collected finger-prick blood specimens from women age 15-49 and men age 15-59 who consented to HIV testing. The protocol for blood specimen collection and analysis was based on the anonymous linked protocol developed for the DHS Program. This protocol allows for merging of HIV test results with the sociodemographic data collected in the individual questionnaires after removal of all information that could potentially identify an individual.

Interviewers explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to respondents. If a respondent consented to HIV testing, five blood spots from the finger prick were collected on a filter paper card to which a barcode label unique to the respondent was affixed. A duplicate label was attached to the Biomarker Questionnaire. A third copy of the same barcode

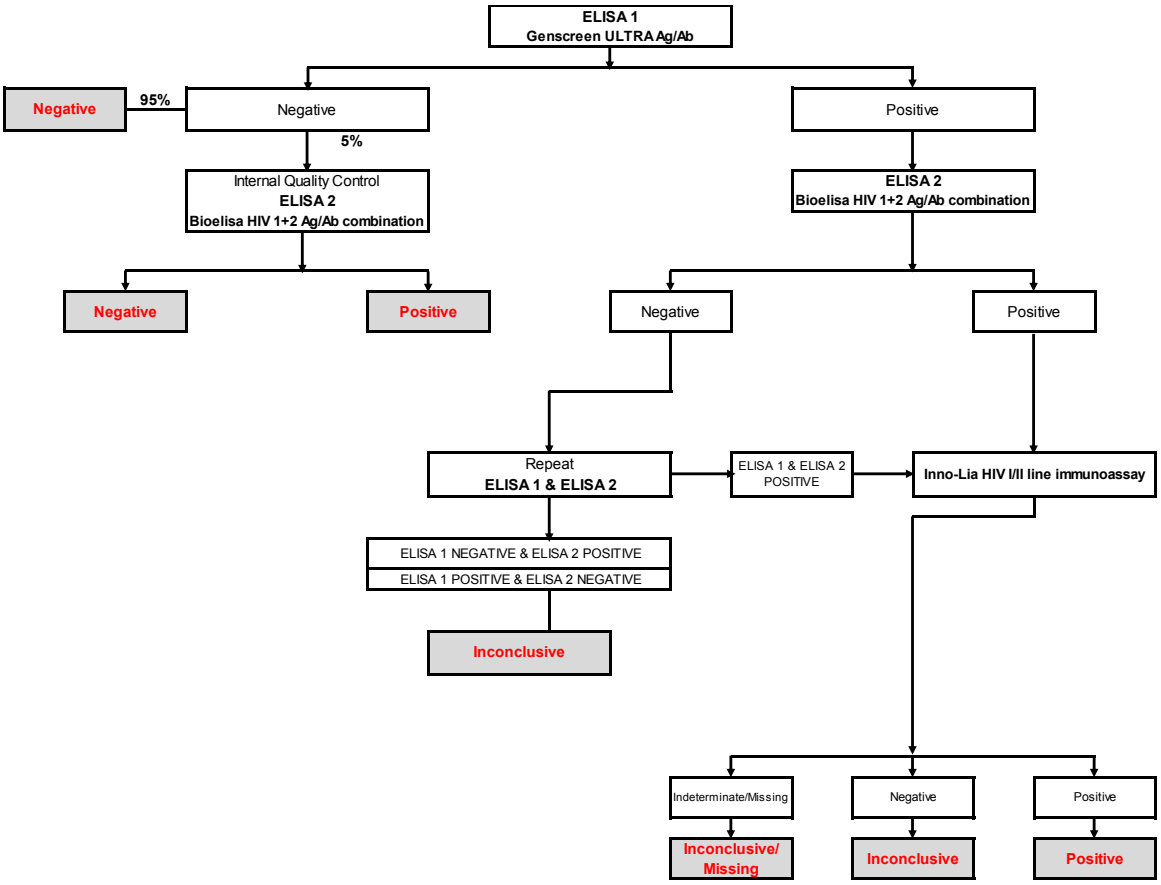
was affixed to the Dried Blood Spot Transmittal Sheet to track the blood samples from the field to the laboratory.

Respondents were also asked whether they would consent to having the laboratory store their blood sample for future testing of hepatitis B and C, rubella, and measles. If respondents did not consent to additional testing of their blood sample in the future, their refusal was recorded on the Biomarker Questionnaire and the words "no additional testing" were written on the filter paper card. All respondents, irrespective of whether or not they provided consent, were given an informational brochure on HIV and a list of nearby sites providing HIV counselling and testing (HCT) services.

Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected from the field and transported to the laboratory at the Ethiopian Public Health Institute (EPHI) in Addis Ababa. Upon arrival at EPHI, each blood sample was logged into the CSPro HIV Test Tracking System database, given a laboratory number, and stored at -20°C until tested.

The HIV testing protocol (**Figure 1.1**) stipulated that blood could be tested only after questionnaire data collection had been completed, the data had been verified and cleaned, and all unique identifiers other than the anonymous barcode number had been removed from the data file.

Figure 1.1 **2016 EDHS HIV testing algorithm**



The testing algorithm calls for testing all samples with the first assay, the Genscreen ULTRA Ag/Ab (Bio-Rad) enzyme-linked immunoassay (ELISA I). All samples testing positive on the ELISA I are subjected to a second ELISA (ELISA II), the Bioelisa HIV 1+2 Ag/Ab combination (Biokit). Five percent of the samples that test negative on the ELISA I are also subjected to the ELISA II, while the other 95% are recorded as negative.

Concordant negative results on the ELISA I and ELISA II are recorded as negative. If the results of the ELISA I and ELISA II are discordant, the specimen is rendered inconclusive. Concordant positive results on the ELISA I and ELISA II are also subjected to the third confirmatory assay. When both the ELISA I and the ELISA II are positive, the sample is rendered positive if the Inno-Lia is positive and inconclusive if the Inno-Lia is negative or indeterminate.

To monitor the quality of HIV testing and assess the validity of test results, two quality control steps were employed. During HIV testing at EPHI, an internal quality control process was established through the use of control materials and retesting of a randomly selected proportion of negative samples.

For the purposes of internal quality control, positive and negative serum controls supplied by the manufacturer with the test kits were included on each microtiter plate of samples, and known HIV-negative, low-positive, and high-positive DBS controls obtained from the CDC were tested in parallel with the kit controls on every microtiter plate of samples.

After HIV testing has been completed, the test results for the 2016 EDHS will be entered into a spreadsheet with a barcode as the unique identifier. The barcode links the HIV test results with the individual interview data. At the time of this report's release, HIV testing had not been completed. A separate report focusing on HIV prevalence will be published as soon as all testing has been completed.

1.5 PRETEST

The pretest for the 2016 EDHS was conducted from October 1-28, 2015, in Bishoftu at the Asham African Training Centre. It consisted of in-class training, biomarker training, and field practice days. The field practice was conducted in clusters surrounding Bishoftu that were not included in the 2016 EDHS sample. A total of 60 trainees attended the pretest. Some of the trainees had experience with household surveys, having been involved in either previous Ethiopia DHS surveys or other similar surveys. Following the field practice, a debriefing session was held with the pretest field staff, and modifications to the questionnaires were made based on lessons drawn from the exercise.

1.6 TRAINING OF FIELD STAFF

CSA recruited and trained 294 people for the main fieldwork to serve as team supervisors, field editors, interviewers, secondary editors, and reserve interviewers. The training took place from December 14, 2015, to January 17, 2016, at the Debre Zeit Management Institute in Bishoftu. The training course consisted of instruction regarding interviewing techniques and field procedures, a detailed review of questionnaire content, instruction on how to administer the paper and electronic questionnaires, mock interviews between participants in the classroom, and practice interviews with real respondents in areas outside the survey sample.

In addition, 72 individuals were recruited and trained on how to collect biomarker data, including taking height and weight measurements, testing for anaemia by measuring haemoglobin levels, and preparing dried blood spots for HIV testing in the laboratory. The biomarker training was held from January 2-11, 2016, and consisted of lectures, demonstrations of biomarker measurement or testing procedures, and field practice with children at the training centre.

The interviewer training also included presentations given by various specialists and experts from the Federal Ministry of Health covering Ethiopia-specific policies and programmes on HIV/AIDS, child immunisations, family planning, child nutrition, childhood diseases, and violence against women.

A four-day field practice was organised, from January 12-15, 2016, to provide trainees with additional hands-on experience before the actual fieldwork. A total of 36 teams were formed for field practice. Each team consisted of a team supervisor, a field editor, three female interviewers, one male interviewer, and two biomarker technicians.

Training participants were evaluated through homework, in-class exercises, quizzes, and observations made during field practice. Ultimately, 132 individuals were selected as interviewers, 66 as biomarker technicians, 33 as field editors, and 33 as team supervisors. The selection of team supervisors and field editors was based on their experience in leading survey teams and their performance during the pretest and the main training. Team supervisors and field editors received additional instructions and practice using the CAPI system to perform supervisory activities. Supervisory activities included assigning households and receiving completed interviews from interviewers, recognising and dealing with error messages, receiving system updates and distributing updates to interviewers, completing biomarker questionnaires and DBS transmittal sheets, dealing with duplicated cases, closing clusters, and transferring interviews to the central office via a secure Internet file streaming system (IFSS). In addition to the CAPI material, team supervisors and field editors received further training on their roles and responsibilities and how to fulfil them.

Fifteen individuals were trained for two days on the Health Facility Questionnaire. Among other components, the training consisted of a brief introduction to the 2016 EDHS survey and an overview of their tasks, including detailed training on the vaccination section of the Woman's Questionnaire. Data from the field practice were used to generate the list of children without vaccination cards, to be used as part of the training. In addition, the team visited health facilities in order to see the various systems that exist in different facilities.

1.7 FIELDWORK

Data collection took place over a 5.5-month period, from January 18, 2016, to June 27, 2016. Fieldwork was carried out by 33 field teams, each consisting of one team supervisor, one field editor, three female interviewers, one male interviewer, two biomarker technicians, and one driver. In addition, 28 quality controllers (14 for interviews and 14 for biomarkers) were dispatched during data collection to support and monitor fieldwork. Electronic data files were transferred to the CSA central office in Addis Ababa every few days via the secured IFSS. Staff from CSA, FMoH, and EPHI and specialists from the DHS Program coordinated and supervised fieldwork activities.

1.8 DATA PROCESSING

All electronic data files for the 2016 EDHS were transferred via IFSS to the CSA central office in Addis Ababa, where they were stored on a password-protected computer. The data processing operation included secondary editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions; it also required generating a file for the list of children for whom a vaccination card was not seen by the interviewers and whose vaccination records had to be checked at health facilities. The data were processed by two individuals who took part in the main fieldwork training; they were supervised by two senior staff from CSA. Data editing was accomplished using CSPro software. During the duration of fieldwork, tables were generated to check various data quality parameters and specific feedback was given to the teams to improve performance. Secondary editing and data processing were initiated in January 2016 and completed in August 2016.

1.9 RESPONSE RATES

Table 1.1 shows response rates for the 2016 EDHS. A total of 18,008 households were selected for the sample, of which 17,067 were occupied. Of the occupied households, 16,650 were successfully interviewed, yielding a response rate of 98%.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Ethiopia DHS 2016

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	5,659	12,349	18,008
Households occupied	5,411	11,656	17,067
Households interviewed	5,232	11,418	16,650
Household response rate[1]	96.7	98.0	97.6
Interviews with women age 15-49			
Number of eligible women	5,720	10,863	16,583
Number of eligible women interviewed	5,348	10,335	15,683
Eligible women response rate[2]	93.5	95.1	94.6
Interviews with men age 15-59			
Number of eligible men	4,801	9,994	14,795
Number of eligible men interviewed	3,866	8,822	12,688
Eligible men response rate[2]	80.5	88.3	85.8

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

In the interviewed households, 16,583 eligible women were identified for individual interviews. Interviews were completed with 15,683 women, yielding a response rate of 95%. A total of 14,795 eligible men were identified in the sampled households and 12,688 were successfully interviewed, yielding a response rate of 86%. Although overall there was little variation in response rates according to residence, response rates among men were higher in rural than in urban areas.

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION

2

Key Findings

- ***Drinking water:*** In Ethiopia, 97% of urban households have access to an improved source of drinking water, as compared with 57% of rural households.
- ***Hand washing:*** Soap and water, the essential hand washing agents, were observed in 28% of urban households and 7% of rural households. On a regional basis, the availability of soap and water is highest in Addis Ababa (39%) and lowest in Amhara (5%).
- ***Electricity:*** In Ethiopia, 93% of urban households and 8% of rural households have access to electricity.
- ***Household population and composition:*** Nearly half of Ethiopians are under age 15 (47%), while 4% are age 65 and older.

Information on the socioeconomic characteristics of the household population in the 2016 EDHS provides a context to interpret demographic and health indicators and can furnish an approximate indication of the representativeness of the survey. In addition, this information sheds light on the living conditions of the population.

This chapter presents information on sources of drinking water, sanitation, exposure to smoke inside the home, wealth, hand washing, household population and composition, educational attainment, school attendance, birth registration, children's living arrangements, and parental survivorship.

2.1 DRINKING WATER SOURCES AND TREATMENT

Improved sources of drinking water

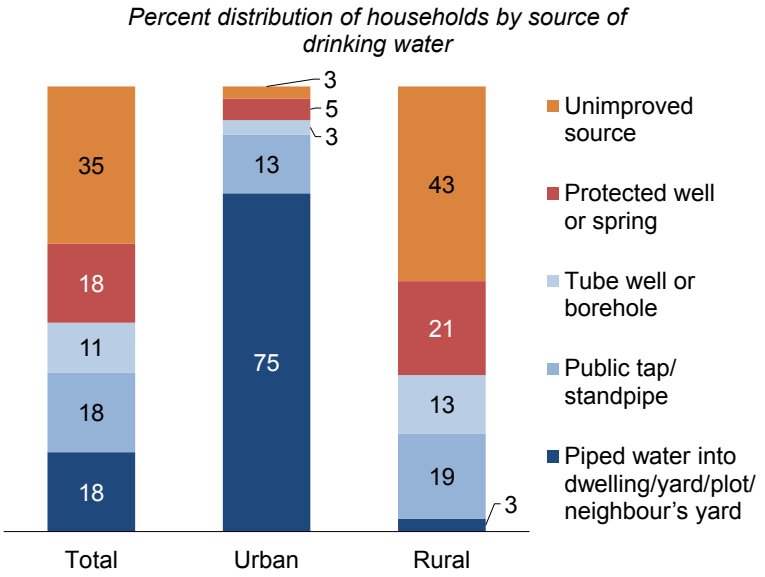
Include piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, and rainwater. Because the quality of bottled water is unknown, households that use bottled water for drinking are classified as using an improved source only if the water they use for cooking and hand washing comes from an improved source.

Sample: Households

In Ethiopia, 97% of urban households have access to an improved source of drinking water, as compared with 57% of rural households (**Table 2.1**). Urban and rural households rely on different sources of drinking water. The three most common sources of drinking water in urban households are water piped into the household's dwelling, yard, or plot (63%); water piped into a public tap/standpipe (13%); and water piped

to a neighbour (12%). By contrast, rural households obtain their drinking water mainly from public taps/standpipes (19%), followed by protected springs (14%) and tube wells or boreholes (13%) (**Figure 2.1**).

Figure 2.1 **Household drinking water by residence**



In urban areas, 77% of households have piped water on their premises, compared with 6% of rural households. Fetching drinking water is an additional chore that could be of great cost to household members, depending on the time spent to obtain it. More than half of rural households (53%) travel 30 minutes or longer round trip to fetch drinking water. In both rural and urban households, adult women are most likely to be responsible for fetching drinking water (17% in urban households and 68% in rural households). In rural areas, female children under age 15 are three times more likely than male children in the same age group to fetch drinking water (13% versus 4%).

Clean water is a basic need for human life; however, most household residents in both urban (88%) and rural (92%) areas report that they do not treat their water prior to drinking. Overall, 7% of households in Ethiopia (11% in urban areas and 6% in rural areas) are using an appropriate treatment method. Appropriate treatment methods include boiling, adding bleach/chlorine, straining through a cloth, filtering, solar disinfecting, and letting it stand and settle.

Table 2.2 presents information on the percentage of households using piped water or water from a tube well or borehole that reported availability of water in the last 2 weeks. Fifty-one percent of households in Ethiopia reported having water with no interruption of at least 1 day in the last 2 weeks. Urban households were more likely than rural households to report no availability of water for at least 1 day (69% versus 35%).

2.2 SANITATION

Improved toilet facilities

Include any non-shared toilet of the following types: flush/pour flush toilets to piped sewer systems, septic tanks, and pit latrines; ventilated improved pit (VIP) latrines; pit latrines with slabs; and composting toilets.

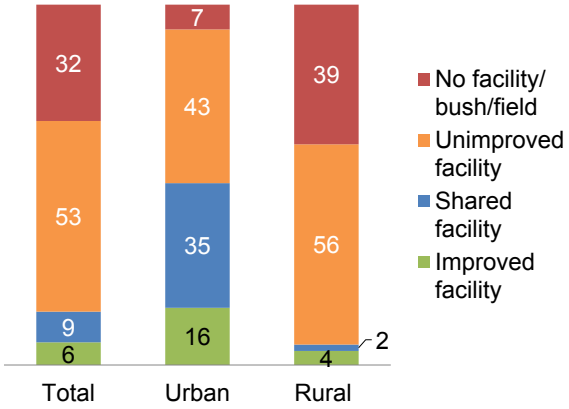
Sample: Households

Overall, 6% of Ethiopian households use improved toilet facilities (16% in urban areas and 4% in rural areas). More than half (56%) of rural households use unimproved toilet facilities. More than one-third (35%) of toilet facilities are shared in urban households, whereas only 2% of rural households share their

toilet facilities with other households. One in three households in Ethiopia have no toilet facility (39% in rural areas and 7% in urban areas) (**Table 2.3** and **Figure 2.2**).

Figure 2.2 **Household toilet facilities by residence**

Percent distribution of households by type of toilet facilities



2.3 EXPOSURE TO SMOKE INSIDE THE HOME

Exposure to smoke inside the home, either from cooking with solid fuels or smoking tobacco, has potentially harmful health effects. Ninety-three percent of households in Ethiopia use some type of solid fuel for cooking, with virtually all of these households using wood (**Table 2.4**). Exposure to cooking smoke is greater when cooking takes place inside the house rather than in a separate building or outdoors. In Ethiopia, cooking is done in a separate building in 47% of households, a figure that has increased since the 2011 EDHS (36%). In 6% of households, someone smokes inside the house on a daily basis.

2.3.1 Other Housing Characteristics

The 2016 EDHS also collected data on access to electricity, flooring materials, and the number of rooms used for sleeping. One in four households in Ethiopia have access to electricity (93% in urban areas and 8% in rural areas).

The two most commonly used materials for flooring in Ethiopia are earth or sand (48%) and dung (33%). Flooring materials differ widely in urban and rural areas. Earth or sand, vinyl or asphalt strips, and carpet are most often used in urban households (23% each), whereas households in rural areas primarily use earth or sand (55%) and dung (39%) (**Table 2.4**).

2.3.2 Household Durable Goods

The survey also collected information on household effects, means of transportation, and ownership of agricultural land and farm animals. In general, urban households are more likely than rural households to possess household effects. The most commonly found item in all households is a mobile phone (56%); 88% of urban households and 47% of rural households own a mobile phone. As expected, rural households are more likely than urban households to own agricultural land and farm animals. One in five urban households own agricultural land, as compared with 86% of rural households (**Table 2.5**).

2.4 HOUSEHOLD WEALTH

Wealth index

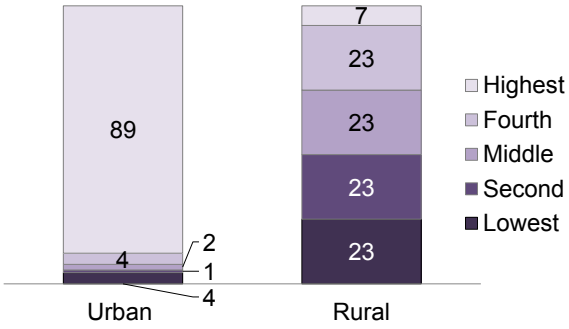
Households are given scores based on the number and kinds of consumer goods they own, ranging from a television to a bicycle or car, in addition to housing characteristics such as source of drinking water, toilet facilities, and flooring materials. These scores are derived using principal component analysis. National wealth quintiles are compiled by assigning the household score to each usual (de jure) household member, ranking each person in the household population by her or his score, and then dividing the distribution into five equal categories, each comprising 20% of the population.

Sample: Households

Table 2.6 presents data on wealth quintiles according to urban-rural residence and region. The wealthiest households are concentrated in urban areas (89%). In contrast, approximately half of the rural population (46%) falls in the lowest two wealth quintiles (**Figure 2.3**). There are regional variations in wealth. The wealthiest households are concentrated in Addis Ababa (100%) and the poorest households in the Affar Region (74%).

***Figure 2.3* Household wealth by residence**

Percent distribution of de jure population by wealth quintiles



Note: Values may not add up to 100% due to rounding.

2.5 Hand Washing

To obtain hand washing information, interviewers asked to see the place where members of the household most often wash their hands. Interviewers were able to see a place for hand washing in 60% of households (81% in urban areas and 55% in rural areas). Soap and water, the essential hand washing agents, were observed in 28% of urban households and 7% of rural households. Water, soap, and other cleaning agents were absent in 43% of urban households and 68% of rural households (**Table 2.7**).

The availability of soap and water varies across regions, from a low of 5% in Amhara to a high of 39% in Addis Ababa. Soap and water availability increases with increasing wealth. Households in the highest wealth quintile are almost 9 times as likely to have soap and water as those in the lowest wealth quintile (26% versus 3%).

2.6 Household Population and Composition

Household

A person or group of related or unrelated persons who live together in the same dwelling unit(s), who acknowledge one adult male or female as the head of the household, who share the same housekeeping arrangements, and who are considered a single unit.

De facto population

All persons who stayed in the selected households the night before the interview (whether usual residents or visitors).

De jure population

All persons who are usual residents of the selected households, whether or not they stayed in the household the night before the interview.

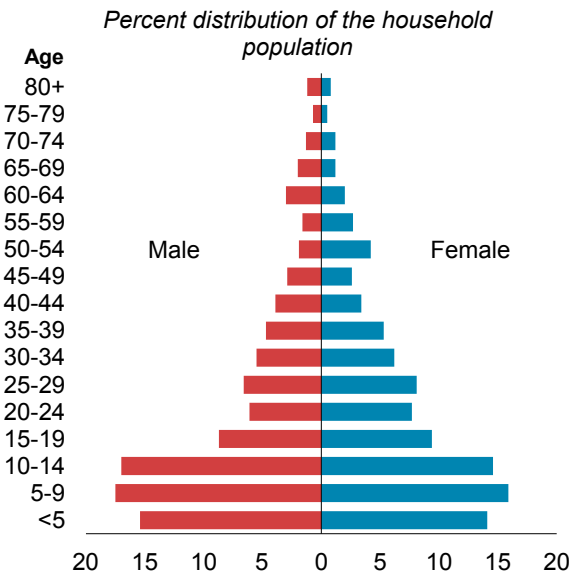
How data are calculated

All tables are based on the de facto population unless otherwise specified.

Household composition and population data provide information on the socioeconomic characteristics of the households and respondents surveyed in terms of age, sex, educational status, household facilities, place of residence, and housing characteristics.

A total of 75,551 individuals stayed overnight in the 16,650 interviewed households in the 2016 EDHS. About 51% of them (38,523) were female, and 49% (37,028) were male (**Table 2.8**). Children under age 15 (47%) and individuals age 15-64 (48%) each represent nearly half of the population, while 4% of Ethiopians are age 65 or older. The population pyramid in **Figure 2.4** shows the population distribution by 5-year age groups, separately for males and females. The broad base of the pyramid indicates that Ethiopia's population is young, which is typical of countries with low life expectancies and high fertility rates.

Figure 2.4 **Population pyramid**



The average household size in Ethiopia is 4.6 persons. Urban households are slightly smaller than rural households (3.5 persons versus 4.9 persons). Men head the majority of Ethiopian households (75%), with only 1 in 4 households headed by women (**Table 2.9**).

Trends: The age distribution of the household population has not changed since 2011, when children under age 15 accounted for 47% of the population and individuals age 65 and older accounted for 4%. Average household size remained the same between 2011 and 2016 (4.6 persons in both surveys). The percentage of female-headed households also remained essentially the same during that period (26% in 2011 versus 25% in 2016).

2.7 Children's Living Arrangements and Parental Survival

Orphan
A child with one or both parents who are dead.
Sample: Children under age 18

One in 10 children under age 18 are not living with a biological parent and 7% of these children are orphans, with one or both parents dead. The percentage of children who are orphans rises rapidly with age, from 2% among children under age 5 to 6% among children age 5-9 and 17% among children age 15-17. The Gambela Region has the highest percentage of children who are orphans (13%), while Tigray, Amhara, Oromiya, Benishangul-Gumuz, and Harari have the lowest percentages (7% each) (**Table 2.10**).

Trends: The percentage of children under age 18 who do not live with a biological parent remained the same between 2011 and 2016 (11% and 10%, respectively). The percentage of children under age 18 who are orphans declined slightly, from 9% to 7%.

2.8 Birth Registration

Registered birth
Child has a birth certificate or child does not have a birth certificate, but his/her birth is registered with the civil authorities.
Sample: De jure children under age 5

Table 2.11 presents information on birth registration of children under age 5. At the time of the survey, 3% of children under age 5 were registered with the civil authorities. Two in three of these children have birth certificates. The percentage of children whose birth is registered is the same among children under age 2 and those between age 2 and 4 (3% each). Boys and girls are equally likely to have their births registered (3% each). However, children in urban areas are much more likely than rural children to have their births registered (12% versus 2%).

Birth registration increases with increasing household wealth (from 1% in the lowest wealth quintile to 10% in the highest quintile) (**Figure 2.5**).

Figure 2.6 depicts the proportion of children under age 5 whose births are registered by region. Children in Addis Ababa and Dire Dawa are much more likely to have their birth registered (24% and 19%, respectively) than children in other regions (5% or less).

***Figure 2.5* Birth registration by household wealth**

Percentage of de jure children under age 5 whose births are registered with the civil authorities

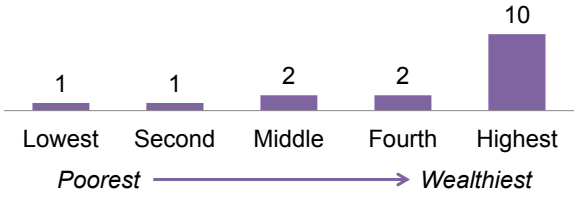
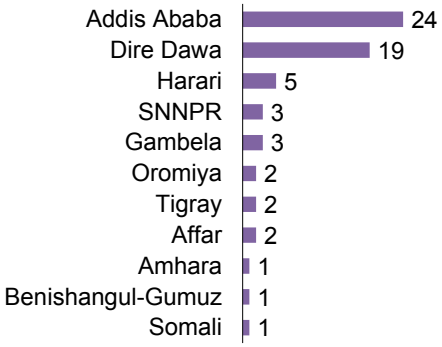


***Figure 2.6* Birth registration by region**

Percentage of de jure children under age 5 whose births are registered with the civil authorities



2.9 EDUCATION

Education is one of the most important aspects of social and economic development. Education improves capabilities and is strongly associated with various socioeconomic variables such as lifestyle, income, and fertility for both individuals and societies.

2.9.1 Educational Attainment

Median educational attainment

Half of the population has completed less than the median number of years of schooling, and half of the population has completed more than the median number of years of schooling.

Sample: De facto household population age 6 and older

Overall, 51% of females and 65% of males age 6 and over have ever attended school. For the majority of women, primary school is the highest level of schooling attended or completed; 40% of women have some primary education and 2% have completed primary education. Similarly, 50% of men have some primary education, and 3% have completed primary schooling. Only 4% of women and 5% of men have completed secondary school or gone beyond secondary school. Forty-nine percent of females and 35% of males have never attended school (**Tables 2.12.1** and **2.12.2**).

Trends: Educational attainment at the household level has increased since 2000. The percentage of women with no education decreased from 77% in 2000 and 52% in 2011 to 49% in 2016, while the percentage of men with no education declined from 62% in 2000 and 38% in 2011 to 35% in 2016.

Patterns by background characteristics

- Urban residents are much more likely than rural residents to be educated. Twenty-four percent of females age 6 and older in urban areas have no education, as compared with 54% of females in rural areas. The corresponding proportions among males are 14% and 39%.
- Addis Ababa has the lowest proportions of both females and males with no education (16% and 8%, respectively), while the Somali Region has the highest proportions (66% and 51%, respectively).

2.9.2 School Attendance

Net attendance ratio (NAR)

Percentage of the school-age population that attends primary or secondary school.

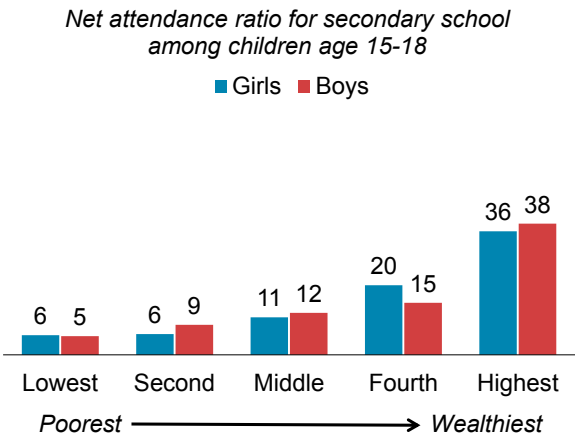
Sample: Children age 7-14 for primary school NAR and children age 15-18 for secondary school NAR

In Ethiopia, the primary school net attendance ratio (NAR) for the population age 7-14 is 71% (72% for girls and 71% for boys). The secondary school NAR drops drastically to 18% (**Table 2.13**).

Patterns by background characteristics

- There is a substantial difference in the primary school NAR between urban and rural areas (83% and 70%, respectively), and this difference increases at the secondary school level (42% in urban areas and 12% in rural areas).
- Among regions, Gambela has the highest NAR at the primary school level (88%) and Addis Ababa has the highest NAR at the secondary school level (36%).
- The NAR increases with increasing household wealth, especially at the secondary school level. The secondary school NAR rises from 6% in the lowest quintile to 36% in the highest quintile for girls and from 5% in the lowest quintile to 38% in the highest quintile for boys (**Figure 2.7**).

Figure 2.7 **Secondary school attendance by household wealth**



2.9.3 Other Measures of School Attendance

Gross attendance ratios (GAR)

The total number of children attending primary school divided by the official primary school-age population and the total number of children attending secondary school divided by the official secondary school-age population.

Sample: Children age 7-14 for primary school GAR and children age 15-18 for secondary school GAR

Gender parity index (GPI)

The ratio of female to male students attending primary school and the ratio of female to male children attending secondary school. The index reflects the magnitude of the gender gap.

Sample: Primary and secondary school students

The gross attendance ratio (GAR) is 91% (91% for girls and 92% for boys) at the primary school level and 30% (27% for girls and 32% for boys) at the secondary school level. Although the primary school GAR is 91%, there are differences in overage and/or underage participation in urban (103%) and rural areas (90%), as well as in Gambela (121%), Addis Ababa (114%), and Dire Dawa (102%). The figures indicate that a number of children outside the official school-age population for that level are attending primary school, and not all of those who should be attending secondary school are doing so (**Table 2.13**).

A gender parity index (GPI) of 1 indicates parity or equality between male and female school participation ratios. A GPI lower than 1 indicates a gender disparity in favour of males, with a higher proportion of males than females attending that level of schooling. A GPI higher than 1 indicates a gender disparity in favour of females.

The GPI for the NAR is 1.01 at the primary school level, which indicates that there is relatively little difference in overall primary school attendance by girls and boys. However, the GPI for the NAR is 1.05 at the secondary school level, meaning that a higher proportion of females than males attend secondary school. In contrast, the GPI for the GAR at the secondary school level is less than 1 (0.85), which indicates that males outside of the official school-age population are more likely to attend school than their female counterparts.

Patterns by background characteristics

- The GPI for the NAR is 0.98 in urban primary schools and 1.01 in rural primary schools. Similarly, the GPI is 0.88 in urban secondary schools and 1.04 in rural secondary schools.
- The GPI for the NAR at the primary school level is highest in the Amhara and Tigray Regions (1.08 each) and lowest in Benishangul-Gumuz (0.86). At the secondary school level, the GPI for the NAR is highest in Amhara (1.39) and lowest in Affar (0.27).
- The primary school GPI for the NAR is highest in the middle and fourth wealth quintiles (1.04 each) and lowest in the lowest quintile (0.92). The secondary school GPI is highest in the fourth quintile (1.34) and lowest in the second quintile (0.69) (**Table 2.13**).

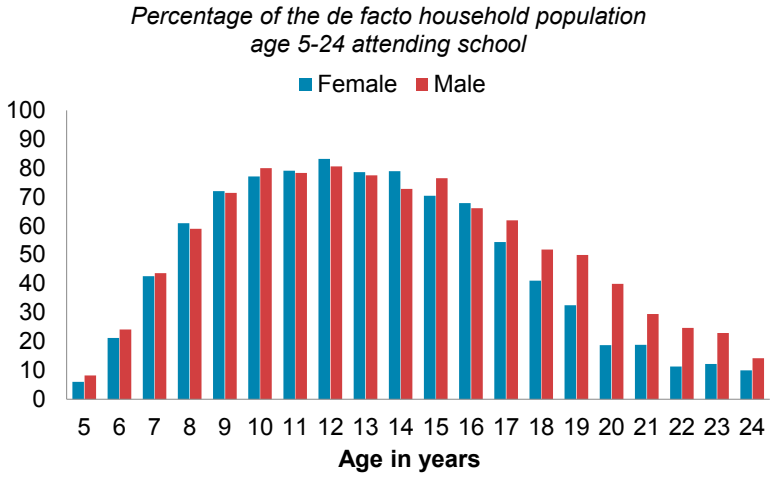
Age-specific attendance rate (ASAR)

Children attending school, irrespective of whether they are attending the appropriate grade for their age.

***Sample*:** De facto household population age 5-24 attending school

Age-specific attendance rates (ASARs) for the population age 5 to 24 are presented in **Figure 2.8** by age and sex. The ASAR indicates participation in schooling at any level, from primary to higher levels of education. The trends are generally the same for males and females. Approximately 70% of children attend school by age 7. Between age 8 and age 13, more than 60% of children attend school. The attendance rate declines rapidly from age 16 to age 24, and in this age group ASARs are higher for males than females.

Figure 2.8 **Age-specific attendance rates for the de facto population age 5 to 24**



2.10 INJURY AND ACCIDENTS

Injury is physical damage that results when a human body, intentionally or unintentionally, is subjected to intolerable levels of energy (Holder et al. 2001). It can be caused by traffic collisions, drowning, poisoning, falls or burns, or violence (e.g., assault, self-inflicted violence, or acts of war). According to WHO, injuries are becoming among the leading causes of global disease burden and represent a serious public health problem threatening future generations. For every death, dozens of hospitalizations, hundreds of emergency department visits, and thousands of doctors' appointments are expected. A large proportion of people surviving their injuries also incur temporary or permanent disabilities (WHO 2014).

In Ethiopia, information on injuries and accidents was collected for the first time in the 2016 EDHS. **Table 2.14** shows that 3% of households reported having at least one member who was injured or killed in the 12 months before the survey. Among household members who were involved in an accident in the past 12 months, 89% survived and 10% died as a result of the accident (**Table 2.15**).

With respect to length of injury, 27% of household members who were involved in an accident were unable to do their normal activities for less than 7 days, 31% stopped performing normal activities between 8 and 30 days, and 30% were unable to perform activities between 2 and 6 months (**Table 2.16**).

Accidental falls and road traffic accidents accounted for the highest percentages of accidental injuries and deaths (28% and 23%, respectively). Animal bites, drowning, poisoning, and being kicked by cattle each accounted for less than 2% of injuries or deaths (**Table 2.17**).

Patterns by background characteristics

- There are no variations by residence in the percentage of households with at least one member injured or killed in an accident in the past 12 months (4% in urban areas and 3% in rural areas) (**Table 2.14**).
- Among regions, Amhara has the highest percentage of households with at least one member injured or killed in an accident (4%), while Somali has the lowest percentage (1%) (**Table 2.14**).
- Females and males were equally likely to have been injured or killed in a road traffic accident in the past 12 months (23% each). However, urban residents (32%) were more likely than rural residents (20%) to have been injured or killed in a road traffic accident (**Table 2.17**).

LIST OF TABLES

For more information on household population and housing characteristics, see the following tables:

- **Table 2.1 Household drinking water**
- **Table 2.2 Availability of water**
- **Table 2.3 Household sanitation facilities**
- **Table 2.4 Household characteristics**
- **Table 2.5 Household possessions**
- **Table 2.6 Wealth quintiles**
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- **Table 2.9 Household composition**
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- **Table 2.12.1 Educational attainment of the female household population**
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- **Table 2.13 School attendance ratios**
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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 treatment of drinking water, according to residence, Ethiopia DHS 2016

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	**97.3**	**56.5**	**64.8**	**96.9**	**55.1**	**61.6**
Piped into dwelling/yard/plot	63.0	1.8	14.3	62.1	1.6	10.9
Piped to neighbour	12.3	1.1	3.4	11.1	0.8	2.4
Public tap/standpipe	13.1	18.9	17.7	13.4	18.6	17.8
Tube well or borehole	3.2	13.1	11.1	3.1	12.5	11.1
Protected dug well	1.5	7.0	5.9	2.3	7.1	6.4
Protected spring	3.3	13.9	11.7	4.1	13.8	12.3
Rainwater	0.0	0.7	0.5	0.0	0.7	0.6
Bottled water, improved source for drinking[1]	0.9	0.0	0.2	0.8	0.0	0.1
Unimproved source	**2.7**	**43.4**	**35.1**	**3.1**	**44.8**	**38.3**
Unprotected dug well	0.2	5.1	4.1	0.2	5.3	4.5
Unprotected spring	1.3	24.7	20.0	1.6	25.5	21.8
Tanker truck/cart with small tank	0.5	0.4	0.4	0.7	0.4	0.5
Surface water	0.7	13.2	10.7	0.6	13.5	11.5
Other source	**0.0**	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises[2]	76.8	5.6	20.1	74.6	5.0	15.8
Less than 30 minutes	10.2	41.7	35.3	11.0	41.0	36.4
30 minutes or longer	12.6	52.6	44.5	13.8	53.9	47.6
Don't know/missing	0.4	0.2	0.2	0.6	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult woman	16.6	68.2	57.7	17.9	67.8	60.1
Adult man	2.8	8.3	7.2	2.3	7.1	6.4
Female child under age 15	1.9	12.5	10.4	2.8	14.8	12.9
Male child under age 15	0.9	4.1	3.5	1.4	4.6	4.1
Other	1.0	1.3	1.2	1.1	0.7	0.8
Water on premises	76.8	5.6	20.1	74.6	5.0	15.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[3]						
Boiled	2.8	2.0	2.2	3.0	1.9	2.1
Bleach/chlorine added	6.5	2.6	3.4	6.7	2.6	3.2
Strained through cloth	0.7	2.3	2.0	0.7	2.4	2.2
Ceramic, sand, or other filter	1.7	0.9	1.1	2.1	1.0	1.2
Let stand and settle	0.0	0.4	0.4	0.0	0.4	0.4
Other	0.4	0.1	0.2	0.5	0.1	0.2
No treatment	88.4	92.1	91.3	87.5	92.1	91.4
Percentage using an appropriate treatment method[4]	10.5	5.5	6.5	11.3	5.4	6.3
Number	3,384	13,266	16,650	11,896	64,871	76,767

Note: Total includes a small number of households with solar disinfection as the water treatment method.
[1] Because the quality of bottled water is not known, households using bottled water for drinking are classified as using an improved or unimproved source according to their water source for cooking and hand washing.
[2] Includes water piped to a neighbour
[3] Respondents may report multiple treatment methods, so the sum of treatment may exceed 100%.
[4] Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting.

Table 2.2 Availability of water

Among households and de jure population using piped water or water from a tube well or borehole, percentage lacking available water in the last 2 weeks, according to residence, Ethiopia DHS 2016

	Households			Population		
Availability of water in last 2 weeks	Urban	Rural	Total	Urban	Rural	Total
Not available for at least one day	68.5	34.5	48.2	70.5	34.4	46.3
Available with no interruption of at least one day	30.3	65.1	51.1	28.8	65.2	53.2
Don't know/missing	1.2	0.4	0.7	0.7	0.4	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number using piped water or water from a tube well[1]	3,131	4,633	7,764	10,760	21,757	32,517

[1] Includes households reporting piped water or water from a tube well or borehole as their main source of drinking water and households reporting bottled water as their main source of drinking water if their main source of water for cooking and hand washing is piped water or water from a tube well or borehole

Table 2.3 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facility and percent distribution of households and de jure population with a toilet/latrine facility by location of the facility, according to residence, Ethiopia DHS 2016

Type and location of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Improved	**15.9**	**3.9**	**6.3**	**20.1**	**4.2**	**6.7**
Flush/pour flush to piped sewer system	1.8	0.0	0.4	2.3	0.0	0.4
Flush/pour flush to septic tank	2.8	0.1	0.7	3.4	0.1	0.6
Flush/pour flush to pit latrine	1.4	0.4	0.6	1.8	0.5	0.7
Ventilated improved pit (VIP) latrine	0.4	0.0	0.1	0.6	0.0	0.1
Pit latrine with slab	9.4	2.3	3.8	11.9	2.6	4.1
Composting toilet	0.1	1.0	0.8	0.1	0.9	0.8
Unimproved sanitation	**84.1**	**96.1**	**93.7**	**79.9**	**95.8**	**93.3**
Shared facility[1]	**34.6**	**1.8**	**8.5**	**30.9**	**1.4**	**6.0**
Flush/pour flush to piped sewer system	0.5	0.0	0.1	0.5	0.0	0.1
Flush/pour flush to septic tank	1.7	0.0	0.3	1.5	0.0	0.2
Flush/pour flush to pit latrine	3.0	0.2	0.7	2.9	0.1	0.6
Ventilated improved pit (VIP) latrine	1.1	0.0	0.2	1.1	0.0	0.2
Pit latrine with slab	27.7	1.4	6.7	24.6	1.1	4.8
Composting toilet	0.5	0.2	0.2	0.4	0.1	0.2
Unimproved facility	**42.7**	**55.6**	**52.9**	**42.2**	**56.6**	**54.4**
Flush/pour flush not to sewer/septic tank/ pit latrine	0.8	0.0	0.2	0.8	0.1	0.2
Pit latrine without slab/open pit	40.5	55.2	52.2	40.1	56.3	53.8
Hanging toilet/hanging latrine	0.6	0.0	0.1	0.5	0.0	0.1
Other	0.8	0.3	0.4	0.8	0.2	0.3
Open defecation (no facility/bush/field)	**6.9**	**38.8**	**32.3**	**6.8**	**37.7**	**32.9**
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population	3,384	13,266	16,650	11,896	64,871	76,767
Location of toilet facility						
In own dwelling	5.4	0.8	2.1	6.1	0.8	1.9
In own yard/plot	87.0	82.7	83.9	86.1	83.2	83.8
Elsewhere	7.6	16.4	14.0	7.9	16.0	14.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population with a toilet/latrine facility	3,152	8,124	11,276	11,083	40,403	51,486

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

Table 2.4 Household characteristics

Percent distribution of households and de jure population by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, Ethiopia DHS 2016

	Households			Population		
Housing characteristic	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	93.3	8.4	25.6	92.2	7.7	20.8
No	6.7	91.6	74.4	7.8	92.3	79.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth, sand	22.9	54.7	48.2	23.2	55.5	50.5
Dung	9.1	39.1	33.0	9.2	38.2	33.7
Wood/planks	0.3	0.1	0.2	0.3	0.1	0.2
Palm/bamboo	0.8	1.7	1.5	1.1	1.8	1.7
Parquet or polished wood	1.1	0.1	0.3	1.3	0.1	0.3
Vinyl or asphalt strips	22.7	1.2	5.6	21.3	1.0	4.2
Ceramic tiles	4.1	0.1	0.9	4.9	0.1	0.8
Cement	16.1	1.6	4.5	17.3	1.6	4.1
Carpet	22.9	1.4	5.8	21.4	1.4	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	65.2	71.6	70.3	52.5	66.6	64.4
Two	25.0	23.1	23.5	32.4	26.4	27.3
Three or more	9.4	5.2	6.1	14.9	7.0	8.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house	31.2	42.1	39.9	26.4	40.0	37.9
In a separate building	52.4	46.1	47.3	59.8	48.9	50.6
Outdoors	13.6	11.2	11.7	12.8	10.9	11.2
No food cooked in household	2.8	0.5	1.0	0.9	0.1	0.3
Other	0.1	0.2	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity	23.2	0.3	5.0	24.2	0.3	4.0
LPG/natural gas/biogas	1.3	0.3	0.5	1.1	0.3	0.5
Kerosene	2.1	0.0	0.5	1.3	0.0	0.2
Charcoal	30.2	2.1	7.8	27.8	1.5	5.6
Wood	38.7	85.6	76.1	42.5	86.9	80.0
Straw/shrubs/grass	0.0	0.5	0.4	0.0	0.5	0.4
Agricultural crop	0.3	2.2	1.8	0.4	2.1	1.9
Animal dung	1.3	8.3	6.9	1.7	8.2	7.2
No food cooked in household	2.8	0.5	1.0	0.9	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	70.6	98.8	93.0	72.3	99.2	95.0
Frequency of smoking in the home						
Daily	4.4	6.2	5.8	5.2	6.8	6.6
Weekly	4.5	5.8	5.5	4.7	5.9	5.7
Monthly	0.8	0.3	0.4	0.6	0.3	0.4
Less than once a month	1.3	1.3	1.3	1.1	1.3	1.3
Never	89.1	86.4	87.0	88.5	85.7	86.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population	3,384	13,266	16,650	11,896	64,871	76,767

Note: Total includes a small number of households with "other" types of flooring material and a small amount of missing data on number of rooms used for sleeping.
LPG = Liquefied petroleum gas
[1] Includes charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung

Table 2.5 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence, Ethiopia DHS 2016

Possession	Residence		Total
	Urban	Rural	
Household effects			
Radio	44.3	24.1	28.2
Television	59.4	2.1	13.8
Mobile phone	88.0	47.2	55.5
Watch	33.1	21.0	23.5
Computer	11.3	0.2	2.4
Non-mobile telephone	15.2	0.6	3.6
Refrigerator	24.4	0.4	5.3
Table	69.9	30.8	38.7
Chair	74.7	43.0	49.4
Bed with cotton/sponge/spring mattress	79.6	26.2	37.0
Electric mitad	26.7	0.4	5.7
Kerosene lamp/pressure lamp	3.9	8.1	7.2
Means of transport			
Bicycle	7.1	1.0	2.3
Animal-drawn cart	2.5	1.3	1.6
Motorcycle/scooter	2.5	0.8	1.1
Car/truck	3.3	0.2	0.8
Boat with a motor	0.2	0.2	0.2
Bagag	1.6	0.3	0.6
Ownership of agricultural land	20.1	86.1	72.7
Ownership of farm animals[1]	26.0	87.6	75.1
Number of households	3,384	13,266	16,650

[1] Cows, bulls, other cattle, horses, donkeys, camels, goats, sheep, chickens or other poultry, or beehives

Table 2.6 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini coefficient, according to residence and region, Ethiopia DHS 2016

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	4.1	1.4	1.8	3.5	89.2	100.0	11,896	0.13
Rural	22.9	23.4	23.3	23.0	7.3	100.0	64,871	0.12
Region								
Tigray	29.1	21.0	15.8	10.3	23.9	100.0	5,091	0.44
Affar	74.2	2.2	1.6	2.1	20.0	100.0	622	0.54
Amhara	16.4	21.0	22.7	22.9	17.0	100.0	17,233	0.27
Oromiya	17.7	22.1	21.4	21.8	17.0	100.0	30,160	0.36
Somali	68.5	8.3	5.7	5.1	12.4	100.0	2,653	0.21
Benishangul-Gumuz	29.3	23.4	17.0	17.2	13.1	100.0	787	0.36
SNNPR	18.2	20.8	22.8	23.7	14.4	100.0	16,739	0.11
Gambela	36.3	9.8	8.4	11.3	34.2	100.0	202	0.41
Harari	9.1	15.1	10.9	10.5	54.4	100.0	180	0.39
Addis Ababa	0.0	0.0	0.0	0.1	99.9	100.0	2,714	0.05
Dire Dawa	18.6	11.1	6.2	3.5	60.7	100.0	384	0.35
Total	20.0	20.0	20.0	20.0	20.0	100.0	76,767	0.22

Table 2.7 Hand washing

Percentage of households in which the place most often used for washing hands was observed by whether the location was fixed or mobile and total percentage of households in which the place for hand washing was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of households in which place for washing hands was observed and:			Number of households	Among households where place for hand washing was observed, percentage with:							Number of households in which place for hand washing was observed
	Place for hand washing was fixed	Place for hand washing was mobile	Total		Soap and water[1]	Water and cleansing agent other than soap only[2]	Water only	Soap but no water[3]	Cleansing agent other than soap only[2]	No water, no soap, no other cleansing agent	Total	
Residence												
Urban	10.8	70.0	80.9	3,384	27.8	0.1	18.6	10.8	0.0	42.6	100.0	2,736
Rural	1.8	52.7	54.5	13,266	7.4	0.7	18.8	5.1	0.2	67.7	100.0	7,230
Region												
Tigray	6.0	45.2	51.2	1,186	17.3	0.0	16.6	10.0	0.1	56.0	100.0	607
Affar	1.3	34.4	35.7	140	16.6	0.0	18.4	11.7	0.2	53.0	100.0	50
Amhara	1.7	77.3	79.0	4,239	5.2	0.5	19.2	6.8	0.1	68.2	100.0	3,349
Oromiya	3.3	47.8	51.1	6,062	11.9	0.7	18.5	4.0	0.1	64.8	100.0	3,099
Somali	4.2	33.2	37.4	511	6.8	0.0	30.2	2.2	0.0	60.9	100.0	191
Benishangul-Gumuz	8.5	54.0	62.5	182	18.5	0.5	30.9	2.7	0.5	47.0	100.0	113
SNNPR	1.7	50.7	52.5	3,388	18.5	0.9	18.0	8.4	0.4	53.9	100.0	1,777
Gambela	3.6	57.4	61.0	50	12.6	0.3	14.0	7.2	0.1	65.8	100.0	31
Harari	5.5	26.3	31.8	46	21.0	0.0	34.2	6.7	0.0	38.0	100.0	15
Addis Ababa	21.0	70.7	91.7	751	38.9	0.0	16.6	11.8	0.0	32.6	100.0	689
Dire Dawa	4.1	44.1	48.2	95	13.1	0.6	16.7	5.6	0.1	63.8	100.0	46
Wealth quintile												
Lowest	1.2	38.4	39.6	3,202	3.2	0.2	18.2	4.8	0.2	73.4	100.0	1,268
Second	1.2	49.8	51.1	3,203	6.3	1.0	18.6	3.2	0.3	70.6	100.0	1,636
Middle	1.8	55.6	57.4	3,121	6.5	0.6	18.3	4.9	0.4	69.3	100.0	1,792
Fourth	2.1	62.3	64.4	3,084	9.6	0.9	20.8	5.4	0.0	63.3	100.0	1,986
Highest	10.0	71.3	81.3	4,040	25.8	0.3	18.0	10.7	0.0	45.0	100.0	3,284
Total	3.6	56.2	59.9	16,650	13.0	0.6	18.8	6.6	0.2	60.8	100.0	9,966

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

Table 2.8 Household population by age, sex, and residence

Percent distribution of the de facto household population by various age groups and percentage of the de facto household population age 10-19, according to sex and residence, Ethiopia DHS 2016

Age	Urban			Rural					
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	11.8	9.5	10.6	16.0	15.0	15.5	15.4	14.1	14.7
5-9	11.9	8.8	10.2	18.5	17.3	17.9	17.5	15.9	16.7
10-14	12.1	12.0	12.0	17.9	15.1	16.5	17.0	14.6	15.8
15-19	11.1	13.5	12.4	8.2	8.6	8.4	8.7	9.4	9.0
20-24	8.2	10.8	9.6	5.7	7.0	6.4	6.1	7.7	6.9
25-29	11.1	12.3	11.8	5.8	7.2	6.5	6.6	8.1	7.3
30-34	8.4	7.8	8.0	5.0	5.9	5.5	5.5	6.2	5.9
35-39	5.9	6.5	6.2	4.5	5.1	4.8	4.7	5.3	5.0
40-44	4.7	3.8	4.2	3.7	3.4	3.6	3.9	3.4	3.7
45-49	3.4	2.8	3.1	2.8	2.6	2.7	2.9	2.6	2.8
50-54	2.5	3.8	3.2	1.8	4.2	3.0	1.9	4.2	3.1
55-59	1.9	2.4	2.2	1.5	2.8	2.2	1.6	2.7	2.2
60-64	2.7	2.2	2.5	3.1	1.9	2.5	3.0	2.0	2.5
65-69	1.7	1.3	1.4	2.0	1.2	1.6	2.0	1.2	1.6
70-74	1.0	1.1	1.1	1.3	1.2	1.3	1.3	1.2	1.2
75-79	0.7	0.6	0.6	0.8	0.5	0.6	0.7	0.5	0.6
80+	0.9	0.7	0.8	1.3	0.8	1.0	1.2	0.8	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dependency age groups									
0-14	35.8	30.3	32.8	52.4	47.4	49.9	50.0	44.6	47.2
15-64	59.9	66.0	63.2	42.3	48.9	45.6	44.8	51.7	48.3
65+	4.3	3.7	4.0	5.3	3.7	4.5	5.2	3.7	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Child and adult populations									
0-17	42.3	38.0	40.0	57.5	52.7	55.1	55.3	50.2	52.7
18+	57.6	61.9	60.0	42.4	47.3	44.9	44.6	49.7	47.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Adolescents 10-19	23.1	25.5	24.4	26.1	23.7	24.9	25.7	24.0	24.8
Number of persons	5,337	6,355	11,691	31,691	32,169	63,860	37,028	38,523	75,551

Table 2.9 Household composition

Percent distribution of households by sex of head of household and by household size, mean size of households, and percentage of households with orphans and foster children under age 18, according to residence, Ethiopia DHS 2016

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	61.6	77.9	74.6
Female	38.4	22.1	25.4
Total	100.0	100.0	100.0
Number of usual members			
0	0.1	0.1	0.1
1	17.9	4.9	7.5
2	18.8	9.7	11.6
3	18.5	14.7	15.4
4	15.4	17.0	16.7
5	13.1	15.9	15.3
6	7.9	14.4	13.1
7	3.8	11.1	9.6
8	2.1	6.3	5.5
9+	2.4	6.1	5.3
Total	100.0	100.0	100.0
Mean size of households	3.5	4.9	4.6
Percentage of households with orphans and foster children under age 18			
Double orphans	0.9	0.8	0.8
Single orphans[1]	9.1	9.5	9.4
Foster children[2]	19.3	17.3	17.7
Foster and/or orphan children	23.7	22.8	23.0
Number of households	3,384	13,266	16,650

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

Table 2.10 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, percentage of children not living with a biological parent, and percentage of children with one or both parents dead, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/mother				
Age														
0-4	82.2	11.6	1.3	1.2	0.1	3.1	0.2	0.1	0.1	0.1	100.0	3.5	1.8	11,144
<2	84.6	12.4	0.8	0.8	0.0	1.3	0.0	0.0	0.1	0.0	100.0	1.4	0.9	4,352
2-4	80.7	11.2	1.7	1.4	0.1	4.3	0.3	0.2	0.0	0.1	100.0	4.8	2.3	6,792
5-9	72.9	10.5	3.2	2.6	0.8	8.0	0.8	0.7	0.3	0.2	100.0	9.9	5.9	12,697
10-14	67.3	10.0	6.1	3.2	1.5	9.0	0.8	1.5	0.5	0.1	100.0	11.8	10.4	12,038
15-17	56.6	9.1	8.7	2.9	2.7	14.5	1.7	2.5	1.2	0.1	100.0	19.9	16.8	4,220
Sex														
Male	72.3	10.7	4.4	2.6	1.0	6.8	0.7	0.9	0.3	0.1	100.0	8.8	7.4	20,676
Female	71.8	10.3	3.8	2.2	1.0	8.5	0.8	1.1	0.4	0.1	100.0	10.8	7.0	19,422
Residence														
Urban	56.4	16.3	6.0	3.1	0.6	13.2	0.9	2.5	0.7	0.3	100.0	17.3	10.7	4,701
Rural	74.1	9.7	3.9	2.3	1.0	6.9	0.7	0.8	0.3	0.1	100.0	8.7	6.8	35,397
Region														
Tigray	70.3	15.5	4.2	1.3	0.7	5.5	0.8	1.0	0.3	0.2	100.0	7.7	7.1	2,558
Affar	62.5	20.1	4.9	2.6	0.7	6.6	1.2	1.2	0.2	0.0	100.0	9.2	8.2	340
Amhara	75.0	8.1	3.4	2.9	1.3	7.0	1.0	1.0	0.3	0.1	100.0	9.3	7.0	8,094
Oromiya	74.0	9.3	4.3	2.3	0.8	7.6	0.5	0.8	0.3	0.1	100.0	9.2	6.8	16,755
Somali	62.3	19.6	5.0	2.5	1.5	6.8	1.1	0.9	0.3	0.1	100.0	9.1	8.8	1,657
Benishangul-Gumuz	75.4	10.4	4.0	3.4	1.5	3.7	0.6	0.8	0.2	0.0	100.0	5.3	7.1	422
SNNPR	70.7	10.6	4.2	2.7	1.1	8.3	0.7	1.2	0.4	0.1	100.0	10.6	7.6	9,072
Gambela	50.5	22.1	8.6	4.4	0.7	9.6	0.6	2.1	1.4	0.0	100.0	13.6	13.4	101
Harari	72.2	10.2	4.8	2.2	0.5	8.3	0.5	0.8	0.5	0.0	100.0	10.1	7.1	86
Addis Ababa	51.3	17.9	4.1	2.3	1.0	17.3	1.5	2.6	1.3	0.8	100.0	22.7	10.5	835
Dire Dawa	63.0	12.6	5.0	2.6	0.8	11.8	1.2	1.9	0.7	0.4	100.0	15.6	9.6	176
Wealth quintile														
Lowest	69.5	12.7	5.2	2.4	1.0	6.6	1.0	1.2	0.3	0.1	100.0	9.1	8.8	8,873
Second	77.2	9.3	3.2	1.8	0.9	6.1	0.6	0.5	0.3	0.1	100.0	7.5	5.5	8,476
Middle	75.5	8.9	3.8	2.7	1.1	6.3	0.6	0.6	0.4	0.0	100.0	8.0	6.5	8,276
Fourth	73.5	8.8	4.3	2.5	1.0	7.8	0.5	1.1	0.4	0.1	100.0	9.7	7.3	7,999
Highest	62.8	13.2	4.0	2.9	0.9	12.7	0.9	1.8	0.5	0.3	100.0	15.9	8.1	6,473
Total <15	73.9	10.7	3.6	2.4	0.8	6.8	0.6	0.8	0.3	0.1	100.0	8.5	6.1	35,878
Total <18	72.1	10.5	4.1	2.4	1.0	7.6	0.7	1.0	0.4	0.1	100.0	9.7	7.2	40,098

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

Table 2.11 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of children whose births are registered and who:		Total percentage of children whose births are registered	Number of children
	Had a birth certificate	Did not have a birth certificate		
Age				
<2	1.6	1.0	2.6	4,352
2-4	1.7	1.1	2.7	6,792
Sex				
Male	1.8	0.9	2.7	5,711
Female	1.5	1.2	2.6	5,433
Residence				
Urban	9.2	2.3	11.5	1,219
Rural	0.7	0.9	1.6	9,925
Region				
Tigray	1.8	0.2	2.0	737
Affar	1.6	0.1	1.6	113
Amhara	0.8	0.5	1.3	2,157
Oromiya	1.1	1.0	2.1	4,816
Somali	0.9	0.1	1.0	500
Benishangul-Gumuz	0.9	0.1	1.0	124
SNNPR	1.6	1.7	3.4	2,364
Gambela	1.6	1.0	2.5	28
Harari	3.9	1.1	5.0	25
Addis Ababa	20.1	4.1	24.2	233
Dire Dawa	12.3	6.3	18.5	48
Wealth quintile				
Lowest	0.6	0.1	0.8	2,672
Second	0.3	1.2	1.4	2,566
Middle	0.9	1.5	2.4	2,320
Fourth	0.9	0.7	1.6	1,986
Highest	7.4	2.1	9.5	1,600
Total	1.6	1.0	2.7	11,144

Table 2.12.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	54.2	45.8	0.0	0.0	0.0	0.0	0.0	100.0	5,206	0.0
10-14	14.8	84.0	0.3	0.9	0.0	0.0	0.0	100.0	5,621	1.9
15-19	13.6	57.7	5.7	19.7	0.7	2.4	0.1	100.0	3,623	5.0
20-24	27.8	39.8	3.5	17.4	0.7	10.8	0.0	100.0	2,954	4.0
25-29	48.6	29.5	2.6	9.5	1.2	8.6	0.1	100.0	3,113	0.2
30-34	69.6	19.0	1.4	3.7	1.4	4.8	0.0	100.0	2,406	0.0
35-39	70.0	19.6	2.0	3.2	2.3	2.9	0.0	100.0	2,049	0.0
40-44	70.7	19.5	1.6	2.6	2.8	2.7	0.0	100.0	1,327	0.0
45-49	75.2	16.4	2.3	1.7	1.6	2.8	0.0	100.0	1,021	0.0
50-54	87.7	8.4	0.6	0.8	1.0	1.4	0.0	100.0	1,601	0.0
55-59	91.7	6.4	0.2	0.3	0.4	0.8	0.2	100.0	1,058	0.0
60-64	94.1	5.0	0.1	0.1	0.3	0.3	0.0	100.0	767	0.0
65+	97.2	2.2	0.0	0.2	0.1	0.2	0.1	100.0	1,420	0.0
Residence										
Urban	24.1	36.9	4.0	16.9	3.9	14.0	0.2	100.0	5,679	4.9
Rural	54.4	40.6	1.2	3.2	0.1	0.6	0.0	100.0	26,501	0.0
Region										
Tigray	44.2	39.9	2.0	9.8	0.5	3.5	0.0	100.0	2,167	0.4
Affar	61.8	32.1	2.1	2.4	0.1	1.5	0.0	100.0	249	0.0
Amhara	52.3	36.9	0.9	6.4	0.3	3.0	0.1	100.0	7,311	0.0
Oromiya	51.5	40.2	2.0	3.8	0.7	1.8	0.0	100.0	12,200	0.0
Somali	66.3	29.6	0.7	2.0	0.2	1.1	0.0	100.0	1,075	0.0
Benishangul-Gumuz	46.5	44.0	0.9	5.0	0.2	3.3	0.1	100.0	326	0.0
SNNPR	47.0	44.6	1.2	4.8	0.3	2.0	0.0	100.0	7,121	0.0
Gambela	30.7	46.8	2.4	12.4	0.7	6.8	0.1	100.0	84	2.0
Harari	40.2	39.0	3.3	7.7	2.3	7.4	0.0	100.0	81	1.1
Addis Ababa	16.3	37.4	5.2	16.6	6.5	17.7	0.4	100.0	1,392	6.5
Dire Dawa	37.9	41.5	4.0	9.3	2.2	5.2	0.0	100.0	174	1.5
Wealth quintile										
Lowest	67.0	31.1	0.6	1.1	0.0	0.2	0.0	100.0	6,155	0.0
Second	57.7	39.5	0.8	1.7	0.0	0.3	0.1	100.0	6,161	0.0
Middle	52.7	42.9	1.2	2.7	0.0	0.4	0.0	100.0	6,315	0.0
Fourth	45.3	46.3	1.5	5.6	0.1	1.2	0.0	100.0	6,509	0.0
Highest	25.9	39.6	4.0	15.5	3.3	11.6	0.1	100.0	7,041	4.3
Total	49.1	39.9	1.7	5.6	0.8	3.0	0.0	100.0	32,180	0.0

Note: Total includes 14 weighted cases with missing information on age.
[1] Completed 8th grade at the primary level
[2] Completed 4th grade at the secondary level

Table 2.12.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	52.6	47.4	0.0	0.0	0.0	0.0	0.0	100.0	5,461	0.0
10-14	14.8	83.6	0.6	1.0	0.0	0.0	0.1	100.0	6,313	1.7
15-19	7.9	65.3	6.5	18.4	0.1	1.7	0.1	100.0	3,205	5.1
20-24	14.8	46.7	6.0	22.1	1.0	9.3	0.1	100.0	2,249	5.5
25-29	20.8	36.5	5.9	19.7	1.3	15.5	0.4	100.0	2,434	5.8
30-34	37.2	34.9	3.0	11.4	2.2	10.8	0.5	100.0	2,024	2.5
35-39	40.3	39.1	3.9	6.1	2.1	7.7	0.7	100.0	1,752	2.0
40-44	45.8	35.1	5.1	4.7	3.3	5.9	0.1	100.0	1,435	1.2
45-49	46.6	37.3	2.6	5.1	1.8	6.3	0.3	100.0	1,084	1.1
50-54	47.9	33.1	2.6	4.3	3.2	8.0	1.0	100.0	715	0.5
55-59	62.6	21.8	2.6	4.6	0.4	8.0	0.0	100.0	579	0.0
60-64	73.6	18.8	1.1	2.7	1.1	2.7	0.1	100.0	1,118	0.0
65+	84.5	11.7	1.1	1.1	0.4	1.2	0.0	100.0	1,920	0.0
Residence										
Urban	13.6	37.4	4.3	19.1	4.0	21.1	0.4	100.0	4,598	6.8
Rural	39.1	51.7	2.4	5.1	0.3	1.3	0.2	100.0	25,701	0.5
Region										
Tigray	33.8	50.5	2.3	8.5	0.5	4.1	0.3	100.0	1,884	1.7
Affar	48.2	39.1	3.2	5.4	0.8	3.1	0.2	100.0	220	0.0
Amhara	43.4	43.6	1.6	6.6	0.4	4.1	0.3	100.0	6,852	0.3
Oromiya	34.4	51.7	3.4	6.5	0.7	3.2	0.1	100.0	12,050	0.9
Somali	51.0	37.2	2.9	4.7	0.5	3.4	0.2	100.0	956	0.0
Benishangul-Gumuz	29.6	54.5	1.4	7.8	0.4	6.0	0.3	100.0	300	1.7
SNNPR	31.2	56.2	2.2	7.0	0.4	3.0	0.0	100.0	6,695	1.5
Gambela	20.5	50.5	3.0	10.3	1.5	14.0	0.1	100.0	78	3.9
Harari	24.8	40.9	5.1	12.6	3.4	13.0	0.1	100.0	68	3.8
Addis Ababa	8.2	31.1	4.9	21.0	8.5	25.6	0.8	100.0	1,042	8.4
Dire Dawa	23.1	44.0	5.3	13.4	4.1	10.0	0.3	100.0	154	3.8
Wealth quintile										
Lowest	51.6	44.5	1.3	2.1	0.0	0.3	0.2	100.0	5,771	0.0
Second	42.6	50.9	2.4	3.3	0.1	0.5	0.1	100.0	5,909	0.1
Middle	38.0	53.4	2.2	5.4	0.2	0.7	0.1	100.0	6,074	0.7
Fourth	31.0	55.2	3.0	8.0	0.3	2.3	0.1	100.0	6,359	1.6
Highest	14.6	43.0	4.5	16.9	3.4	17.3	0.3	100.0	6,185	5.7
Total	35.2	49.5	2.7	7.2	0.8	4.3	0.2	100.0	30,299	1.1

Note: Total includes 11 weighted cases with missing information on age.
[1] Completed 8th grade at the primary level
[2] Completed 4th grade at the secondary level

Table 2.13 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling, and the gender parity index (GPI), according to background characteristics, Ethiopia DHS 2016

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	83.9	82.3	83.1	0.98	102.7	102.3	102.5	1.00
Rural	69.5	70.2	69.8	1.01	90.2	89.5	89.9	0.99
Region								
Tigray	77.1	83.2	79.9	1.08	98.4	100.4	99.3	1.02
Affar	61.1	62.0	61.5	1.02	87.4	88.7	88.0	1.02
Amhara	72.7	78.6	75.6	1.08	95.7	95.5	95.6	1.00
Oromiya	67.4	66.1	66.8	0.98	86.9	83.8	85.5	0.96
Somali	62.1	56.2	59.2	0.90	78.1	75.0	76.6	0.96
Benishangul-Gumuz	83.0	71.0	76.9	0.86	107.3	91.4	99.2	0.85
SNNPR	74.3	73.3	73.8	0.99	94.4	97.1	95.7	1.03
Gambela	87.1	89.1	88.1	1.02	122.8	119.4	121.1	0.97
Harari	76.6	72.5	74.5	0.95	90.1	86.4	88.2	0.96
Addis Ababa	89.4	85.1	87.0	0.95	108.8	118.5	114.2	1.09
Dire Dawa	79.5	71.5	75.6	0.90	108.6	94.4	101.7	0.87
Wealth quintile								
Lowest	58.8	54.1	56.6	0.92	77.1	68.1	72.9	0.88
Second	66.3	68.2	67.2	1.03	84.2	84.9	84.6	1.01
Middle	73.3	75.9	74.6	1.04	94.2	96.0	95.1	1.02
Fourth	75.9	78.9	77.3	1.04	101.7	103.9	102.8	1.02
Highest	84.0	83.7	83.9	1.00	103.0	105.5	104.2	1.02
Total	71.0	71.6	71.3	1.01	91.5	91.1	91.3	0.99
				SECONDARY SCHOOL				
Residence								
Urban	44.5	39.3	41.5	0.88	71.3	56.8	62.7	0.80
Rural	11.5	11.9	11.7	1.04	23.4	18.3	20.7	0.78
Region								
Tigray	20.5	26.1	23.7	1.27	37.0	37.3	37.2	1.01
Affar	27.0	7.2	14.9	0.27	47.4	13.7	26.7	0.29
Amhara	15.3	21.2	18.2	1.39	26.5	33.1	29.7	1.25
Oromiya	15.0	15.5	15.3	1.03	27.9	21.2	24.4	0.76
Somali	26.3	10.1	18.0	0.39	43.4	14.0	28.3	0.32
Benishangul-Gumuz	20.6	16.9	18.6	0.82	34.4	24.0	28.6	0.70
SNNPR	17.6	15.3	16.4	0.87	37.3	27.0	31.9	0.72
Gambela	21.4	24.9	23.1	1.17	43.6	48.9	46.2	1.12
Harari	43.2	27.8	34.7	0.64	65.9	37.8	50.4	0.57
Addis Ababa	46.5	31.7	36.3	0.68	67.4	40.6	49.0	0.60
Dire Dawa	32.5	26.8	29.2	0.82	55.6	36.2	44.2	0.65
Wealth quintile								
Lowest	5.4	5.7	5.5	1.05	12.2	8.8	10.4	0.72
Second	8.7	6.0	7.2	0.69	21.1	10.1	15.0	0.48
Middle	12.2	10.9	11.6	0.89	25.0	15.0	19.8	0.60
Fourth	15.1	20.2	17.6	1.34	30.8	30.1	30.5	0.98
Highest	38.1	35.9	36.9	0.94	59.8	53.2	56.0	0.89
Total	17.6	18.4	18.1	1.05	32.3	27.4	29.7	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%.
[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%.
[3] The gender parity index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The gender parity index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Table 2.14 Injury or death in an accident among household members

Percentage of households with at least one member injured or killed in an accident in the past 12 months, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of households with at least one member injured or killed in an accident	Total number of households
Residence		
Urban	3.6	3,384
Rural	3.1	13,266
Region		
Tigray	3.0	1,186
Affar	3.1	140
Amhara	4.0	4,239
Oromiya	3.3	6,062
Somali	1.2	511
Benishangul-Gumuz	2.9	182
SNNPR	2.7	3,388
Gambela	2.8	50
Harari	1.7	46
Addis Ababa	2.5	751
Dire Dawa	3.1	95
Wealth quintile		
Lowest	2.1	3,202
Second	3.3	3,203
Middle	3.8	3,121
Fourth	3.2	3,084
Highest	3.6	4,040
Total	3.2	16,650

Table 2.15 Injury or death in an accident

Percent distribution of household members injured or killed in an accident in the past 12 months, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Result of accident			Total	Number of household members injured or killed in an accident
	Injured and still alive	Died because of accident	Died of different cause		
Sex					
Male	89.1	10.0	0.9	100.0	360
Female	88.4	9.1	2.5	100.0	188
Residence					
Urban	83.7	13.7	2.5	100.0	123
Rural	90.3	8.6	1.1	100.0	425
Region					
Tigray	89.2	10.8	0.0	100.0	37
Affar	56.5	41.1	(2.4)	100.0	5
Amhara	89.9	8.3	1.8	100.0	172
Oromiya	89.4	9.2	1.4	100.0	204
Somali	62.3	37.7	(0.0)	100.0	7
Benishangul-Gumuz	100.0	0.0	(0.0)	100.0	5
SNNPR	89.2	9.1	1.7	100.0	92
Gambela	45.9	53.6	0.6	100.0	2
Harari	95.7	4.3	*	100.0	1
Addis Ababa	89.2	10.8	(0.0)	100.0	19
Dire Dawa	94.2	5.8	(0.0)	100.0	3
Wealth quintile					
Lowest	86.8	13.0	0.2	100.0	68
Second	90.2	9.8	0.0	100.0	112
Middle	89.6	7.9	2.5	100.0	119
Fourth	91.9	6.5	1.6	100.0	99
Highest	86.2	11.8	2.1	100.0	149
Total	88.8	9.7	1.4	100.0	547

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 2.16 Length of injury

Percentage of household members injured in an accident in the past 12 months by length of time they were unable to carry out normal daily activities, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Length of time unable to carry out normal daily activities					Total	Number of household members injured and alive
	Less than 7 days	Between 8 and 30 days	Between 2 and 6 months	Longer than 6 months	Don't know		
Age							
0-9	32.1	28.1	25.5	9.8	4.6	100.0	85
10-19	36.3	38.6	18.2	6.9	0.0	100.0	70
20-39	30.0	32.2	30.6	6.7	0.5	100.0	172
40-59	14.6	24.0	43.9	17.5	0.0	100.0	104
60+	17.4	31.3	24.1	22.7	4.4	100.0	56
Sex							
Male	28.5	29.2	31.4	10.6	0.2	100.0	320
Female	22.7	33.1	27.4	12.9	3.9	100.0	166
Residence							
Urban	35.3	32.6	23.1	6.0	2.9	100.0	103
Rural	24.2	30.0	31.9	12.8	1.1	100.0	384
Wealth quintile							
Lowest	9.9	35.9	41.1	11.7	1.4	100.0	59
Second	28.1	31.1	22.3	18.5	0.0	100.0	101
Middle	29.6	25.5	36.0	8.8	0.0	100.0	106
Fourth	27.0	23.8	33.3	12.3	3.6	100.0	91
Highest	30.1	36.6	23.7	7.2	2.3	100.0	129
Total	26.6	30.5	30.0	11.4	1.5	100.0	486

Table 2.17 Type of accident

Percentage of household members injured or killed in an accident in the past 12 months by type of accident, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Type of accident											Total	Number of household members injured or killed
	Road traffic accident	Violence/ assault	Fire/ burning	Animal bite	Accidental fall	Drowning	Poisoning	Kicked by cattle	Fall from tree/ building	Other	Don't know		
Sex													
Male	22.7	19.3	7.1	1.5	25.4	0.6	1.3	0.8	7.9	12.6	0.7	100.0	360
Female	23.2	4.2	12.0	2.6	33.7	3.4	3.2	3.4	1.7	10.4	2.2	100.0	188
Residence													
Urban	32.0	6.4	4.8	0.5	31.6	3.3	4.7	0.0	1.0	12.4	3.4	100.0	123
Rural	20.3	16.4	9.9	2.3	27.2	1.1	1.1	2.2	7.2	11.8	0.6	100.0	425
Wealth quintile													
Lowest	20.7	13.4	10.5	7.7	29.1	0.0	0.3	4.1	5.2	9.0	0.0	100.0	68
Second	19.8	7.1	12.8	0.9	34.6	4.0	2.4	0.0	14.9	3.4	0.1	100.0	112
Middle	10.7	28.6	12.2	2.9	19.9	0.0	0.4	5.5	0.5	19.4	0.0	100.0	119
Fourth	29.8	19.6	3.6	0.0	23.0	0.1	0.0	0.1	9.8	11.5	2.5	100.0	99
Highest	31.2	4.7	5.6	0.4	33.1	2.7	4.8	0.0	0.8	13.9	2.8	100.0	149
Total	22.9	14.1	8.7	1.9	28.2	1.6	1.9	1.7	5.8	11.9	1.2	100.0	547

CHARACTERISTICS OF RESPONDENTS 3

Key Findings

- ***Education:*** The percentage of women with no education decreased from 66% in 2005 and 51% in 2011 to 48% in 2016. Among men, the percentage declined from 43% in 2005 to 28% in 2016.
- ***Literacy:*** Four in 10 (42%) women and 69% of men age 15-49 are literate.
- ***Exposure to mass media:*** Nearly three in four (74%) women and 62% of men have no access to radio, television, or newspapers on a weekly basis.
- ***Internet usage:*** Five percent of women and 13% of men have ever used the Internet.
- ***Employment:*** One in three (33%) women and 88% of men were employed in the 7 days preceding the survey. Half of women and 8% of men had not been employed in the past 12 months.
- ***Health insurance:*** Health insurance coverage is extremely low; 95% of women and 94% of men are not covered by any type of health insurance.
- ***Tobacco use:*** Cigarette smoking is rare; less than 1% of women and 4% of men smoke any type of tobacco.
- ***Chewing chat:*** Twelve percent of women and 27% of men have ever chewed chat. Among chat chewers, two in three chewed for 6 or more days in the last 30 days.

This chapter presents information on demographic and socioeconomic characteristics of the survey respondents such as sex, age, religion, ethnic group, education, and wealth status. The survey also collected data on use of mass media and the Internet, health insurance coverage, tobacco smoking, alcohol consumption, and chat chewing. This information is useful in understanding the factors that affect use of reproductive health services, contraceptive use, and other health behaviours.

3.1 BASIC BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 shows the percent distribution of women and men age 15-49 by background characteristics. The majority of women and men are under age 30 (58% of women and 55% of men). In general, for both sexes the percentage of the population in each age group steadily decreases as age increases, reflecting the comparatively young age structure, which is a result of high fertility in past decades.

The main religions in Ethiopia are Orthodox Christianity (43% of women and 45% of men) and Muslim (31% each of women and men). Twenty-three percent of women and 22% of men are Protestants.

The largest ethnic group is Oromo (34% of women and 36% of men), followed by Amhara (30% each of women and men). While there are more than 80 ethnic groups in Ethiopia, most are small in percentage compared with the above two groups.

The proportion of women who are currently married or living together with a partner is higher than that among men (65% versus 56%). Women are less likely than men to have never been married (26% versus 42%) and more likely to be divorced or separated (6% versus 2%).

A person's place of residence, whether rural or urban, determines her or his access to services and information about health and other aspects of life. Eight in 10 respondents live in rural areas (78% of women and 80% of men).

Eight in 10 women and 84% of men live in three major regions: Amhara, Oromiya, and the Southern Nations Nationalities and Peoples' Region (SNNPR). Nearly half of women age 15-49 (48%) have no education, as compared with 28% of men.

3.2 EDUCATION AND LITERACY

Literacy

Respondents who had attended higher than secondary school were assumed to be literate. All other respondents were given a sentence to read, and they were considered literate if they could read all or part of the sentence.

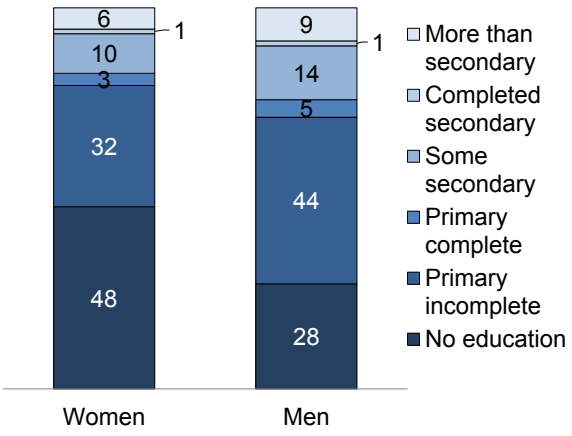
Sample: Women and men age 15-49

Education is an important factor influencing an individual's attitudes and opportunities. **Tables 3.2.1** and **3.2.2** show that men are better educated than women. About half of women (48%) and 28% of men age 15-49 have no formal education. Three percent of women and 5% of men have completed primary school, while 1% of women and men have a secondary education. Six percent of women and 9% of men have more than a secondary education (**Figure 3.1**).

Trends: The percentage of women with no education has decreased over the last decade, from 66% in 2005 and 51% in 2011 to 48% in 2016. The percentage of men with no education has declined as well, from 43% in 2005 to 30% in 2011 and 28% in 2016.

Figure 3.1 **Education of survey respondents**

Percent distribution of women and men age 15-49 by highest level of schooling attended or completed



Note: Values may not add up to 100% due to rounding.

Patterns by background characteristics

- The percentage of women with no education increases steadily by age group, from 14% among women age 15-19 to 79% among those age 45-49, suggesting an improvement in women's education over time.
- Education in urban areas is better than in rural areas; 57% of rural women have no formal education, as compared with 16% of urban women. The urban-rural difference is more pronounced at the secondary or higher levels of education. For example, only 1% of women in rural areas have more than a secondary education, compared with 21% of urban women.

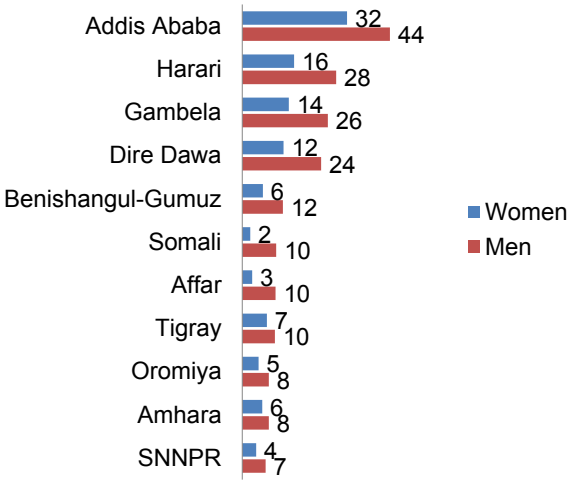
- Educational attainment varies across regions. The highest proportions of women with no education are in Somali and Affar (75% and 69%, respectively) and the lowest in Addis Ababa (9%) (**Figure 3.2**).

- Educational attainment also varies by wealth quintile. Seventy-four percent of women in the lowest wealth quintile have no education, as compared with 19% of women in the highest quintile. Similarly, less than 1% of women in the lowest wealth quintile have more than a secondary education, compared with 18% of those in the highest quintile.

- There are wide variations by place of residence in median number of years of education completed. Urban women have completed a median of 7.7 years of education, while the median among rural women is 0.0. The corresponding figures among men are 9.3 and 2.9 years.

Figure 3.2 **Secondary education by region**

Percentage of women and men age 15-49 with secondary education completed or higher



- Median number of years of education is highest among women in Addis Ababa (8.1 years) and lowest among women in Affar, Amhara, Oromiya, and Somali (0.0 years).

- Men are much more literate than women. Two in three men (69%) men are literate, as compared with 42% of women (**Tables 3.3.1** and **3.3.2**).

3.3 MASS MEDIA EXPOSURE AND INTERNET USAGE

Exposure to mass media

Respondents were asked how often they read a newspaper, listened to the radio, or watched television. Those who responded *at least once a week* are considered to be regularly exposed to that form of media.

Exposure to the Internet

The Internet is a global communication network that allows almost all computers worldwide to connect and exchange information. Respondents were asked to report the frequency of their use of the Internet.

Sample: Women and men age 15-49

Tables 3.4.1 and **3.4.2** show the percentage of women and men who are exposed to different types of media, by background characteristics. The level of exposure to mass media is low in Ethiopia. Among both women and men, radio was the most frequently accessed form of media in the past week (17% and 29%, respectively), followed by television (16% and 21%, respectively). Because of the low literacy rate, print

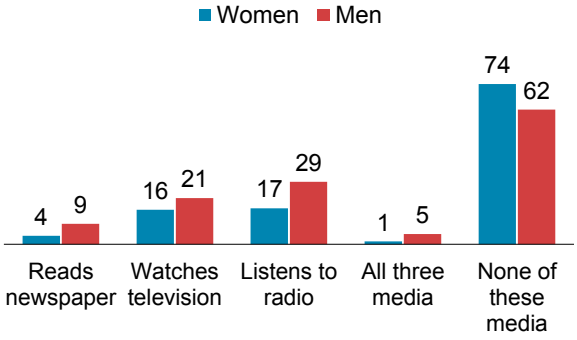
media are not popular among either women (4%) or men (9%). The majority of respondents have no access to any of the three media at least once a week (74% of women and 62% of men) (**Figure 3.3**).

The Internet is also a critical tool through which information is accessed. Overall, 4% of women and 12% of men age 15-49 have used the Internet in the past 12 months (**Tables 3.5.1** and **3.5.2**).

Trends: Since 2011, women's and men's exposure to mass media has changed. For example, the proportion of women who listen to the radio at least once a week has decreased from 22% to 17%. Among men, the proportion has declined from 38% to 29%.

***Figure 3.3* Exposure to mass media**

Percentage of women and men age 15-49 who are exposed to media on a weekly basis



Patterns by background characteristics

- Urban women are five times more likely than rural women to read a newspaper at least once a week. The urban-rural gap is more evident in television viewing; 61% of urban women watch television at least once a week, as compared with 3% of rural women.
- Among women, exposure to media increases with increasing education. For example, 20% of women with more than a secondary education read a newspaper at least once a week, as compared with 4% of women with a primary education.
- Exposure to mass media also increases with wealth. Only 1% of women in the lowest wealth quintile read a newspaper at least once a week, compared with 10% of women in the highest quintile.
- Men are slightly more likely than women to use the Internet on a daily basis; 36% of men report that they used the Internet nearly every day in the past month, compared with 34% of women.
- Internet usage increases as level of education increases. For example, 5% of men with a primary education and 68% of men with more than a secondary education have ever used the Internet.

3.4 EMPLOYMENT

Currently employed

Respondents who were employed in the 7 days before the survey; includes persons who did not work in the past 7 days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Sample: Women and men age 15-49

In the 2016 EDHS, respondents were asked whether they were employed at the time of the survey (that is, had worked in the past 7 days) and, if not, whether they had worked at any time during the 12 months preceding the survey. **Tables 3.6.1** and **3.6.2** show that 33% of women and 88% of men are currently employed. An additional 17% of women and 4% of men reported that they had worked in the past 12 months but were not currently employed.

Trends: Current employment among women age 15-49 increased from 29% in 2005 to 38% in 2011 but decreased to 33% in 2016. The percentage of men who are currently employed has shown a slight increase since 2005, from 85% to 88%.

Patterns by background characteristics

- Divorced, separated, or widowed women are more likely to be employed than those who are currently married and those who have never been married. Among men, those who are currently married or divorced, separated, or widowed are more likely to be employed than those who have never been married.

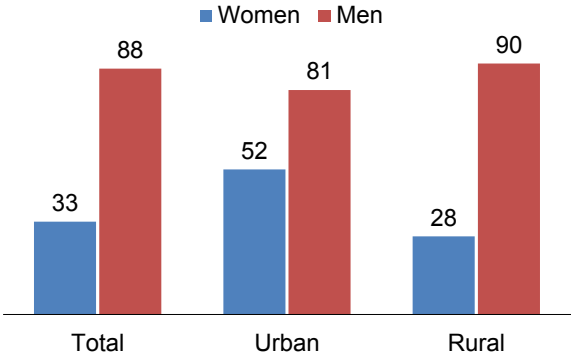
- There are notable variations in the proportion of currently employed women and men by place of residence. Urban women are more likely than rural women to be employed (52% versus 28%). Conversely, urban men are less likely to be employed than rural men (81% versus 90%) (**Figure 3.4**).

- The percentage of women who are currently employed increases with increasing education, from 29% among women with no education to 70% among women with more than a secondary education.

- The percentage of women who are employed also increases with increasing wealth, from 24% among those in the lowest wealth quintile to 49% among those in highest quintile.

***Figure 3.4* Employment status by residence**

Percentage of women and men age 15-49 who are currently employed



3.5 OCCUPATION

Occupation

Categorized as professional/technical/managerial, clerical, sales and services, skilled manual, unskilled manual, domestic service, agriculture, and other.

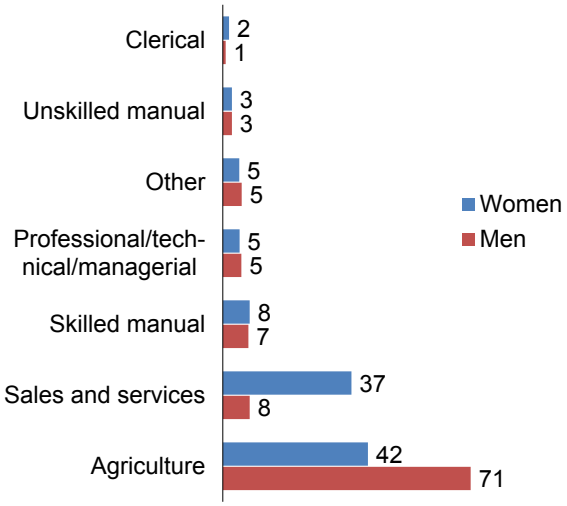
Sample: Women and men age 15-49 who were currently employed or had worked in the 12 months before the survey

Currently employed respondents were asked to state their occupation. **Tables 3.7.1** and **3.7.2**, respectively, show that 42% of women and 71% of men age 15-49 are engaged in agricultural occupations, while 37% of women and 8% of men are employed in sales and services. Eight percent of women and 7% of men work in skilled manual labour. Only 5% of men and women are working in professional/technical/managerial occupations (**Figure 3.5**).

Trends: There has been a decline since 2005 in the proportion of women working in agricultural occupations, from 52% to 42%. Among men, the proportion has decreased from 84% to 71%. The proportion of women who are employed in sales and services has increased over the past several years, from 31% in 2005 and 33% in 2011 to 37% in 2016.

***Figure 3.5* Occupation**

Percentage of women and men age 15-49 employed in the 12 months before the survey by occupation



Patterns by background characteristics

- Urban women are most likely to be employed in sales and services (56%) and in the professional/technical/managerial sector (13%). In contrast, urban men are most likely to be employed in skilled manual labour (25%) and sales and services (22%).
- In rural areas, 55% of employed women and 83% of employed men are engaged in agricultural work.
- Women with a secondary education or higher 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.
- The percentage of women who work in agriculture is highest among those who are currently married, those with five or more children, those living in rural areas, those with no education, and those in the lowest wealth quintile.
- Among both men and women, employment in professional/technical/managerial occupations, sales and services, and skilled manual labour generally increases with increasing education and wealth.

3.6 Type of Women's Employment

Table 3.8 presents the percent distribution of women who were employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to sector of employment (agricultural or nonagricultural). Seven in 10 women (70%) engaged in agricultural work are unpaid workers, most likely employed by family members at the peak of the agricultural season.

Trends: The proportion of self-employed women in the agricultural sector increased from 22% in 2005 to 46% in 2016. There has been no marked change among women in employment by non-family members since 2005, but the proportion of women working in agricultural sectors who are paid in cash only increased from 3% in 2005 to 8% in 2016.

The percentage of women engaged in agricultural activities year-round increased from 6% in 2005 to 13% in 2011 and 23% in 2016. Seasonal agricultural employment decreased from 89% in 2005 and 78% in 2011 to 67% in 2016.

- Women employed in the nonagricultural sector (62%) are more likely than women working in the agricultural sector (8%) to be paid in cash only. Overall, 46% of employed women are not paid at all for their work, and 40% are paid in cash only.
- Almost half (49%) of employed women are self-employed, 37% work for a family member, and 15% work for someone outside the family.
- Women in the agricultural sector are much more likely than women in the nonagricultural sector to work for a family member (51% versus 26%). In contrast, the proportion of women employed by someone outside the family is much higher in the nonagricultural sector than in the agricultural sector (23% versus 3%).
- Continuity of employment varies by employment sector. Whereas 67% of women employed in the agricultural sector are seasonal workers, only 15% in the nonagricultural sector work seasonally. The majority of women who are engaged in the nonagricultural sector (69%) work all year.

3.7 Health Insurance Coverage

Since 2011, Ethiopia has implemented the community-based health insurance (CBHI) scheme, aimed at reaching and covering the very large rural agricultural sector and small and informal sectors in urban

settings. The overall objective of insurance coverage is to promote equitable access to sustainable quality health care, increase financial protection, and enhance social inclusion for the majority of Ethiopian families via the health sector. The CBHI benefit package covers all outpatient and inpatient services at the health centre and hospital levels other than services related to dentures, eyeglasses, and cosmetic procedures (USAID 2015).

Tables 3.9.1 and **3.9.2** show that, overall, 95% of women and 94% of men age 15-49 are not covered by any type of health insurance. Less than 1% each of women and men are covered by social security insurance, and less than 1% of women and men have employer-based insurance coverage. Mutual Health Organisation/community-based insurance covers 4% of women and 5% of men.

Patterns by background characteristics

- Mutual Health Organisation/community-based health insurance coverage varies by place of residence among both women (3% in urban areas and 4% in rural areas) and men (2% in urban areas and 5% in rural areas).
- This type of insurance coverage also varies by region. It is highest in Amhara (12% among women and 13% among men) and is nonexistent in Somali and Benishangul-Gumuz.

3.8 Tobacco Use

Table 3.10.1 shows that cigarette smoking and use of any type of tobacco are rare among women (less than 1%). Four percent of men smoke any type of tobacco, among whom almost all smoke cigarettes (**Table 3.10.2**). Among men who smoke cigarettes daily, one-quarter (25%) smoke 5-9 cigarettes each day; 6% of daily cigarette smokers smoke 25 or more cigarettes each day (**Table 3.11**).

Trends: The percentage of men age 15-49 who do not smoke cigarettes has increased slightly since 2011, from 93% to 95%. The decline in smoking varies by region. For example, the proportion of cigarette smokers in Harari decreased from 27% in 2011 to 12% in 2016, while the proportion in Dire Dawa declined from 24% to 13%.

Patterns by background characteristics

- Use of tobacco increases with age among men and reaches a peak at age 40-44 (8%).
- There are wide regional variations in cigarette smoking, ranging from less than 1% of men in Amhara to 13% in Dire Dawa and 18% in Somali.
- The likelihood of men smoking tobacco varies little by education (5% among men with no education and 3% among men with more than a secondary education).
- The proportion of men who smoke tobacco decreases with increasing wealth; 7% of men in the lowest wealth quintile smoke tobacco, as compared with 2% of men in the fourth quintile.

3.9 Alcohol Consumption

Tables 3.12.1 and **3.12.2** show that 35% of women and about half of men (46%) reported drinking alcohol at some point in their lives. Overall, 8% each of women and men did not drink alcohol in the last 30 days, and 3%-4% did not drink alcohol in the past 12 months. Among respondents who ever drank alcohol, 50% of women and 58% of men drank on 6 or more days in the preceding 30 days. Six percent of women and 9% of men consumed alcoholic drinks almost every day in the last 30 days.

Trends: The percentage of women who ever drank alcohol decreased from 45% in 2011 to 35% in 2016. The decline among men was similar (53% in 2011 to 46% in 2016). The proportion of women who

consumed alcohol on 6 or more days in the last 30 days has increased since 2011, from 48% to 50%. Among men, the proportion has increased from 53% to 58%.

Patterns by background characteristics

- Among both women and men, consumption of alcohol increases with increasing age.
- Alcohol consumption is higher in urban than in rural areas (43% versus 33% among women and 57% versus 43% among men).
- By region, the percentage of women who ever drank alcohol ranges from less than 1% in Somali to 76% in Amhara. The proportion among men ranges from 1% in Somali to 91% in Tigray.
- Among both men and women, alcohol consumption generally increases with increasing education and wealth.

3.10 Chewing Chat

Tables 3.13.1 and **3.13.2** show that 12% of women and 27% of men report having ever chewed chat. Among respondents who ever chewed chat, two in three chewed chat for 6 or more days in the last 30 days (65% of women and 64% of men).

Trends: The proportion of women and men who ever chewed chat has not changed since 2011 (11% in 2011 and 12% in 2016 among women and 28% in 2011 and 27% in 2016 among men). The percentage of women who chewed chat for 6 days or more in the last 30 days increased from 43% in 2011 to 65% in 2016. Among men, the proportion increased from 56% to 64%.

Patterns by background characteristics

- Chat consumption generally increases with age and peaks at age 30-34 among both women (15%) and men (34%).
- Chat consumption is slightly higher in rural areas than in urban areas (13% versus 9% among women and 27% versus 25% among men).
- Chat chewing varies across regions, ranging from 1% among women and 5% among men in Tigray to 32% among women and 74% among men in Harari to.
- Chat consumption varies widely by education and wealth status. For example, 16% of women with no education have ever chewed chat, as compared with 4% of women with more than a secondary education. Similarly, 31% of men with no education have ever chewed chat, compared with 23% of men with more than a secondary education. Chat chewing follows the same pattern according to wealth.

List of Tables

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Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Ethiopia DHS 2016

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	21.6	3,381	3,498	22.2	2,572	2,533
20-24	17.6	2,762	2,903	16.2	1,883	1,969
25-29	18.9	2,957	2,845	17.0	1,977	2,030
30-34	15.0	2,345	2,241	14.1	1,635	1,585
35-39	12.3	1,932	1,917	11.9	1,386	1,375
40-44	8.2	1,290	1,302	10.4	1,206	1,217
45-49	6.5	1,017	977	8.2	947	869
Religion						
Orthodox	43.3	6,786	6,413	44.5	5,160	4,956
Catholic	0.8	120	91	0.7	78	94
Protestant	23.4	3,674	2,814	22.1	2,561	1,970
Muslim	31.2	4,893	6,209	31.4	3,649	4,440
Traditional	0.8	123	84	0.3	31	28
Other	0.6	87	72	1.1	128	90
Ethnic group						
Affar	0.7	107	947	0.5	63	527
Amhara	29.8	4,671	3,688	30.1	3,497	2,824
Guragie	2.8	444	655	2.7	311	481
Hadiya	2.4	372	230	1.9	217	169
Oromo	34.0	5,340	3,611	36.0	4,175	2,740
Sidama	4.0	627	355	4.2	490	304
Somali	2.8	441	1,463	2.6	299	1,042
Tigray	7.7	1,204	1,905	6.7	778	1,317
Welaita	3.1	494	322	2.8	321	222
Other	12.6	1,984	2,507	12.5	1,455	1,952
Marital status						
Never married	25.7	4,036	4,278	42.1	4,882	5,084
Married	63.9	10,014	9,602	52.1	6,045	5,987
Living together	1.3	209	222	3.4	397	190
Divorced/separated	6.3	994	1,130	2.2	254	283
Widowed	2.7	429	451	0.2	28	34
Residence						
Urban	22.2	3,476	5,348	19.8	2,303	3,559
Rural	77.8	12,207	10,335	80.2	9,302	8,019
Region						
Tigray	7.2	1,129	1,682	6.1	708	1,130
Affar	0.8	128	1,128	0.7	82	665
Amhara	23.7	3,714	1,719	25.1	2,914	1,514
Oromiya	36.4	5,701	1,892	38.0	4,409	1,595
Somali	2.9	459	1,391	2.6	301	927
Benishangul-Gumuz	1.0	160	1,126	1.0	118	902
SNNPR	21.0	3,288	1,849	20.4	2,371	1,465
Gambela	0.3	44	1,035	0.3	35	810
Harari	0.2	38	906	0.2	29	620
Addis Ababa	5.9	930	1,824	4.9	573	1,132
Dire Dawa	0.6	90	1,131	0.6	66	818
Education						
No education	47.8	7,498	7,033	27.6	3,203	2,904
Primary	35.0	5,490	5,213	48.3	5,608	5,036
Secondary	11.6	1,817	2,238	15.4	1,785	2,142
More than secondary	5.6	877	1,199	8.7	1,010	1,496
Wealth quintile						
Lowest	16.8	2,633	3,894	15.8	1,839	2,650
Second	17.9	2,809	2,046	18.3	2,118	1,641
Middle	19.0	2,978	2,002	19.4	2,246	1,591
Fourth	19.8	3,100	2,042	21.3	2,466	1,736
Highest	26.5	4,163	5,699	25.3	2,935	3,960
Total 15-49	100.0	15,683	15,683	100.0	11,606	11,578
50-59	na	na	na	na	1,082	1,110
Total 15-59	na	na	na	na	12,688	12,688

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

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	20.0	49.0	5.2	18.7	0.6	6.4	100.0	4.8	6,143
15-19	13.9	57.3	6.3	19.8	0.3	2.6	100.0	5.1	3,381
20-24	27.6	38.9	4.0	17.3	1.1	11.2	100.0	4.1	2,762
25-29	50.5	27.8	2.2	9.8	1.2	8.5	100.0	0.0	2,957
30-34	71.0	17.9	2.1	3.5	1.1	4.5	100.0	0.0	2,345
35-39	70.9	18.9	1.3	3.2	2.3	3.3	100.0	0.0	1,932
40-44	72.9	17.9	1.6	2.4	2.3	2.9	100.0	0.0	1,290
45-49	78.5	13.6	2.2	1.3	1.9	2.5	100.0	0.0	1,017
Residence									
Urban	16.4	27.4	5.8	24.3	5.0	21.1	100.0	7.7	3,476
Rural	56.8	33.1	2.5	6.4	0.2	1.2	100.0	0.0	12,207
Region									
Tigray	43.0	29.2	3.0	17.4	1.1	6.3	100.0	2.1	1,129
Affar	68.7	20.4	3.9	3.9	0.2	2.8	100.0	0.0	128
Amhara	54.1	26.3	1.7	11.9	0.6	5.4	100.0	0.0	3,714
Oromiya	51.1	32.7	4.1	7.1	1.1	3.8	100.0	0.0	5,701
Somali	75.3	16.7	1.5	4.1	0.4	2.0	100.0	0.0	459
Benishangul-Gumuz	46.7	36.4	1.1	9.6	0.3	5.9	100.0	0.9	160
SNNPR	43.9	39.9	2.8	9.2	0.5	3.7	100.0	1.6	3,288
Gambela	26.7	34.2	4.5	20.6	1.5	12.5	100.0	5.6	44
Harari	36.1	29.2	5.3	13.7	3.6	12.0	100.0	4.0	38
Addis Ababa	8.6	30.8	6.4	22.7	7.5	24.0	100.0	8.1	930
Dire Dawa	33.3	31.8	6.4	16.1	2.6	9.8	100.0	4.7	90
Wealth quintile									
Lowest	73.9	22.5	1.1	2.2	0.0	0.3	100.0	0.0	2,633
Second	62.3	31.9	1.7	3.6	0.1	0.4	100.0	0.0	2,809
Middle	54.6	36.3	2.6	5.5	0.1	0.9	100.0	0.0	2,978
Fourth	44.7	38.5	3.5	10.8	0.2	2.3	100.0	1.3	3,100
Highest	19.0	29.3	5.9	23.2	4.4	18.3	100.0	7.2	4,163
Total	47.8	31.8	3.2	10.4	1.2	5.6	100.0	0.6	15,683

[1] Completed 8th grade at the primary level
[2] Completed 4th grade 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 DHS 2016

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	12.2	55.4	6.2	20.0	0.4	5.8	100.0	5.2	4,455
15-19	9.9	63.0	6.5	18.5	0.2	1.9	100.0	5.1	2,572
20-24	15.3	44.9	5.8	22.2	0.7	11.1	100.0	5.5	1,883
25-29	22.7	34.9	5.0	19.5	1.5	16.5	100.0	5.4	1,977
30-34	36.7	36.5	2.4	10.7	1.5	12.2	100.0	2.7	1,635
35-39	42.9	39.1	3.6	6.1	1.5	6.8	100.0	1.5	1,386
40-44	45.7	35.3	4.3	4.6	3.2	6.9	100.0	1.3	1,206
45-49	49.3	37.1	2.0	4.5	1.9	5.3	100.0	0.1	947
Residence									
Urban	7.9	23.0	4.7	27.7	5.0	31.7	100.0	9.3	2,303
Rural	32.5	48.8	4.6	10.7	0.4	3.0	100.0	2.9	9,302
Region									
Tigray	23.2	45.5	5.3	16.2	1.0	8.8	100.0	4.1	708
Affar	45.5	26.8	6.4	11.3	2.4	7.6	100.0	1.6	82
Amhara	41.2	36.4	2.4	11.9	0.5	7.5	100.0	2.0	2,914
Oromiya	26.7	46.2	6.0	13.2	1.3	6.7	100.0	3.7	4,409
Somali	44.8	25.7	7.0	12.3	1.1	9.1	100.0	2.4	301
Benishangul-Gumuz	21.2	46.7	3.3	16.6	0.4	11.8	100.0	4.7	118
SNNPR	18.0	56.6	4.0	14.4	0.4	6.6	100.0	4.4	2,371
Gambela	10.3	40.7	5.4	18.0	1.7	24.0	100.0	6.5	35
Harari	17.5	28.6	5.5	20.2	4.1	24.1	100.0	7.3	29
Addis Ababa	3.7	19.3	5.4	27.3	8.9	35.5	100.0	9.8	573
Dire Dawa	13.2	32.1	6.4	24.6	4.9	18.8	100.0	7.2	66
Wealth quintile									
Lowest	48.3	42.9	2.9	5.0	0.1	0.8	100.0	0.1	1,839
Second	37.6	49.4	4.5	7.2	0.2	1.1	100.0	1.9	2,118
Middle	31.5	51.1	4.7	10.9	0.3	1.5	100.0	2.9	2,246
Fourth	23.5	49.6	5.1	16.2	0.5	5.1	100.0	4.3	2,466
Highest	7.8	29.5	5.2	25.5	4.3	27.7	100.0	8.6	2,935
Total 15-49	27.6	43.7	4.6	14.1	1.3	8.7	100.0	3.9	11,606
50-59	58.9	24.7	2.4	4.2	1.5	8.4	100.0	0.0	1,082
Total 15-59	30.3	42.1	4.4	13.2	1.3	8.7	100.0	3.6	12,688

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

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 DHS 2016

Background characteristic	More than a secondary education	No schooling, primary school, or secondary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Total	Percentage literate[1]	Number of women
Age									
15-24	2.4	41.1	20.3	34.7	1.5	0.1	100.0	63.8	6,143
15-19	0.6	46.4	22.7	28.3	1.9	0.1	100.0	69.8	3,381
20-24	4.6	34.6	17.3	42.5	1.0	0.0	100.0	56.5	2,762
25-29	3.3	22.1	13.0	60.7	0.8	0.0	100.0	38.5	2,957
30-34	2.6	12.2	8.3	76.5	0.4	0.0	100.0	23.1	2,345
35-39	1.9	11.8	9.8	76.3	0.0	0.2	100.0	23.5	1,932
40-44	1.6	11.5	11.8	74.8	0.3	0.0	100.0	24.9	1,290
45-49	1.7	8.5	11.3	78.5	0.0	0.0	100.0	21.5	1,017
Residence									
Urban	9.9	54.2	13.8	21.6	0.5	0.0	100.0	77.9	3,476
Rural	0.3	16.8	14.7	67.2	0.9	0.1	100.0	31.8	12,207
Region									
Tigray	2.7	35.1	13.2	48.9	0.0	0.1	100.0	51.0	1,129
Affar	1.2	13.8	8.8	75.6	0.7	0.0	100.0	23.7	128
Amhara	2.0	31.3	11.6	55.0	0.0	0.1	100.0	44.9	3,714
Oromiya	1.4	21.1	14.8	62.6	0.0	0.1	100.0	37.3	5,701
Somali	1.2	6.2	5.0	79.4	8.1	0.1	100.0	12.4	459
Benishangul-Gumuz	1.6	21.4	15.7	60.9	0.2	0.2	100.0	38.7	160
SNNPR	1.5	14.1	19.7	62.4	2.3	0.0	100.0	35.3	3,288
Gambela	3.2	27.6	19.2	41.2	8.8	0.0	100.0	50.0	44
Harari	4.2	32.4	18.0	44.9	0.3	0.2	100.0	54.6	38
Addis Ababa	13.7	61.3	12.8	11.4	0.7	0.0	100.0	87.8	930
Dire Dawa	3.4	34.9	16.3	44.2	1.2	0.1	100.0	54.5	90
Wealth quintile									
Lowest	0.1	7.2	8.2	82.9	1.3	0.2	100.0	15.6	2,633
Second	0.1	12.4	13.1	73.4	0.9	0.0	100.0	25.6	2,809
Middle	0.1	16.9	16.3	65.9	0.8	0.0	100.0	33.3	2,978
Fourth	0.9	23.5	19.5	55.5	0.6	0.0	100.0	43.9	3,100
Highest	8.3	51.9	14.6	24.7	0.6	0.0	100.0	74.7	4,163
Total	2.4	25.1	14.5	57.1	0.8	0.1	100.0	42.0	15,683

[1] Refers to women who have more than a secondary education and women who can read a whole sentence or part of a sentence

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Ethiopia DHS 2016

Background characteristic	More than a secondary education	No schooling, primary school, or secondary school: Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Total	Percentage literate[1]	Number of men
Age									
15-24	2.9	59.4	16.3	20.8	0.6	0.0	100.0	78.5	4,455
15-19	0.5	61.9	17.4	19.5	0.7	0.0	100.0	79.8	2,572
20-24	6.1	55.9	14.8	22.6	0.5	0.0	100.0	76.9	1,883
25-29	10.0	46.1	14.6	28.7	0.5	0.1	100.0	70.7	1,977
30-34	8.5	36.5	16.0	38.5	0.5	0.0	100.0	61.0	1,635
35-39	4.7	34.5	18.0	42.6	0.3	0.0	100.0	57.1	1,386
40-44	4.3	40.2	17.8	37.6	0.0	0.0	100.0	62.3	1,206
45-49	3.5	31.2	22.5	42.2	0.2	0.4	100.0	57.2	947
Residence									
Urban	20.0	65.4	7.2	6.9	0.4	0.2	100.0	92.5	2,303
Rural	1.7	42.0	19.2	36.7	0.4	0.0	100.0	62.9	9,302
Region									
Tigray	5.1	57.8	17.0	19.7	0.3	0.1	100.0	79.9	708
Affar	3.8	26.4	20.6	48.9	0.3	0.0	100.0	50.8	82
Amhara	4.8	48.1	12.8	34.1	0.0	0.2	100.0	65.7	2,914
Oromiya	4.3	46.6	17.6	31.4	0.1	0.0	100.0	68.5	4,409
Somali	6.7	39.7	10.2	40.5	2.8	0.0	100.0	56.7	301
Benishangul-Gumuz	5.7	44.9	19.1	30.3	0.0	0.0	100.0	69.7	118
SNNPR	3.9	36.7	24.0	34.0	1.4	0.0	100.0	64.6	2,371
Gambela	10.5	54.3	16.7	14.7	3.6	0.1	100.0	81.5	35
Harari	11.0	59.0	10.9	19.0	0.0	0.0	100.0	81.0	29
Addis Ababa	19.8	71.3	4.6	4.2	0.1	0.0	100.0	95.7	573
Dire Dawa	10.4	57.4	14.6	16.8	0.7	0.1	100.0	82.4	66
Wealth quintile									
Lowest	0.4	28.5	17.1	53.0	1.0	0.0	100.0	46.0	1,839
Second	0.5	34.8	18.8	45.2	0.6	0.1	100.0	54.1	2,118
Middle	0.8	43.8	21.5	33.6	0.3	0.0	100.0	66.1	2,246
Fourth	2.9	52.0	19.1	25.8	0.3	0.0	100.0	73.9	2,466
Highest	17.3	64.1	9.8	8.4	0.2	0.2	100.0	91.2	2,935
Total 15-49	5.3	46.6	16.8	30.8	0.4	0.1	100.0	68.8	11,606
50-59	6.1	25.5	20.8	47.4	0.1	0.2	100.0	52.3	1,082
Total 15-59	5.4	44.8	17.2	32.2	0.4	0.1	100.0	67.4	12,688

[1] Refers to men who have more than a secondary education and men who can read a whole sentence or part of a sentence

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, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	6.9	18.1	17.3	1.2	68.9	3,381
20-24	4.3	18.5	18.2	1.6	70.6	2,762
25-29	4.3	17.5	18.9	1.7	70.4	2,957
30-34	2.0	14.8	16.9	1.1	75.0	2,345
35-39	3.1	12.0	13.2	1.3	79.6	1,932
40-44	1.2	10.7	11.4	0.9	82.7	1,290
45-49	1.8	12.5	13.4	1.0	80.1	1,017
Residence						
Urban	10.4	60.7	32.4	5.3	31.8	3,476
Rural	2.1	3.1	11.9	0.2	85.5	12,207
Region						
Tigray	4.4	18.9	15.4	1.7	71.6	1,129
Affar	3.0	15.6	13.3	1.3	74.3	128
Amhara	1.7	10.3	8.4	0.3	83.5	3,714
Oromiya	4.2	12.5	20.2	1.2	72.3	5,701
Somali	1.3	7.9	4.1	0.5	89.3	459
Benishangul-Gumuz	3.4	9.3	11.4	0.4	80.4	160
SNNPR	4.4	8.4	13.3	1.1	80.7	3,288
Gambela	3.5	25.6	13.8	1.1	65.9	44
Harari	5.8	41.6	18.1	4.1	54.6	38
Addis Ababa	10.5	81.1	45.3	6.8	14.1	930
Dire Dawa	5.8	51.5	20.0	2.9	44.2	90
Education						
No education	0.1	3.6	8.8	0.1	89.0	7,498
Primary	4.1	15.2	17.5	0.7	71.5	5,490
Secondary	11.8	44.5	32.7	4.5	41.0	1,817
More than secondary	19.9	65.6	42.1	9.6	22.4	877
Wealth quintile						
Lowest	0.9	0.7	3.8	0.0	95.5	2,633
Second	1.6	0.7	6.6	0.0	91.8	2,809
Middle	2.0	1.7	10.7	0.2	87.5	2,978
Fourth	3.1	3.7	18.4	0.5	77.9	3,100
Highest	9.5	54.9	33.8	4.5	34.3	4,163
Total	3.9	15.8	16.5	1.3	73.6	15,683

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, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	9.2	21.6	26.2	3.4	61.7	2,572
20-24	8.8	22.6	28.4	5.0	61.1	1,883
25-29	10.5	24.7	32.1	5.4	57.9	1,977
30-34	9.1	24.2	31.5	5.1	58.5	1,635
35-39	9.8	18.1	29.1	5.6	63.4	1,386
40-44	10.0	18.4	28.6	5.2	64.0	1,206
45-49	7.3	13.3	23.6	3.8	71.4	947
Residence						
Urban	22.3	64.0	50.3	15.5	24.9	2,303
Rural	6.1	10.6	23.3	2.1	70.9	9,302
Region						
Tigray	13.0	32.9	35.0	4.9	46.4	708
Affar	6.4	28.7	19.6	2.6	63.3	82
Amhara	3.2	19.5	24.6	1.4	64.0	2,914
Oromiya	12.0	19.8	32.2	6.3	60.7	4,409
Somali	5.9	14.6	11.7	3.4	77.6	301
Benishangul-Gumuz	7.1	14.6	29.0	1.7	62.0	118
SNNPR	6.2	7.9	18.1	1.4	76.9	2,371
Gambela	14.4	40.5	37.0	6.4	44.2	35
Harari	10.6	33.2	25.2	7.0	59.0	29
Addis Ababa	30.7	80.8	67.1	23.7	10.9	573
Dire Dawa	16.4	47.5	35.3	7.5	35.8	66
Education						
No education	0.9	6.8	15.3	0.2	80.9	3,203
Primary	6.9	14.7	27.1	2.3	65.0	5,608
Secondary	17.9	42.3	42.1	10.5	41.8	1,785
More than secondary	34.6	66.0	56.1	22.2	18.4	1,010
Wealth quintile						
Lowest	3.0	5.0	12.3	0.7	83.9	1,839
Second	2.5	6.5	17.2	0.1	79.2	2,118
Middle	5.9	9.9	23.1	1.5	70.9	2,246
Fourth	9.2	13.4	31.8	3.7	61.1	2,466
Highest	21.0	57.2	49.0	13.8	28.9	2,935
Total 15-49	9.4	21.2	28.7	4.7	61.8	11,606
50-59	7.5	18.0	24.0	4.7	67.4	1,082
Total 15-59	9.2	21.0	28.3	4.7	62.2	12,688

Table 3.5.1 Internet usage: Women

Percentage of women age 15-49 who have ever used the Internet, and percentage who have used the Internet in the past 12 months; and among women who have used the Internet in the past 12 months, percent distribution by frequency of Internet use in the past month, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Ever used the Internet	Used the Internet in the past 12 months	Number of women	Among women who have used the Internet in the past 12 months, percentage who, in the past month, used the Internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number of women
Age									
15-19	7.1	6.4	3,381	22.8	49.8	22.9	4.5	100.0	217
20-24	8.1	7.2	2,762	36.7	38.1	17.3	7.9	100.0	200
25-29	5.8	5.2	2,957	45.2	31.1	19.8	3.9	100.0	153
30-34	2.9	2.4	2,345	38.7	41.1	15.7	4.5	100.0	56
35-39	2.4	2.0	1,932	31.6	36.5	27.0	4.9	100.0	39
40-44	1.4	1.3	1,290	(33.5)	(38.8)	(24.4)	(3.3)	100.0	17
45-49	1.2	1.1	1,017	*	*	*	*	100.0	11
Residence									
Urban	18.8	17.5	3,476	35.6	42.5	17.8	4.1	100.0	609
Rural	1.0	0.7	12,207	18.8	30.2	36.6	14.4	100.0	84
Region									
Tigray	5.5	5.0	1,129	42.7	28.9	19.5	8.9	100.0	56
Affar	2.7	2.7	128	*	*	*	*	100.0	4
Amhara	3.3	2.5	3,714	(18.0)	(39.6)	(35.7)	(6.6)	100.0	91
Oromiya	2.8	2.5	5,701	(14.3)	(62.6)	(20.5)	(2.5)	100.0	144
Somali	2.9	2.7	459	(58.7)	(35.4)	(5.9)	(0.0)	100.0	12
Benishangul-Gumuz	2.7	2.3	160	*	*	*	*	100.0	4
SNNPR	2.5	2.2	3,288	(35.5)	(36.1)	(23.4)	(4.9)	100.0	73
Gambela	6.6	5.3	44	(27.2)	(30.6)	(34.3)	(7.9)	100.0	2
Harari	12.6	11.9	38	42.3	41.3	14.2	2.2	100.0	5
Addis Ababa	32.9	30.8	930	44.8	34.6	14.5	6.1	100.0	287
Dire Dawa	18.7	16.3	90	38.3	42.5	17.0	2.2	100.0	15
Education									
No education	0.1	0.0	7,498	*	*	*	*	100.0	2
Primary	1.9	1.5	5,490	20.4	31.5	38.3	9.7	100.0	81
Secondary	15.9	13.9	1,817	25.6	49.3	18.5	6.6	100.0	253
More than secondary	42.8	40.7	877	42.2	37.1	17.3	3.4	100.0	357
Wealth quintile									
Lowest	0.1	0.1	2,633	*	*	*	*	100.0	2
Second	0.4	0.2	2,809	*	*	*	*	100.0	7
Middle	1.1	0.7	2,978	*	*	*	*	100.0	20
Fourth	1.7	1.2	3,100	(16.8)	(27.2)	(45.6)	(10.4)	100.0	39
Highest	16.3	15.0	4,163	35.5	42.0	18.1	4.4	100.0	625
Total	5.0	4.4	15,683	33.6	41.0	20.1	5.3	100.0	693

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 3.5.2 Internet usage: Men

Percentage of men age 15-49 who have ever used the Internet, and percentage who have used the Internet in the past 12 months; and among men who have used the Internet in the past 12 months, percent distribution by frequency of Internet use in the past month, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Ever used the Internet	Used the Internet in the past 12 months	Number of men	Among men who have used the Internet in the past 12 months, percentage who, in the past month, used the Internet: Almost every day	At least once a week	Less than once a week	Not at all	Total	Number of men
Age									
15-19	14.5	13.5	2,572	32.9	32.0	33.4	1.6	100.0	347
20-24	19.0	17.2	1,883	34.2	30.4	31.9	3.5	100.0	325
25-29	20.0	18.6	1,977	39.5	28.1	30.0	2.4	100.0	368
30-34	12.0	11.0	1,635	42.8	31.6	24.6	1.1	100.0	180
35-39	6.8	6.5	1,386	33.7	34.7	27.2	4.4	100.0	90
40-44	5.4	5.2	1,206	32.0	28.7	33.4	5.8	100.0	63
45-49	4.4	3.6	947	39.6	19.6	34.7	6.1	100.0	34
Residence									
Urban	46.9	44.9	2,303	41.6	27.7	28.7	1.9	100.0	1,034
Rural	4.8	4.0	9,302	21.8	37.5	36.0	4.7	100.0	373
Region									
Tigray	13.6	12.6	708	37.0	29.2	29.8	4.1	100.0	89
Affar	17.8	16.4	82	25.3	29.3	39.9	5.5	100.0	13
Amhara	10.1	9.7	2,914	27.1	35.9	32.7	4.3	100.0	283
Oromiya	11.5	10.2	4,409	36.9	32.2	29.2	1.7	100.0	449
Somali	14.9	14.4	301	45.6	18.7	35.7	0.0	100.0	43
Benishangul-Gumuz	10.3	10.0	118	33.6	31.2	33.0	2.3	100.0	12
SNNPR	6.9	5.8	2,371	36.9	22.9	37.7	2.5	100.0	136
Gambela	26.0	24.0	35	28.8	30.9	39.0	1.3	100.0	8
Harari	40.0	38.2	29	35.8	10.9	50.6	2.6	100.0	11
Addis Ababa	60.2	58.5	573	42.0	29.3	26.3	2.5	100.0	336
Dire Dawa	39.8	39.0	66	45.0	19.9	32.4	2.7	100.0	26
Education									
No education	0.3	0.2	3,203	*	*	*	*	100.0	7
Primary	4.6	4.1	5,608	22.7	30.7	42.8	3.8	100.0	228
Secondary	31.7	29.1	1,785	28.3	34.2	34.2	3.3	100.0	520
More than secondary	68.2	64.6	1,010	47.5	27.0	23.7	1.7	100.0	652
Wealth quintile									
Lowest	1.9	1.8	1,839	31.7	26.6	38.9	2.8	100.0	33
Second	2.8	2.3	2,118	32.0	37.1	26.2	4.6	100.0	49
Middle	3.9	3.3	2,246	12.1	49.6	31.2	7.0	100.0	74
Fourth	7.8	6.5	2,466	20.2	35.0	39.7	5.0	100.0	159
Highest	39.1	37.2	2,935	40.7	28.1	29.3	1.9	100.0	1,091
Total 15-49	13.1	12.1	11,606	36.4	30.3	30.7	2.7	100.0	1,407
50-59	4.5	4.2	1,082	33.7	26.9	36.6	2.8	100.0	45
Total 15-59	12.4	11.4	12,688	36.3	30.2	30.9	2.7	100.0	1,452

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

Table 3.6.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	24.3	16.7	59.0	100.0	3,381
20-24	31.0	16.3	52.7	100.0	2,762
25-29	36.8	16.7	46.5	100.0	2,957
30-34	39.9	16.2	43.9	100.0	2,345
35-39	36.8	17.1	46.1	100.0	1,932
40-44	36.7	18.2	45.1	100.0	1,290
45-49	32.8	19.1	48.1	100.0	1,017
Marital status					
Never married	32.1	14.8	53.0	100.0	4,036
Married or living together	30.9	17.5	51.6	100.0	10,223
Divorced/separated/widowed	53.4	18.2	28.4	100.0	1,423
Number of living children					
0	33.5	16.0	50.4	100.0	5,185
1-2	35.9	15.9	48.2	100.0	3,770
3-4	33.6	18.3	48.1	100.0	3,064
5+	29.9	17.8	52.2	100.0	3,664
Residence					
Urban	52.0	9.6	38.5	100.0	3,476
Rural	28.0	18.9	53.1	100.0	12,207
Region					
Tigray	37.4	24.1	38.6	100.0	1,129
Affar	22.7	3.4	73.9	100.0	128
Amhara	27.0	34.5	38.5	100.0	3,714
Oromiya	32.9	12.8	54.3	100.0	5,701
Somali	18.3	5.6	76.1	100.0	459
Benishangul-Gumuz	49.7	17.7	32.6	100.0	160
SNNPR	34.1	6.8	59.0	100.0	3,288
Gambela	41.6	7.1	51.3	100.0	44
Harari	41.1	3.8	55.1	100.0	38
Addis Ababa	57.8	7.5	34.7	100.0	930
Dire Dawa	36.9	5.9	57.1	100.0	90
Education					
No education	28.7	19.2	52.1	100.0	7,498
Primary	33.1	16.1	50.8	100.0	5,490
Secondary	35.2	13.7	51.2	100.0	1,817
More than secondary	69.5	8.3	22.2	100.0	877
Wealth quintile					
Lowest	24.4	18.2	57.4	100.0	2,633
Second	26.7	21.2	52.2	100.0	2,809
Middle	27.1	19.0	53.8	100.0	2,978
Fourth	32.0	17.9	50.1	100.0	3,100
Highest	48.7	10.8	40.5	100.0	4,163
Total	33.3	16.9	49.9	100.0	15,683

[1] "Currently employed" is defined as having done work in the past 7 days. Includes persons who did not work in the past 7 days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.6.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of men
	Currently employed[1]	Not currently employed			
Age					
15-19	68.6	6.9	24.6	100.0	2,572
20-24	84.4	6.2	9.5	100.0	1,883
25-29	94.9	2.8	2.3	100.0	1,977
30-34	96.6	2.2	1.2	100.0	1,635
35-39	97.1	2.0	1.0	100.0	1,386
40-44	96.4	1.6	2.0	100.0	1,206
45-49	96.6	2.1	1.3	100.0	947
Marital status					
Never married	75.9	6.4	17.8	100.0	4,882
Married or living together	97.2	1.9	0.9	100.0	6,441
Divorced/separated/widowed	93.2	5.2	1.5	100.0	282
Number of living children					
0	78.7	5.8	15.5	100.0	5,658
1-2	97.4	1.9	0.7	100.0	2,202
3-4	96.7	2.2	1.2	100.0	1,770
5+	97.1	2.1	0.7	100.0	1,976
Residence					
Urban	80.5	4.7	14.8	100.0	2,303
Rural	90.0	3.7	6.3	100.0	9,302
Region					
Tigray	74.9	11.3	13.8	100.0	708
Affar	67.9	4.6	27.5	100.0	82
Amhara	89.3	4.8	5.9	100.0	2,914
Oromiya	92.3	2.9	4.8	100.0	4,409
Somali	68.3	2.2	29.5	100.0	301
Benishangul-Gumuz	89.9	2.5	7.6	100.0	118
SNNPR	88.3	2.3	9.5	100.0	2,371
Gambela	85.2	2.1	12.7	100.0	35
Harari	81.8	1.7	16.4	100.0	29
Addis Ababa	81.3	5.0	13.6	100.0	573
Dire Dawa	76.2	3.6	20.2	100.0	66
Education					
No education	94.2	3.1	2.8	100.0	3,203
Primary	87.9	3.8	8.3	100.0	5,608
Secondary	78.0	6.2	15.8	100.0	1,785
More than secondary	88.2	2.9	8.9	100.0	1,010
Wealth quintile					
Lowest	86.0	5.0	9.0	100.0	1,839
Second	92.1	3.9	4.0	100.0	2,118
Middle	90.8	3.2	6.0	100.0	2,246
Fourth	88.7	3.6	7.7	100.0	2,466
Highest	84.1	3.9	12.0	100.0	2,935
Total 15-49	88.2	3.9	8.0	100.0	11,606
50-59	94.9	2.8	2.3	100.0	1,082
Total 15-59	88.7	3.8	7.5	100.0	12,688

[1] "Currently employed" is defined as having done work in the past 7 days. Includes persons who did not work in the past 7 days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.7.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of women
Age									
15-19	1.2	0.3	42.5	4.3	3.4	38.7	9.6	100.0	1,386
20-24	7.2	4.4	36.6	9.9	3.4	35.3	3.3	100.0	1,305
25-29	7.8	2.1	38.8	7.1	2.0	38.0	4.2	100.0	1,580
30-34	4.6	1.2	39.9	8.7	1.9	40.4	3.3	100.0	1,316
35-39	3.9	1.6	32.0	7.9	3.4	46.5	4.6	100.0	1,041
40-44	2.6	1.8	28.7	9.4	2.1	52.3	3.1	100.0	707
45-49	5.2	0.7	29.6	7.3	1.6	53.2	2.4	100.0	528
Marital status									
Never married	6.2	3.6	43.5	6.3	3.8	27.1	9.5	100.0	1,896
Married or living together	4.7	1.3	32.7	7.8	1.7	48.4	3.3	100.0	4,948
Divorced/separated/widowed	2.8	1.1	44.2	9.7	5.2	34.6	2.5	100.0	1,019
Number of living children									
0	6.7	3.6	41.6	6.8	4.1	29.5	7.7	100.0	2,570
1-2	7.6	1.8	39.2	8.1	2.0	37.3	3.9	100.0	1,952
3-4	2.2	0.8	32.6	9.3	2.0	49.7	3.3	100.0	1,591
5+	1.3	0.2	30.9	6.9	1.8	56.3	2.5	100.0	1,751
Residence									
Urban	12.9	6.4	56.2	9.9	3.3	5.3	6.0	100.0	2,138
Rural	1.8	0.1	29.6	6.8	2.4	55.0	4.2	100.0	5,726
Region									
Tigray	5.2	1.5	28.6	10.4	7.8	41.0	5.5	100.0	693
Affar	6.4	0.8	41.7	7.3	11.8	25.2	6.7	100.0	33
Amhara	5.0	0.9	16.7	7.8	3.1	61.8	4.6	100.0	2,283
Oromiya	3.3	1.3	44.0	5.3	1.1	41.1	3.9	100.0	2,604
Somali	10.3	0.7	62.6	6.8	0.8	16.6	2.1	100.0	110
Benishangul-Gumuz	3.3	1.1	10.7	2.7	7.2	71.1	3.9	100.0	108
SNNPR	3.6	1.2	51.0	8.7	1.5	28.1	6.0	100.0	1,347
Gambela	8.9	3.0	44.0	8.5	3.6	22.8	9.1	100.0	21
Harari	12.0	4.4	55.0	8.1	2.8	11.5	6.2	100.0	17
Addis Ababa	11.9	9.1	56.9	12.9	2.9	1.0	5.2	100.0	607
Dire Dawa	6.6	4.1	64.3	4.5	2.8	9.6	8.1	100.0	39
Education									
No education	0.5	0.0	29.2	7.9	2.4	57.6	2.4	100.0	3,593
Primary	0.7	0.3	45.0	7.4	2.7	37.7	6.1	100.0	2,701
Secondary	5.1	2.5	53.1	10.4	4.8	16.5	7.6	100.0	888
More than secondary	43.6	16.7	23.5	3.8	0.8	4.1	7.6	100.0	682
Wealth quintile									
Lowest	1.2	0.0	24.4	5.7	4.2	59.7	4.8	100.0	1,121
Second	0.8	0.1	26.7	8.1	2.4	57.4	4.4	100.0	1,344
Middle	0.8	0.2	30.7	6.5	2.5	56.9	2.3	100.0	1,375
Fourth	3.0	0.1	30.5	7.3	1.3	52.3	5.5	100.0	1,548
Highest	12.1	5.6	55.3	9.1	2.9	9.3	5.6	100.0	2,476
Total	4.8	1.8	36.8	7.7	2.6	41.5	4.7	100.0	7,864

Table 3.7.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Other	Total	Number of men
Age									
15-19	0.6	0.2	7.2	4.2	1.9	74.2	11.7	100.0	1,940
20-24	4.4	1.1	9.0	8.8	4.3	66.6	5.9	100.0	1,704
25-29	8.9	1.4	8.5	11.2	2.5	63.0	4.5	100.0	1,931
30-34	8.3	0.7	9.0	8.4	3.4	67.3	2.9	100.0	1,615
35-39	4.7	0.4	6.1	6.3	2.0	77.6	2.9	100.0	1,372
40-44	6.4	0.7	7.1	6.3	1.6	74.5	3.4	100.0	1,182
45-49	3.6	1.2	5.8	4.3	1.3	80.0	3.9	100.0	935
Marital status									
Never married	5.1	1.0	9.2	8.4	3.0	63.7	9.5	100.0	4,015
Married or living together	5.3	0.7	6.6	6.5	2.2	75.8	2.9	100.0	6,386
Divorced/separated/widowed	6.7	0.2	11.6	9.5	5.5	62.1	4.4	100.0	278
Number of living children									
0	5.5	1.1	9.4	8.8	3.2	63.3	8.6	100.0	4,782
1-2	8.4	0.7	9.4	9.9	2.7	66.3	2.6	100.0	2,187
3-4	3.8	0.8	4.9	5.4	1.7	79.9	3.5	100.0	1,749
5+	2.5	0.1	4.3	2.6	1.6	86.5	2.6	100.0	1,962
Residence									
Urban	17.8	3.8	22.3	25.0	7.1	16.5	7.5	100.0	1,962
Rural	2.4	0.1	4.4	3.4	1.5	83.1	4.9	100.0	8,717
Region									
Tigray	5.8	0.9	7.6	11.4	6.9	52.0	15.5	100.0	611
Affar	10.2	0.5	12.5	8.4	12.1	46.9	9.3	100.0	59
Amhara	5.0	1.1	5.2	6.0	2.7	76.8	3.2	100.0	2,744
Oromiya	3.5	0.4	6.3	3.9	1.2	79.0	5.7	100.0	4,196
Somali	13.9	1.2	14.9	9.5	6.5	44.9	9.0	100.0	212
Benishangul-Gumuz	7.8	0.9	9.3	6.4	1.4	69.0	5.1	100.0	109
SNNPR	4.8	0.3	8.7	6.2	2.3	73.7	4.0	100.0	2,147
Gambela	14.9	1.5	17.8	9.4	1.5	44.7	10.2	100.0	30
Harari	15.0	2.3	14.8	15.6	1.6	40.7	10.0	100.0	24
Addis Ababa	17.6	4.2	24.1	39.8	6.1	2.4	5.8	100.0	495
Dire Dawa	9.2	1.3	18.8	25.8	6.3	26.3	12.3	100.0	53
Education									
No education	0.8	0.0	3.0	3.0	1.8	87.6	3.8	100.0	3,115
Primary	0.8	0.2	7.5	5.8	2.8	77.1	5.9	100.0	5,142
Secondary	4.6	1.0	15.7	16.4	3.7	51.6	7.0	100.0	1,503
More than secondary	46.7	6.7	11.9	15.7	1.9	11.3	5.9	100.0	920
Wealth quintile									
Lowest	1.5	0.0	2.8	2.9	1.7	84.6	6.6	100.0	1,675
Second	1.1	0.0	3.0	2.4	2.0	87.4	4.1	100.0	2,033
Middle	1.2	0.4	3.3	2.6	1.6	85.6	5.3	100.0	2,112
Fourth	3.9	0.2	5.2	3.8	1.4	80.9	4.6	100.0	2,275
Highest	15.5	2.8	20.5	21.1	5.4	28.1	6.5	100.0	2,583
Total 15-49	5.3	0.8	7.7	7.3	2.6	70.9	5.4	100.0	10,679
50-59	6.4	1.1	5.9	4.0	0.5	79.9	2.0	100.0	1,058
Total 15-59	5.4	0.8	7.6	7.0	2.4	71.7	5.1	100.0	11,737

Table 3.8 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 DHS 2016

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	7.5	62.4	39.6
Cash and in-kind	7.8	7.0	7.3
In-kind only	14.7	2.3	7.4
Not paid	69.9	28.4	45.6
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	51.2	26.0	36.5
Employed by non-family member	2.7	23.3	14.8
Self-employed	46.1	50.7	48.8
Total	100.0	100.0	100.0
Continuity of employment			
All year	23.4	68.7	49.9
Seasonal	66.8	15.4	36.8
Occasional	9.8	15.8	13.3
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	3,263	4,600	7,864

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

Table 3.9.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Social security	Other employer-based insurance	Mutual Health Organisation/ community-based insurance	None	Number of women
Age					
15-19	0.9	0.1	4.4	94.5	3,381
20-24	0.5	0.7	2.8	95.9	2,762
25-29	0.8	0.4	2.5	96.2	2,957
30-34	0.4	0.5	4.1	95.1	2,345
35-39	0.4	0.5	5.5	93.6	1,932
40-44	1.3	1.0	5.3	92.3	1,290
45-49	2.0	0.3	5.6	92.1	1,017
Residence					
Urban	1.0	1.8	2.5	94.7	3,476
Rural	0.7	0.1	4.4	94.7	12,207
Region					
Tigray	1.9	0.9	8.9	88.1	1,129
Affar	0.6	0.0	0.6	98.8	128
Amhara	1.2	0.3	12.3	86.2	3,714
Oromiya	0.4	0.1	0.6	98.8	5,701
Somali	0.0	0.1	0.0	99.9	459
Benishangul-Gumuz	0.1	0.3	0.0	99.7	160
SNNPR	0.9	0.0	0.6	98.4	3,288
Gambela	0.1	0.1	0.1	99.6	44
Harari	0.0	0.0	0.2	99.8	38
Addis Ababa	0.1	4.8	1.3	93.8	930
Dire Dawa	0.0	0.5	0.6	98.7	90
Education					
No education	0.7	0.1	4.4	94.8	7,498
Primary	0.7	0.2	3.9	95.3	5,490
Secondary	1.1	0.9	4.2	93.7	1,817
More than secondary	1.1	4.7	1.5	92.4	877
Wealth quintile					
Lowest	0.5	0.0	1.7	97.7	2,633
Second	0.8	0.0	3.4	95.8	2,809
Middle	0.5	0.0	6.0	93.5	2,978
Fourth	1.0	0.3	6.3	92.3	3,100
Highest	1.0	1.5	2.7	94.7	4,163
Total	0.8	0.5	4.0	94.7	15,683

Table 3.9.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Social security	Other employer-based insurance	Mutual Health Organisation/ community-based insurance	Privately purchased commercial insurance	None	Number of men
Age						
15-19	0.7	0.0	5.6	0.0	93.7	2,572
20-24	0.3	0.6	4.7	0.0	94.4	1,883
25-29	0.7	1.4	3.0	0.1	94.9	1,977
30-34	0.4	1.2	2.3	0.0	96.0	1,635
35-39	0.7	0.8	3.7	0.0	94.8	1,386
40-44	1.7	1.0	6.5	0.2	90.6	1,206
45-49	1.2	0.7	7.1	0.1	90.9	947
Residence						
Urban	0.8	3.1	1.5	0.1	94.5	2,303
Rural	0.7	0.2	5.3	0.0	93.8	9,302
Region						
Tigray	2.6	1.7	7.9	0.1	88.0	708
Affar	0.3	0.3	0.6	0.0	98.8	82
Amhara	1.9	0.6	13.2	0.0	84.3	2,914
Oromiya	0.1	0.1	1.7	0.0	98.2	4,409
Somali	0.0	0.0	0.0	0.0	100.0	301
Benishangul-Gumuz	0.0	0.5	0.0	0.3	99.2	118
SNNPR	0.1	0.2	0.4	0.1	99.3	2,371
Gambela	0.5	1.3	1.1	0.6	96.4	35
Harari	0.0	0.3	0.3	0.1	99.2	29
Addis Ababa	0.7	8.8	0.6	0.2	89.7	573
Dire Dawa	0.4	2.5	0.2	0.1	96.8	66
Education						
No education	0.9	0.0	7.1	0.0	92.0	3,203
Primary	0.6	0.1	4.3	0.0	95.1	5,608
Secondary	0.9	1.2	2.9	0.0	95.0	1,785
More than secondary	0.9	6.1	1.1	0.2	91.7	1,010
Wealth quintile						
Lowest	0.3	0.0	2.9	0.0	96.7	1,839
Second	0.9	0.0	3.8	0.0	95.2	2,118
Middle	0.7	0.3	8.2	0.0	90.8	2,246
Fourth	0.9	0.3	5.9	0.1	92.8	2,466
Highest	0.7	2.5	2.2	0.1	94.5	2,935
Total 15-49	0.7	0.8	4.6	0.0	93.9	11,606
50-59	0.7	0.5	9.7	0.1	88.7	1,082
Total 15-59	0.7	0.7	5.0	0.1	93.5	12,688

Note: Total includes men with missing information on other types of health insurance coverage.

Table 3.10.1 Tobacco smoking: Women

Percentage of women age 15-49 who smoke various tobacco products, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who smoke:[1]			Number of women
	Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	
Age				
15-19	0.0	0.0	0.0	3,381
20-24	1.0	0.3	1.0	2,762
25-29	0.7	0.4	0.8	2,957
30-34	0.8	0.5	1.1	2,345
35-39	0.6	0.5	0.8	1,932
40-44	0.2	0.5	0.7	1,290
45-49	1.4	0.6	1.6	1,017
Residence				
Urban	0.4	0.2	0.5	3,476
Rural	0.7	0.4	0.8	12,207
Region				
Tigray	0.2	0.0	0.2	1,129
Affar	0.9	2.1	2.9	128
Amhara	0.1	0.1	0.1	3,714
Oromiya	1.0	0.3	1.0	5,701
Somali	0.1	0.2	0.3	459
Benishangul-Gumuz	2.4	1.8	3.6	160
SNNPR	0.8	0.6	1.0	3,288
Gambela	2.2	7.5	8.5	44
Harari	1.2	0.8	1.7	38
Addis Ababa	0.4	0.2	0.5	930
Dire Dawa	1.2	1.0	2.0	90
Education				
No education	0.8	0.5	1.0	7,498
Primary	0.5	0.2	0.5	5,490
Secondary	0.5	0.2	0.6	1,817
More than secondary	0.1	0.0	0.1	877
Wealth quintile				
Lowest	0.5	0.8	0.8	2,633
Second	0.7	0.5	0.7	2,809
Middle	1.0	0.3	1.1	2,978
Fourth	0.7	0.2	0.8	3,100
Highest	0.3	0.2	0.4	4,163
Total	0.6	0.4	0.8	15,683

[1] Includes daily and occasional (less than daily) use
[2] Includes any manufactured cigarettes
[3] Includes pipes and shisha

Table 3.10.2 Tobacco smoking: Men

Percentage of men age 15-49 who smoke various tobacco products, and percent distribution of men by smoking frequency, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who smoke:[1]			Smoking frequency			Total	Number of men
	Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	Daily smoker	Occasional smoker[4]	Non-smoker		
Age								
15-19	0.4	0.0	0.4	0.1	0.5	99.4	100.0	2,572
20-24	2.6	0.2	2.6	1.2	2.0	96.8	100.0	1,883
25-29	4.1	0.2	4.1	3.4	1.7	94.8	100.0	1,977
30-34	5.2	0.5	5.3	4.0	3.1	92.9	100.0	1,635
35-39	6.5	0.5	6.7	5.4	3.3	91.4	100.0	1,386
40-44	7.6	0.1	7.7	6.6	3.0	90.5	100.0	1,206
45-49	5.8	0.2	6.0	6.6	1.4	92.0	100.0	947
Residence								
Urban	3.9	0.4	3.9	3.6	2.1	94.3	100.0	2,303
Rural	4.0	0.2	4.1	3.2	1.9	94.9	100.0	9,302
Region								
Tigray	1.2	0.6	1.2	0.8	0.4	98.8	100.0	708
Affar	8.2	0.4	8.3	6.1	6.4	87.4	100.0	82
Amhara	0.4	0.0	0.4	0.5	0.6	98.9	100.0	2,914
Oromiya	6.2	0.2	6.2	4.4	3.0	92.6	100.0	4,409
Somali	17.7	0.4	17.8	19.1	1.9	78.9	100.0	301
Benishangul-Gumuz	11.3	1.3	12.0	11.4	1.8	86.9	100.0	118
SNNPR	2.1	0.2	2.2	1.9	1.6	96.5	100.0	2,371
Gambela	10.5	0.2	10.5	9.7	3.0	87.2	100.0	35
Harari	11.6	0.0	11.6	13.6	3.5	82.9	100.0	29
Addis Ababa	5.3	0.6	5.4	4.2	3.5	92.3	100.0	573
Dire Dawa	12.5	0.8	13.0	12.5	4.5	83.1	100.0	66
Education								
No education	5.2	0.2	5.3	4.8	2.0	93.3	100.0	3,203
Primary	3.8	0.2	3.8	2.8	2.2	95.0	100.0	5,608
Secondary	3.0	0.1	3.1	2.2	2.0	95.7	100.0	1,785
More than secondary	2.7	0.4	2.7	2.5	0.8	96.7	100.0	1,010
Wealth quintile								
Lowest	6.6	0.4	6.6	4.8	2.8	92.4	100.0	1,839
Second	4.3	0.2	4.4	3.7	2.9	93.4	100.0	2,118
Middle	5.1	0.1	5.1	3.8	2.0	94.2	100.0	2,246
Fourth	1.7	0.1	1.8	1.5	0.7	97.8	100.0	2,466
Highest	3.2	0.3	3.2	2.9	1.9	95.2	100.0	2,935
Total 15-49	4.0	0.2	4.0	3.2	2.0	94.8	100.0	11,606
50-59	6.8	0.1	6.8	6.6	0.8	92.5	100.0	1,082
Total 15-59	4.2	0.2	4.3	3.5	1.9	94.6	100.0	12,688

[1] Includes daily and occasional (less than daily) use
[2] Includes manufactured cigarettes and hand-rolled cigarettes
[3] Includes pipes, cigars, cheroots, cigarillos, and shisha
[4] Occasional refers to less than daily use

Table 3.11 Average number of cigarettes smoked daily: Men

Among men age 15-49 who smoke cigarettes daily, percent distribution by average number of cigarettes smoked per day, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Average number of cigarettes smoked per day[1]						Total	Number of men who smoke cigarettes daily[1]
	<5	5-9	10-14	15-24	≥25	Don't know/ missing		
Age								
15-19	*	*	*	*	*	*	100.0	3
20-24	20.9	35.8	4.1	23.8	15.3	0.0	100.0	22
25-29	50.8	18.6	18.7	6.0	5.9	0.0	100.0	61
30-34	33.2	25.5	25.7	5.4	10.2	0.0	100.0	55
35-39	45.1	24.8	14.0	11.3	4.9	0.0	100.0	73
40-44	37.7	27.0	21.1	13.6	0.4	0.1	100.0	69
45-49	31.8	28.2	28.8	1.1	9.7	0.3	100.0	54
Residence								
Urban	28.2	26.7	25.6	11.0	8.5	0.1	100.0	76
Rural	41.9	25.0	18.7	8.4	5.8	0.1	100.0	261
Region								
Tigray	*	*	*	*	*	*	100.0	6
Affar	42.3	21.2	15.8	9.4	7.1	4.2	100.0	4
Amhara	*	*	*	*	*	*	100.0	9
Oromiya	42.8	22.7	16.0	7.7	10.8	0.0	100.0	178
Somali	15.0	30.9	37.4	15.2	1.4	0.0	100.0	52
Benishangul-Gumuz	44.1	29.5	12.5	11.2	2.6	0.0	100.0	13
SNNPR	*	*	*	*	*	*	100.0	39
Gambela	36.5	30.9	20.7	8.5	3.4	0.0	100.0	3
Harari	9.2	26.4	17.8	42.7	3.9	0.0	100.0	3
Addis Ababa	(31.7)	(28.3)	(34.5)	(5.5)	(0.0)	(0.0)	100.0	24
Dire Dawa	15.7	23.6	21.8	34.7	3.2	1.0	100.0	7
Education								
No education	41.4	21.5	21.0	11.5	4.3	0.2	100.0	133
Primary	40.0	29.3	18.9	7.2	4.6	0.0	100.0	140
Secondary	31.4	28.5	25.4	5.4	9.2	0.0	100.0	39
More than secondary	29.5	19.1	16.5	11.0	23.8	0.0	100.0	25
Wealth quintile								
Lowest	39.2	25.5	24.6	9.3	1.2	0.2	100.0	80
Second	21.8	19.6	30.3	14.8	13.4	0.0	100.0	62
Middle	52.7	21.6	13.1	5.9	6.7	0.1	100.0	82
Fourth	(58.6)	(37.1)	(1.8)	(1.5)	(1.0)	(0.0)	100.0	33
Highest	29.1	28.9	23.3	10.5	8.3	0.0	100.0	80
Total 15-49	38.8	25.4	20.3	9.0	6.4	0.1	100.0	337
50-59	30.1	43.7	12.3	8.6	5.3	0.0	100.0	71
Total 15-59	37.3	28.6	18.9	8.9	6.2	0.1	100.0	408

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] Includes manufactured cigarettes and hand-rolled cigarettes

Table 3.12.1 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, and percent distribution by the number of times they drank alcohol in the last 12 months, according to background characteristics, Ethiopia DHS 2016

			Among women who ever drank alcohol:										
			Number of days they drank alcohol in the last 30 days:					Number of times they drank alcohol in the last 12 months:					
Background characteristic	Percentage of all women who ever drank alcohol	Number of women	None	1-5	6+	Don't know	Total	Almost every day	At least once a week	Less than once a week	Not in the past 12 months	Total	Number of women who ever drank alcohol
Age													
15-19	30.4	3,381	9.8	51.8	36.8	1.5	100.0	3.4	28.6	64.7	3.3	100.0	1,029
20-24	34.1	2,762	9.8	44.1	43.3	2.8	100.0	4.5	30.2	62.8	2.4	100.0	942
25-29	34.0	2,957	6.4	41.9	51.0	0.7	100.0	6.7	32.7	57.7	2.9	100.0	1,006
30-34	36.3	2,345	7.6	39.8	51.1	1.4	100.0	5.7	30.3	61.4	2.6	100.0	852
35-39	38.4	1,932	5.6	31.7	60.6	2.1	100.0	7.5	36.3	53.0	3.2	100.0	742
40-44	40.4	1,290	6.6	32.0	59.0	2.4	100.0	7.7	35.2	53.0	4.1	100.0	520
45-49	43.5	1,017	9.6	26.3	59.9	4.1	100.0	8.0	35.1	52.6	4.3	100.0	442
Residence													
Urban	43.0	3,476	17.6	52.7	28.3	1.4	100.0	3.3	23.4	68.6	4.7	100.0	1,495
Rural	33.1	12,207	4.4	35.7	57.8	2.1	100.0	6.8	35.2	55.4	2.5	100.0	4,039
Region													
Tigray	71.3	1,129	2.3	52.1	42.2	3.3	100.0	5.1	36.1	57.4	1.4	100.0	805
Affar	5.1	128	(27.5)	(58.4)	(14.1)	(0.0)	100.0	(11.0)	(20.7)	(56.9)	(11.4)	100.0	7
Amhara	75.9	3,714	3.7	32.4	62.0	1.9	100.0	4.1	30.1	64.7	1.0	100.0	2,820
Oromiya	14.4	5,701	5.9	41.9	49.8	2.4	100.0	11.3	39.9	44.1	4.7	100.0	822
Somali	0.3	459	*	*	*	*	100.0	*	*	*	*	100.0	1
Benishangul-Gumuz	31.7	160	3.9	50.5	44.0	1.6	100.0	17.0	44.6	36.5	1.9	100.0	51
SNNPR	12.9	3,288	18.8	40.9	39.9	0.4	100.0	12.4	47.1	28.4	12.0	100.0	424
Gambela	25.8	44	14.7	55.2	29.1	1.1	100.0	9.4	42.9	41.5	6.2	100.0	11
Harari	11.2	38	14.0	23.7	61.1	1.2	100.0	5.7	25.9	66.0	2.4	100.0	4
Addis Ababa	61.6	930	31.3	57.9	10.0	0.7	100.0	1.8	12.6	78.9	6.6	100.0	573
Dire Dawa	17.2	90	19.2	57.7	23.1	0.0	100.0	2.7	19.5	73.0	4.8	100.0	16
Education													
No education	36.0	7,498	3.7	31.6	62.2	2.5	100.0	7.5	35.4	53.8	3.2	100.0	2,698
Primary	29.7	5,490	9.6	42.9	46.0	1.5	100.0	4.5	32.2	60.4	3.0	100.0	1,628
Secondary	42.7	1,817	13.6	53.3	31.6	1.4	100.0	5.0	27.2	64.8	3.0	100.0	776
More than secondary	49.2	877	18.3	61.0	19.5	1.2	100.0	2.4	19.3	75.4	3.0	100.0	431
Wealth quintile													
Lowest	30.3	2,633	3.8	41.3	53.4	1.6	100.0	6.7	34.1	57.8	1.4	100.0	797
Second	32.8	2,809	3.9	35.8	58.3	1.9	100.0	7.1	34.5	56.1	2.3	100.0	923
Middle	33.6	2,978	4.7	32.8	60.2	2.3	100.0	6.2	36.4	54.1	3.2	100.0	1,001
Fourth	35.0	3,100	4.6	34.0	58.8	2.5	100.0	5.6	35.2	56.9	2.3	100.0	1,085
Highest	41.5	4,163	16.1	50.4	32.0	1.5	100.0	4.8	25.3	65.2	4.8	100.0	1,728
Total	35.3	15,683	8.0	40.3	49.8	1.9	100.0	5.9	32.1	59.0	3.1	100.0	5,534

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 3.12.2 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, and percent distribution by the number of times they drank alcohol in the last 12 months, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of all men who ever drank alcohol	Number of men	Among men who ever drank alcohol: Number of days they drank alcohol in the last 30 days: None	1-5	6+	Don't know	Total	Number of times they drank alcohol in the last 12 months: Almost every day	At least once a week	Less than once a week	Not in the past 12 months	Total	Number of men who ever drank alcohol
Age													
15-19	39.1	2,572	8.8	47.5	43.3	0.5	100.0	4.6	39.8	53.7	1.9	100.0	1,005
20-24	46.4	1,883	7.1	40.4	52.2	0.3	100.0	6.4	51.0	39.0	3.6	100.0	873
25-29	45.9	1,977	9.2	34.6	55.7	0.4	100.0	7.6	48.0	39.7	4.7	100.0	908
30-34	45.4	1,635	7.8	27.5	64.6	0.1	100.0	12.3	48.9	33.9	4.9	100.0	743
35-39	49.2	1,386	5.1	23.9	70.7	0.4	100.0	13.7	54.5	28.7	3.1	100.0	681
40-44	52.5	1,206	6.8	28.3	64.5	0.4	100.0	13.7	51.3	29.8	5.2	100.0	633
45-49	48.4	947	6.8	22.4	70.4	0.4	100.0	9.9	53.2	32.0	4.9	100.0	458
Residence													
Urban	56.8	2,303	12.6	41.0	45.6	0.8	100.0	11.8	39.7	43.3	5.2	100.0	1,307
Rural	42.9	9,302	5.9	31.5	62.4	0.2	100.0	8.4	51.7	36.5	3.5	100.0	3,994
Region													
Tigray	90.7	708	4.5	38.7	56.4	0.4	100.0	5.0	62.9	30.8	1.3	100.0	642
Affar	9.9	82	10.7	35.3	54.0	0.0	100.0	17.5	34.5	33.8	14.1	100.0	8
Amhara	83.1	2,914	3.1	27.0	69.8	0.1	100.0	5.0	47.1	47.0	0.8	100.0	2,423
Oromiya	25.5	4,409	7.5	39.8	51.9	0.8	100.0	23.3	49.0	22.6	5.1	100.0	1,125
Somali	1.0	301	*	*	*	*	100.0	*	*	*	*	100.0	3
Benishangul-Gumuz	47.4	118	4.8	44.8	50.0	0.4	100.0	10.6	48.7	38.4	2.3	100.0	56
SNNPR	25.2	2,371	20.3	33.8	45.3	0.5	100.0	7.2	45.0	33.0	14.8	100.0	599
Gambela	51.3	35	11.3	47.0	41.5	0.2	100.0	9.7	57.8	25.3	7.2	100.0	18
Harari	16.0	29	5.9	46.4	47.7	0.0	100.0	5.8	39.6	52.5	2.1	100.0	5
Addis Ababa	71.0	573	19.7	48.2	31.9	0.2	100.0	4.4	41.7	47.5	6.4	100.0	407
Dire Dawa	25.5	66	21.2	42.4	36.1	0.3	100.0	7.8	36.4	47.0	8.9	100.0	17
Education													
No education	49.2	3,203	2.9	25.0	71.9	0.2	100.0	11.1	53.1	34.4	1.4	100.0	1,576
Primary	41.3	5,608	7.9	34.6	57.1	0.4	100.0	8.6	49.6	36.9	4.9	100.0	2,315
Secondary	46.1	1,785	11.1	42.5	46.3	0.1	100.0	9.0	43.9	43.1	4.1	100.0	823
More than secondary	58.2	1,010	13.8	42.5	42.8	0.9	100.0	6.8	40.6	46.2	6.4	100.0	587
Wealth quintile													
Lowest	38.3	1,839	3.9	34.4	61.7	0.0	100.0	4.9	53.7	39.4	2.1	100.0	704
Second	40.9	2,118	4.5	35.3	59.8	0.4	100.0	7.2	47.0	42.6	3.1	100.0	866
Middle	43.6	2,246	6.2	26.1	67.4	0.3	100.0	7.6	51.8	36.6	4.0	100.0	980
Fourth	45.7	2,466	7.7	29.6	62.6	0.1	100.0	10.6	51.6	33.6	4.2	100.0	1,126
Highest	55.4	2,935	11.5	40.5	47.4	0.6	100.0	12.1	43.7	39.4	4.8	100.0	1,626
Total 15-49	45.7	11,606	7.6	33.8	58.3	0.3	100.0	9.2	48.8	38.2	3.9	100.0	5,302
50-59	52.9	1,082	8.0	24.6	66.0	1.4	100.0	13.9	50.1	30.7	5.3	100.0	572
Total 15-59	46.3	12,688	7.6	32.9	59.0	0.5	100.0	9.7	48.9	37.4	4.0	100.0	5,874

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

Table 3.13.1 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 DHS 2016

Background characteristic	Percentage of all women who ever chewed chat	Number of women	Among women who ever chewed chat, number of days they chewed chat in the last 30 days				Total	Number of women who ever chewed chat
			None	1-5	6+	Don't know		
Age								
15-19	7.4	3,381	8.6	24.6	65.2	1.7	100.0	250
20-24	10.0	2,762	11.5	23.3	64.9	0.3	100.0	277
25-29	13.5	2,957	9.0	28.8	60.0	2.3	100.0	399
30-34	15.2	2,345	11.6	22.6	65.4	0.4	100.0	357
35-39	14.3	1,932	11.0	18.5	68.2	2.4	100.0	276
40-44	14.9	1,290	10.2	22.4	67.1	0.3	100.0	192
45-49	15.0	1,017	7.6	28.7	63.7	0.0	100.0	153
Residence								
Urban	9.0	3,476	27.3	31.9	40.0	0.8	100.0	312
Rural	13.0	12,207	6.7	22.6	69.4	1.2	100.0	1,591
Region								
Tigray	0.6	1,129	*	*	*	*	100.0	7
Affar	8.0	128	18.3	51.3	27.4	3.1	100.0	10
Amhara	7.4	3,714	21.3	56.5	20.0	2.2	100.0	276
Oromiya	23.8	5,701	4.6	14.7	79.9	0.8	100.0	1,356
Somali	2.4	459	(6.4)	(22.8)	(68.8)	(2.0)	100.0	11
Benishangul-Gumuz	3.2	160	(14.7)	(56.1)	(29.1)	(0.0)	100.0	5
SNNPR	3.8	3,288	13.2	47.8	37.7	1.3	100.0	126
Gambela	4.7	44	(30.3)	(54.2)	(9.4)	(6.0)	100.0	2
Harari	32.0	38	4.6	7.7	87.7	0.0	100.0	12
Addis Ababa	7.7	930	64.4	25.7	7.0	2.9	100.0	71
Dire Dawa	28.7	90	10.7	27.7	58.8	2.8	100.0	26
Education								
No education	15.5	7,498	6.6	19.1	73.6	0.8	100.0	1,159
Primary	11.1	5,490	10.8	32.0	55.1	2.1	100.0	610
Secondary	5.3	1,817	32.6	30.8	36.6	0.0	100.0	95
More than secondary	4.4	877	49.7	34.6	14.1	1.5	100.0	38
Wealth quintile								
Lowest	13.0	2,633	3.4	17.0	79.5	0.1	100.0	341
Second	17.4	2,809	4.9	16.4	78.2	0.5	100.0	490
Middle	14.5	2,978	6.5	23.4	68.9	1.2	100.0	432
Fourth	9.3	3,100	12.7	32.7	51.1	3.5	100.0	287
Highest	8.5	4,163	26.1	35.6	37.1	1.2	100.0	353
Total	12.1	15,683	10.1	24.1	64.6	1.2	100.0	1,904

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 3.13.2 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 DHS 2016

Background characteristic	Percentage of all men who ever chewed chat	Number of men	Among men who ever chewed chat, number of days they chewed chat in the last 30 days					Number of men who ever chewed chat
			None	1-5	6+	Don't know	Total	
Age								
15-19	13.8	2,572	6.8	25.1	67.7	0.4	100.0	355
20-24	23.8	1,883	12.3	26.4	61.4	0.0	100.0	449
25-29	33.6	1,977	13.0	21.1	65.1	0.7	100.0	664
30-34	34.1	1,635	10.3	28.7	61.0	0.0	100.0	558
35-39	31.9	1,386	15.0	21.1	63.7	0.3	100.0	441
40-44	31.4	1,206	16.4	24.5	58.8	0.2	100.0	379
45-49	27.1	947	13.3	17.4	68.8	0.5	100.0	256
Residence								
Urban	25.4	2,303	27.0	28.8	42.9	1.3	100.0	586
Rural	27.1	9,302	9.0	22.6	68.3	0.1	100.0	2,517
Region								
Tigray	4.7	708	48.5	21.9	23.7	5.9	100.0	33
Affar	30.9	82	4.7	38.1	55.4	1.7	100.0	25
Amhara	11.6	2,914	23.1	49.8	27.2	0.0	100.0	339
Oromiya	42.2	4,409	6.6	17.7	75.5	0.2	100.0	1,860
Somali	44.8	301	4.7	16.0	79.0	0.2	100.0	135
Benishangul-Gumuz	20.6	118	16.9	58.1	25.0	0.0	100.0	24
SNNPR	18.3	2,371	18.5	28.1	53.5	0.0	100.0	434
Gambela	26.5	35	22.3	38.7	37.2	1.8	100.0	9
Harari	73.5	29	1.3	7.7	91.0	0.0	100.0	21
Addis Ababa	31.2	573	40.2	30.4	27.9	1.5	100.0	179
Dire Dawa	64.4	66	4.9	14.6	80.3	0.2	100.0	43
Education								
No education	31.3	3,203	6.5	19.2	74.2	0.0	100.0	1,002
Primary	26.7	5,608	10.7	24.9	64.3	0.1	100.0	1,498
Secondary	20.9	1,785	22.3	29.4	47.8	0.5	100.0	373
More than secondary	22.7	1,010	33.5	27.3	36.5	2.6	100.0	229
Wealth quintile								
Lowest	32.3	1,839	5.9	23.7	70.1	0.2	100.0	595
Second	31.5	2,118	6.6	21.6	71.8	0.0	100.0	668
Middle	27.7	2,246	8.4	23.1	68.5	0.0	100.0	622
Fourth	21.1	2,466	15.4	21.4	63.1	0.0	100.0	519
Highest	23.8	2,935	24.9	28.3	45.6	1.1	100.0	698
Total 15-49	26.7	11,606	12.4	23.8	63.5	0.3	100.0	3,102
50-59	29.2	1,082	18.4	23.4	57.8	0.5	100.0	316
Total 15-59	26.9	12,688	13.0	23.8	62.9	0.3	100.0	3,418

MARRIAGE AND SEXUAL ACTIVITY 4

Key Findings

- ***Current marital status:*** Sixty-five percent of women and 56% of men in Ethiopia are currently in a union.
- ***Polygyny:*** Eleven percent of currently married women report that their husband has multiple wives.
- ***Age at first marriage:*** Marriage is nearly universal in Ethiopia, although women marry about 6.6 years earlier than men on average. Median age at first marriage is 17.1 years among women and 23.7 years among men age 25-49.
- ***Sexual initiation:*** The median age at first sexual intercourse is 0.5 years earlier than the median age at first marriage for women and 2.5 years earlier for men; this indicates that both women and men engage in sex before marriage.
- ***Trends:*** Age at first marriage has dramatically changed for women and girls. More than 30% of women born in the seventies married before age 15, while for those born in the nineties, this indicator is around 10 percent.

Marriage and sexual activity help determine the extent to which women are exposed to the risk of pregnancy. Thus, they are important determinants of fertility levels. However, the timing and circumstances of marriage and sexual activity also have profound consequences for women's and men's lives.

4.1 MARITAL STATUS

Currently married

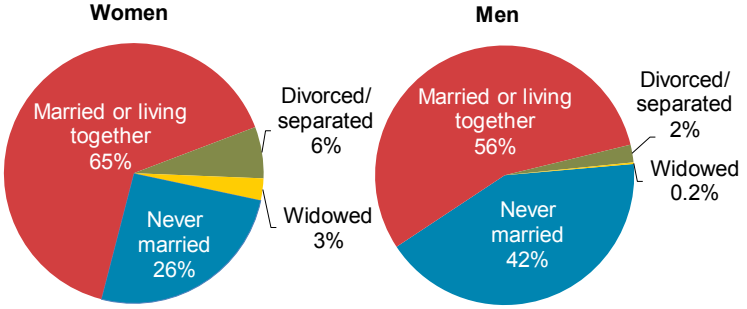
Women and men who report being married or living together with a partner as though married at the time of the survey.

Sample: Women and men age 15-49

Marriage is nearly universal in Ethiopia. By age 45-49, only 1% of women and 2% of men have never been married. Two in three (65%) women and 56% of men age 15-49 are currently married or living together with a partner (**Table 4.1** and **Figure 4.1**). Overall, women are more likely than men to be separated, divorced, or widowed. Women are less likely than men to be single; one in four women (26%) and 42% of men have never been married.

Figure 4.1 **Marital status**

Percent distribution of women and men age 15-49



Trends: Overall, the percentages of women and men who are currently in a union have remained at the same level since the 2000 EDHS.

Patterns by background characteristics

- There are marked differences in marital status by sex and age. The percentage of women in a union is higher than that among men until age 34. For example, 17% of women age 15-19 are currently married or living together with a partner, as compared with only 1% of men in the same age category. This pattern reverses at age 35 and older.
- The percentage of women currently in a union increases up to age 30-34, at which point it starts to decline. Among men, the percentage increases as age increases.
- In general, the proportion of women who are divorced or separated increases with age. There are no differentials by age in the proportions of men who are divorced, separated, or widowed.

4.2 POLYGYNY

Polygyny

Women who report that their husband or partner has other wives are considered to be in a polygynous marriage.

Sample: Currently married women age 15-49

Eleven percent of women age 15-49 reported that their husband or partner has other wives (**Table 4.2.1**), while 5% of men reported having more than one wife (**Table 4.2.2**).

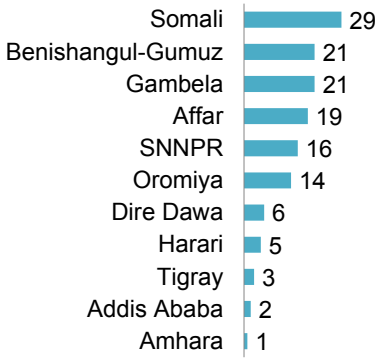
Trends: The percentage of women who report being in a polygynous union has declined slightly over time, from 14% in 2000 and 12% in 2005 to 11% in both 2011 and 2016.

Patterns by background characteristics

- Older women are much more likely than younger women to have co-wives. The percentage of women with co-wives ranges from 4% among those age 15-19 to 18% among those age 45-49 (**Table 4.2.1**).
- Women living in rural areas are more likely to report having co-wives (12%) than women living in urban areas (5%).
- The Somali region has the highest percentage of women who report being in a polygynous union (29%), while the Amhara region has the lowest percentage (1%) (**Figure 4.2**).
- Women with no education are much more likely to have co-wives (14%) than women who have attended school (7% or less) (**Table 4.2.1**).

Figure 4.2 **Polygyny by region**

Percentage of currently married women age 15-49 in a polygynous union



4.3 AGE AT FIRST MARRIAGE

Median age at first marriage

Age by which half of respondents have been married.

Sample: Women age 20-49 and 25-49 and men age 20-49, 25-49, 20-59, and 25-59

In Ethiopia, women tend to marry considerably earlier than men. The median age at first marriage is 17.1 years among women age 25-49 and 23.8 years among men age 25-59. Fifty-eight percent of women and only 9% of men age 25-49 marry before their 18th birthday (**Table 4.3**).

Trends: The median age at first marriage among women age 25-49 has increased slightly since 2011, from 16.5 years to 17.1 years. During the same period, the percentage of women marrying before age 18 has declined from 63% to 58%. Eight percent of women married before their 15th birthday in 2011, as compared with 6% in 2016. Among men age 25-59, median age at first marriage increased slightly from 23.1 years in 2011 to 23.8 years in 2016.

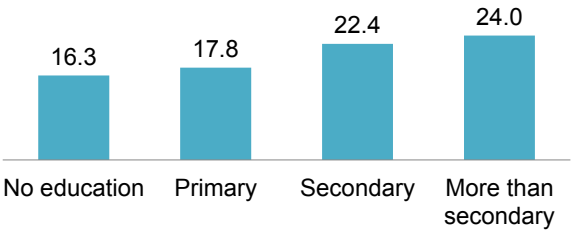
When the data is analysed by cohort of women, defined by their age at the moment of the interview, those changes look more dramatic. The result shows that the percentage of women 45-49 married before age 15 is 29%, while this indicator is 14% for women 20-24 and 6% for the youngest women (15-19).

Patterns by background characteristics

- Women living in urban areas marry later than women living in rural areas. Median age at first marriage is 2.6 years older among urban women than rural women (19.3 years versus 16.7 years) (**Table 4.4**).
- Median age at first marriage varies by region, from 15.7 years among women in Amhara to 23.9 years among women in Addis Ababa.
- Median age at first marriage increases with increasing education, from 16.3 years among women with no education to 24.0 years among women with more than a secondary education (**Figure 4.3**).

Figure 4.3 **Women's median age at marriage by education**

Median age at first marriage among women age 25-49



4.4 AGE AT FIRST SEXUAL INTERCOURSE

Median age at first sexual intercourse

Age by which half of respondents have had sexual intercourse.

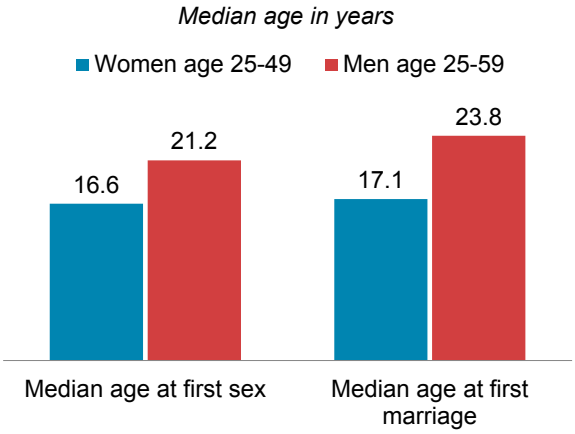
Sample: Women age 20-49 and 25-49 and men age 20-49, 25-49, 20-59, and 25-59

In Ethiopia, the median age at first sexual intercourse among women age 25-49 is 16.6 years. One in four (24%) women have first sexual intercourse before age 15 and 62% before age 18. By age 20, 76% of women have had sexual intercourse (**Table 4.5**).

On average, men in Ethiopia initiate sexual intercourse at older ages than women. The median age at first intercourse among men age 25-49 is 21.2 years. Only 2% of men have first sex before age 15, while 17% have initiated sexual intercourse by age 18. By age 20, 36% of men have had sexual intercourse.

Age at first marriage is widely considered a proxy indicator for the age at which women begin to be exposed to the risks inherent in sexual activity. A comparison of the median age at first intercourse with the median age at first marriage can be used as a measure of whether respondents engage in sex before marriage. Among women age 25-49 in Ethiopia, the median age at first intercourse is 0.5 years younger than the median age at first marriage (16.6 years versus 17.1 years). This indicates that many women engage in sex before marriage (**Figure 4.4**). Thus, women in Ethiopia may be exposed to the risk of pregnancy and begin childbearing at an even earlier age than indicated by the median age at first marriage.

Figure 4.4 **Median age at first sex and first marriage**

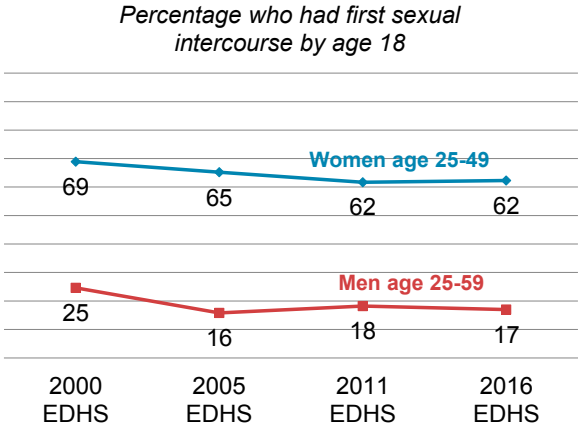


The median age at first intercourse among men age 25-49 is 21.2 years. By contrast, the median age at first marriage among men age 25-49 is 23.7 years. Thus, on average, men in Ethiopia initiate sexual intercourse 2.5 years before marriage.

Trends: The percentages of women age 25-49 and men age 25-59 who have had sexual intercourse by age 18 have declined over time. Among women, the proportion having first sex by age 18 declined from 69% in 2000 to 62% in 2016. The corresponding figures among men are 25% and 17% (**Figure 4.5**).

Median age at first sexual intercourse among women age 25-49 has not changed over the past 5 years (16.6 years in both 2011 and 2016). The corresponding figures among men age 25-59 are 21.1 years and 21.2 years. However, as indicated in the case of age at first marriage, the age-disaggregated data by cohort shows a consistent and remarkable decline (see Table 4.5), similar to the decline observed in age at first marriage.

Figure 4.5 **Trends in early sexual intercourse**



Patterns by background characteristics

- Rural women begin having sexual intercourse about 2.2 years earlier than urban women (16.3 years versus 18.5 years) (**Table 4.6**).
- By region, women's median age at first sexual intercourse is lowest in Amhara (15.5 years) and highest in Addis Ababa (20.4 years).
- Median age at first sexual intercourse generally increases with increasing education among both women and men. There is a 6.3-year gap in median age at first sex between women with no education and women with more than a secondary education and a corresponding 1.3-year gap among men.

4.5 Recent Sexual Activity

The survey also collected data on recent sexual activity. Overall, 54% of women and 49% of men age 15-49 reported having sexual intercourse during the 4 weeks before the survey. Twenty-three percent of

women and 33% of men have never had sexual intercourse. For more information on recent sexual activity, see **Tables 4.7.1** and **4.7.2**.

LIST OF TABLES

For more information on marriage and sexual activity, see the following tables:

- **Table 4.1 Current marital status**
- **Table 4.2.1 Number of women's co-wives**
- **Table 4.2.2 Number of men's wives**
- **Table 4.3 Age at first marriage**
- **Table 4.4 Median age at first marriage according to background characteristics**
- **Table 4.5 Age at first sexual intercourse**
- **Table 4.6 Median age at first sexual intercourse according to background characteristics**
- **Table 4.7.1 Recent sexual activity: Women**
- **Table 4.7.2 Recent sexual activity: Men**

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Ethiopia DHS 2016

Age	Marital status						Total	Percentage of respondents currently in a union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
					WOMEN				
15-19	78.1	16.8	0.6	2.9	1.6	0.0	100.0	17.4	3,381
20-24	31.1	59.9	2.0	4.7	1.9	0.4	100.0	61.9	2,762
25-29	11.7	79.7	1.6	4.7	1.3	1.2	100.0	81.3	2,957
30-34	4.1	86.0	1.4	5.3	1.4	1.9	100.0	87.4	2,345
35-39	3.2	82.1	1.4	6.4	1.3	5.6	100.0	83.5	1,932
40-44	1.8	81.3	1.1	5.3	1.1	9.2	100.0	82.5	1,290
45-49	1.1	77.1	1.5	7.9	1.6	10.9	100.0	78.5	1,017
Total 15-49	25.7	63.9	1.3	4.9	1.5	2.7	100.0	65.2	15,683
					MEN				
15-19	98.3	1.0	0.0	0.4	0.3	0.0	100.0	1.0	2,572
20-24	72.3	23.0	2.1	2.3	0.2	0.0	100.0	25.2	1,883
25-29	34.1	58.1	4.0	2.8	0.7	0.3	100.0	62.1	1,977
30-34	11.7	78.9	6.1	2.5	0.6	0.3	100.0	85.0	1,635
35-39	4.7	86.3	6.5	1.7	0.3	0.5	100.0	92.8	1,386
40-44	3.5	89.5	4.7	1.6	0.4	0.3	100.0	94.2	1,206
45-49	2.1	92.1	3.2	2.1	0.0	0.5	100.0	95.3	947
Total 15-49	42.1	52.1	3.4	1.8	0.4	0.2	100.0	55.5	11,606
50-59	1.2	92.6	2.5	1.8	0.4	1.6	100.0	95.1	1,082
Total 15-59	38.6	55.5	3.3	1.8	0.4	0.4	100.0	58.9	12,688

Table 4.2.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, and percentage of currently married women with one or more co-wives, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Number of co-wives				Total	Percentage with one or more co-wives[1]	Number of women
	0	1	2+	Don't know			
Age							
15-19	96.1	3.5	0.0	0.4	100.0	3.5	588
20-24	95.6	3.8	0.2	0.5	100.0	3.9	1,710
25-29	92.1	6.3	1.0	0.6	100.0	7.3	2,402
30-34	86.2	11.9	1.3	0.6	100.0	13.2	2,049
35-39	85.3	12.0	1.7	1.0	100.0	13.8	1,613
40-44	82.2	14.5	2.5	0.7	100.0	17.1	1,064
45-49	81.7	14.1	3.5	0.8	100.0	17.6	798
Residence							
Urban	93.5	4.6	0.7	1.3	100.0	5.2	1,658
Rural	87.9	10.1	1.5	0.5	100.0	11.6	8,565
Region							
Tigray	95.0	2.8	0.4	1.7	100.0	3.2	658
Affar	80.2	16.4	2.8	0.5	100.0	19.2	96
Amhara	97.9	0.7	0.2	1.2	100.0	0.9	2,414
Oromiya	86.1	12.1	1.5	0.3	100.0	13.6	3,987
Somali	70.8	24.7	4.5	0.1	100.0	29.2	324
Benishangul-Gumuz	79.1	15.2	5.7	0.0	100.0	20.9	114
SNNPR	84.2	13.7	1.9	0.2	100.0	15.6	2,173
Gambela	78.2	15.0	5.6	1.2	100.0	20.6	29
Harari	95.5	4.2	0.3	0.0	100.0	4.5	25
Addis Ababa	95.9	1.4	0.4	2.4	100.0	1.8	355
Dire Dawa	93.6	4.9	0.8	0.7	100.0	5.7	50
Education							
No education	85.7	12.0	1.8	0.6	100.0	13.8	6,253
Primary	93.0	5.8	0.8	0.5	100.0	6.6	2,895
Secondary	95.3	2.4	0.1	2.1	100.0	2.5	654
More than secondary	96.7	2.1	0.3	0.9	100.0	2.4	421
Wealth quintile							
Lowest	84.4	13.5	2.1	0.1	100.0	15.6	1,953
Second	88.4	9.6	1.4	0.6	100.0	11.0	2,074
Middle	88.6	10.1	0.7	0.6	100.0	10.8	2,057
Fourth	88.8	8.4	2.0	0.9	100.0	10.3	1,999
Highest	93.5	4.9	0.6	1.1	100.0	5.5	2,140
Total	88.8	9.2	1.3	0.7	100.0	10.5	10,223

[1] Excludes women who responded "don't know" when asked if their husband has other wives

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 DHS 2016

Background characteristic	Number of wives		Total	Number of men
	1	2+		
Age				
15-19	(100.0)	(0.0)	100.0	26
20-24	99.3	0.7	100.0	474
25-29	98.2	1.8	100.0	1,227
30-34	96.6	3.4	100.0	1,389
35-39	94.4	5.6	100.0	1,285
40-44	91.9	8.1	100.0	1,137
45-49	92.0	8.0	100.0	903
Residence				
Urban	98.4	1.6	100.0	1,011
Rural	94.6	5.4	100.0	5,430
Region				
Tigray	99.8	0.2	100.0	352
Affar	89.0	11.0	100.0	48
Amhara	99.4	0.6	100.0	1,633
Oromiya	93.7	6.3	100.0	2,558
Somali	88.1	11.9	100.0	174
Benishangul-Gumuz	90.2	9.8	100.0	72
SNNPR	92.3	7.7	100.0	1,323
Gambela	91.8	8.2	100.0	17
Harari	96.1	3.9	100.0	16
Addis Ababa	100.0	0.0	100.0	217
Dire Dawa	98.2	1.8	100.0	32
Education				
No education	95.1	4.9	100.0	2,558
Primary	93.9	6.1	100.0	2,769
Secondary	98.3	1.7	100.0	625
More than secondary	99.3	0.7	100.0	489
Wealth quintile				
Lowest	92.8	7.2	100.0	1,161
Second	96.0	4.0	100.0	1,359
Middle	95.0	5.0	100.0	1,310
Fourth	94.2	5.8	100.0	1,255
Highest	97.6	2.4	100.0	1,357
Total 15-49	95.2	4.8	100.0	6,441
50-59	87.0	13.0	100.0	1,029
Total 15-59	94.1	5.9	100.0	7,471

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

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 DHS 2016

Current age	Percentage first married by exact age: 15	18	20	22	25	Percentage never married	Number of respondents	Median age at first marriage
				WOMEN				
15-19	5.7	na	na	na	na	78.1	3,381	a
20-24	14.1	40.3	57.8	na	na	31.1	2,762	19.0
25-29	20.5	49.3	65.5	75.0	84.8	11.7	2,957	18.1
30-34	27.3	61.3	74.0	82.8	90.9	4.1	2,345	16.9
35-39	26.8	60.2	73.2	81.8	87.6	3.2	1,932	16.8
40-44	31.9	66.0	77.7	84.7	92.0	1.8	1,290	16.2
45-49	29.1	64.0	75.7	83.2	90.8	1.1	1,017	16.5
20-49	23.3	54.2	68.7	na	na	11.3	12,302	17.5
25-49	25.9	58.3	71.9	80.5	88.5	5.6	9,540	17.1
				MEN				
15-19	0.0	na	na	na	na	98.3	2,572	a
20-24	0.2	5.0	13.4	na	na	72.3	1,883	a
25-29	0.4	7.9	16.9	29.2	51.6	34.1	1,977	24.7
30-34	0.4	8.2	21.6	36.8	58.7	11.7	1,635	23.7
35-39	0.8	10.1	23.2	40.3	64.1	4.7	1,386	23.1
40-44	0.3	9.7	26.6	43.0	62.4	3.5	1,206	22.9
45-49	0.6	10.9	24.6	39.7	59.3	2.1	947	23.4
20-49	0.4	8.2	20.1	na	na	26.1	9,033	a
25-49	0.5	9.1	21.9	36.8	58.5	13.9	7,151	23.7
20-59	0.5	8.3	20.0	na	na	23.4	10,116	a
25-59	0.5	9.1	21.6	36.2	57.8	12.2	8,233	23.8

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% of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Table 4.4 Median age at first marriage according to 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 DHS 2016

Background characteristic	Women age		Men age
	20-49	25-49	25-59
Residence			
Urban	a	19.3	a
Rural	17.0	16.7	23.1
Region			
Tigray	17.2	16.6	24.8
Affar	16.4	16.4	a
Amhara	16.2	15.7	22.5
Oromiya	17.4	17.2	24.0
Somali	18.1	18.1	24.1
Benishangul-Gumuz	17.1	16.8	22.7
SNNPR	18.2	17.7	23.5
Gambela	17.3	16.9	23.8
Harari	18.5	18.3	a
Addis Ababa	a	23.9	a
Dire Dawa	18.7	18.1	a
Education			
No education	16.4	16.3	22.7
Primary	18.1	17.8	23.2
Secondary	a	22.4	a
More than secondary	a	24.0	a
Wealth quintile			
Lowest	17.1	16.9	23.0
Second	16.6	16.4	23.4
Middle	17.0	16.7	23.3
Fourth	17.5	16.9	22.7
Highest	19.9	18.7	a
Total	17.5	17.1	23.8

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% of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

Table 4.5 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 DHS 2016

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number	Median age at first intercourse
				WOMEN				
15-19	6.3	na	na	na	na	75.4	3,381	a
20-24	13.2	43.1	62.1	na	na	26.4	2,762	18.6
25-29	19.8	52.5	67.6	77.9	87.1	8.6	2,957	17.7
30-34	23.9	64.3	78.6	85.4	90.8	2.9	2,345	16.6
35-39	23.5	65.7	77.6	85.7	90.1	1.7	1,932	16.5
40-44	30.1	71.0	82.3	90.4	94.0	0.8	1,290	15.9
45-49	29.4	69.0	82.7	88.5	93.7	0.5	1,017	15.9
20-49	21.6	58.0	72.8	na	na	8.9	12,302	17.1
25-49	24.0	62.3	75.9	84.1	90.2	3.9	9,540	16.6
15-24	9.4	na	na	na	na	53.4	6,143	a
				MEN				
15-19	0.8	na	na	na	na	91.9	2,572	a
20-24	1.3	12.0	29.6	na	na	51.8	1,883	a
25-29	2.2	16.1	33.9	51.6	73.5	18.9	1,977	21.8
30-34	1.4	17.8	37.3	57.6	76.0	5.4	1,635	21.1
35-39	1.3	15.9	35.7	57.8	77.1	1.2	1,386	21.0
40-44	2.1	18.8	38.0	59.3	77.9	0.8	1,206	20.9
45-49	2.1	16.9	38.9	58.2	75.5	1.1	947	20.8
20-49	1.7	16.0	35.0	na	na	16.3	9,033	a
25-49	1.8	17.0	36.4	56.3	75.8	7.0	7,151	21.2
15-24	1.0	na	na	na	na	74.9	4,455	a
20-59	1.6	16.1	34.9	na	na	14.6	10,116	a
25-59	1.7	17.0	36.2	56.0	75.6	6.1	8,233	21.2

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

Table 4.6 Median age at first sexual intercourse according to background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 25-59, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Women age 20-49	Women age 25-49	Men age 25-59
Residence			
Urban	19.3	18.5	21.5
Rural	16.6	16.3	21.1
Region			
Tigray	16.6	16.1	22.1
Affar	16.4	16.2	20.3
Amhara	15.8	15.5	20.8
Oromiya	17.0	16.7	20.9
Somali	18.0	17.9	22.7
Benishangul-Gumuz	16.9	16.5	19.0
SNNPR	18.2	17.8	22.1
Gambela	16.6	16.2	19.5
Harari	18.1	17.7	22.5
Addis Ababa	a	20.4	21.1
Dire Dawa	18.1	17.7	22.0
Education			
No education	16.0	16.0	20.9
Primary	17.6	17.1	21.0
Secondary	a	20.8	22.0
More than secondary	a	22.3	22.2
Wealth quintile			
Lowest	16.6	16.4	20.9
Second	16.3	16.0	21.7
Middle	16.7	16.4	21.2
Fourth	16.9	16.4	20.9
Highest	18.7	18.0	21.3
Total	17.1	16.6	21.2

a = Omitted because less than 50% of the respondents had sexual intercourse for the first time before reaching the beginning of the age group

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 DHS 2016

Background characteristic	Timing of last sexual intercourse				Total	Number of women
	Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse		
Age						
15-19	15.0	5.8	3.8	75.4	100.0	3,381
20-24	51.2	14.2	8.3	26.4	100.0	2,762
25-29	69.4	13.6	8.4	8.6	100.0	2,957
30-34	69.3	15.7	12.1	2.9	100.0	2,345
35-39	68.6	14.0	15.7	1.7	100.0	1,932
40-44	68.1	11.0	20.1	0.8	100.0	1,290
45-49	59.7	12.4	27.3	0.5	100.0	1,017
Marital status						
Never married	1.9	3.0	5.1	90.1	100.0	4,036
Married or living together	80.6	14.5	4.8	0.1	100.0	10,223
Divorced/separated/widowed	6.4	20.5	72.6	0.6	100.0	1,423
Marital duration[2]						
0-4 years	78.3	17.9	3.4	0.3	100.0	1,788
5-9 years	82.1	13.3	4.6	0.0	100.0	1,700
10-14 years	80.0	16.0	4.0	0.0	100.0	1,667
15-19 years	83.3	10.2	6.5	0.0	100.0	1,326
20-24 years	83.6	11.8	4.6	0.0	100.0	975
25+ years	77.5	14.7	7.8	0.0	100.0	975
Married more than once	80.1	15.5	4.5	0.0	100.0	1,792
Residence						
Urban	38.8	12.9	15.4	32.9	100.0	3,476
Rural	57.8	11.8	9.8	20.5	100.0	12,207
Region						
Tigray	41.8	20.2	15.5	22.4	100.0	1,129
Affar	53.8	17.5	14.2	14.2	100.0	128
Amhara	55.1	13.2	11.9	19.8	100.0	3,714
Oromiya	58.9	10.0	10.5	20.7	100.0	5,701
Somali	48.9	18.0	11.0	22.0	100.0	459
Benishangul-Gumuz	61.0	9.6	9.2	20.2	100.0	160
SNNPR	54.3	9.8	7.5	28.3	100.0	3,288
Gambela	43.2	20.7	20.6	15.4	100.0	44
Harari	45.3	18.2	14.6	21.9	100.0	38
Addis Ababa	30.0	14.4	17.1	38.5	100.0	930
Dire Dawa	44.0	14.0	16.0	26.0	100.0	90
Education						
No education	68.2	13.7	12.7	5.4	100.0	7,498
Primary	43.7	10.4	9.7	36.3	100.0	5,490
Secondary	29.7	9.3	8.5	52.3	100.0	1,817
More than secondary	40.4	14.3	10.6	34.7	100.0	877
Wealth quintile						
Lowest	57.9	14.8	12.9	14.4	100.0	2,633
Second	60.3	12.0	10.1	17.7	100.0	2,809
Middle	57.5	12.3	9.2	21.0	100.0	2,978
Fourth	55.2	10.0	8.8	25.9	100.0	3,100
Highest	42.3	11.8	13.5	32.4	100.0	4,163
Total	53.6	12.1	11.0	23.3	100.0	15,683

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

Table 4.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Timing of last sexual intercourse			Never had sexual intercourse	Total	Number of men
	Within the past 4 weeks	Within 1 year[1]	One or more years			
Age						
15-19	2.4	3.3	2.4	91.9	100.0	2,572
20-24	26.3	13.2	8.7	51.8	100.0	1,883
25-29	56.3	16.6	8.2	18.9	100.0	1,977
30-34	74.7	14.4	5.5	5.4	100.0	1,635
35-39	78.2	14.9	5.7	1.2	100.0	1,386
40-44	79.4	14.8	5.0	0.8	100.0	1,206
45-49	83.8	10.2	4.9	1.1	100.0	947
Marital status						
Never married	5.0	9.0	7.7	78.3	100.0	4,882
Married or living together	84.5	12.9	2.4	0.1	100.0	6,441
Divorced/separated/widowed	12.9	37.3	47.0	2.7	100.0	282
Marital duration[2]						
0-4 years	84.0	13.2	2.3	0.4	100.0	1,315
5-9 years	81.5	15.4	3.1	0.0	100.0	1,105
10-14 years	83.8	13.8	2.4	0.0	100.0	1,000
15-19 years	83.4	14.9	1.8	0.0	100.0	673
20-24 years	86.5	10.5	3.0	0.0	100.0	530
25+ years	88.3	9.5	2.2	0.0	100.0	258
Married more than once	86.8	11.0	2.0	0.2	100.0	1,559
Residence						
Urban	41.3	16.6	9.2	32.9	100.0	2,303
Rural	51.3	10.7	4.8	33.1	100.0	9,302
Region						
Tigray	40.6	16.7	5.5	37.2	100.0	708
Affar	55.9	19.7	6.8	17.7	100.0	82
Amhara	49.8	11.3	6.0	32.8	100.0	2,914
Oromiya	53.4	9.7	4.7	32.2	100.0	4,409
Somali	47.2	10.8	3.8	38.2	100.0	301
Benishangul-Gumuz	56.9	14.0	6.0	23.1	100.0	118
SNNPR	48.6	9.6	5.9	35.9	100.0	2,371
Gambela	43.9	23.8	10.0	22.3	100.0	35
Harari	41.2	20.4	5.9	32.5	100.0	29
Addis Ababa	30.3	32.1	11.1	26.5	100.0	573
Dire Dawa	42.0	17.0	10.3	30.7	100.0	66
Education						
No education	68.3	12.6	4.6	14.5	100.0	3,203
Primary	44.8	8.9	4.5	41.8	100.0	5,608
Secondary	31.3	14.0	9.2	45.6	100.0	1,785
More than secondary	46.4	22.6	9.5	21.5	100.0	1,010
Wealth quintile						
Lowest	54.4	10.7	4.0	30.9	100.0	1,839
Second	57.0	10.3	4.2	28.5	100.0	2,118
Middle	50.5	10.0	4.7	34.7	100.0	2,246
Fourth	46.2	10.8	5.9	37.0	100.0	2,466
Highest	42.4	16.1	8.4	33.0	100.0	2,935
Total 15-49	49.4	11.9	5.7	33.1	100.0	11,606
50-59	75.8	16.2	7.8	0.2	100.0	1,082
Total 15-59	51.6	12.3	5.9	30.3	100.0	12,688

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

FERTILITY 5

Key Findings

- ***Total fertility rate:*** The total fertility rate for the 3 years preceding the survey is 4.6 children per woman (2.3 in urban areas and 5.2 in rural areas).
- ***Patterns of fertility:*** Fertility levels are much lower among highly educated women and women living in Addis Ababa.
- ***Teenage pregnancy:*** Among women age 15-19, 10% are already mothers and 2% are pregnant with their first child.
- ***Birth intervals:*** The median birth interval in Ethiopia is 34.5 months. The interval is longer in urban areas than in rural areas.
- ***Age at first birth:*** The median age at first birth among women age 25-49 is 19.2 years.

The number of children that a woman bears depends on many factors, including the age she begins childbearing, how long she waits between births, and her fecundity. Postponing first births and extending the interval between births have played a role in reducing fertility levels in many countries. These factors also have positive health consequences. In contrast, short birth intervals (of less than 24 months) are associated with harmful outcomes for both newborns and their mothers, such as preterm birth, low birth weight, and death. Childbearing at a very young age is linked to an increased risk of complications during pregnancy and childbirth and higher rates of neonatal mortality.

This chapter describes the current level of fertility in Ethiopia and some of its proximate determinants. It presents information on the total fertility rate, birth intervals, insusceptibility to pregnancy (due to postpartum amenorrhoea, postpartum abstinence, or menopause), age at first birth, and teenage childbearing.

5.1 CURRENT FERTILITY

Total fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed birth histories provided by women.

Sample: Women age 15-49

The total fertility rate (TFR) in Ethiopia is 4.6 children per woman. The age-specific fertility rate in the 15-19 age group is 80 births per 1,000 women. Fertility peaks at age 25-29 (214 births per 1,000 women) and drops thereafter, to 22 births per 1,000 women in the 45-49 age group. Age-specific fertility rates are lower in urban areas than in rural areas among women in all age groups. On average, rural women have 2.9 more children than urban women (5.2 versus 2.3 children) (**Table 5.1**).

Trends: The TFR has declined in Ethiopia over time, from 5.5 children per woman in 2000 to 4.6 children per woman in 2016, a decrease of 0.9 children. The decline is most obvious between the two most recent 5-year periods. The TFR among women in rural areas declined from 6.0 children in 2000 to 5.2 children in 2016. In urban areas, the TFR declined from 3.0 children in 2000 to 2.3 children in 2016 (**Table 5.3.1 and Figure 5.1**).

In all EDHS surveys, age-specific fertility rate are higher in women age 20-34 (**Figure 5.2**).

Figure 5.2 Trends in age-specific fertility

Births per 1,000 women

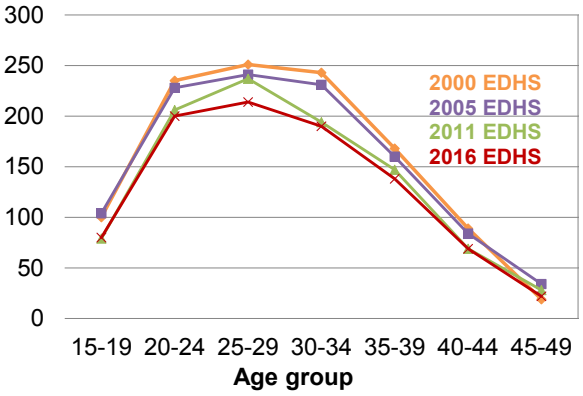
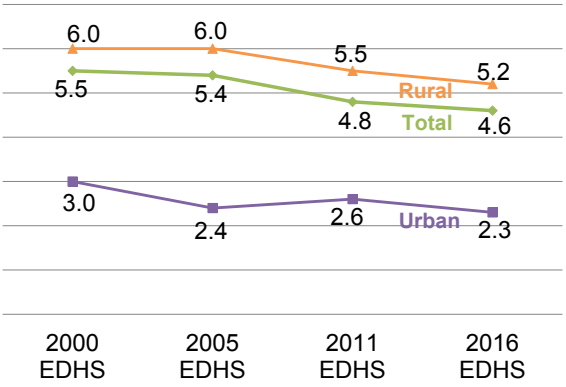


Figure 5.1 Trends in fertility by residence

TFR for the 3 years before each survey



Patterns by background characteristics

- By region, the TFR is highest in Somali (7.2 children per woman) and lowest in Addis Ababa (1.8 children per woman) (**Table 5.2** and **Figure 5.3**).
- The number of children per woman declines with increasing education. Women with no education have 3.8 more children than women with more than a secondary education (5.7 children versus 1.9 children) (**Figure 5.4**).

Figure 5.3 Fertility by region

TFR for the 3 years before the survey

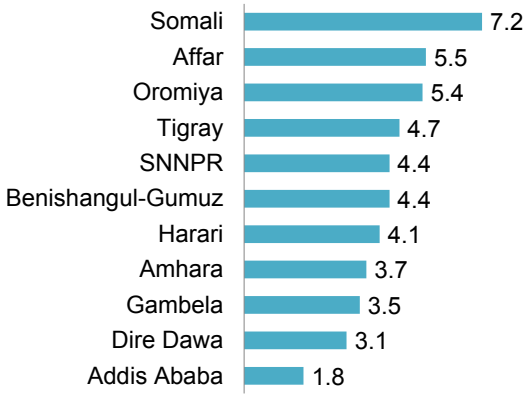
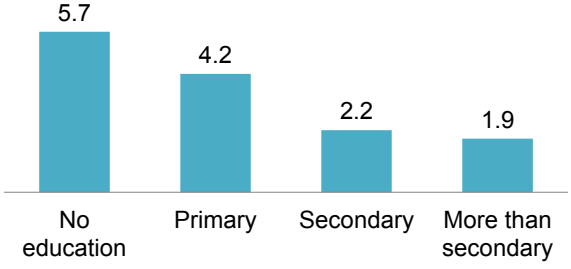


Figure 5.4 Fertility by education

TFR for the 3 years before the survey



- Similarly, women in the lowest wealth quintile have 3.8 more children than women in the highest wealth quintile (6.4 children versus 2.6 children).

5.2 Children Ever Born and Living

The 2016 EDHS also collected information on the number of children ever born to women age 15-49 and those still surviving by the time of the survey. On average, women age 45-49 have given birth to 6.6 children, of whom 5.4 survived to the time of the survey.

Of the 7.0 children on average born to currently married women age 45-49, 5.8 survived to the time of the survey. In Ethiopia, 2% of currently married women age 45-49 have never given birth. Since voluntary childlessness is rare, this is often viewed as a measure of primary sterility (**Table 5.4**).

5.3 Birth Intervals

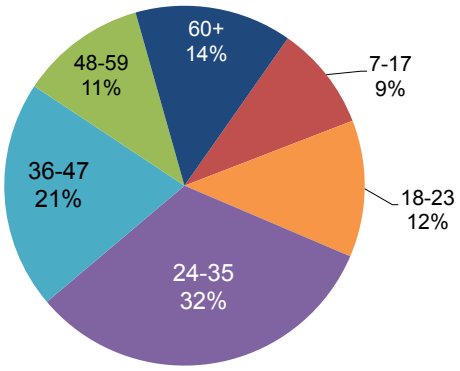
Median birth interval
Number of months since the preceding birth by which half of children are born.
Sample: Non-first births in the 5 years before the survey

Short birth intervals, particularly those less than 24 months, place newborns and their mothers at increased health risk. The median birth interval in Ethiopia is 34.5 months; thus, half of non-first births occur within 3 years after the first birth (**Table 5.5**). One in three births (32%) occur within 24-35 months of the previous birth, and one in five births (21%) occur within at least 3 years after the previous birth (**Figure 5.5**).

Trends: There are no substantial differences in the length of the median birth interval over the last 15 years in Ethiopia. Median intervals were 33.6 months in 2000, 33.8 months in 2005, 33.9 months in 2011, and 34.5 months in 2016.

Figure 5.5 **Birth intervals**

Percent distribution of non-first births by number of months preceding birth



Patterns by background characteristics

- Births to older women occur after longer intervals than births to younger women. The median birth interval among women age 40-49 is nearly 15 months longer than the interval among women age 15-19 (39.0 months versus 24.5 months).
- The median birth interval is 8 months longer if the child from the preceding birth is living than if the child has died. In contrast, there is no difference in the median birth interval by sex of the child.
- Rural women have shorter birth intervals than urban women (34.0 versus 46.8 months).
- Across regions, the median birth interval ranges from 25.1 months in Somali to 47.6 months in Addis Ababa.
- Median birth intervals increase with increasing education and wealth. For example, birth intervals among women with more than a secondary education are 13.7 months longer than intervals among women with no education (47.7 months versus 34.0 months). Likewise, birth intervals among women in the highest wealth quintile are 10.9 months longer than those among women in the lowest quintile (43.0 versus 32.1 months).

5.4 INSUSCEPTIBILITY TO PREGNANCY

Postpartum amenorrhoea

The period of time after the birth of a child and before the resumption of menstruation.

Postpartum abstinence

The period of time after the birth of a child and before the resumption of sexual intercourse.

Postpartum insusceptibility

The period of time during which a woman is considered not at risk of pregnancy because she is postpartum amenorrhoeic and/or abstaining from sexual intercourse.

Sample: Women age 15-49

Median duration of postpartum amenorrhoea

Number of months after childbirth by which time half of women have begun menstruating.

Sample: Women who gave birth in the 3 years before the survey

Median duration of postpartum insusceptibility

Number of months after childbirth by which time half of women are no longer protected against pregnancy by either postpartum amenorrhoea or abstinence from sexual intercourse.

Sample: Women who gave birth in the 3 years before the survey

Postpartum amenorrhoea refers to the interval between the birth of a child and the resumption 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.

Among births in the 3 years preceding the survey, the median duration of postpartum amenorrhoea is 14.6 months, while the median duration of abstinence from sexual intercourse is 2.3 months after giving birth. Overall, women are insusceptible to pregnancy after childbirth for a median duration of 15.5 months (**Table 5.6**).

Trends: In Ethiopia, the median duration of postpartum amenorrhoea has declined steadily since 2000, from 19.0 months to 14.6 months. In contrast, the median duration of postpartum abstinence is nearly identical over the same period (2.4 months in 2000 and 2005 and 2.3 months in 2011 and 2016). Overall, the median duration of insusceptibility declined from 19.6 months in 2000 to 15.5 months in 2016.

Patterns by background characteristics

- Women living in rural areas have a longer duration of postpartum insusceptibility than urban women (16.2 months and 7.3 months, respectively) because the period of postpartum amenorrhoea is longer among rural than urban women (15.3 months and 5.7 months, respectively). Postpartum abstinence is almost identical among rural and urban women (2.3 months and 2.4 months, respectively) (**Table 5.7**).
- Consistent with duration of postpartum amenorrhoea, duration of postpartum insusceptibility decreases as mother's education increases.
- The duration of postpartum insusceptibility generally decreases with increasing wealth, falling from 17.5 months among women in the lowest quintile to 7.7 months among women in the highest quintile.

Menopause

Women are considered to have reached menopause if they are neither pregnant nor postpartum amenorrhoeic and have not had a menstrual period in the 6 months before the survey, or if they report being menopausal.

Sample: Women age 30-49

Women who have reached menopause are no longer able to become pregnant. In Ethiopia, 16% of women age 30-49 are menopausal. The percentage of menopausal women increases with age, from 6% among those age 30-34 to 49% among those age 48-49 (**Table 5.8**).

5.5 Age at First Birth

Median age at first birth

Age by which half of women have had their first child.

Sample: Women age 20-49 and 25-49

The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and well-being of the mother and child. In Ethiopia, the median age at first birth among women age 25-49 is 19.2 years. This means that half of women age 25-49 give birth for the first time before age 20 (**Table 5.9**).

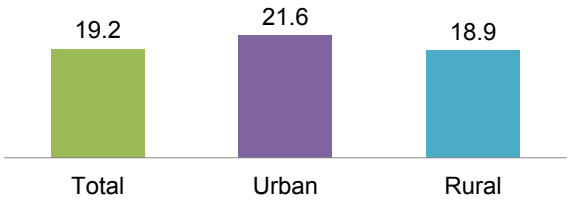
Trends: The median age at first birth seems to have changed little between 2000 and 2016. Among women age 25-49, median age at first birth was 19.0 years in 2000 and 2005, after which it increased slightly to 19.2 years in 2016. However, data by age shows an important decline in the proportion of women having birth before age 15 and 18.

Patterns by background characteristics

- Urban women age 25-49 begin childbearing 2.7 years later than their peers in rural areas (21.6 versus 18.9 years) (**Table 5.10** and **Figure 5.6**).
- By region, median age at first birth ranges from 18.4 years among women in Benishangul-Gumuz to 20.4 years among women in Harari.
- Women with a secondary education start childbearing about 6 years later than women with no education (24.5 years versus 18.6 years).

Figure 5.6 **Median age at first birth by residence**

Median age at first birth among women age 25-49



5.6 Teenage Childbearing

Teenage childbearing

Percentage of women age 15-19 who have given birth or are pregnant with their first child.

Sample: Women age 15-19

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both the mother and the child. Childbearing during adolescence is known to have adverse social consequences, particularly regarding educational attainment, as women who become mothers in their teens are more likely to drop out of school. In Ethiopia, 13% of women age 15-19 have begun childbearing: 10% have given birth, and an additional 2% are pregnant with their first child (**Table 5.11**).

Trends: The percentage of teenagers who have given birth or are pregnant with their first child has decreased since 2000, from 16% to 13%.

Patterns by background characteristics

- Teenagers in rural areas are three times more likely to have begun childbearing than their urban peers: 15% of rural teenagers have had a live birth or are pregnant, as compared with 5% of urban teenagers.
- By region, teenage childbearing is highest in Affar (23%) and Somali (19%) and lowest in Addis Ababa (3%) and Amhara (8%) (**Figure 5.7**).
- Teenage childbearing decreases with increasing education. The percentage of teenagers who have begun childbearing rises from 3% among those with more than a secondary education to 12% among those with a primary education and 28% among those with no education.
- Teenage childbearing is less common in the wealthiest households: 6% of women age 15-19 from the highest wealth quintile have begun childbearing, as compared with 24% of those from the lowest quintile (**Figure 5.8**).

Figure 5.7 Teenage pregnancy and motherhood by region

Percentage of women age 15-19 who have begun childbearing

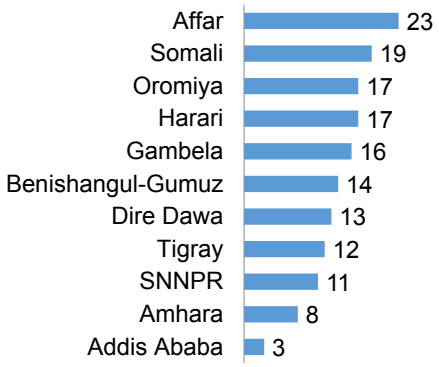
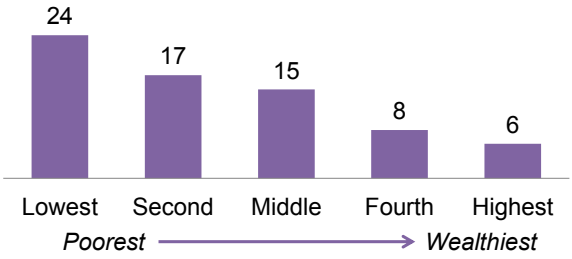


Figure 5.8 Teenage pregnancy and motherhood by household wealth

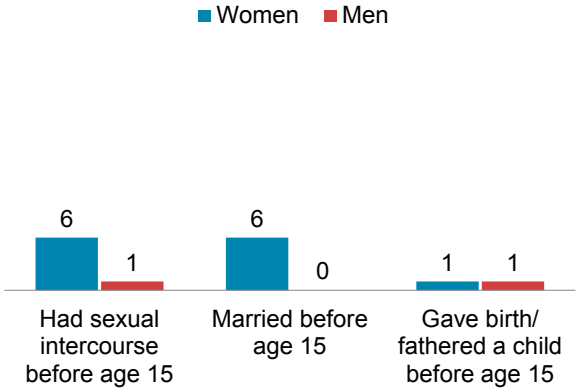
Percentage of women age 15-19 who have begun childbearing



- Women start having sexual intercourse at an earlier age than men. **Figure 5.9** shows that 6% of women age 15-19 had sexual intercourse and married before age 15, compared with less than 1% of men in the same age group.

Figure 5.9 **Sexual and reproductive health behaviours before age 15**

Percentage of women and men age 15-19



LIST OF TABLES

For more information on fertility levels and some of the determinants of fertility, see the following tables:

- **Table 5.1 Current fertility**
- **Table 5.2 Fertility by background characteristics**
- **Table 5.3.1 Trends in age-specific fertility rates**
- **Table 5.3.2 Trends in age-specific and total fertility rates**
- **Table 5.4 Children ever born and living**
- **Table 5.5 Birth intervals**
- **Table 5.6 Postpartum amenorrhoea, abstinence and insusceptibility**
- **Table 5.7 Median duration of amenorrhoea, postpartum abstinence, and postpartum insusceptibility**
- **Table 5.8 Menopause**
- **Table 5.9 Age at first birth**
- **Table 5.10 Median age at first birth**
- **Table 5.11 Teenage pregnancy and motherhood**

Table 5.1 Current fertility

Age-specific and total fertility rates, general fertility rate, and crude birth rate for the 3 years preceding the survey, according to residence, Ethiopia DHS 2016

	Residence		
Age group	Urban	Rural	Total
15-19	20	98	80
20-24	113	230	200
25-29	120	243	214
30-34	112	210	190
35-39	77	153	138
40-44	14	80	69
45-49	0	27	22
TFR (15-49)	2.3	5.2	4.6
GFR	81	177	156
CBR	23.9	33.2	31.8

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

Table 5.2 Fertility by background characteristics

Total fertility rate for the 3 years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, according to background characteristics, Ethiopia DHS 2016

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	2.3	4.6	4.3
Rural	5.2	8.0	6.8
Region			
Tigray	4.7	5.0	6.1
Affar	5.5	9.5	6.5
Amhara	3.7	5.9	6.2
Oromiya	5.4	8.3	6.7
Somali	7.2	12.9	7.4
Benishangul-Gumuz	4.4	7.3	6.7
SNNPR	4.4	8.0	6.9
Gambela	3.5	5.9	4.9
Harari	4.1	9.2	4.3
Addis Ababa	1.8	2.6	2.6
Dire Dawa	3.1	5.5	5.2
Education			
No education	5.7	8.1	6.8
Primary	4.2	7.2	5.8
Secondary	2.2	5.2	2.9
More than secondary	1.9	4.5	3.1
Wealth quintile			
Lowest	6.4	9.8	7.0
Second	5.6	9.4	6.6
Middle	4.9	7.2	6.6
Fourth	4.3	6.4	6.9
Highest	2.6	4.8	4.8
Total	4.6	7.2	6.4

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

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for 5-year periods preceding the survey, according to mother's age at the time of the birth, Ethiopia DHS 2016

	Number of years preceding survey			
Mother's age at birth	0-4	5-9	10-14	15-19
15-19	83	133	180	173
20-24	213	259	283	261
25-29	218	278	295	256
30-34	203	259	271	[252]
35-39	143	196	[233]	
40-44	75	[116]		
45-49	[22]			

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

Table 5.3.2 Trends in age-specific and total fertility rates

Age-specific and total fertility rates (TFR) for the 3-year period preceding various surveys, according to mother's age at the time of the birth, Ethiopia DHS 2016

Mother's age at birth	2000 EDHS (1997-2000)	2005 EDHS (2002-2005)	2011 EDHS (2008-2011)	2016 EDHS (2013-2016)
15-19	100	104	79	80
20-24	235	228	206	200
25-29	251	241	237	214
30-34	243	231	194	190
35-39	168	160	147	138
40-44	89	84	69	69
45-49	19	34	28	22
TFR 15-49	5.5	5.4	4.8	4.6

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

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 DHS 2016

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
								ALL WOMEN							
15-19	89.9	8.9	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,381	0.11	0.11
20-24	44.7	27.4	17.6	7.2	2.5	0.5	0.0	0.0	0.0	0.0	0.0	100.0	2,762	0.97	0.91
25-29	17.3	16.3	19.4	19.0	13.9	8.3	3.0	1.7	0.8	0.1	0.2	100.0	2,957	2.48	2.27
30-34	6.5	6.4	11.0	17.7	16.0	17.3	11.9	8.6	3.3	1.1	0.3	100.0	2,345	4.02	3.66
35-39	4.8	3.7	7.4	8.9	12.4	15.6	14.4	13.9	10.1	5.0	3.8	100.0	1,932	5.22	4.63
40-44	2.8	2.7	4.5	7.7	8.5	11.7	13.1	16.5	13.7	9.9	9.0	100.0	1,290	6.16	5.25
45-49	2.8	2.9	4.1	4.9	8.1	10.3	11.0	13.8	16.1	11.7	14.5	100.0	1,017	6.61	5.42
Total	32.5	11.6	10.2	9.6	8.2	7.8	5.9	5.6	4.1	2.4	2.2	100.0	15,683	2.84	2.51
								CURRENTLY MARRIED WOMEN							
15-19	52.1	41.9	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	588	0.54	0.52
20-24	18.6	38.2	26.9	11.4	4.0	0.8	0.1	0.0	0.0	0.0	0.0	100.0	1,710	1.47	1.38
25-29	6.1	16.1	22.2	22.3	16.4	10.2	3.3	2.1	1.0	0.1	0.2	100.0	2,402	2.90	2.64
30-34	2.4	5.3	10.0	18.0	17.4	19.0	13.0	9.6	3.8	1.2	0.3	100.0	2,049	4.34	3.95
35-39	1.8	1.8	5.3	8.6	11.9	16.3	16.4	16.2	11.9	5.5	4.3	100.0	1,613	5.69	5.06
40-44	1.3	1.3	3.5	5.8	7.1	11.7	13.5	18.5	15.4	11.2	10.7	100.0	1,064	6.62	5.65
45-49	1.5	1.7	3.1	3.8	7.6	9.5	11.9	12.6	17.7	13.1	17.4	100.0	798	7.03	5.76
Total	8.5	14.2	13.5	13.0	11.2	10.9	8.3	7.9	5.9	3.3	3.3	100.0	10,223	3.96	3.51

Table 5.5 Birth intervals

Percent distribution of non-first births in the 5 years before the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	22.8	23.6	44.7	8.4	0.5	0.0	100.0	43	24.5
20-29	12.5	13.6	35.1	20.4	9.8	8.5	100.0	3,800	32.2
30-39	7.3	11.0	31.5	20.4	12.3	17.4	100.0	4,150	36.1
40-49	5.2	12.1	25.3	21.6	12.7	23.2	100.0	960	39.0
Sex of preceding birth									
Male	9.8	12.0	32.2	21.1	10.4	14.5	100.0	4,627	34.4
Female	8.9	12.6	32.7	19.9	12.1	13.8	100.0	4,326	34.5
Survival of preceding birth									
Living	8.2	12.1	32.5	21.1	11.6	14.6	100.0	8,318	35.0
Dead	24.6	15.5	31.3	12.9	7.1	8.7	100.0	635	27.0
Birth order									
2-3	8.4	10.6	30.5	20.8	12.1	17.7	100.0	3,366	36.2
4-6	10.4	12.8	33.3	19.8	10.6	13.1	100.0	3,595	34.0
7+	9.2	14.3	34.1	21.4	11.0	10.0	100.0	1,992	33.4
Residence									
Urban	5.5	9.9	21.3	15.7	13.2	34.2	100.0	802	46.8
Rural	9.8	12.5	33.5	21.0	11.1	12.2	100.0	8,151	34.0
Region									
Tigray	4.2	7.6	29.9	22.0	16.9	19.3	100.0	542	38.9
Affar	14.3	19.9	35.1	16.4	6.6	7.8	100.0	89	27.3
Amhara	4.4	6.2	22.9	23.4	14.6	28.4	100.0	1,681	44.1
Oromiya	11.3	13.7	36.8	19.4	9.7	9.2	100.0	4,007	32.3
Somali	22.4	23.5	32.3	13.4	4.8	3.6	100.0	441	25.1
Benishangul-Gumuz	10.3	14.7	32.5	22.9	9.2	10.4	100.0	100	32.8
SNNPR	8.1	13.4	33.1	21.9	11.7	11.8	100.0	1,885	34.4
Gambela	4.6	9.3	31.4	21.3	15.0	18.6	100.0	20	38.5
Harari	10.5	15.3	32.0	16.4	10.8	15.0	100.0	20	33.0
Addis Ababa	5.6	6.9	22.1	15.9	12.7	36.8	100.0	135	47.6
Dire Dawa	11.0	18.2	28.0	19.3	8.6	14.9	100.0	34	32.4
Education									
No education	9.7	13.0	32.9	20.2	11.1	13.2	100.0	6,619	34.0
Primary	9.0	10.8	32.8	21.4	11.5	14.5	100.0	1,961	35.1
Secondary	5.1	8.0	22.2	25.0	16.7	23.0	100.0	246	43.2
More than secondary	7.4	7.6	23.4	13.0	6.9	41.7	100.0	127	47.7
Wealth quintile									
Lowest	11.6	15.6	34.0	21.5	9.9	7.5	100.0	2,250	32.1
Second	10.6	13.7	33.1	20.3	11.3	11.1	100.0	2,091	33.4
Middle	9.4	10.8	33.6	20.9	9.9	15.4	100.0	1,896	34.5
Fourth	8.0	10.4	33.1	19.7	13.1	15.7	100.0	1,607	35.5
Highest	4.6	8.5	24.9	19.5	13.5	29.1	100.0	1,108	43.0
Total	9.4	12.3	32.4	20.5	11.3	14.1	100.0	8,953	34.5

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Table 5.6 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the 3 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 DHS 2016

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible[1]	
<2	89.7	79.2	94.6	392
2-3	85.2	35.9	90.4	393
4-5	76.5	24.4	79.4	434
6-7	69.6	14.6	74.0	396
8-9	69.1	11.0	72.2	369
10-11	56.7	7.5	58.9	337
12-13	60.0	9.8	63.3	428
14-15	51.9	13.7	57.0	398
16-17	37.0	6.3	39.4	332
18-19	35.6	7.7	39.0	355
20-21	29.4	8.0	33.8	290
22-23	25.5	8.3	30.6	283
24-25	11.9	10.8	17.6	396
26-27	8.5	5.4	13.2	358
28-29	10.9	6.4	16.3	300
30-31	12.4	4.2	16.0	340
32-33	12.4	6.2	17.4	337
34-35	10.3	2.9	11.5	298
Total	44.0	15.5	48.1	6,435
Median	14.6	2.3	15.5	na
Mean	15.4	5.6	16.8	na

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

Table 5.7 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 3 years preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	13.2	2.3	14.9
30-49	15.3	2.3	16.2
Residence			
Urban	5.7	2.4	7.3
Rural	15.3	2.3	16.2
Region			
Tigray	15.4	2.8	16.2
Affar	11.8	2.6	14.6
Amhara	15.2	(2.0)	15.6
Oromiya	14.6	2.3	15.5
Somali	8.3	2.0	9.4
Benishangul-Gumuz	16.6	(2.2)	17.3
SNNPR	15.5	(2.4)	16.4
Gambela	13.3	8.0	19.5
Harari	8.8	*	11.5
Addis Ababa	4.7	2.5	5.4
Dire Dawa	(13.5)	*	14.9
Education			
No education	16.0	2.1	16.8
Primary	12.9	2.5	14.6
Secondary	6.4	(2.2)	7.2
More than secondary	(4.9)	(4.2)	(6.3)
Wealth quintile			
Lowest	15.5	2.2	17.5
Second	15.9	2.0	16.0
Middle	15.8	(2.3)	17.1
Fourth	11.6	(2.2)	12.4
Highest	6.4	2.9	7.7
Total	14.6	2.3	15.5

Note: Medians are based on 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

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, according to age, Ethiopia DHS 2016

Age	Percentage menopausal[1]	Number of women
30-34	6.3	2,345
35-39	10.9	1,932
40-41	16.9	729
42-43	21.9	441
44-45	32.0	444
46-47	41.8	364
48-49	49.2	328
Total	15.7	6,584

[1] Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred 6 or more months before the survey

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 DHS 2016

	Percentage who gave birth by exact age					Percentage who have never given	Number of	Median age
Current age	15	18	20	22	25	birth	women	at first birth
15-19	0.6	na	na	na	na	89.9	3,381	a
20-24	3.2	21.1	38.4	na	na	44.7	2,762	a
25-29	5.5	31.6	50.3	65.3	77.1	17.3	2,957	20.0
30-34	6.4	39.6	61.0	75.6	85.7	6.5	2,345	18.9
35-39	8.6	39.5	59.4	73.5	84.9	4.8	1,932	19.1
40-44	8.9	46.1	62.8	76.1	88.8	2.8	1,290	18.4
45-49	8.5	38.2	59.0	74.1	86.0	2.8	1,017	19.1
20-49	6.3	34.1	53.1	na	na	16.7	12,302	19.7
25-49	7.1	37.8	57.4	71.9	83.3	8.6	9,540	19.2

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

Table 5.10 Median age at first birth

Median age at first birth among women age 20-49 and 25-49, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Women age	
	20-49	25-49
Residence		
Urban	a	21.6
Rural	19.2	18.9
Region		
Tigray	19.6	19.2
Affar	18.7	18.6
Amhara	19.4	18.8
Oromiya	19.1	18.8
Somali	20.0	20.0
Benishangul-Gumuz	18.9	18.4
SNNPR	a	19.5
Gambela	19.4	19.2
Harari	a	20.4
Addis Ababa	*	a
Dire Dawa	a	20.3
Education		
No education	18.6	18.6
Primary	a	19.7
Secondary	a	24.5
More than secondary	*	a
Wealth quintile		
Lowest	19.1	19.0
Second	19.0	18.8
Middle	19.4	19.0
Fourth	19.3	18.8
Highest	a	20.8
Total	19.7	19.2

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
a = Omitted because less than 50% of women had a birth before reaching the beginning of the age group

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, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women age 15-19 who:		Percentage who have begun childbearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	0.6	1.0	1.6	708
16	3.5	0.9	4.4	701
17	11.2	2.1	13.2	641
18	14.7	4.9	19.6	913
19	25.1	2.6	27.7	417
Residence				
Urban	2.2	2.7	4.9	805
Rural	12.5	2.3	14.8	2,576
Region				
Tigray	9.4	2.5	12.0	276
Affar	20.0	3.3	23.4	30
Amhara	7.0	1.3	8.3	767
Oromiya	14.5	2.5	17.0	1,234
Somali	13.1	5.6	18.7	105
Benishangul-Gumuz	11.5	2.1	13.6	34
SNNPR	7.2	3.4	10.7	681
Gambela	14.7	1.5	16.2	9
Harari	15.3	1.6	16.9	8
Addis Ababa	1.9	1.1	3.0	217
Dire Dawa	9.3	3.2	12.5	20
Education				
No education	24.1	3.8	27.9	469
Primary	9.8	2.3	12.1	2,148
Secondary	2.0	2.1	4.1	678
More than secondary	3.4	0.0	3.4	87
Wealth quintile				
Lowest	18.8	5.2	24.0	478
Second	15.0	2.3	17.3	558
Middle	13.3	1.6	14.9	638
Fourth	6.4	1.7	8.1	716
Highest	3.6	2.2	5.8	992
Total	10.1	2.4	12.5	3,381

FERTILITY PREFERENCES 6

Key Findings

- ***Desire for another child:*** Eighteen percent of currently married women age 15-49 want to have another child soon, while 36% want to wait at least 2 years.
- ***Limiting childbearing:*** Women are more likely than men to want no more children, no matter how many children they already have. Overall, 37% of women and 27% of men want to limit childbearing.
- ***Ideal family size:*** Women prefer 4.5 children on average, while men prefer 4.6 children.
- ***Unwanted births:*** Of all births in the past 5 years and current pregnancies, 75% were wanted at the time of conception, 17% were mistimed, and 8% were unwanted.
- ***Wanted births:*** Overall, the difference between the wanted fertility rate and the total fertility rate is one child. This suggests that Ethiopian women are currently having, on average, one child more than they want.

Information on fertility preferences can help family planning programme planners assess the desire for children, the extent of mistimed and unwanted pregnancies, and the demand for contraception to space or limit births. The underlying rationale of most family planning programmes is to give couples the freedom and ability to bear the number of children they want and to achieve the spacing of births they prefer. Data on fertility preferences may suggest the direction that fertility patterns will take in the future.

This chapter presents information on whether and when married women and men want more children, ideal family size, whether the last birth was wanted at that time, and the theoretical fertility rate if all unwanted births were prevented.

6.1 DESIRE FOR ANOTHER CHILD

Desire for another child

Women and men were asked whether they wanted more children and, if so, how long they would prefer to wait before the next child. Women and men who are sterilised are assumed not to want any more children.

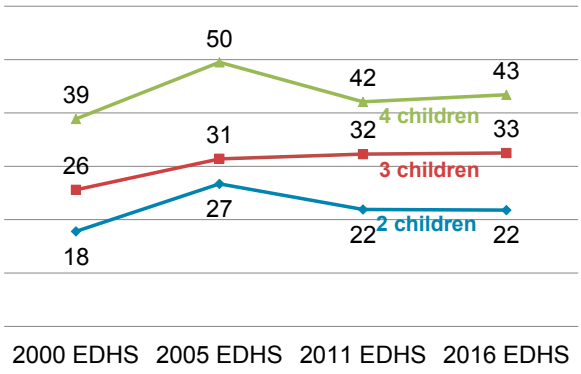
Sample: Currently married women and men age 15-49

Fifty-six percent of currently married women age 15-49 want to have another child; 18% of these women want to have another child within 2 years, and 36% want to wait at least 2 years. The majority of other women want to limit childbearing: 37% of currently married women want no more children or are sterilised. Overall, 69% of currently married men age 15-49 want to have another child; 22% want the child within 2 years, 44% want to wait at least 2 years, and 3% are undecided with respect to time. Twenty-seven percent of currently married men want no more children or are sterilised (**Table 6.1**).

Trends: The percentage of currently married women age 15-49 who want no more children (including women who are sterilised) increased from 32% in 2000 to 37% in 2016. With respect to number of living children, the percentage of currently married women with four living children who want no more children increased slightly from 39% in 2000 to 43% in 2016, while the percentage of women with two living children who want no more children rose from 18% in 2000 to 22% in 2016 (**Figure 6.1**).

Figure 6.1 **Trends in desire to limit childbearing by number of living children**

Percentage of currently married women age 15-49 who want no more children

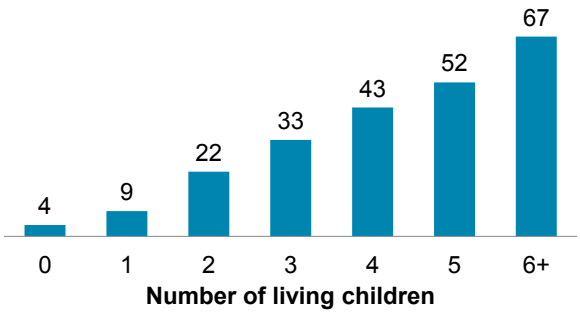


Patterns by background characteristics

- Fifty-seven percent of currently married women with no living children want to have a child soon, as compared with 10% of women with six or more children. The corresponding figures among men are 59% and 22%.
- The proportion of currently married women who want no more children increases with number of living children, from 4% among those with no children to 67% among those with six or more children (**Figure 6.2**).
- Women in rural areas are more likely to want to limit childbearing than women in urban areas (38% versus 30%). Similarly, rural men are more likely than urban men to want to limit childbearing (28% versus 20%) (**Tables 6.2.1** and **6.2.2**).

Figure 6.2 **Desire to limit childbearing by number of living children**

Percentage of currently married women age 15-49 who want no more children



- There are large differences by region in desire to limit childbearing. The proportion of women who want to limit childbearing is highest in SNNPR and Oromiya (40% each) and lowest in Somali and Affar (8% and 12%, respectively). Regional disparities in desire to limit childbearing are similar among men.
- The percentage of women who want no more children decreases with increasing education, from 43% among those with no education to 15% among those with more than a secondary education.

6.2 IDEAL FAMILY SIZE

Ideal family size

Respondents with no children were asked "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

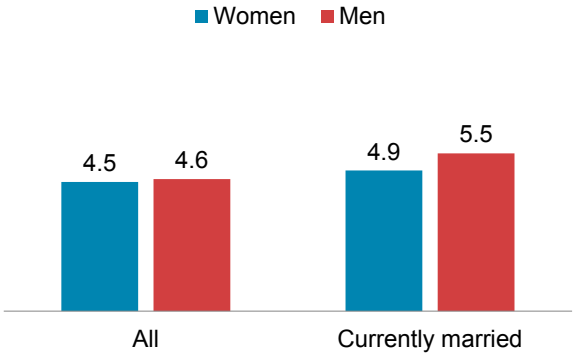
Sample: Women and men age 15-49

On average, Ethiopian men want to have the same number of children as women (4.6 children and 4.5 children, respectively) (**Table 6.3**). The ideal family size is slightly larger among currently married women and men than among women and men overall (**Figure 6.3**). Sixty-three percent of women age 15-49 consider four or more children to be ideal, while 27% prefer to have three or fewer children.

Trends: Mean ideal number of children among currently married women decreased from 5.8 in 2000 and 5.1 in 2005 to 4.9 in both 2011 and 2016.

***Figure 6.3* Ideal family size**

Mean ideal number of children among women and men age 15-49

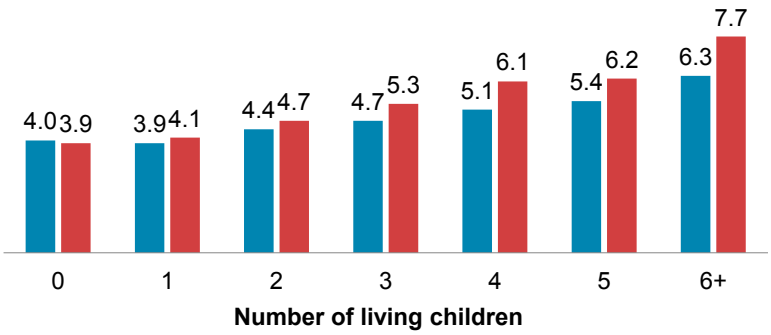


Patterns by background characteristics

- The more children respondents already have, the more children they consider ideal. For example, on average, women who have one child consider 3.9 children to be ideal. In contrast, women who have six or more children consider 6.3 children to be ideal (**Table 6.4** and **Figure 6.4**).
- Urban women prefer fewer children than rural women (3.8 versus 4.6).
- By region, women's ideal family size is largest in Somali (10.6 children) and smallest in Addis Ababa (3.6 children).

***Figure 6.4* Ideal family size by number of living children**

Mean ideal number of children



- Mean ideal number of children decreases as women's level of education increases. Women with no education want 5.2 children, while those with more than a secondary education want 3.6 children.
- Mean ideal number of children also decreases with increasing wealth. Women in the lowest wealth quintile prefer 5.5 children, while women in the highest quintile prefer 3.9 children.

6.3 Fertility Planning Status

Planning status of birth

Women reported whether their most recent birth was wanted at the time (planned birth), at a later time (mistimed birth), or not at all (unwanted birth).

Sample: Current pregnancies and births in the 5 years before the survey to women age 15-49

In Ethiopia, a large majority of births were wanted at the time of conception (75%), while 17% were mistimed (that is, wanted at a later date). Only 8% of births were not wanted at all (**Table 6.5** and **Figure 6.5**).

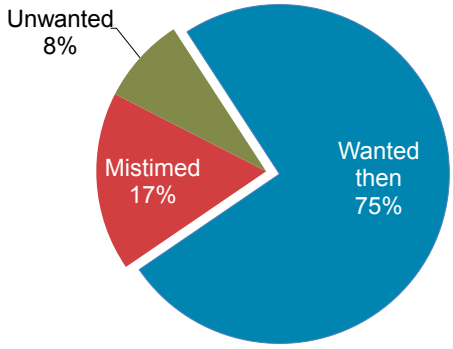
Trends: The proportion of women age 15-49 who have unwanted births has decreased steadily over time, from 17% in 2000 to 8% in 2016. Similarly, the proportion of mistimed births decreased from 20% in 2000 to 17% in 2016.

Patterns by background characteristics

- The more children a woman has, the more likely it is that her most recent birth was unwanted. Three percent of first births were unwanted, as compared with 13% of fourth- or higher-order births.
- The likelihood of unwanted births increases with mother's age. Three percent each of births to women less than age 20 and age 20-24 were unwanted, compared with 22% of births to women age 40-44.

Figure 6.5 **Fertility planning status**

Percent distribution of births to women age 15-49 in the 5 years before the survey (including current pregnancies) by planning status of births



6.4 WANTED FERTILITY RATES

Unwanted birth

Any birth in excess of the number of children a woman reported as her ideal number.

Wanted birth

Any birth fewer than or equal to the number of children a woman reported as her ideal number.

Wanted fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates, excluding unwanted births.

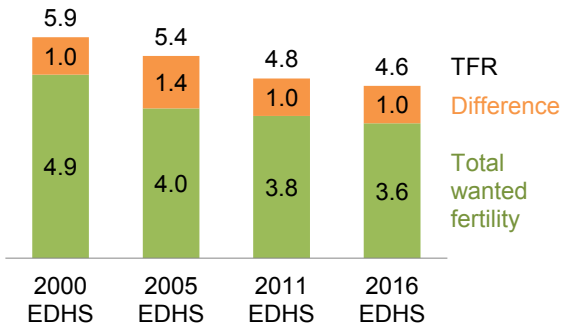
Sample: Women age 15-49

The wanted fertility rate measures the potential demographic impact of fertility that would have prevailed in the 3 years preceding the survey if all unwanted births were prevented. It is calculated in the same manner as the total fertility rate, except that only wanted births are included. A birth is considered wanted if the number of living children at the time of conception is fewer than the ideal number of children reported by the respondent.

The wanted fertility rate in Ethiopia is 3.6 children, as compared with the actual total fertility rate of 4.6 children. In other words, on average, women in Ethiopia have one child more than they wanted (**Table 6.6** and **Figure 6.6**).

Figure 6.6 **Trends in wanted and actual fertility**

Wanted and actual number of children per woman



Trends: The total wanted fertility rate in Ethiopia declined from 4.9 children in 2000 to 3.6 children in 2016. However, the gap between wanted and actual fertility has remained relatively constant over time (**Figure 6.6**).

Patterns by background characteristics

- The gap between wanted and actual fertility is much larger among rural women (1.2 children) than urban women (0.2 children).
- The gap between wanted and actual fertility narrows with increasing education and wealth. For example, the gap falls from 1.3 among women with no education to 0.2 among women with a secondary education or higher and from 1.2 among women in the lowest wealth quintile to 0.5 among women in the highest quintile.

List of Tables

For more information on fertility preferences, see the following tables:

- **Table 6.1 Fertility preferences by number of living children**
- **Table 6.2.1 Desire to limit childbearing: Women**
- **Table 6.2.2 Desire to limit childbearing: Men**
- **Table 6.3 Ideal number of children by number of living children**
- **Table 6.4 Mean ideal number of children according to background characteristics**
- **Table 6.5 Fertility planning status**
- **Table 6.6 Wanted fertility rates**

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 DHS 2016

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]	57.0	21.5	18.2	16.0	13.0	10.4	9.5	17.5	na
Have another later[3]	28.1	63.1	51.7	41.1	34.7	26.4	10.5	35.7	na
Have another, undecided when	6.0	3.8	3.2	4.4	2.3	2.3	2.3	3.2	na
Undecided	2.6	2.2	4.4	5.2	5.6	7.2	7.2	5.2	na
Want no more	3.8	8.5	21.7	32.3	42.8	51.0	66.5	36.3	na
Sterilised[4]	0.0	0.0	0.1	0.2	0.6	0.9	0.8	0.4	na
Declared infecund	2.5	0.8	0.7	0.8	1.0	1.7	3.2	1.6	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number	709	1,625	1,531	1,482	1,348	1,201	2,328	10,223	na
				MEN[5]					
Have another soon[2]	58.5	27.3	21.6	17.7	17.7	12.1	14.7	21.8	20.8
Have another later[3]	31.8	61.1	58.3	48.6	40.8	37.8	26.3	44.2	39.3
Have another, undecided when	3.0	4.8	3.3	4.9	1.6	2.6	2.3	3.3	3.2
Undecided	2.2	2.3	1.8	3.4	3.7	4.4	4.5	3.2	3.0
Want no more	3.5	3.9	14.4	24.6	33.9	42.4	50.0	26.3	30.9
Sterilised[4]	0.0	0.1	0.3	0.0	1.5	0.4	1.1	0.5	1.2
Declared infecund	0.9	0.5	0.4	0.9	0.8	0.2	1.0	0.7	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	502	1,052	1,063	966	798	749	1,312	6,441	7,471

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

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 DHS 2016

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	1.2	9.6	25.7	47.3	51.4	65.7	68.5	29.7
Rural	4.9	8.1	20.7	29.4	42.2	51.0	67.3	38.1
Region								
Tigray	1.2	3.6	11.5	20.3	23.1	47.1	64.7	27.6
Affar	5.5	3.0	6.3	12.7	16.4	22.2	23.0	12.4
Amhara	3.7	9.7	24.3	33.3	48.4	61.9	72.4	36.9
Oromiya	4.4	10.2	21.9	34.1	50.6	52.4	67.3	40.3
Somali	0.0	1.4	0.5	3.7	3.0	8.7	15.9	7.9
Benishangul-Gumuz	3.5	7.1	20.2	38.5	32.6	55.6	66.6	35.1
SNNPR	4.5	6.0	21.1	32.2	37.9	49.7	76.9	40.0
Gambela	4.2	14.6	27.9	44.5	47.5	50.4	48.2	30.7
Harari	4.3	13.0	21.5	24.9	39.0	(52.6)	64.7	29.9
Addis Ababa	4.4	10.8	33.2	50.6	(47.7)	*	*	28.0
Dire Dawa	0.9	8.1	26.8	36.8	45.0	(49.8)	69.1	30.8
Education								
No education	4.6	8.3	23.4	28.8	43.7	51.1	65.7	43.0
Primary	5.3	9.8	21.9	37.9	40.4	51.7	74.8	30.5
Secondary	2.1	8.5	17.2	41.5	43.6	(75.8)	*	18.0
More than secondary	0.0	2.2	17.2	54.6	*	*	*	15.4
Wealth quintile								
Lowest	1.4	6.6	18.8	31.6	37.4	35.5	53.5	32.5
Second	9.7	10.8	26.4	26.3	43.3	59.8	70.8	40.2
Middle	2.7	7.0	21.7	29.0	36.1	51.5	72.7	37.7
Fourth	7.5	6.5	16.6	32.0	55.0	52.3	73.5	41.7
Highest	1.0	10.1	24.1	43.4	49.3	64.8	67.7	31.7
Total	3.8	8.5	21.8	32.5	43.4	51.9	67.3	36.7

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 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 DHS 2016

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	2.0	2.6	18.1	32.6	49.1	43.5	58.1	19.6
Rural	4.3	4.5	13.7	23.3	33.8	42.8	50.7	28.1
Region								
Tigray	(0.0)	0.8	7.3	16.3	35.1	33.6	55.3	22.6
Affar	(12.7)	7.6	16.0	14.1	(10.6)	(8.0)	7.0	10.3
Amhara	0.7	3.7	21.8	26.5	42.8	48.3	62.5	27.7
Oromiya	7.9	6.1	11.0	30.7	34.8	41.6	48.6	27.9
Somali	*	2.8	1.5	3.7	(3.4)	4.4	3.9	3.3
Benishangul-Gumuz	(5.4)	1.1	9.4	15.1	30.6	40.1	43.7	23.1
SNNPR	*	1.6	15.7	16.6	32.7	45.3	57.8	30.4
Gambela	(12.8)	11.3	15.0	20.2	(26.8)	(40.6)	34.3	20.6
Harari	(4.9)	9.5	13.8	(14.6)	(17.1)	(23.0)	38.2	16.7
Addis Ababa	6.3	2.0	18.9	23.5	*	*	*	18.1
Dire Dawa	(0.0)	1.4	6.4	18.5	(28.4)	(29.3)	26.3	12.6
Education								
No education	2.1	6.3	14.9	24.3	39.7	40.2	45.6	29.8
Primary	6.5	4.0	14.1	23.7	26.7	46.0	54.0	27.6
Secondary	0.1	2.2	5.8	21.5	68.5	40.5	71.2	16.4
More than secondary	3.1	2.0	28.6	36.7	(31.7)	(47.3)	(70.7)	19.6
Wealth quintile								
Lowest	3.5	6.5	14.3	21.5	29.5	36.0	36.9	24.5
Second	0.1	8.3	9.5	20.4	38.9	44.8	47.0	26.0
Middle	10.7	3.8	17.2	18.3	38.1	43.4	53.1	29.7
Fourth	3.8	0.1	17.4	34.5	29.3	43.5	60.5	31.8
Highest	1.6	2.3	15.3	30.0	41.5	49.6	64.1	22.2
Total 15-49	3.6	4.0	14.6	24.6	35.4	42.8	51.1	26.8
50-59	*	(35.4)	30.7	56.2	67.1	76.3	68.2	65.6
Total 15-59	4.2	4.5	15.2	26.2	39.1	47.7	56.8	32.1

Note: Men who have been sterilised or who state in response to the question about desire for children that their wife has been sterilised are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] The number of living children includes one additional child if the respondent's wife is pregnant (or, for men who have more than one current wife, if any wife is pregnant).

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Ethiopia DHS 2016

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	7.7	5.9	5.8	7.8	9.6	10.9	11.4	8.3
1	1.2	1.4	0.3	0.2	0.5	0.1	0.4	0.7
2	21.7	12.0	7.9	3.2	2.7	1.6	1.0	10.2
3	12.1	13.2	6.0	6.2	1.4	2.0	1.0	7.3
4	34.4	40.0	42.3	32.3	23.2	15.5	10.9	29.5
5	7.3	6.2	9.6	12.9	10.0	8.1	5.1	8.0
6+	10.4	14.3	17.8	27.8	38.0	44.2	50.3	25.3
Non-numeric responses	5.1	7.0	10.3	9.6	14.6	17.5	19.9	10.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	4,945	2,012	1,801	1,670	1,462	1,306	2,487	15,683
Mean ideal number of children for:[2]								
All women	3.5	3.9	4.3	4.7	5.0	5.4	6.2	4.5
Number of women	4,691	1,872	1,614	1,510	1,249	1,077	1,992	14,005
Currently married women	4.0	3.9	4.4	4.7	5.1	5.4	6.3	4.9
Number of currently married women	662	1,506	1,365	1,342	1,154	994	1,878	8,901
				MEN[3]				
0	6.7	3.5	2.1	3.8	2.3	6.3	8.8	5.6
1	1.1	1.0	0.1	0.0	0.3	0.0	0.2	0.6
2	21.2	13.2	7.4	3.9	2.5	1.6	0.9	12.7
3	18.2	20.9	8.5	7.6	3.4	4.0	1.5	12.8
4	31.6	36.9	41.9	25.9	22.1	13.9	10.2	28.4
5	7.5	6.7	13.2	15.5	8.2	14.7	5.8	9.0
6+	10.2	15.4	22.0	36.9	53.3	53.5	59.5	25.5
Non-numeric responses	3.6	2.4	4.9	6.4	7.9	6.0	13.1	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	5,489	1,145	1,098	985	813	752	1,324	11,606
Mean ideal number of children for men 15-49:[2]								
All men	3.5	4.0	4.7	5.3	6.1	6.2	7.7	4.6
Number of men	5,291	1,117	1,045	922	749	706	1,151	10,981
Currently married men	3.9	4.1	4.7	5.3	6.1	6.2	7.7	5.5
Number of currently married men	486	1,032	1,015	904	734	703	1,139	6,014
Mean ideal number of children for men 15-59:[2]								
All men	3.6	4.0	4.7	5.2	6.0	6.2	7.8	4.8
Number of men	5,317	1,137	1,084	974	850	838	1,730	11,930
Currently married men	4.1	4.1	4.7	5.3	6.0	6.2	7.8	5.7
Number of currently married men	506	1,051	1,049	951	833	825	1,703	6,917

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

Table 6.4 Mean ideal number of children according to background characteristics

Mean ideal number of children for all women age 15-49 according to background characteristics, Ethiopia DHS 2016

Background characteristic	Mean	Number of women[1]
Age		
15-19	3.6	3,188
20-24	3.9	2,590
25-29	4.4	2,654
30-34	4.8	2,023
35-39	5.3	1,667
40-44	5.7	1,063
45-49	5.7	820
Residence		
Urban	3.8	3,278
Rural	4.6	10,728
Region		
Tigray	4.8	967
Affar	5.6	102
Amhara	4.0	3,278
Oromiya	4.1	5,055
Somali	10.6	350
Benishangul-Gumuz	5.0	145
SNNPR	4.9	3,040
Gambela	4.5	41
Harari	4.2	35
Addis Ababa	3.6	910
Dire Dawa	5.4	82
Education		
No education	5.2	6,306
Primary	4.0	5,093
Secondary	3.6	1,746
More than secondary	3.6	860
Wealth quintile		
Lowest	5.5	2,184
Second	4.6	2,462
Middle	4.5	2,671
Fourth	4.3	2,778
Highest	3.9	3,910
Total	4.5	14,005

[1] Number of women who gave a numeric response

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the 5 years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Ethiopia DHS 2016

Birth order and mother's age at birth	Planning status of birth				Number of births
	Wanted then	Wanted later	Wanted no more	Total	
Birth order					
1	82.8	14.6	2.6	100.0	2,299
2	78.1	19.0	2.9	100.0	1,978
3	78.6	17.6	3.8	100.0	1,733
4+	69.4	17.3	13.3	100.0	6,148
Mother's age at birth					
<20	78.8	18.3	2.9	100.0	1,399
20-24	78.8	18.4	2.8	100.0	3,393
25-29	74.1	18.9	7.0	100.0	3,283
30-34	73.1	15.1	11.8	100.0	2,272
35-39	66.7	13.2	20.1	100.0	1,319
40-44	67.1	11.1	21.8	100.0	437
45-49	(68.5)	(13.5)	(18.0)	100.0	55
Total	74.7	17.1	8.3	100.0	12,158

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

Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the 3 years preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.1	2.3
Rural	4.0	5.2
Region		
Tigray	4.4	4.7
Affar	4.2	5.5
Amhara	3.1	3.7
Oromiya	3.8	5.4
Somali	6.9	7.2
Benishangul-Gumuz	4.0	4.4
SNNPR	3.5	4.4
Gambela	3.1	3.5
Harari	3.3	4.1
Addis Ababa	1.6	1.8
Dire Dawa	2.9	3.1
Education		
No education	4.4	5.7
Primary	3.3	4.2
Secondary	2.0	2.2
More than secondary	1.7	1.9
Wealth quintile		
Lowest	5.2	6.4
Second	4.4	5.6
Middle	3.7	4.9
Fourth	3.2	4.3
Highest	2.1	2.6
Total	3.6	4.6

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

- ***Modern contraceptive use:*** Modern contraceptive use by currently married Ethiopian women has steadily increased over the last 15 years, jumping from 6% of women using modern contraceptive method in 2000 to 35% in 2016.
- ***Methods used:*** By method, the largest growth has been in injectables use, which expanded from use by 3% of women in 2000 to 23% in 2016, followed by growth in implant use, from less than 1% of women using in 2000 to 8% in 2016.
- ***Sources of modern methods:*** The most popular sources of modern contraception are public sector sources (84%); only 14% get their modern methods from private sector sources.
- ***Contraceptive discontinuation:*** In the 5 years preceding the survey more than one-third of all contraceptive users (35%) discontinued use within 12 months. The most common reason for stopping a method was the desire to become pregnant (42%), followed by method-related health concerns or side effects (18%).
- ***Unmet need for family planning:*** Twenty-two percent of currently married women have an unmet need for family planning
- ***Percentage of demand for family planning satisfied:*** Overall, about 6 in 10 currently married women age 15-49 have their demand for family planning satisfied.

Couples can use contraceptive methods to limit or space the number of children they have. This chapter presents information on the knowledge, use, and sources of contraceptive methods, informed decision-making about use, and rates and reasons for discontinuing use. It also examines the need for family planning and the demand for family planning that is satisfied. In addition, it provides information on whether nonusers are discussing family planning with health providers.

The use of contraception helps women avoid unplanned or unwanted pregnancies, and prevent unsafe abortions. Additionally, contraceptive use helps women space the births of their children, which benefits the health of the mother and child. Although information is presented here for both women and men, the focus is mostly on women.

In line with Ethiopia's FP2020 commitments, the Ministry of Health (MoH) developed the health sector transformation plan of 2015, which aimed to increase the contraceptive prevalence rate (CPR) to 55%. This would mean reaching an additional 6.2 million women and adolescent girls with family planning services by 2020 (MOH 2015).

7.1 CONTRACEPTIVE KNOWLEDGE AND USE

Knowledge of contraceptive methods is almost universal in Ethiopia, with 99% of currently married women and men age 15-49 knowing at least one method of contraception. The most well-known methods for currently married women and men are injectables and the pill. Among all women, the standard days method is the least-known modern contraceptive method (11%). On average, women and men each know six contraceptive methods (**Table 7.1**).

Knowledge of contraceptive methods does not vary by most background characteristics except region. All currently married women and men in Addis Ababa know at least one method of contraception, while in Somali only 79% of currently married women and 83% of currently married men know at least one method of contraception **(Table 7.2)**.

Contraceptive prevalence rate

Percentage of women who use any contraceptive method

Sample: All women age 15-49, currently married women age 15-49, and sexually active unmarried women age 15-49

The contraceptive prevalence rate (CPR) for currently married women age 15-49 in Ethiopia is 36%, with 35% using modern methods and 1% using traditional methods. Fifty-eight percent of sexually active unmarried women use contraceptive methods, with 55% using modern methods and 3% using traditional methods (**Table 7.3**).

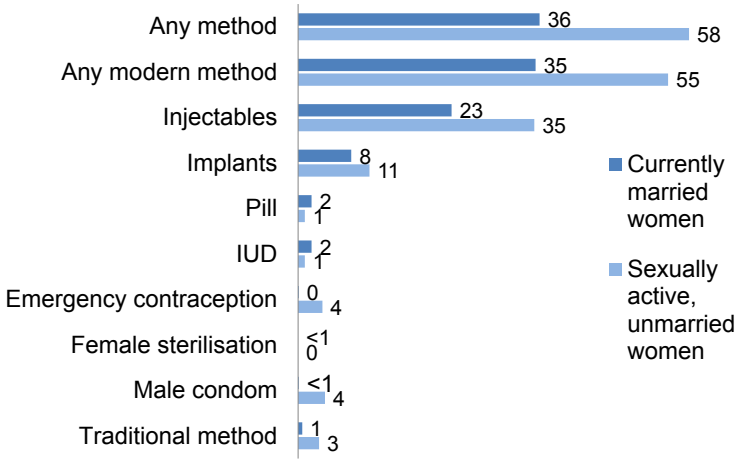
Modern methods

Modern methods include male and female sterilisation, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, standard days method, lactational amenorrhoea method, and emergency contraception

The most commonly used contraceptive method for currently married women in Ethiopia is injectables (23%), followed by implants (8%). For sexually active unmarried women, the most popular methods are injectables (35%), followed by implants (11%), and male condom and emergency contraception (4% each) (**Figure 7.1**).

Figure 7.1 **Contraceptive use**

Percentage of women age 15-49 currently using a contraceptive method



Trends: Modern contraceptive use for currently married women has steadily increased over the last 16 years in Ethiopia from 6% in 2000 to 35% in 2016 (**Figure 7.2**). The largest increases were in the use of injectables (from 3% in 2000 to 23% in 2016) and implants (from less than 1% in 2000 to 8% in 2016).

Patterns by background characteristics

- Currently married women with 1-2 living children are more likely to use a modern contraceptive method than women with more than 5 children (42% and 28%, respectively) (**Table 7.4**).
- Current use of modern contraception for married women is higher in urban areas (50%) than in rural areas (32%).
- By region, currently married women in Somali have the lowest use of modern contraception (1%), followed by Affar (12%). The highest use of modern contraception among currently married women is observed in Addis Ababa (50%) followed by Amhara (47%) (**Figure 7.3**).
- Modern contraceptive use among currently married women increases with education from 31% for women with no education to 51% for women with secondary education or higher.
- Use of modern contraception increases sharply with wealth, ranging from 20% for women in the lowest wealth quintile to 47% for women in the highest wealth quintile (**Figure 7.4**).

Figure 7.2 **Trends in contraceptive use**

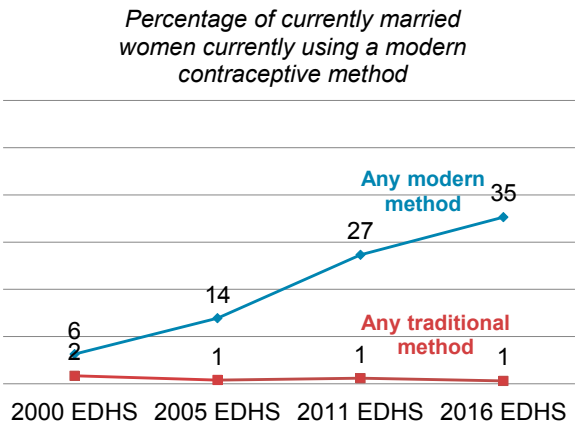


Figure 7.3 **Use of modern methods by region**

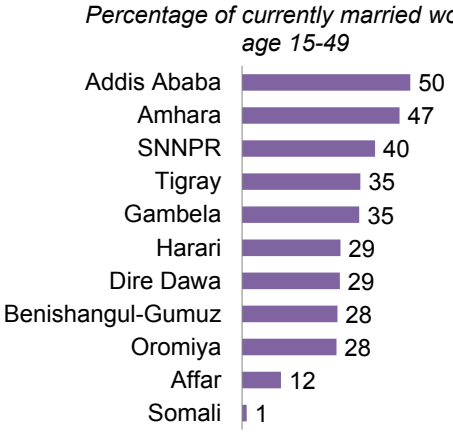
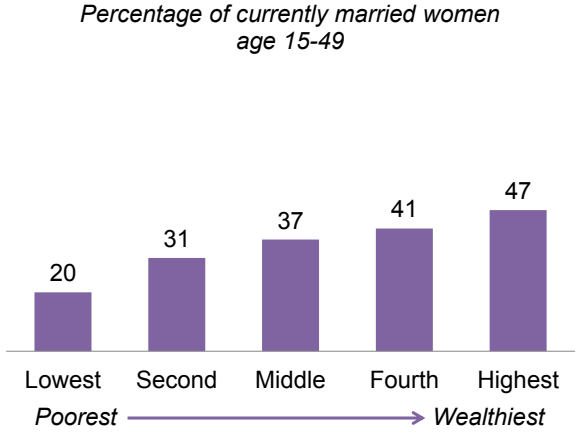


Figure 7.4 **Use of modern methods by household wealth**



7.2 SOURCE OF MODERN CONTRACEPTIVE METHODS

Source of modern contraceptives

The place where the modern method currently being used was obtained the last time it was acquired

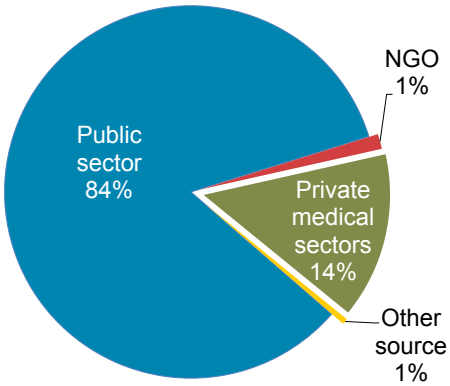
Sample: Women age 15-49 currently using a modern contraceptive method

Information on current sources of modern contraceptive methods is important for family planners and program implementers. The most popular source of modern contraception is the public sector (84%), followed by the private medical sector (14%) (**Table 7.5** and **Figure 7.5**).

- **Injectables:** The main source of injectables is the public sector (82%), primarily the government health station/centre. Only 17% of injectables users used the private sector as their source.
- **Implants, IUDs, and female sterilisation:** Almost all users of implants, IUDs, and female sterilisation obtained their method from a public sector source (95%, 93%, and 84%, respectively).

***Figure 7.5* Source of modern contraceptive methods**

Percent distribution of current users of modern methods age 15-49 by most recent source of method



- **Pill:** Fifty-eight percent of pill users obtained their method from a public sector source, mainly a government health station/centre or post. Forty-one percent of pill users got their supply from the private sector, mainly a private clinic or private pharmacy.

7.3 INFORMED CHOICE

Informed choice

Informed choice indicates that women were informed at the time they started the current episode of method use about the method's side effects, about what to do if they experience side effects, and about other methods they could use.

Sample: Women age 15-49 who are currently using selected modern contraceptive methods and who started the last episode of use within the 5 years before the survey

Less than half of current users of modern contraceptive methods (46%) were informed of the potential side effects or problems associated with the method they used; 36% were told what to do if they experienced side effects. Fifty-six percent were informed of other methods that they could use. Overall, 30% of all women currently using modern contraceptives were informed at the time they started the current episode of method use about the method's side effects, what to do if they experience side effects, and other available methods (**Table 7.6**).

7.4 DISCONTINUATION OF CONTRACEPTIVES

Contraceptive discontinuation rate

Percentage of contraceptive use episodes discontinued within 12 months

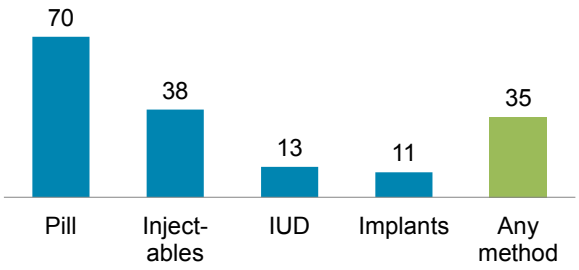
Sample: Episodes of contraceptive use in the 5 years before the survey, experienced by women who are currently age 15-49 (one woman may contribute more than one episode)

Table 7.7 shows that for all women age 15-49 who started an episode of contraceptive use in the 5 years preceding the survey, 35% of the episodes were discontinued within 12 months. In 6% of the episodes, the woman switched to another method. Discontinuation rates are highest for the pill (70%). Thirty-eight percent of users of injectables discontinue use within one year (**Figure 7.6**).

Table 7.8 shows the most common reason for discontinuing a method is the desire to become pregnant (42%), followed by method-related health concerns or side effects (18%), wanting a more effective method (11%), infrequent sex or husband away (8%), and inconvenience of use (6%).

Figure 7.6 **Contraceptive discontinuation rates**

Percentage of contraceptive episodes discontinued within 12 months, among women age 15-49



7.5 KNOWLEDGE OF THE FERTILE PERIOD

The survey also collected data on women's knowledge of the fertile period. **Table 7.9** shows that only one in four women age 15-49 (24%) correctly know that a woman is most likely to conceive halfway between two periods. As expected, users of the rhythm method are much more likely to know this (66%) than nonusers of the rhythm method (23%). The most common misconception is that the fertile period is right after a woman's menstrual period has ended (25%). One in five women (20%) don't know about the fertile period at all.

7.6 DEMAND FOR FAMILY PLANNING

Unmet need for family planning

Proportion of women who (1) are not pregnant and not postpartum amenorrhoeic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, or (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrhoeic and their last birth in the last 2 years was mistimed or unwanted.

Sample: All women age 15-49, currently married women age 15-49, and sexually active unmarried women age 15-49

Demand for family planning:

Unmet need for family planning + current contraceptive use (any method)

Proportion of demand satisfied:

$$\frac{\text{Current contraceptive use (any method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

Proportion of demand satisfied by modern methods:

$$\frac{\text{Current contraceptive use (any modern method)}}{\text{Unmet need + current contraceptive use (any method)}}$$

Table 7.10.1 shows that 58% of currently married women age 15-49 have a demand for family planning; 35% want to space births, and 24% want to limit births. Thirty-six percent of currently married women are already using a contraceptive method either to space (22%) or to limit births (14%); that is, their family planning need is met. However, 22% of currently married women have an unmet need for family planning: they want to space (13%) or limit (9%) births but are not currently using contraception.

Overall, 62% of currently married women age 15-49 have their demand for family planning satisfied (**Figure 7.7**).

Trends: The total demand for family planning among currently married women age 15-49 has increased over time, rising from 45% in 2000, to 51% in 2005, 55% in 2011, and 58% in 2016 (**Figure 7.8**). Met need for family planning has also increased over the same period, rising from 8% in 2000, to 15% in 2005, to 29% in 2011, and 36% in 2016; most of the need has been met with modern methods. Unmet need for family planning among married women has declined over time, from 37% in 2000 to 22% in 2016.

Figure 7.7 Demand for family planning

Percent distribution of currently married women age 15-49 by need for family planning

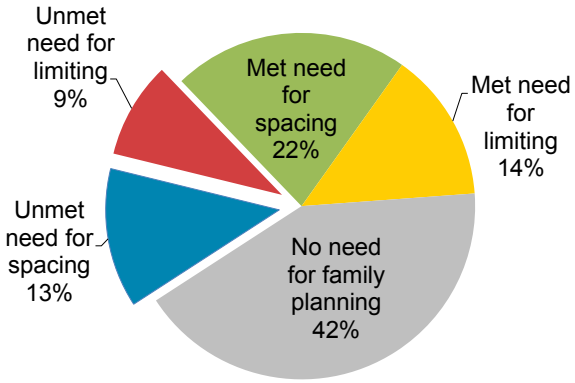
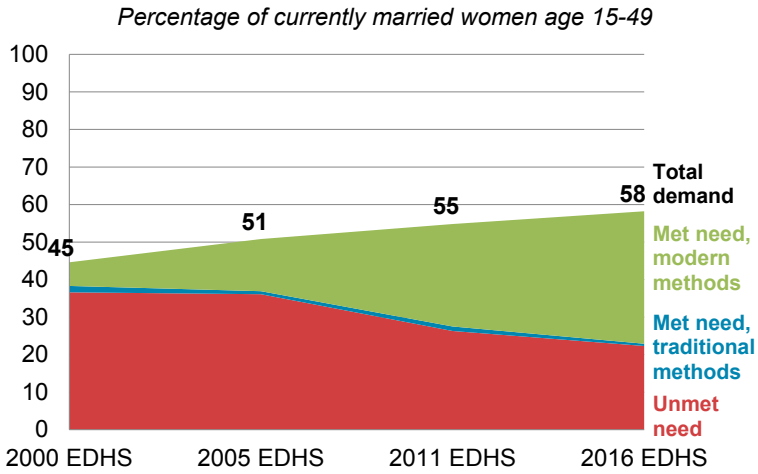


Figure 7.8 Trends in demand for family planning

Percentage of currently married women age 15-49

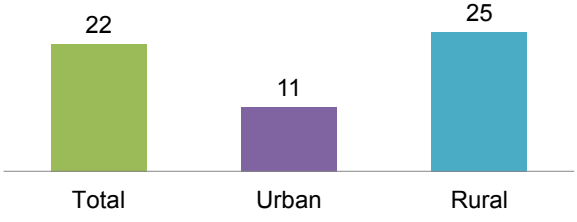


Patterns by background characteristics

- Unmet need for family planning for currently married women age 15-49 is higher in rural areas (25%) than in urban areas (11%) (**Figure 7.9**).

Figure 7.9 Unmet need by residence

Percentage of currently married women age 15-49 with unmet need



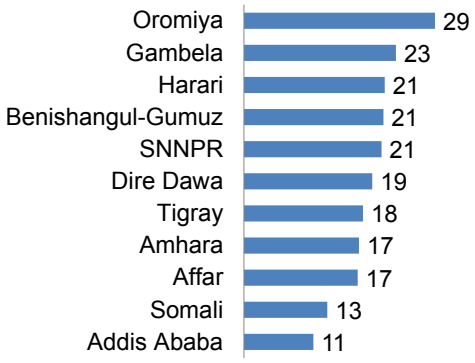
- Unmet need for currently married women age 15-49 is lowest in Addis Ababa (11%) and highest in Oromiya region (29%) (**Figure 7.10**).

- Unmet need for family planning generally declines with increasing wealth, from 27-28% of currently married women in the lowest and second wealth quintiles having unmet need to 14% of women in the highest wealth quintile.

- The total demand for family planning among sexually active unmarried women exceeds that of currently married women (85% versus 58%), and the percentage of demand satisfied is also higher for sexually active unmarried women than for married women (69% versus 62%). For more information on need and demand for family planning among all women and sexually active unmarried women, see **Table 7.10.2**.

Figure 7.10 **Unmet need by region**

Percentage of currently married women age 15-49 with unmet need



7.6.1 Decision Making about Family Planning

The survey collected information regarding decision making about family planning. **Table 7.11** shows that for 73% of currently married women age 15-49 who are using a family planning method, the decision to use it was made jointly with their husband; for 22% of these women the decision was made mainly by themselves, and for 5% the husband mainly made the decision. Among currently married women age 15-49 who are not using a family planning method, 58% made the decision not to use family planning jointly with their husband, 30% decided themselves, and for 10% the husband decided.

7.6.2 Future Use of Contraception

This survey also collected information on nonusers' intent to use contraception in the future. **Table 7.12** shows that 49% of currently married women age 15-49 who are not currently using contraception intend to use family planning at some future time. The same proportion (49%) of currently married women who are not using contraceptive methods do not intend to use family planning in the future and 2% are unsure.

7.6.3 Exposure to Family Planning Messages in the Media

Table 7.13 offers information on women's exposure to family planning messages in the media or from other sources. The most often cited source of information on family planning messages reported by women and men age 15-49 in the past few months is community event or conversation (38% and 37%, respectively). Other main sources include radio (24% for women and 33% for men) and television (18% for women and 23% for men). Printed materials such as newspapers or magazines and pamphlets, posters, or, leaflets are cited as sources of family planning messages by 5-6% of women. Women's exposure to family planning messages using new technologies, such as mobile phone (3%) and the internet (2%), is limited. Overall, 46% of women and 40% of men age 15-49 have no exposure to family planning messages through any of these seven main mass media means.

7.7 Contact of Nonusers with Family Planning Providers

Contact of nonusers with family planning providers

Respondent discussed family planning in the 12 months before the survey with a fieldworker or during a visit to a health facility.

Sample: Women age 15-49 who are not currently using any contraceptive methods

In the survey, women age 15-49 who are not using contraception were asked if they had been visited by a health care worker who discussed family planning with them. **Table 7.14** shows that 22% of women not using contraception were visited by a fieldworker who discussed family planning. Twelve percent of women went to a health facility in the 12 months before the survey and discussed family planning, while 25% of women visited a health facility but did not discuss family planning during that visit. Overall, almost three-quarters (73%) of women age 15-49 who are not using a contraceptive method said they did not discuss family planning either with a fieldworker or at a health facility in the 12 months before the survey.

Patterns by background characteristics

- By age, women age 30-34 are most likely (32%) and women age 15-19 (13%) are least likely to have been visited by a fieldworker and discussed family planning in the 12 months before the survey.
- Women in Benishangul-Gumuz are the most likely to have been visited by a fieldworker (43%) and discussed family planning, while women in Tigray and Harari are the most likely to have visited a health facility and discussed family planning in the past 12 months (22% for each). The percentage of women in Somali who discussed family planning with a fieldworker (11%) or at a health facility (2%) is the lowest among all regions.

List of Tables

For more information on family planning, see the following tables:

- **Table 7.1 Knowledge of contraceptive methods**
- **Table 7.2 Knowledge of contraceptive methods according to background characteristics**
- **Table 7.3 Current use of contraception according to age**
- **Table 7.4 Current use of contraception according to background characteristics**
- **Table 7.5 Source of modern contraception methods**
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- **Table 7.7 Twelve-month contraceptive discontinuation rates**
- **Table 7.8 Reasons for discontinuation**
- **Table 7.9 Knowledge of fertile period**
- **Table 7.10.1 Need and demand for family planning among currently married women**
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- **Table 7.11 Decision making about family planning**
- **Table 7.12 Future use of contraception**
- **Table 7.13 Exposure to family planning messages**
- **Table 7.14 Contact of nonusers with family planning providers**

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, according to specific method, Ethiopia DHS 2016

	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	98.3	98.7	99.8	98.1	99.3	99.9
Any modern method	**98.3**	**98.7**	**99.8**	**98.0**	**99.2**	**99.9**
Female sterilisation	34.2	35.6	38.7	35.4	38.7	46.2
Male sterilisation	11.5	11.3	19.5	22.2	23.5	32.4
Pill	87.2	88.6	90.4	89.3	92.6	95.1
IUD	45.6	45.5	62.8	42.2	41.5	73.9
Injectables	96.2	97.4	99.8	92.5	95.5	94.4
Implants	74.3	75.6	91.1	67.4	71.9	85.8
Male condom	66.2	62.5	88.5	89.7	90.0	98.0
Female condom	21.7	18.4	51.6	38.1	35.1	61.8
Emergency contraception	19.5	16.1	51.7	31.0	30.0	67.8
Standard days method (SDM)	10.6	10.3	20.2	18.7	19.6	34.0
Lactational amenorrhoea method (LAM)	29.3	31.7	37.6	23.8	26.8	30.9
Other modern method	0.4	0.4	1.2	0.1	0.1	0.0
Any traditional method	**34.4**	**32.7**	**53.4**	**57.8**	**60.4**	**82.6**
Rhythm	29.2	27.6	46.9	47.6	49.8	72.6
Withdrawal	18.8	17.7	45.0	37.3	38.7	66.0
Other	0.3	0.3	2.0	0.2	0.2	0.5
Mean number of methods known by respondents 15-49	5.5	5.4	7.5	6.4	6.5	8.6
Number of respondents	15,683	10,223	176	11,606	6,441	286
Mean number of methods known by respondents 15-59	na	na	na	6.4	6.5	8.6
Number of respondents	na	na	na	12,688	7,471	299

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

Table 7.2 Knowledge of contraceptive methods according to background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Women			Men		
	Heard of any method	Heard of any modern method[1]	Number of women	Heard of any method	Heard of any modern method[1]	Number of men
Age						
15-19	98.2	97.5	588	(96.7)	(96.7)	26
20-24	98.7	98.7	1,710	99.1	99.1	474
25-29	98.9	98.9	2,402	99.3	99.3	1,227
30-34	98.8	98.8	2,049	99.4	99.4	1,389
35-39	98.9	98.9	1,613	99.3	99.1	1,285
40-44	98.3	98.3	1,064	99.2	99.2	1,137
45-49	98.6	98.5	798	99.2	99.2	903
Residence						
Urban	99.7	99.7	1,658	99.8	99.8	1,011
Rural	98.5	98.5	8,565	99.2	99.1	5,430
Region						
Tigray	99.6	99.6	658	100.0	100.0	352
Affar	89.6	89.2	96	99.2	99.2	48
Amhara	99.9	99.9	2,414	100.0	100.0	1,633
Oromiya	99.3	99.2	3,987	99.7	99.7	2,558
Somali	79.0	78.6	324	82.8	82.4	174
Benishangul-Gumuz	97.6	97.6	114	98.7	98.1	72
SNNPR	99.2	99.2	2,173	99.4	99.3	1,323
Gambela	97.1	97.1	29	99.3	99.3	17
Harari	97.2	97.2	25	98.6	98.6	16
Addis Ababa	100.0	100.0	355	100.0	100.0	217
Dire Dawa	99.8	99.8	50	99.3	99.3	32
Education						
No education	98.1	98.0	6,253	98.4	98.4	2,558
Primary	99.7	99.6	2,895	99.7	99.7	2,769
Secondary	99.6	99.6	654	100.0	100.0	625
More than secondary	100.0	100.0	421	100.0	99.9	489
Wealth quintile						
Lowest	95.4	95.2	1,953	97.3	97.2	1,161
Second	99.4	99.3	2,074	99.3	99.1	1,359
Middle	98.9	98.9	2,057	99.7	99.7	1,310
Fourth	99.9	99.9	1,999	100.0	100.0	1,255
Highest	99.9	99.9	2,140	99.9	99.9	1,357
Total 15-49	98.7	98.7	10,223	99.3	99.2	6,441
50-59	na	na	na	98.6	98.6	1,029
Total 15-59	na	na	na	99.2	99.1	7,471

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhoea method (LAM), and other modern methods

Table 7.3 Current use of contraception according to 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 DHS 2016

			Modern method							Traditional method				
Age	Any method	Any modern method	Female sterili-sation	Pill	IUD	Inject-ables	Implants	Other[1]	Any tradi-tional method	Rhythm	With-drawal	Not currently using	Total	Number of women
							ALL WOMEN							
15-19	7.5	7.4	0.0	0.3	0.2	5.3	1.5	0.1	0.1	0.1	0.0	92.5	100.0	3,381
20-24	26.4	26.0	0.0	1.7	0.7	17.5	5.9	0.3	0.3	0.3	0.1	73.6	100.0	2,762
25-29	35.7	34.9	0.0	2.2	2.2	21.2	8.9	0.5	0.7	0.6	0.1	64.3	100.0	2,957
30-34	35.0	34.6	0.3	1.4	2.9	21.3	8.2	0.5	0.5	0.3	0.1	65.0	100.0	2,345
35-39	30.1	29.1	0.7	1.3	2.2	17.4	7.3	0.3	1.0	0.9	0.1	69.9	100.0	1,932
40-44	28.2	27.7	1.0	1.4	1.0	18.7	5.3	0.2	0.5	0.2	0.3	71.8	100.0	1,290
45-49	16.8	16.4	1.1	0.7	1.1	10.6	2.5	0.2	0.5	0.5	0.0	83.2	100.0	1,017
Total	25.3	24.9	0.3	1.3	1.4	15.8	5.7	0.3	0.5	0.4	0.1	74.7	100.0	15,683
							CURRENTLY MARRIED WOMEN							
15-19	31.9	31.8	0.0	2.0	0.9	24.0	4.9	0.0	0.1	0.1	0.0	68.1	100.0	588
20-24	38.8	38.5	0.0	2.2	1.2	26.2	8.7	0.1	0.3	0.3	0.0	61.2	100.0	1,710
25-29	41.0	40.2	0.0	2.6	2.6	24.9	9.8	0.3	0.8	0.7	0.2	59.0	100.0	2,402
30-34	37.3	36.9	0.2	1.3	3.1	23.3	8.4	0.5	0.5	0.3	0.1	62.7	100.0	2,049
35-39	34.7	33.5	0.8	1.5	2.3	20.2	8.4	0.3	1.2	1.1	0.1	65.3	100.0	1,613
40-44	33.4	32.7	1.2	1.7	1.2	22.2	6.1	0.3	0.6	0.3	0.4	66.6	100.0	1,064
45-49	19.3	18.7	1.5	0.9	0.9	12.6	2.6	0.3	0.5	0.5	0.0	80.7	100.0	798
Total	35.9	35.3	0.4	1.8	2.0	22.8	7.9	0.3	0.6	0.5	0.1	64.1	100.0	10,223
							SEXUALLY ACTIVE UNMARRIED WOMEN[2]							
15-19	(59.0)	(57.5)	(0.0)	(0.1)	(0.0)	(33.6)	(14.0)	(9.8)	(1.4)	(1.4)	(0.0)	(41.0)	100.0	50
20-24	56.3	47.0	0.0	2.4	0.3	31.1	2.1	11.1	9.3	2.6	6.7	43.7	100.0	35
25+	58.4	56.7	0.0	0.5	1.6	37.4	12.0	5.2	1.7	1.7	0.0	41.6	100.0	92
Total	58.1	55.0	0.0	0.7	0.9	35.1	10.6	7.7	3.1	1.8	1.3	41.9	100.0	176

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
SDM = Standard days method
LAM = Lactational amenorrhoea
[1] *Other* includes male condom, emergency contraception, standard days method (SDM), and lactational amenorrhoea method (LAM).
[2] Women who have had sexual intercourse within 30 days preceding the survey

Table 7.4 Current use of contraception according to background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Any method	Any modern method	Modern method						Any tradi-tional method	Traditional method		Not currently using	Total	Number of women
			Female sterili-sation	Pill	IUD	Inject-ables	Implants	Other[1]		Rhythm	With-drawal			
Number of living children														
0	30.1	29.4	0.0	2.8	1.1	20.5	4.7	0.3	0.6	0.6	0.0	69.9	100.0	925
1-2	43.2	42.2	0.1	2.9	2.7	25.8	10.5	0.2	1.1	1.0	0.1	56.8	100.0	3,137
3-4	38.9	38.4	0.4	2.0	2.1	24.7	8.8	0.4	0.5	0.3	0.2	61.1	100.0	2,761
5+	28.3	27.9	0.9	0.5	1.6	19.0	5.6	0.3	0.4	0.3	0.1	71.7	100.0	3,401
Residence														
Urban	52.0	49.8	0.4	6.5	4.6	26.4	11.0	0.8	2.2	1.9	0.3	48.0	100.0	1,658
Rural	32.8	32.4	0.4	0.9	1.5	22.1	7.3	0.2	0.3	0.2	0.1	67.2	100.0	8,565
Region														
Tigray	36.3	35.2	0.2	3.6	1.0	19.3	10.7	0.3	1.1	1.0	0.1	63.7	100.0	658
Affar	11.6	11.6	0.0	0.4	0.2	9.5	1.4	0.1	0.0	0.0	0.0	88.4	100.0	96
Amhara	47.3	46.9	0.5	2.0	3.0	29.3	12.1	0	0.4	0.3	0.1	52.7	100.0	2,414
Oromiya	28.6	28.1	0.2	1.2	1.7	19.6	5.1	0.3	0.5	0.4	0.1	71.4	100.0	3,987
Somali	1.5	1.4	0.0	0.4	0.1	0.6	0.1	0.1	0.2	0.0	0.2	98.5	100.0	324
Benishangul-Gumuz	28.5	28.4	0.2	1.0	1.5	19.5	6.3	0	0.2	0.2	0.0	71.5	100.0	114
SNNPR	39.9	39.6	0.9	1.6	1.3	27.7	8.0	0.3	0.3	0.2	0.1	60.1	100.0	2,173
Gambela	34.9	34.9	0.0	2.9	0.5	28.9	1.9	0.8	0.0	0.0	0.0	65.1	100.0	29
Harari	29.5	29.3	0.0	5.0	2.5	12.6	7.5	1.7	0.2	0.2	0.0	70.5	100.0	25
Addis Ababa	55.9	50.1	0.5	7.8	8.5	17.4	14.1	1.8	5.9	4.8	1.0	44.1	100.0	355
Dire Dawa	30.3	29.1	0.0	3.4	1.2	11.0	12.0	1.6	1.2	1.2	0.0	69.7	100.0	50
Education														
No education	31.2	30.9	0.5	0.9	1.8	19.9	7.7	0.1	0.3	0.2	0.1	68.8	100.0	6,253
Primary	39.6	39.0	0.4	1.9	1.9	27.3	7.2	0.3	0.6	0.5	0.0	60.4	100.0	2,895
Secondary	52.4	50.6	0.0	5.0	3.2	32.9	8.9	0.5	1.8	1.6	0.2	47.6	100.0	654
More than secondary	55.0	50.7	0.7	10.2	4.8	18.8	14.3	2	4.3	3.9	0.4	45.0	100.0	421
Wealth quintile														
Lowest	19.6	19.5	0.0	1.0	0.3	13.0	5.0	0.2	0.1	0.1	0.0	80.4	100.0	1,953
Second	31.1	31.0	0.2	1.3	1.1	20.6	7.7	0.1	0.1	0.1	0.0	68.9	100.0	2,074
Middle	37.2	36.7	0.4	0.9	1.9	24.6	8.7	0.2	0.4	0.4	0.0	62.8	100.0	2,057
Fourth	40.9	40.6	1.0	0.6	2.4	28.5	7.9	0.2	0.4	0.1	0.2	59.1	100.0	1,999
Highest	49.4	47.4	0.6	5.1	4.4	26.6	9.9	0.9	2.0	1.7	0.3	50.6	100.0	2,140
Total	35.9	35.3	0.4	1.8	2.0	22.8	7.9	0.3	0.6	0.5	0.1	64.1	100.0	10,223

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Other include male condom, emergency contraception, standard days method (SDM), and lactational amenorrhoea method (LAM).

Table 7.5 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 DHS 2016

Source	Female sterilisation	Pill	IUD	Injectables	Implants	Total
Public sector	**(84.3)**	**58.0**	**92.7**	**81.7**	**94.8**	**83.8**
Government hospital	(75.0)	3.8	8.8	2.0	3.5	3.7
Government health station/ centre	(9.3)	27.1	65.4	50.2	64.5	52.5
Government health post	(0.0)	21.6	18.2	29.0	26.7	26.9
Public pharmacy	(0.0)	5.5	0.2	0.2	0.1	0.5
Other	(0.0)	0.0	0.0	0.3	0.0	0.2
NGO	**(5.5)**	**0.7**	**2.9**	**0.9**	**2.0**	**1.3**
Health facility	(5.5)	0.7	2.9	0.9	1.6	1.2
Other	(0.0)	0.0	0.0	0.0	0.4	0.1
Private sector	**(10.2)**	**41.2**	**4.2**	**16.9**	**3.2**	**14.4**
Private hospital	(7.0)	0.6	1.5	0.5	0.2	0.5
Private clinic	(3.2)	22.2	2.4	14.8	2.9	11.5
Private pharmacy	(0.0)	18.4	0.2	1.6	0.1	2.3
Other	(0.0)	0.0	0.0	0.1	0.0	0.1
Other source	**(0.0)**	**0.0**	**0.3**	**0.5**	**0.0**	**0.1**
Friend/relative	(0.0)	0.0	0.0	0.1	0.0	0.1
Other	**(0.0)**	**0.0**	**0.3**	**0.4**	**0.0**	**0.4**
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	45	205	226	2,474	901	3,884

Note: Total includes other modern methods (male condoms, female condoms, emergency contraception, and standard days method) but excludes lactational amenorrhoea method (LAM). Figures in parentheses are based on 25-49 unweighted cases.

Table 7.6 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the 5 years preceding the survey, percentage who were informed about possible side effects or problems of that method, percentage who were informed about what to do if they experienced side effects, and percentage who were informed about other methods they could use, and percentage who were informed of all three, according to method and initial source, Ethiopia DHS 2016

	Among women who started last episode of modern contraceptive method within the 5 years preceding the survey:				
Method/source	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed by a health or family planning worker of other methods that could be used	Percentage who were informed of all three (Method Information Index)	Number of women
Method					
Female sterilisation	*	*	*	*	20
Pill	46.0	32.4	54.8	25.4	187
IUD	60.0	51.9	65.1	46.9	199
Injectables	40.4	30.7	53.9	26.9	2,218
Implants	55.6	44.8	58.1	36.2	829
Initial source of method[1]					
Public sector	**46.3**	**36.5**	**57.1**	**31.6**	**2,995**
Government hospital	62.0	47.0	70.5	43.5	100
Government health station/ centre	46.3	36.2	56.9	31.3	1,908
Government health post	45.4	36.6	57.1	31.2	967
Public pharmacy	*	*	*	*	17
Other	*	*	*	*	3
NGO	**67.4**	**59.6**	**45.9**	**37.2**	**43**
Health facility	67.4	60.4	45.5	37.7	43
Other	*	*	*	*	1
Private sector	**39.4**	**26.8**	**45.2**	**21.1**	**393**
Private hospital	*	*	*	*	19
Private clinic	40.5	28.3	43.6	21.4	318
Private pharmacy	30.1	11.9	51.9	11.0	55
Other source	*	*	*	*	**3**
Friend/relative	*	*	*	*	3
Other	*	*	*	*	**19**
Total	45.5	35.5	55.6	30.2	3,453

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

Table 7.7 Twelve-month contraceptive discontinuation rates

Among episodes of contraceptive use experienced within the 5 years preceding the survey, percentage of episodes discontinued within 12 months, according to reason for discontinuation and specific method, Ethiopia DHS 2016

Method	Method failure	Desire to become pregnant	Other fertility related reasons[2]	Side effects/ health concerns	Wanted more effective method	Other method related reasons[3]	Other reasons	Any reason[4]	Switched to another method[5]	Number of episodes of use[6]
Pill	4.4	12.1	8.7	13.8	17.7	9.3	4.1	70.1	24.2	536
IUD	0.0	2.0	0.0	7.0	0.1	2.2	2.1	13.3	3.4	248
Injectables	0.4	13.1	4.9	8.1	3.4	5.2	3.1	38.3	4.4	4,365
Implants	0.3	3.9	0.3	2.5	0.9	2.0	1.0	10.9	2.4	1,136
Rhythm/withdrawal	3.3	9.9	1.3	0.0	7.5	2.1	0.0	24.0	5.0	122
Other[1]	0.1	5.3	25.7	5.2	9.3	2.7	4.9	53.4	10.0	151
All methods	0.8	10.8	4.7	7.4	4.2	4.8	2.8	35.3	5.8	6,559

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months preceding the survey.
[1] Includes lactational amenorrhoea method (LAM), female sterilisation, male condom, female condom, emergency contraception, standard days method (SDM)
[2] Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation
[3] Includes lack of access/too far, costs too much, and inconvenient to use
[4] Reasons for discontinuation are mutually exclusive and add to the total given in this column.
[5] A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within 2 months of discontinuation.
[6] All episodes of use that occur within the 5 years preceding the survey are included. Episodes of use include episodes that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation.

Table 7.8 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the 5 years preceding the survey by main reason stated for discontinuation, according to specific method, Ethiopia DHS 2016

Reason	Pill	IUD	Injectables	Implants	Male condom	Emergency contra-ception	Rhythm	Withdrawal	Other	All methods
Became pregnant while using	7.0	0.5	1.6	0.8	1.4	5.4	7.4	(10.2)	(0.0)	2.2
Wanted to become pregnant	25.5	36.0	44.6	42.1	25.4	9.8	60.6	(52.6)	(20.7)	41.8
Husband disapproved	0.3	4.3	1.1	0.5	1.5	0.0	0.0	(0.0)	(0.0)	1.0
Wanted a more effective method	21.7	5.4	9.8	10.8	10.9	6.6	18.4	(6.8)	(25.4)	11.2
Health concerns/side effects	18.6	25.3	16.9	24.1	0.8	3.3	0.0	(0.0)	(24.2)	17.5
Lack of access/too far	3.4	2.5	4.4	0.8	0.0	0.0	0.0	(3.2)	(0.0)	3.7
Inconvenient to use	7.1	18.5	6.1	6.0	1.3	6.7	5.3	(16.7)	(0.1)	6.4
Up to God/fatalistic	2.0	0.0	1.4	1.9	1.8	0.0	0.0	(0.0)	(1.5)	1.5
Difficult to get pregnant/ menopausal	0.3	0.7	0.7	0.5	0.0	0.0	2.5	(0.0)	(7.0)	0.7
Infrequent sex/husband away	11.2	4.1	6.3	6.5	38.9	65.8	4.5	(7.6)	(2.7)	7.6
Marital dissolution/ separation	0.8	0.0	3.1	0.3	4.0	2.3	1.2	(2.9)	(0.0)	2.5
Other	2.1	2.8	4.0	5.3	13.0	0.0	0.0	(0.0)	(6.6)	3.9
Don't know	0.0	0.0	0.0	0.4	1.1	0.0	0.0	(0.0)	(11.8)	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	478	85	3,359	520	48	37	58	14	31	4,644

Note: Total includes users of female condom and standard days method (SDM). Figures in parentheses are based on 25-49 unweighted cases.

Table 7.9 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 DHS 2016

Perceived fertile period	Users of rhythm method	Nonusers of SDM	All women
Just before her menstrual period begins	5.9	7.6	7.6
During her menstrual period	2.4	4.1	4.1
Right after her menstrual period has ended	23.5	24.9	24.9
Halfway between two menstrual periods	66.1	23.4	23.6
No specific time	1.7	20.1	20.1
Don't know	0.4	19.8	19.7
Total	100.0	100.0	100.0
Number of women	61	15,622	15,683

SDM = Standard days method

Table 7.10.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, by background characteristics, Ethiopia DHS 2016

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	18.7	1.9	20.5	29.3	2.7	31.9	48.0	4.5	52.5	60.9	60.7	588
20-24	15.8	2.7	18.5	34.2	4.5	38.8	50.0	7.2	57.3	67.7	67.1	1,710
25-29	16.6	4.5	21.1	30.5	10.5	41.0	47.1	15.0	62.1	66.0	64.7	2,402
30-34	14.8	10.0	24.9	20.9	16.5	37.3	35.7	26.5	62.2	60.0	59.2	2,049
35-39	10.2	16.6	26.8	12.3	22.4	34.7	22.5	39.0	61.5	56.4	54.5	1,613
40-44	5.2	18.8	24.1	6.7	26.7	33.4	11.9	45.5	57.5	58.1	57.0	1,064
45-49	3.1	14.4	17.5	2.0	17.3	19.3	5.1	31.7	36.8	52.4	51.0	798
Residence												
Urban	5.7	5.7	11.3	36.9	15.1	52.0	42.5	20.8	63.3	82.1	78.6	1,658
Rural	14.4	10.0	24.5	18.6	14.2	32.8	33.0	24.2	57.2	57.3	56.7	8,565
Region												
Tigray	11.8	6.2	18.0	25.3	11.0	36.3	37.1	17.1	54.3	66.9	64.8	658
Affar	12.9	4.3	17.2	9.7	1.9	11.6	22.6	6.3	28.9	40.3	40.3	96
Amhara	8.5	9.0	17.4	29.9	17.4	47.3	38.3	26.4	64.8	73.1	72.4	2,414
Oromiya	17.1	11.8	28.9	15.7	12.9	28.6	32.8	24.7	57.5	49.8	48.9	3,987
Somali	9.4	3.2	12.6	1.4	0.1	1.5	10.8	3.3	14.1	10.8	9.6	324
Benishangul-Gumuz	11.5	9.6	21.1	17.9	10.6	28.5	29.5	20.2	49.6	57.5	57.2	114
SNNPR	12.7	8.1	20.8	22.6	17.2	39.9	35.4	25.4	60.7	65.7	65.3	2,173
Gambela	13.1	9.9	23.0	22.6	12.3	34.9	35.7	22.2	57.9	60.3	60.3	29
Harari	12.3	9.0	21.3	19.8	9.6	29.5	32.1	18.6	50.7	58.1	57.7	25
Addis Ababa	6.0	4.5	10.5	39.4	16.5	55.9	45.4	21.0	66.4	84.2	75.4	355
Dire Dawa	10.1	9.3	19.4	21.0	9.3	30.3	31.1	18.6	49.8	61.0	58.6	50
Education												
No education	13.3	11.1	24.5	15.1	16.0	31.2	28.5	27.2	55.6	56.0	55.5	6,253
Primary	14.1	7.4	21.5	26.5	13.1	39.6	40.6	20.5	61.1	64.8	63.9	2,895
Secondary	9.7	3.4	13.1	44.1	8.3	52.4	53.8	11.7	65.5	80.0	77.3	654
More than secondary	5.5	5.3	10.8	47.9	7.1	55.0	53.4	12.4	65.8	83.6	77.1	421
Wealth quintile												
Lowest	16.6	9.9	26.5	11.3	8.3	19.6	27.9	18.2	46.1	42.5	42.2	1,953
Second	15.7	11.8	27.5	18.2	12.9	31.1	33.9	24.7	58.6	53.1	52.9	2,074
Middle	14.3	9.5	23.8	21.1	16.0	37.2	35.4	25.6	60.9	61.0	60.3	2,057
Fourth	11.7	8.9	20.7	22.5	18.5	40.9	34.2	27.4	61.6	66.4	65.8	1,999
Highest	7.1	6.6	13.6	33.7	15.8	49.4	40.7	22.3	63.1	78.4	75.2	2,140
Total	13.0	9.3	22.3	21.5	14.3	35.9	34.5	23.7	58.2	61.6	60.6	10,223

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

Table 7.10.2 Need and demand for family planning for all women and for sexually active unmarried women

Percentage of all women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and percentage of demand for family planning that is satisfied, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
					ALL WOMEN							
Age												
15-19	4.2	0.6	4.7	6.9	0.6	7.5	11.1	1.2	12.2	61.4	60.7	3,381
20-24	10.4	1.9	12.3	23.1	3.2	26.4	33.5	5.1	38.7	68.3	67.4	2,762
25-29	14.1	3.8	17.8	26.4	9.3	35.7	40.4	13.0	53.5	66.7	65.3	2,957
30-34	13.1	9.0	22.1	19.1	16.0	35.0	32.1	25.0	57.1	61.4	60.5	2,345
35-39	8.6	14.4	22.9	10.8	19.3	30.1	19.4	33.6	53.0	56.7	54.9	1,932
40-44	4.3	15.7	20.0	5.8	22.4	28.2	10.2	38.1	48.2	58.5	57.4	1,290
45-49	2.4	11.3	13.8	1.7	15.2	16.8	4.1	26.5	30.6	55.0	53.5	1,017
Residence												
Urban	3.4	2.9	6.3	20.3	8.2	28.5	23.7	11.1	34.8	81.9	78.2	3,476
Rural	10.5	7.3	17.7	13.9	10.6	24.5	24.3	17.8	42.2	58.0	57.4	12,207
Region												
Tigray	7.3	3.7	11.0	17.5	7.7	25.2	24.8	11.4	36.2	69.7	67.7	1,129
Affar	9.9	3.2	13.1	8.3	1.6	10.0	18.2	4.9	23.0	43.2	43.2	128
Amhara	5.9	6.0	11.9	21.8	12.3	34.1	27.7	18.3	46.0	74.1	73.3	3,714
Oromiya	12.5	8.6	21.1	11.6	9.7	21.3	24.1	18.3	42.4	50.2	49.3	5,701
Somali	6.7	2.2	9.0	1.0	0.1	1.1	7.7	2.3	10.0	10.7	9.5	459
Benishangul-Gumuz	8.6	6.9	15.5	13.4	8.5	22.0	22.0	15.5	37.5	58.6	58.3	160
SNNPR	8.6	5.5	14.0	15.1	11.6	26.7	23.6	17.1	40.7	65.6	65.1	3,288
Gambela	9.5	7.0	16.5	17.2	9.3	26.5	26.7	16.3	43.0	61.7	61.7	44
Harari	8.2	5.8	14.0	13.6	6.7	20.3	21.8	12.4	34.2	59.2	58.8	38
Addis Ababa	3.2	1.7	4.9	19.0	7.0	26.0	22.1	8.7	30.9	84.2	75.1	930
Dire Dawa	6.4	5.3	11.7	13.7	5.9	19.6	20.0	11.2	31.3	62.6	60.1	90
Education												
No education	11.4	9.5	20.8	13.3	14.2	27.6	24.7	23.7	48.4	57.0	56.5	7,498
Primary	8.0	4.2	12.3	15.4	7.5	22.9	23.5	11.7	35.2	65.1	64.1	5,490
Secondary	4.2	1.3	5.5	17.5	3.3	20.8	21.7	4.6	26.3	79.0	75.8	1,817
More than secondary	3.0	2.5	5.5	27.0	4.0	31.0	29.9	6.6	36.5	84.9	77.8	877
Wealth quintile												
Lowest	13.0	7.8	20.8	9.1	7.0	16.1	22.1	14.7	36.8	43.7	43.4	2,633
Second	11.8	9.0	20.9	13.9	10.2	24.1	25.8	19.2	45.0	53.6	53.4	2,809
Middle	10.4	6.7	17.2	15.7	11.6	27.4	26.2	18.4	44.5	61.5	60.7	2,978
Fourth	7.6	5.9	13.5	15.7	12.7	28.3	23.3	18.6	41.8	67.8	67.2	3,100
Highest	4.2	3.5	7.7	19.6	8.8	28.4	23.8	12.3	36.1	78.5	75.1	4,163
Total	8.9	6.3	15.2	15.3	10.0	25.3	24.2	16.3	40.5	62.5	61.3	15,683
					SEXUALLY ACTIVE UNMARRIED WOMEN[4]							
Total	25.8	0.6	26.4	44.6	13.5	58.1	70.4	14.1	84.5	68.8	65.1	176

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012.
[1] Total demand is the sum of unmet need and met need.
[2] Percentage of demand satisfied is met need divided by total demand.
[3] Modern methods include female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhoea method (LAM), and other modern methods.
[4] Women who have had sexual intercourse within 30 days preceding the survey

Table 7.11 Decision making about family planning

Among currently married women age 15-49 who are current users of family planning, percent distribution by who makes the decision to use family planning; among currently married women who are not currently using family planning, percent distribution by who makes the decision not to use family planning, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Among currently married women who are current users of family planning						Among currently married women who are not currently using family planning					
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number
Age												
15-19	22.8	74.2	3.0	0.0	100.0	188	19.9	70.7	7.8	1.6	100.0	313
20-24	18.1	76.7	5.1	0.0	100.0	663	23.2	62.3	12.8	1.7	100.0	762
25-29	17.3	75.9	6.8	0.0	100.0	985	27.1	60.9	10.9	1.0	100.0	1,090
30-34	22.8	70.6	6.6	0.0	100.0	765	29.5	57.2	11.2	2.2	100.0	1,064
35-39	27.4	67.7	4.9	0.1	100.0	559	32.8	55.9	10.4	0.9	100.0	928
40-44	30.2	67.9	1.9	0.0	100.0	355	36.5	51.9	9.1	2.5	100.0	666
45-49	16.1	75.4	4.7	3.8	100.0	154	38.7	50.4	8.1	2.8	100.0	636
Number of living children												
0	25.2	71.4	3.4	0.0	100.0	278	26.6	62.6	8.0	2.8	100.0	430
1-2	19.5	77.1	3.4	0.0	100.0	1,357	25.9	62.5	10.5	1.1	100.0	1,389
3-4	21.8	70.6	7.5	0.0	100.0	1,073	32.5	55.8	10.5	1.2	100.0	1,415
5+	23.2	69.7	6.5	0.6	100.0	961	31.8	55.1	10.9	2.3	100.0	2,223
Residence												
Urban	22.9	73.9	3.1	0.1	100.0	862	33.1	60.7	5.0	1.3	100.0	643
Rural	21.2	72.5	6.1	0.2	100.0	2,806	29.7	57.4	11.2	1.8	100.0	4,815
Region												
Tigray	28.6	68.2	3.2	0.0	100.0	239	36.4	57.8	5.0	0.8	100.0	365
Affar	22.6	75.9	1.5	0.0	100.0	11	31.6	56.3	7.7	4.4	100.0	72
Amhara	23.1	75.8	1.1	0.0	100.0	1,142	39.4	56.6	2.8	1.3	100.0	1,065
Oromiya	17.1	72.8	10.1	0.0	100.0	1,141	24.9	60.0	14.1	1.1	100.0	2,390
Somali	*	*	*	*	*	5	21.5	62.6	8.4	7.5	100.0	261
Benishangul-Gumuz	14.4	75.9	9.8	0.0	100.0	32	22.3	55.1	21.2	1.4	100.0	70
SNNPR	22.6	70.7	6.1	0.6	100.0	867	32.2	52.8	12.6	2.4	100.0	1,042
Gambela	23.8	71.9	4.3	0.0	100.0	10	39.3	44.3	10.4	6.1	100.0	17
Harari	43.7	50.6	5.7	0.0	100.0	7	50.3	36.1	13.0	0.6	100.0	14
Addis Ababa	25.0	72.2	2.4	0.5	100.0	198	31.0	62.4	4.0	2.5	100.0	132
Dire Dawa	37.4	58.5	4.2	0.0	100.0	15	33.3	56.9	9.6	0.3	100.0	30
Education												
No education	24.2	69.1	6.5	0.2	100.0	1,948	30.2	56.2	11.5	2.1	100.0	3,718
Primary	19.2	75.0	5.6	0.2	100.0	1,146	30.5	59.5	8.8	1.1	100.0	1,370
Secondary	18.1	80.3	1.5	0.1	100.0	343	26.5	65.6	7.1	0.8	100.0	220
More than secondary	17.0	82.1	0.9	0.0	100.0	231	27.7	67.3	4.9	0.1	100.0	150
Wealth quintile												
Lowest	27.1	65.8	7.2	0.0	100.0	382	29.6	55.9	12.1	2.4	100.0	1,325
Second	26.0	66.9	6.8	0.2	100.0	645	28.3	57.3	12.9	1.4	100.0	1,169
Middle	20.7	72.5	6.8	0.0	100.0	765	30.3	57.7	10.7	1.3	100.0	1,089
Fourth	16.2	78.8	4.6	0.4	100.0	818	30.4	58.3	9.4	1.9	100.0	987
Highest	21.8	74.6	3.5	0.1	100.0	1,058	32.4	60.6	5.5	1.5	100.0	888
Total 15-49	21.6	72.8	5.4	0.2	100.0	3,669	30.1	57.8	10.4	1.7	100.0	5,458

Note: Table excludes women who are currently pregnant. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 7.12 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 DHS 2016

Intention to use in the future	Number of living children[1]					Total
	0	1	2	3	4+	
Intends to use	55.0	64.3	56.2	53.6	40.2	48.6
Unsure	4.6	2.0	2.8	2.0	2.1	2.3
Does not intend to use	40.4	33.7	41.0	44.4	57.7	49.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	430	940	860	916	3,409	6,555

[1] Includes current pregnancy

Table 7.13 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 or magazine; in a pamphlet, poster, or leaflet; at a community event or in conversation; on a mobile phone; or on the Internet in the past few months, according to background characteristics, Ethiopia DHS 2016

	Women									Men								
Background characteristic	Radio	Television	News-paper/ magazine	Pamphlet/ posters/ leaflets	Com-munity event/ conver-sation	Mobile phone	Internet	None of these seven media sources	Number of women	Radio	Tele-vision	News-paper/ magazine	Pamphlet/ posters/ leaflets	Com-munity event/ conver-sation	Mobile phone	Internet	None of these seven media sources	Number of men
Age																		
15-19	24.0	19.6	6.6	8.3	26.8	3.2	2.0	50.9	3,381	23.4	17.1	8.7	12.5	17.8	2.7	3.0	56.2	2,572
20-24	27.2	20.9	7.7	8.3	35.6	3.8	3.2	46.5	2,762	35.5	23.6	13.5	18.6	31.0	4.4	5.7	41.9	1,883
25-29	27.3	19.7	5.1	6.8	39.8	2.4	1.9	41.9	2,957	38.4	27.9	14.6	20.1	42.4	6.3	6.1	34.0	1,977
30-34	24.3	18.2	2.6	4.1	41.7	2.0	1.1	44.5	2,345	36.2	25.2	12.7	17.7	46.5	5.2	4.6	32.9	1,635
35-39	20.0	14.5	3.9	4.2	44.9	2.8	1.2	43.7	1,932	39.3	22.8	10.8	12.6	47.2	2.6	3.0	32.9	1,386
40-44	17.9	12.2	3.1	4.1	47.2	1.6	0.4	43.7	1,290	31.9	22.8	9.6	15.4	49.6	2.2	1.7	33.2	1,206
45-49	21.2	15.1	2.9	4.8	43.4	1.0	0.1	46.3	1,017	33.4	17.9	8.3	11.0	44.1	2.4	1.4	36.2	947
Residence																		
Urban	46.4	63.3	14.4	17.7	39.0	6.6	6.4	20.3	3,476	50.1	58.3	21.6	34.8	29.6	8.6	14.0	23.8	2,303
Rural	17.7	5.2	2.4	3.1	37.7	1.5	0.4	52.9	12,207	29.2	13.6	8.8	11.0	39.0	2.7	1.4	44.0	9,302
Region																		
Tigray	28.8	23.4	7.2	10.0	58.3	1.4	2.8	29.4	1,129	27.4	28.4	13.9	18.2	51.5	2.9	3.7	30.3	708
Affar	13.8	19.6	2.5	3.8	25.2	1.0	0.6	57.5	128	38.5	37.7	5.9	5.1	10.5	1.8	1.9	49.9	82
Amhara	19.8	15.2	4.5	6.9	50.8	1.6	0.9	38.7	3,714	27.2	22.7	7.5	14.9	41.6	2.0	1.8	37.5	2,914
Oromiya	25.7	14.9	4.7	3.9	30.4	4.3	1.6	51.9	5,701	38.0	19.9	12.1	12.6	37.0	5.4	4.5	40.4	4,409
Somali	4.8	6.6	1.4	1.8	17.0	0.9	0.7	77.4	459	7.4	5.8	2.4	2.7	8.3	0.7	1.7	83.9	301
Benishangul-Gumuz	26.0	13.1	5.5	6.2	31.1	1.8	1.0	49.5	160	28.7	14.4	4.5	9.0	26.2	1.9	2.9	47.5	118
SNNPR	18.5	9.0	3.6	4.1	36.3	1.4	1.1	52.0	3,288	30.4	15.2	12.3	15.7	37.2	3.3	2.0	45.1	2,371
Gambela	16.4	24.4	3.2	5.2	34.1	2.1	1.5	48.7	44	28.7	32.1	9.2	17.3	16.5	2.3	5.9	50.1	35
Harari	41.4	58.2	16.7	15.5	30.5	4.4	4.1	30.6	38	41.9	40.1	14.1	13.1	15.4	6.0	10.5	40.1	29
Addis Ababa	54.4	76.9	12.4	23.5	30.1	3.7	7.4	16.8	930	60.8	68.6	24.1	49.3	22.7	6.7	18.9	14.6	573
Dire Dawa	31.2	46.5	11.7	11.6	23.7	3.6	4.5	39.7	90	36.8	42.8	22.1	23.0	25.9	5.4	10.0	33.7	66
Education																		
No education	13.7	5.0	0.3	0.6	40.0	0.8	0.2	53.3	7,498	21.1	9.6	0.9	2.6	43.0	0.9	0.4	46.1	3,203
Primary	25.2	16.5	4.3	5.1	33.8	2.1	0.7	47.8	5,490	31.0	16.6	9.2	12.2	33.9	2.4	1.2	44.5	5,608
Secondary	46.4	49.0	16.5	20.6	39.8	7.4	4.7	23.8	1,817	47.5	40.0	22.3	31.1	33.5	7.7	8.2	29.9	1,785
More than secondary	59.6	76.5	26.7	33.3	43.5	11.6	15.1	12.8	877	59.9	65.2	37.3	49.7	43.2	14.5	22.2	13.8	1,010
Wealth quintile																		
Lowest	8.2	1.5	0.7	1.0	32.9	0.7	0.1	62.8	2,633	16.4	8.3	4.1	5.4	34.5	1.2	0.6	55.1	1,839
Second	12.6	2.6	1.7	1.9	38.0	2.0	0.5	54.9	2,809	22.6	8.7	5.8	6.0	38.6	1.8	0.7	47.9	2,118
Middle	15.1	2.8	2.0	2.3	38.9	1.1	0.1	54.4	2,978	28.5	12.1	7.7	10.7	39.2	1.8	0.8	44.8	2,246
Fourth	26.5	7.0	3.8	4.4	40.2	1.5	0.4	46.9	3,100	36.8	16.1	12.7	15.9	41.8	4.4	2.1	37.7	2,466
Highest	46.5	58.3	13.2	16.9	39.0	6.3	5.6	21.6	4,163	52.4	54.6	21.5	32.8	32.3	8.1	12.2	23.2	2,935
Total 15-49	24.1	18.1	5.0	6.3	38.0	2.6	1.7	45.7	15,683	33.3	22.5	11.4	15.7	37.1	3.8	3.9	40.0	11,606
50-59	na	na	na	na	na	na	na	na	na	33.5	23.0	12.9	14.4	53.5	4.4	2.6	32.1	1,082
Total 15-59	na	na	na	na	na	na	na	na	na	33.3	22.5	11.5	15.6	38.5	3.9	3.8	39.3	12,688

na = Not applicable

Table 7.14 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, percentage who during the past 12 months were visited by a fieldworker who discussed family planning, percentage who visited a health facility and discussed family planning, percentage who visited a health facility but did not discuss family planning, and percentage who did not discuss family planning either with a fieldworker or at a health facility, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	12.9	3.9	18.1	84.6	3,127
20-24	21.5	13.1	26.6	71.5	2,033
25-29	21.5	14.2	29.6	71.3	1,903
30-34	32.3	20.2	30.0	59.1	1,524
35-39	25.7	14.8	26.2	67.9	1,351
40-44	24.3	10.2	25.6	70.5	926
45-49	26.1	12.1	26.9	67.5	846
Residence					
Urban	20.0	12.8	33.4	73.0	2,487
Rural	22.1	11.3	22.9	72.5	9,222
Region					
Tigray	34.5	21.8	29.3	58.9	844
Affar	15.4	6.9	35.5	80.5	115
Amhara	22.3	12.7	28.2	70.2	2,448
Oromiya	22.5	11.8	23.6	71.0	4,488
Somali	11.1	2.1	17.6	87.6	455
Benishangul-Gumuz	42.9	12.1	28.7	53.5	125
SNNPR	18.4	8.6	19.2	78.7	2,410
Gambela	15.2	10.1	39.4	77.4	32
Harari	29.2	21.6	14.7	65.9	31
Addis Ababa	13.7	10.6	42.0	79.0	688
Dire Dawa	21.8	16.3	29.3	69.3	73
Education					
No education	23.9	12.7	24.8	69.9	5,431
Primary	19.4	9.6	23.7	76.0	4,233
Secondary	21.4	11.7	25.7	73.2	1,439
More than secondary	18.3	16.3	37.8	71.4	606
Wealth quintile					
Lowest	18.6	8.5	21.4	76.8	2,209
Second	21.7	11.2	24.3	73.0	2,133
Middle	23.3	11.4	23.9	71.7	2,163
Fourth	24.3	12.9	22.3	70.0	2,221
Highest	20.8	13.5	31.6	71.8	2,983
Total	21.7	11.6	25.2	72.6	11,709

INFANT AND CHILD MORTALITY 8

Key Findings

- **Current levels:** For the 5-year period preceding the survey, the under-5 mortality rate is 67 deaths per 1,000 live births, and the infant mortality rate is 48 deaths per 1,000 live births. This means that 1 in 15 children in Ethiopia dies before reaching age 5, and 7 in 10 of the deaths occur during infancy.
- **Trends:** Childhood mortality has declined substantially since 2000. However, the change in neonatal mortality is not as significant as the change in post-neonatal and child mortality.
- **Regional differences:** Regions show large variations in childhood mortality. Under-5 mortality ranges from a low of 39 deaths per 1,000 live births in Addis Ababa to a high of 125 deaths per 1,000 live births in Affar.
- **High-risk fertility behaviour:** Seventy-seven percent of currently married women have the potential for a high-risk birth. Sixty-two percent of births have high mortality risks that are avoidable; 38% fall into a single high-risk category and 24% are in a multiple high-risk category. Only 24% of births are not in any high-risk category.

Information on infant and child mortality is relevant to a demographic assessment of the population, and is an important indicator of a country's socioeconomic development and quality of life. It can also help to estimate how many children may be at higher risk of death and support the development of strategies to reduce this risk, such as promoting birth spacing.

This chapter presents information on levels, trends, and differentials in perinatal, neonatal, postneonatal, infant, child, and under-5 mortality rates. It also examines biodemographic factors and fertility behaviours that increase mortality risks for infants and children. The information is collected during a retrospective birth history, in which female respondents list all of the children they have ever borne, along with each child's date of birth, survivorship status, and current age or age at death for deceased children.

The quality of mortality estimates calculated from birth histories depends on the mother's ability to recall all children she has given birth to, as well as their birth dates and ages at death. Potential data quality problems include:

- The selective omission from the birth histories of those births that did not survive, which can result in underestimation of childhood mortality.
- Displacement of birth dates, which may distort mortality trends. An interviewer might knowingly record a birth as occurring in a different year than the one in which it occurred. This may happen if an interviewer is trying to cut down on his or her overall work load, because live births occurring during the 5 years before the interview are the subject of a lengthy set of additional questions.

- Inaccurate reporting of age at death. Misreporting the child's age at death may distort the age pattern of mortality, especially if the net effect of the age misreporting is to transfer deaths from one age bracket to another.

- Misplaced reliance on mothers' reports (birth histories) to measure childhood mortality. Any method that relies on retrospective information based on the mothers' reports assumes that female adult mortality is not high, or if it is high, that there is little or no correlation between the mortality risks of the mothers and those of their children.

Selected indicators of the quality of the mortality data in this chapter are presented in Appendix C, Tables C.4-C.6.

8.1 INFANT AND CHILD MORTALITY

Neonatal mortality: The probability of dying within the first month of life

Post neonatal mortality: The probability of dying between one month and the first birthday (computed as the difference between infant and neonatal mortality)

Infant mortality: The probability of dying between birth and the first birthday

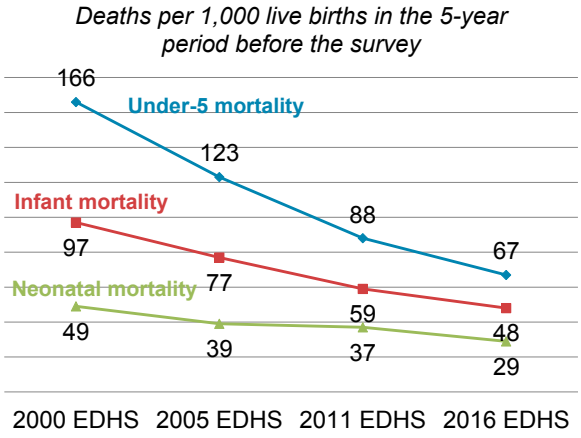
Child mortality: The probability of dying between the first and the fifth birthday

Under-5 mortality: The probability of dying between birth and the fifth birthday

The 2016 EDHS results show that the neonatal, infant, and under-5 mortality rates for the 5 years before the survey are 29, 48, and 67 deaths per 1,000 live births, respectively. In other words, in Ethiopia 1 in every 35 children dies within the first month, 1 in every 21 children dies before celebrating the first birthday, and 1 of every 15 children dies before reaching the fifth birthday (**Table 8.1**).

Trends: Under-5 mortality declined from 166 deaths per 1,000 live births in 2000 to 67 deaths per 1,000 live births in 2016 (**Figure 8.1**). This represents a 60% decrease in under-5 mortality over a period of 16 years. Infant mortality also declined from 97 deaths per 1,000 live births in 2000 to 48 deaths per 1,000 live births in 2016, which is about a 50% reduction in the last 16 years. Neonatal mortality declined from 49 deaths per 1,000 live births in 2000 to 29 deaths per 1,000 births in 2016, a reduction of 41% over the past 16 years.

Figure 8.1 **Trends in early childhood mortality rates**



Patterns by background characteristics

- It is important to note that mortality estimates by background characteristics are calculated for the 10-year period before the survey to ensure that there are sufficient cases to produce statistically reliable estimates (**Table 8.2**).

- Under-5 mortality is higher in rural areas than in urban areas (83 versus 66 deaths per 1,000 live births).
- By region, the under-5 mortality rate is highest in Affar (125 deaths per 1,000 live births) and lowest in Addis Ababa (39 deaths per 1,000 live births) (**Figure 8.2**).
- The infant mortality rate declines with increases in the mother's education, falling from 64 deaths per 1,000 live births among children whose mothers have no education to 35 deaths per 1,000 live births among children whose mothers have more than secondary education (**Figure 8.3**).

Figure 8.2 Under-5 mortality by region

Deaths per 1,000 live births for the 10-year period before the survey

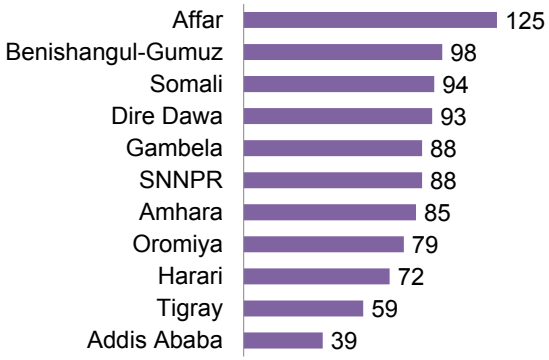
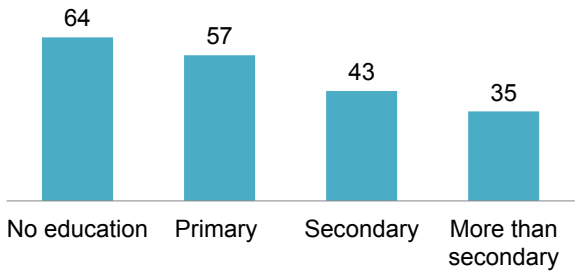


Figure 8.3 Infant mortality by mother's education

Deaths per 1,000 live births for the 10-year period before the survey



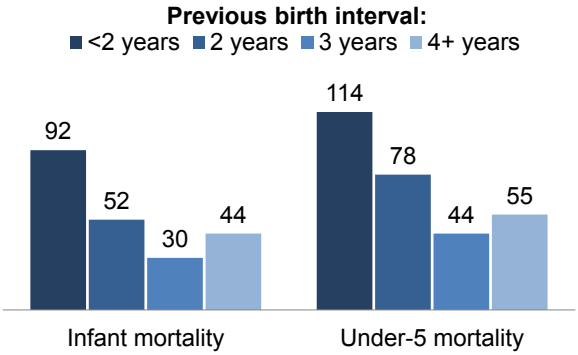
8.2 Biodemographic Risk Factors

Researchers have identified multiple risk factors for infant and child mortality based on the characteristics of the mother and child and on the circumstances of the birth. **Table 8.3** illustrates the relationship between these risk factors and neonatal, postneonatal, infant, and under-5 mortality.

- Boys are more likely to die in childhood than girls. The gender gap is most pronounced in the neonatal period (within 1 month after birth), when male children are nearly twice as likely as female children to die (49 deaths compared with 26 deaths, per 1,000 live births, respectively).
- Shorter intervals between births are associated with higher mortality. The under-5 mortality rate for children born less than 2 years after the preceding birth is more than twice as high as that of children born 4 or more years after their preceding sibling (114 deaths per 1,000 live births compared with 55 deaths per 1,000 live births). Similarly, the infant mortality rate is 92 deaths per 1,000 live births for a birth interval less than2 years and 44 deaths per 1,000 live births for children born 4 or more years after the preceding birth (**Figure 8.4**).

Figure 8.4 Childhood mortality by previous birth interval

Deaths per 1,000 live births for the 10-year period before the survey



- Children reported to be small or very small at birth are more likely to die than children reported to be average or larger at birth. For example, infant mortality for children who were reported to be small or very small at birth is 56 deaths per 1,000 live births compared with 43 deaths per 1,000 live births for children who were reported to be average or larger at birth.

8.3 PERINATAL MORTALITY

Perinatal mortality rate

Perinatal deaths comprise stillbirths (pregnancy loss that occurs after 7 months of gestation) and early neonatal deaths (deaths of live births within the first 7 days of life). The perinatal mortality rate is calculated as the number of perinatal deaths per 1,000 pregnancies of 7 or more months' duration.

Sample: Number of pregnancies of 7 or more months' duration to women age 15-49 in the 5 years before the survey.

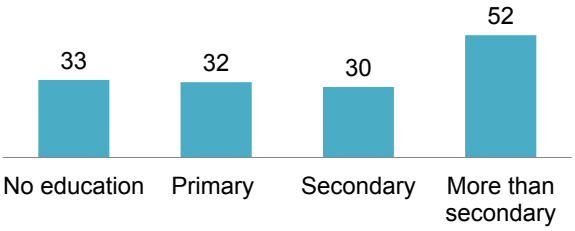
The causes of stillbirths and early neonatal deaths are closely linked, and it can be difficult to determine whether a death is attributable to one cause or the other. The perinatal mortality rate encompasses both stillbirths and early neonatal deaths, and offers a better measure of the level of mortality and quality of service at delivery. During the 5 years before the survey, the perinatal mortality rate is 33 deaths per 1,000 pregnancies (**Table 8.4**).

Patterns by background characteristics

- Perinatal mortality increases with mother's age at birth, from 28 deaths per 1,000 pregnancies for women age 20-29 to 63 deaths per 1,000 pregnancies for women age 40-49. This shows that perinatal mortality among children born to women age 40-49 is more than twice as high as for women age 20-29.
- The perinatal mortality rate is relatively high for first pregnancies (33 deaths per 1,000 pregnancies) and among women with a pregnancy interval of less than 15 months (45 deaths per 1,000 pregnancies).
- The perinatal mortality rate is higher in urban than in rural areas (42 versus 32 deaths per 1,000 pregnancies, respectively).
- The perinatal mortality rate is highest in Somali (50 deaths per 1,000 pregnancies) and lowest in Affar and SNNPR (26 deaths per 1,000 pregnancies for each region).
- The perinatal mortality rate is highest among pregnancies to women with more than secondary education (52 deaths per 1,000 pregnancies) compared with pregnancies to women with no education (**Figure 8.5**).

Figure 8.5 **Perinatal mortality by mother's education**

Deaths per 1,000 pregancies of 7 or more months' duration in the 5-year period before the survey



8.4 HIGH-RISK FERTILITY BEHAVIOUR

Findings from scientific studies have confirmed a strong relationship between a child's chance of dying and specific fertility behaviours, meaning that the survival of infants and children depends in part on the demographic and biological characteristics of their mothers. The probability of children dying in infancy is much greater among children born to mothers who are too young (under age 18) or too old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is elevated when a child is born to a mother who has a combination of these risk characteristics.

Table 8.5 presents the percentage distribution of children born in the 5 years preceding the survey that fall into different risk categories: either not in any high risk category, in an unavoidable risk category, in a single high risk category, or in a multiple high-risk category.

- In the 5 years before the survey, three-fifths of births in Ethiopia (62%) are at an elevated risk of dying from avoidable risks; 38% of births are in a single high-risk category, and 24% of births are in a multiple high-risk category). Twenty-four percent of births are not in any high risk category, while 15% of births are in the unavoidable risk category.

- 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 two groups of women: women age 34 or older, birth interval less than 24 months after the previous birth, and with birth order higher than three (2.58); women of age less than 18, and with birth interval less than 24 months (2.33).

- Overall, 77% of currently married women have the potential for having a high-risk birth, with 31% falling into a single high-risk category and 45% falling into a multiple high-risk category.

LIST OF TABLES

For more information on infant and child mortality, see the following tables:

- **Table 8.1 Early childhood mortality rates**
- **Table 8.2 Early childhood mortality rates according to socioeconomic characteristics**
- **Table 8.3 Early childhood mortality rates according to demographic characteristics**
- **Table 8.4 Perinatal mortality**
- **Table 8.5 High-risk fertility behaviour**

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Ethiopia DHS 2016

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	29	19	48	20	67
5-9	46	27	73	24	95
10-14	47	30	78	42	116

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

Table 8.2 Early childhood mortality rates according to socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Urban	41	13	54	13	66
Rural	38	24	62	23	83
Region					
Tigray	34	8	43	17	59
Affar	38	42	81	48	125
Amhara	47	20	67	19	85
Oromiya	37	23	60	20	79
Somali	41	26	67	29	94
Benishangul-Gumuz	35	26	62	38	98
SNNPR	35	30	65	25	88
Gambela	36	21	56	33	88
Harari	34	23	57	16	72
Addis Ababa	18	10	28	11	39
Dire Dawa	36	31	67	28	93
Mother's education					
No education	39	25	64	23	86
Primary	35	21	57	19	74
Secondary	31	12	43	11	54
More than secondary	34	0	35	(8)	(42)
Wealth quintile					
Lowest	36	25	62	30	90
Second	34	21	55	23	76
Middle	35	25	60	22	80
Fourth	47	28	75	18	91
Highest	40	14	54	13	67

Notes: Figures in parentheses are based on 250-499 unweighted persons-years of exposure to the risk of death.
[1] Computed as the difference between the infant and neonatal mortality rates

Table 8.3 Early childhood mortality rates according to demographic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, according to demographic characteristics, Ethiopia DHS 2016

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	49	26	74	22	94
Female	26	20	47	22	68
Mother's age at birth					
<20	47	27	74	21	93
20-29	32	24	55	20	74
30-39	44	19	63	27	88
40-49	56	(26)	(82)	*	*
Birth order					
1	48	25	73	24	95
2-3	32	22	53	23	75
4-6	33	22	55	17	71
7+	49	26	75	27	100
Previous birth interval[2]					
<2 years	54	38	92	24	114
2 years	29	23	52	28	78
3 years	20	10	30	14	44
4+ years	33	11	44	11	55
Birth size[3]					
Small/very small	31	25	56	na	na
Average or larger	27	16	43	na	na

Note: Figures in parentheses are based on 250-499 unweighted person-years exposure to the risk of death. An asterisk indicates that a figure is based on fewer than 250 unweighted person-years exposure to the risk of death and has been suppressed.
na = Not available
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the 5-year period preceding the survey

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the 5-year period preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	22	23	34	1,317
20-29	56	114	28	6,055
30-39	35	87	38	3,243
40-49	17	12	63	455
Previous pregnancy interval in months[4]				
First pregnancy	29	37	33	2,019
<15	20	52	45	1,624
15-26	19	53	29	2,507
27-38	16	28	23	1,920
39+	45	66	37	3,000
Residence				
Urban	10	41	42	1,215
Rural	120	195	32	9,855
Region				
Tigray	10	15	36	720
Affar	1	2	26	115
Amhara	50	43	44	2,105
Oromiya	39	106	30	4,856
Somali	7	19	50	513
Benishangul-Gumuz	1	3	29	122
SNNPR	20	41	26	2,298
Gambela	0	1	28	27
Harari	0	1	40	26
Addis Ababa	2	5	28	243
Dire Dawa	0	1	27	47
Mother's education				
No education	84	156	33	7,305
Primary	40	56	32	2,977
Secondary	3	13	30	516
More than secondary	3	11	52	272
Wealth quintile				
Lowest	31	41	27	2,654
Second	28	43	28	2,516
Middle	27	53	35	2,290
Fourth	27	52	39	2,018
Highest	16	47	40	1,592
Total	130	236	33	11,071

[1] Stillbirths are foetal deaths in pregnancies lasting 7 or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among children born alive.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of 7 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.

Table 8.5 High-risk fertility behaviour

Percent distribution of children born in the 5 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 DHS 2016

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	**23.7**	**1.00**	**16.3**[a]
Unavoidable risk category			
First order births between ages 18 and 34 years	14.6	1.03	7.2
In any avoidable high-risk category	**61.7**	**1.15**	**76.5**
Single high-risk category			
Mother's age <18	4.4	1.30	0.8
Mother's age >34	0.8	1.15	2.6
Birth interval <24 months	5.4	1.31	9.3
Birth order >3	27.1	0.81	18.7
Subtotal	**37.8**	**0.95**	**31.4**
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.4	2.33	0.3
Age >34 and birth interval <24 months	0.0	*	0.2
Age >34 and birth order >3	11.7	0.84	27.6
Age >34 and birth interval <24 months and birth order >3	2.3	2.58	5.2
Birth interval <24 months and birth order >3	9.5	1.97	11.8
Subtotal	**23.9**	**1.48**	**45.1**
Total	100.0	na	100.0
Subtotals by individual avoidable high-risk category			
Mother's age <18	4.8	3.60	1.1
Mother's age >34	14.8	14.44	35.5
Birth interval <24 months	19.8	16.94	42.5
Birth order >3	50.7	6.20	63.3
Number of births/women	11,023	na	10,223

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

MATERNAL HEALTH CARE 9

Key Findings

- ***Antenatal care:*** The proportion of women age 15-49 in Ethiopia who received antenatal care (ANC) from a skilled provider has increased from 27% in 2000 to 34% in 2011, and 62% in 2016. Thirty-two percent of women had at least four ANC visits during their last pregnancy.
- ***Components of antenatal care:*** Pregnant women are more likely to have their blood pressure measured (75%) and blood sample taken (73%), than to have their urine sample taken or to have received nutritional counselling (66% for both).
- ***Protection against neonatal tetanus:*** Nearly 49% of women had their last birth protected against neonatal tetanus.
- ***Delivery:*** Institutional deliveries have increased from 5% in 2000 to 10% in 2011, and 26% in 2016. During the same period, home deliveries decreased from 95% in 2000 to 90% in 2011, and 73% in 2016.
- ***Postnatal care:*** Seventeen percent of women and 13% of newborns received a postnatal check within the first 2 days of birth.
- ***Problems in accessing health care:*** The proportion of women age 15-49 who report having at least one of the specified problems in accessing health care decreased from 96% in 2005, to 94% in 2011, and 70% in 2016.

Health care services during pregnancy and after delivery are important for the survival and wellbeing of both the mother and the infant. Skilled care during pregnancy, childbirth, and the postpartum period are important interventions in reducing maternal and neonatal morbidity and mortality. As highlighted in the 2015-16 Health Sector Transformation Plan (HSTP), maternal and newborn health are priorities for the Government of Ethiopia (MOH, 2015). The HSTP key components are delivery at a health facility, with skilled medical attention and hygienic conditions; reduction in complications and infections during labour and delivery; timely postnatal care that treats complications from delivery; and education of the mother on care for herself and her infant. The goal of the reproductive health program is to reduc the maternal mortality ratio to 199 maternal deaths per 100,000 live births and the neonatal mortality rate to 10 per 1,000 live births by 2020.

This chapter presents information on antenatal care (ANC) and its main components: the number and timing of ANC visits, protection at birth from tetanus, blood pressure measurement, blood and urine sampling, nutritional counselling, iron folate supplementation, and information of the danger signs of pregnancy complications. The chapter also presents information on childbirth and postnatal care such as place of delivery, assistance during delivery, caesarean delivery, postnatal health checks for mothers and

newborns, and awareness and self-reports of obstetric fistula. The chapter concludes with an examination of key barriers women may face when seeking care during pregnancy, delivery, and the postnatal period.

9.1 Antenatal Care Coverage and Content

9.1.1 Skilled Providers

Antenatal care (ANC) from a skilled provider

Pregnancy care received from skilled providers, such as doctors and nurses/midwives, health officers, and health extension workers.

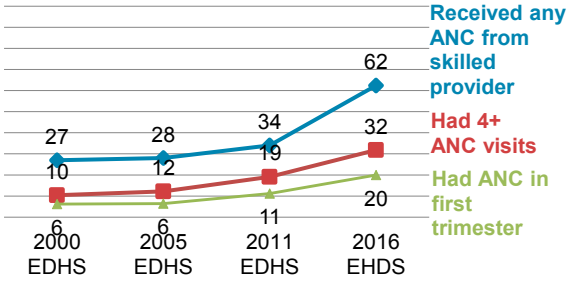
Sample: Women age 15-49 who had a live birth in the 5 years before the survey

The 2016 EDHS shows that 62% of women who had a live birth in the 5 years before the survey received ANC from a skilled provider at least once for their last birth (**Table 9.1**).

Trends: The proportion of women age 15-49 who received any ANC from a skilled provider has increased from 27% in 2000, to 28% in 2005, 34% in 2011, and 62% in 2016 (**Figure 9.1**).

***Figure 9.1* Trends in antenatal care coverage**

Percentage of women age 15-49 who had a live birth in the 5 years before the survey (for the most recent birth)



* Skilled provider for EDHS 2000, 2005, and 2011 includes doctor, nurse, and midwife. Skilled provider for EDHS 2016 includes doctor, nurse, midwife, health officer, and health extension worker.

Patterns by background characteristics

- Higher order births are less likely to receive ANC than lower order births. Fifty percent of women giving birth to their sixth or higher order child received ANC from a skilled provider, compared with 78% of women giving birth to their first child.
- Use of a skilled provider for ANC services varies by residence: urban women are more likely than rural women to receive any ANC from a skilled provider (90% and 58%, respectively).
- Among regions, ANC coverage from a skilled provider is highest in Addis Ababa (97%) and lowest in Somali (44%).
- Use of a skilled provider for ANC services increases with mother's level of education. Fifty-three percent of women with no education obtained ANC services from a skilled provider, compared with 98% of women with more than secondary education.
- Women in the highest wealth quintile (85%) are more likely than those in the lowest quintile (48%) to receive ANC from a skilled provider.

9.1.2 Timing and Number of ANC Visits

As recommended by the WHO, 32% of women had at least four ANC visits during their last pregnancy, while 37% of women in Ethiopia had no ANC visits (**Table 9.2**). Rural women are more likely to have had no ANC visits than urban women (41% and 10%, respectively).

Only 20% of women had their first ANC during the first trimester, 26% during their fourth to fifth month of pregnancy, and 14% during their sixth to seventh month of pregnancy. Two percent of women did not receive any ANC until the eight month of pregnancy or later.

Forty-four percent of women in urban areas receive ANC within their first trimester of pregnancy, compared with 17% of those in rural areas.

Trends: The proportion of women who received the recommended four or more ANC visits increased from 2000 (10%) to 2016 (32%). During this same time period, the proportion of women who received ANC in the first trimester has increased more than three times, from 6% in 2000 to 20% in 2016 (**Figure 9.1**).

9.2 COMPONENTS OF ANC

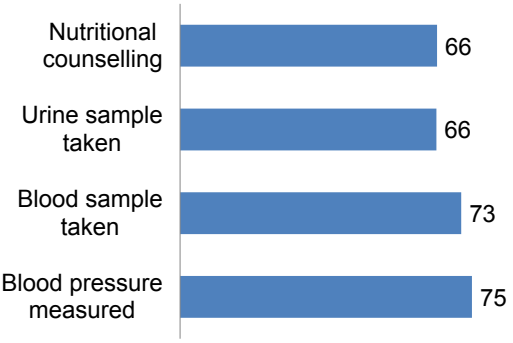
Standard guidelines for ANC in Ethiopia emphasise that every pregnant mother should receive ANC from a skilled provider that includes a thorough physical examination, blood tests for infection screening and anaemia, a urine test, tetanus toxoid injections, iron and folate supplements, and deworming medications.

Forty-two percent of women age 15-49 said that they took iron supplements, and 6% took drugs for intestinal parasites during the pregnancy of their last live birth in the 4 years before the survey (**Table 9.3**).

Among women who received ANC, about 4 in 5 women (75%) had their blood pressure measured, 73% had a blood sample taken, and 66% had a urine sample taken as a part of an ANC visit. Two-thirds of the women (66%) received nutritional counselling during their ANC visits (**Figure 9.2**).

***Figure 9.2* Components of antenatal care**

Among women who received ANC for their most recent birth, the percentage with selected services



Trends: Between 2000 and 2016, there has been an increase in three components of ANC visits. The proportion of pregnant women who had a urine sample collected increased 21% in 2000 to 66% in 2016, and blood samples from 25% in 2000 to 73% in 2016. The proportions of women who had their blood pressure measured increased from 69% to 75% between 2000 and 2016.

Patterns by background characteristics

- Women living in urban areas are more likely than women living in rural areas to take iron tablets (61% versus 39%).
- Sixty nine percent of women with more than secondary education took iron tablets during their pregnancy, compared with 36% of women with no education.

The survey also collected data on other components of ANC, such as whether the mother was informed of pregnancy complications or dangers signs, and the need for a birth preparedness plan. Among the women who had a live birth in the 5 years before the survey, 45% of women were informed of the signs of pregnancy complications or danger signs of pregnancy during ANC visits. Among women who were informed of danger signs and pregnancy complications during ANC visits, 50% were informed about vaginal bleeding; 49% about severe headache; 36% about fever; 29% about abdominal pain, 28% about vaginal gush of fluid; 18% about blurred vision; and 8% about convulsions (**Table 9.4**).

Among women who received ANC for their most recent live birth in the past 5 years, 56% were informed about a birth preparedness plan. Eighty seven percent of women were informed about place of birth, 39% about supplies needed for giving birth, 20% about emergency transportation, 19% about an emergency fund or money, 5% about support during and after birth, and 3% about potential blood donors (**Table 9.5**).

9.3 PROTECTION AGAINST NEONATAL TETANUS

Protection against neonatal tetanus

The number of tetanus toxoid injections needed to protect a baby from neonatal tetanus depends on the mother's vaccinations. A birth is protected against neonatal tetanus if the mother has received any of the following:

- Two tetanus toxoid injections during that pregnancy
- Two or more injections, the last one within 3 years of the birth
- Three or more injections, the last one within 5 years of the birth
- Four or more injections, the last one within 10 years of the birth
- Five or more injections at any time prior to the birth

Sample: Last live births in the 5 years before the survey to women age 15-49

Neonatal tetanus, a major cause of early infant death in many developing countries, is often due to failure to observe hygienic procedures during delivery. **Table 9.6** shows that 49% of women's last births were protected against neonatal tetanus.

Patterns by background characteristics

- First births are more likely to be protected against neonatal tetanus than sixth and higher order births (57% versus 43%)
- Women in urban areas are more likely to have their births protected again neonatal tetanus (72%) than women in rural areas (46%).
- Among regions, births protected again neonatal tetanus are highest in Addis Ababa (82%) and lowest in Affar (30%).
- The percentage of women whose last birth was protected from tetanus increases with education, from 41% among women with no education to 83% among those with more than secondary education.

Tetanus Vaccination Card

The 2016 EDHS also collected information on tetanus vaccination cards. The proportion of women who ever had a tetanus vaccination card was 85% (data not shown separately). All women were not able to produce their tetanus vaccination card at the time of the interview. Only 11% of women who had a TT injection had their cards seen by the interviewers, while 74% of the women were not able to show the card during the interview (**Table 9.7**).

9.4 DELIVERY SERVICES

9.4.1 Institutional Deliveries

Institutional deliveries

Deliveries that occur in a health facility.

Sample: All live births in the 5 years before the survey

Increasing institutional deliveries is important for reducing maternal and neonatal mortality. However, access to health facilities in rural areas is more difficult than in urban areas because of distance, inaccessibility, and the lack of appropriate facilities. Although institutional delivery has been promoted in Ethiopia, home delivery is still common, primarily in hard-to-reach areas. Twenty-six percent of live births in the 5 years before the survey were delivered in a health facility (**Table 9.8**).

Trends: Institutional deliveries have increased from 5% in 2000, 10% in 2011, and 26% in the 2016 EDHS. During the same period, a sharp decline in home deliveries was observed, from 95% in 2000 to 73% in 2016 (**Figure 9.3**). Institutional deliveries for women living in rural areas has substantially increased in the last 16 years, from 2% in 2000 to 20% in the 2016 EDHS. Facility delivery among urban women has also increased from 32% in 2000 to 79% in 2016.

Patterns by background characteristics

- Sixth and higher-order births are much more likely to be home deliveries; 84% of sixth or higher order births occurred at home compared with 50% of first births.
- Antenatal care increases the likelihood of an institutional delivery. Fifty-six percent of births to mothers who attended more than four ANC visits were delivered in a health facility compared to 8% of births to mothers with no ANC visits.
- Institutional delivery is lowest in Affar (15%) followed by Somali (18%) (**Figure 9.4**).
- Ninety-two percent of births to mothers with more than a secondary education were delivered in a health facility compared with 16% of births to mothers with no education (**Figure 9.5**).

Figure 9.3 Trends in place of birth

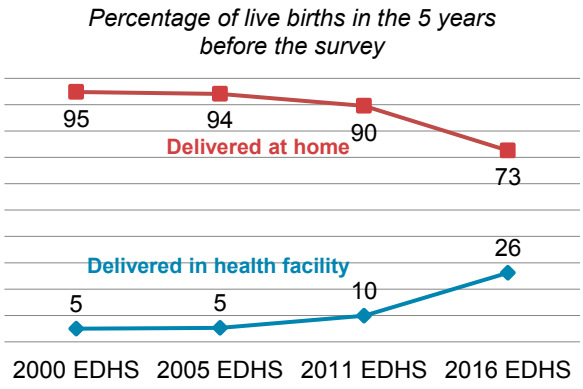


Figure 9.4 Health facility births by region

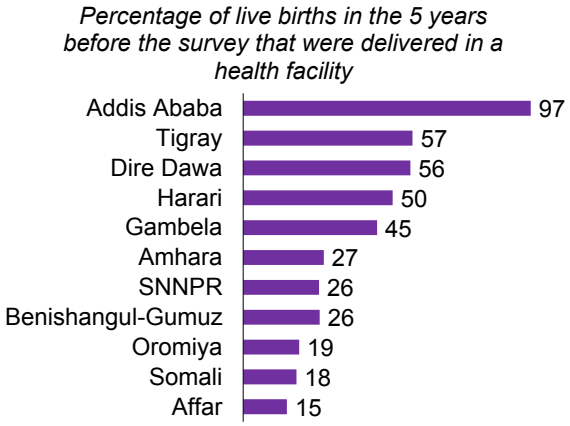
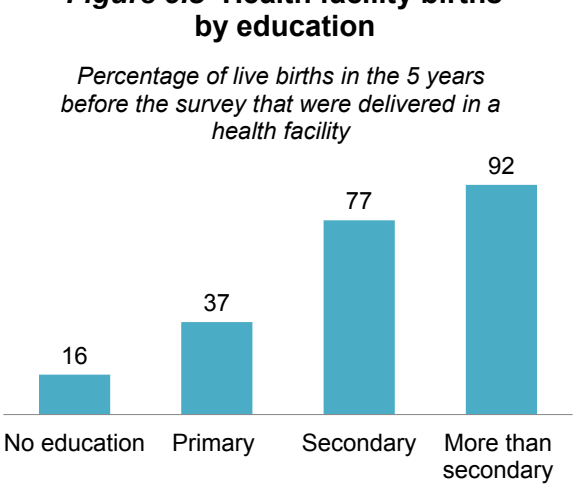


Figure 9.5 Health facility births by education



9.4.2 Skilled Assistance during Delivery

Skilled assistance during delivery

Births delivered with the assistance of doctors, nurse/midwives, health officers, and health extension workers.

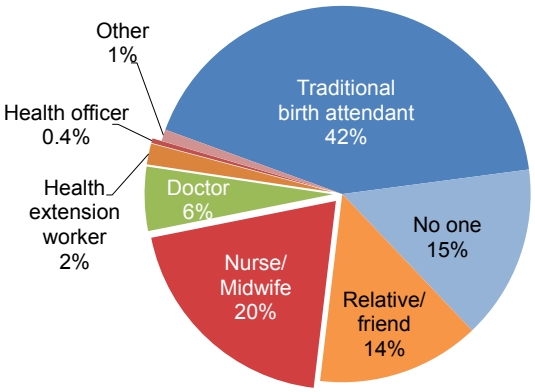
Sample: All live births in the 5 years before the survey

In the 5 years before the survey, 28% of births were delivered by a skilled provider (**Table 9.9**). The majority of births are attended by traditional birth attendant (42%), nurses or midwives (20%) followed by doctors (6%), health extension workers (2%), and health officers (0.4%) (**Figure 9.6**).

Trends: Skilled assistance during deliveries in Ethiopia has been increasing during the last 16 years. The proportion of births in health facilities assisted by a skilled provider increased from 6% in 2000 to 28% in 2016.

***Figure 9.6* Assistance during delivery**

Percent distribution of births in the 5 years before the survey

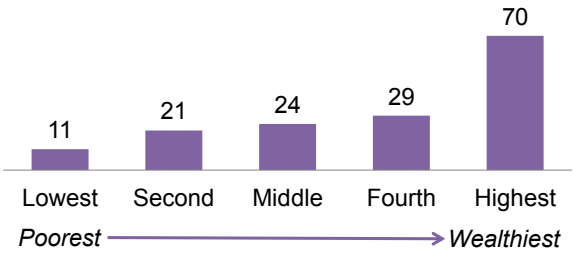


Patterns by background characteristics

- Fifty-eight percent of births to mothers who attended four or more ANC visits were delivered by a skilled attendant compared to 10% of births to mothers with no ANC visits.
- Births to urban women (80%) are more likely to have skilled attendance compared with women in rural areas (21%).
- There are large differences by regions in the proportion of births assisted by skilled providers; these range from 97% in Addis Ababa to only 16% in Affar.
- Births in the highest wealth quintile are almost six times more likely than those in lowest quintile to be assisted by skilled providers (70% versus 11%) (**Figure 9.7**).

***Figure 9.7* Skilled assistance at delivery by household wealth**

*Percentage of live births in the 5 years before the survey assisted by a skilled provider**



* Skilled provider for EDHS 2000, 2005, and 2011 includes doctor, nurse, and midwife. Skilled provider for EDHS 2016 includes doctor, nurse, midwife, health officer, and health extension worker.

9.4.3 Delivery by Caesarean Section

Access to caesarean sections can reduce maternal and neonatal mortality and complications such as obstetric fistula. However, use of caesarean section without medical need can put women at risk of short-term and long-term health problems. The WHO advises that caesarean sections be done when medically necessary, but does not recommend a specific rate for countries to achieve at the population level.

The 2016 EDHS found that 2% of live births in the 5 years before the survey were delivered by caesarean section (C-section). One percent of the C-sections were decided after the onset of labour pains, compared to the less than 1% that were decided before onset of labour pains (**Table 9.10**).

Trends: Since 2000, the rates of C-sections have not changed. One percent of births occurred with C-section in 2000 compared with 2% in 2011 and in 2016.

Patterns by background characteristics

- Caesarean section rates are higher among first births (4.3%) than for those of higher orders.
- The caesarean section rate in urban areas is more than 10 times (11%) that in rural areas (1%).
- More educated women are more likely to undergo caesarean deliveries. The caesarean rate for deliveries for women with more than secondary education is 21%, compared with women with secondary education (6%), primary education (3%), and no education (1%).

Among women who had their most recent live birth in a health facility, 79% of those who gave birth by C-section spent three or more days at the facility after delivery compared with 5% of those who had a vaginal birth (**Table 9.11**).

9.5 POSTNATAL CARE

9.5.1 Postnatal Health Check for Mothers

A large proportion of maternal and neonatal deaths occurs during the first 24 hours after delivery. For both the mother and infant, prompt postnatal care is important for treating complications that arise from delivery and providing the mother with important information on caring for herself and her baby. The 2016 EDHS found that among women age 15-49 giving birth in the 2 years before the survey, 17% had a postnatal check during the first 2 days after birth. Four in five women (81%) did not receive a postnatal check (**Table 9.12**).

Patterns by background characteristics

- Women who delivered in a health facility were much more likely to receive a postnatal health check within 2 days of delivery than those who delivered elsewhere (42% versus 2%).
- Forty-five percent of urban women received a postnatal check-up within 2 days compared to 13% of rural women.
- The proportion of women who received postnatal check-ups in the 2 days after delivery varies widely by region, from a low of 9% in Oromiya to a high of 55% in Addis Ababa.

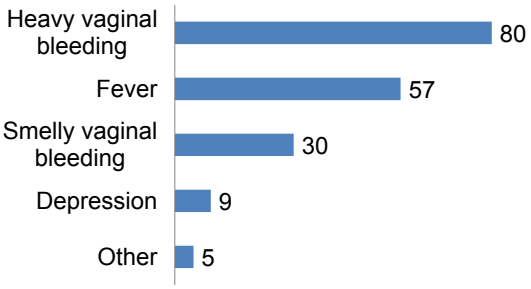
Type of Provider

The skills of the provider determine the provider's ability to diagnose problems and recommend appropriate treatment or referral. Fifteen percent of women received a postnatal check from a doctor, nurse, or midwife. Only 1% of women received a check from a health officer, and another 1% from a health extension worker (HEW) (**Table 9.13**).

Among women who had a postnatal check during the first 2 days after birth, 25% were informed about danger signs of maternal health after delivery (table not shown). Eighty percent were informed about heavy vaginal bleeding, 57% about fever, 30% about smelly vaginal bleeding, and 9% about depression (**Figure 9.8**).

***Figure 9.8* Components of information about maternal danger signs after delivery**

Among most recent live birth in the 2 years preceding the survey, the percentage of women who were informed about selected maternal danger signs after delivery



9.5.2 Postnatal Health Check for Newborns

The first 48 hours of life is a critical phase in the lives of newborn babies and a period in which many neonatal deaths occur. Lack of postnatal health checks during this period can delay the identification of newborn complications and the initiation of appropriate care and treatment. **Table 9.14** shows that only 13% of newborns had a postnatal check within the first 2 days after birth, while 86% received no postnatal check-up.

Patterns by background characteristics

- Newborns born to urban women are more likely than those born to rural women to receive a check-up within the first 2 days after birth (37% and 10%).
- The percentage of newborn check-ups within the first 2 days increases with education and wealth quintile: 7% of babies born to women with no education received a postnatal check-up, compared with 52% of babies born to women with more than secondary education.

Type of Provider Content

Twelve percent of newborns received a postnatal check-up within 2 days after birth from either a doctor, nurse, or midwife, while less than 1% received a check-up from a health officer, 1% from a HEW, and less than 1% from traditional birth attendant (**Table 9.15**).

Patterns by background characteristics

- Newborns delivered in a health facility were much more likely to receive a postnatal health check from a skilled provider within 2 days of birth than those delivered elsewhere (34% versus 1%).
- Newborns born to women who reside in urban areas (37%) are more likely to receive a postnatal check from a skilled provider within the first 2 days after birth compared with newborns born to women from rural areas (10%).
- Fifty-two percent of babies born to mothers with more than secondary education received postnatal check from a skilled provider within 2 days compared with 7% of babies born to mothers with no education.

Other Components of Newborn Postnatal Care

The survey also collected data on other components of postnatal care such as whether selected functions were performed within 2 days after birth, and whether the mother was informed of dangers signs in newborns. Among last births in the 2 years before the survey, 27% of newborns had at least two signal functions performed within 2 days after birth (**Table 9.16**). Among recent live births in the 2 years before the survey, one in three women (34%) were informed about danger signs in newborns (table not shown).

Additional data on important newborn care practice such as Vitamin K injection and tetracycline (TTC) eye ointment were also collected. Among most recent live births in the 2 years before the survey delivered in a health facility, 41% of newborn received a Vitamin K injection, and 34% of newborns had TTC ointment applied to their eyes. For detailed information on Vitamin K injection and TTC eye ointment application, see **Table 9.17**.

One important newborn care practice is care of the umbilical cord. **Table 9.18** shows that 15% of babies had some material placed on their umbilical stump. Among births who had something applied on stump, the materials applied included any type of oil (68%), ointment (19%), unknown material (11%), ash (2%), and dung (1%). For detailed information on care of the umbilical cord, see **Table 9.18**.

9.6 Obstetric Fistula

Obstetric fistula is a hole between the vagina and rectum or bladder that causes urinary or faecal incontinence. Fistula typically results from problems during labour, surgical error, or trauma. In Ethiopia, only 4 in 10 women age 15-49 (39%) have heard of obstetric fistula. Less than one percent of women report that they have experienced obstetric fistula (**Table 9.19**).

9.7 Problems in Accessing Health Care

Problems in accessing health care

Women were asked whether each of the following factors is a big problem in seeking medical advice or treatment for themselves when they are sick:

- getting permission to go to the doctor
- getting money for advice or treatment
- distance to a health facility
- not wanting to go alone

Sample: Women age 15-49

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

In Ethiopia, more than 2 in 3 women (70%) report having at least one of the specified problems in accessing health care. Among these problems, getting money for advice or treatment was the leading issue (55%), followed by the distance to a health facility (50%), not wanting to go alone (42%), and getting permission to go for treatment (32%) (**Table 9.20**).

List of Tables

For more information on maternal health care, see the following tables:

- **Table 9.1 Antenatal care**
- **Table 9.2 Number of antenatal care visits and timing of first visit**
- **Table 9.3 Components of antenatal care**
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- **Table 9.20 Problems in accessing health care**

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the 5 years before the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Antenatal care provider						No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ midwife	Health officer	Health extension worker	Traditional birth attendant	Other				
Mother's age at birth										
<20	4.3	47.0	0.5	14.9	0.4	0.0	32.8	100.0	66.8	835
20-34	6.2	42.8	1.8	13.3	0.3	0.2	35.4	100.0	64.0	5,428
35-49	4.8	35.7	0.4	11.9	0.1	0.2	47.0	100.0	52.8	1,326
Birth order										
1	10.1	54.9	1.4	11.4	0.4	0.2	21.6	100.0	77.8	1,445
2-3	7.2	44.3	1.8	13.6	0.2	0.2	32.7	100.0	66.9	2,288
4-5	3.9	39.7	1.4	13.2	0.4	0.2	41.2	100.0	58.2	1,751
6+	2.6	32.6	1.0	14.2	0.2	0.1	49.3	100.0	50.4	2,105
Residence										
Urban	24.2	64.0	1.1	0.8	0.2	0.0	9.7	100.0	90.1	969
Rural	3.0	38.8	1.4	15.1	0.3	0.2	41.2	100.0	58.3	6,621
Region										
Tigray	10.6	71.4	1.3	6.7	0.0	0.4	9.6	100.0	90.0	537
Affar	12.0	38.8	0.0	0.5	0.0	0.3	48.4	100.0	51.3	71
Amhara	6.9	48.4	0.7	11.1	0.1	0.4	32.4	100.0	67.1	1,632
Oromiya	3.1	32.4	1.4	13.8	0.5	0.1	48.6	100.0	50.7	3,129
Somali	7.2	33.1	0.9	2.5	0.4	0.0	56.0	100.0	43.6	269
Benishangul-Gumuz	3.8	44.5	2.6	17.9	0.3	0.2	30.8	100.0	68.7	81
SNNPR	2.1	44.5	2.0	20.7	0.1	0.2	30.4	100.0	69.3	1,601
Gambela	14.1	54.2	0.9	3.1	0.4	0.0	27.3	100.0	72.3	21
Harari	18.4	53.0	0.0	4.5	0.4	0.0	23.7	100.0	75.9	17
Addis Ababa	46.1	49.0	1.3	0.3	0.0	0.0	3.2	100.0	96.8	198
Dire Dawa	21.7	58.9	2.3	4.5	0.0	0.0	12.6	100.0	87.4	33
Education										
No education	2.8	35.5	1.2	13.8	0.3	0.2	46.1	100.0	53.3	4,791
Primary	6.7	49.9	1.7	14.7	0.2	0.2	26.6	100.0	73.0	2,150
Secondary	17.3	67.6	2.5	4.9	0.1	0.0	7.6	100.0	92.3	420
More than secondary	37.8	57.3	0.4	2.6	0.8	0.0	1.1	100.0	98.0	230
Wealth quintile										
Lowest	2.1	30.0	0.4	15.0	0.5	0.1	51.9	100.0	47.5	1,651
Second	3.5	38.1	1.3	12.9	0.4	0.4	43.4	100.0	55.8	1,654
Middle	2.0	42.0	1.7	16.8	0.0	0.1	37.3	100.0	62.6	1,588
Fourth	4.8	45.4	2.7	14.2	0.3	0.4	32.2	100.0	67.1	1,427
Highest	19.2	58.9	1.0	5.7	0.2	0.1	15.0	100.0	84.8	1,269
Total	5.7	42.0	1.4	13.2	0.3	0.2	37.1	100.0	62.4	7,590

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife, health officer, and health extension worker (HEW).

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 5 years before 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 DHS 2016

Number of ANC visits and timing of first visit	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	9.7	41.2	37.1
1	3.2	4.6	4.4
2-3	23.9	26.8	26.4
4+	62.7	27.3	31.8
Don't know/missing	0.6	0.1	0.2
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	9.7	41.2	37.1
<4	44.1	17.0	20.4
4-5	35.1	24.6	26.0
6-7	9.9	14.2	13.6
8+	1.1	2.6	2.4
Don't know/missing	0.1	0.5	0.4
Total	100.0	100.0	100.0
Number of women	969	6,621	7,590
Median months pregnant at first visit (for those with ANC)	4.0	4.9	4.7
Number of women with ANC	875	3,896	4,771

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the 5 years before the survey, 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 5 years before the survey, percentage receiving specific antenatal services, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Among women with a live birth in the past 5 years, percentage who during the pregnancy for their most recent live birth:		Number of women with a live birth in the past 5 years	Among women who received antenatal care for their most recent birth in the past 5 years, percentage with the selected services				Number of women with ANC for their most recent birth
	Took iron tablets	Took intestinal parasite drugs		Blood pressure measured	Urine sample taken	Blood sample taken	Nutritional Counselling	
Mother's age at birth								
<20	43.6	5.8	835	68.1	67.5	67.9	59.3	561
20-34	43.5	6.1	5,428	75.8	66.4	73.6	67.0	3,508
35-49	35.3	4.0	1,326	78.7	63.5	71.1	68.2	702
Birth order								
1	53.1	6.2	1,445	77.6	77.7	79.4	67.0	1,134
2-3	45.4	6.7	2,288	77.9	68.2	76.7	67.9	1,541
4-5	38.9	5.5	1,751	70.3	60.5	67.3	65.4	1,030
6+	33.4	4.4	2,105	73.7	56.2	64.3	64.0	1,067
Residence								
Urban	60.6	7.7	969	91.3	91.8	94.5	75.4	875
Rural	39.3	5.4	6,621	71.7	60.3	67.6	64.2	3,896
Region								
Tigray	77.2	8.7	537	89.6	82.3	90.7	82.9	486
Affar	43.4	4.5	71	73.5	71.7	76.2	53.7	37
Amhara	53.4	6.7	1,632	77.3	69.0	80.2	73.5	1,104
Oromiya	29.9	5.3	3,129	69.6	60.5	62.4	58.7	1,607
Somali	27.7	1.4	269	82.0	73.0	74.6	48.0	118
Benishangul-Gumuz	47.9	9.0	81	65.4	63.3	72.9	61.7	56
SNNPR	41.3	5.0	1,601	70.8	56.7	66.0	62.3	1,115
Gambela	41.6	4.7	21	75.9	78.5	82.8	56.9	15
Harari	50.8	3.8	17	90.0	85.9	87.8	74.9	13
Addis Ababa	63.7	5.4	198	97.3	99.3	98.7	83.1	192
Dire Dawa	59.9	11.8	33	88.3	91.3	91.8	72.7	29
Education								
No education	36.2	4.8	4,791	69.8	57.4	65.4	63.6	2,580
Primary	47.9	7.1	2,150	77.4	71.6	76.9	65.8	1,577
Secondary	64.7	8.2	420	91.0	85.5	88.5	76.8	388
More than secondary	68.9	6.5	230	96.0	93.2	96.5	81.8	227
Wealth quintile								
Lowest	31.4	3.9	1,651	68.5	53.3	60.0	53.7	794
Second	41.3	4.5	1,654	68.1	59.6	68.4	62.3	935
Middle	39.2	6.3	1,588	71.6	59.1	66.9	65.3	996
Fourth	45.4	7.0	1,427	74.7	67.6	71.5	69.3	967
Highest	56.6	7.3	1,269	90.3	86.3	91.5	77.1	1,079
Total	42.1	5.7	7,590	75.3	66.1	72.5	66.3	4,771

Table 9.4 Signs of pregnancy complications

Among women who received antenatal care for their most recent live birth in the past 5 years, percentages who were informed of signs of pregnancy complications or danger signs at an antenatal care visit, and among women who were informed of signs of pregnancy complications or danger signs, percentage who were informed of specific pregnancy complications, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who were informed of pregnancy compli-cations or danger signs of pregnancy	Number of women with a live birth in the past 5 years with ANC for their most recent birth	Among women who received antenatal care for their most recent live birth in the past 5 years, percentage who were informed of specific pregnancy complications								Number of women were informed of specific pregnancy compli-cations at an ante-natal care visit for their most recent birth
			Vaginal bleeding	Vaginal gush of fluid	Severe headache	Blurred vision	Fever	Abdominal pain	Convulsion	Other	
Mother's age at birth											
<20	37.7	561	48.0	27.7	50.6	19.2	43.2	27.8	9.9	2.8	212
20-34	45.9	3,508	48.9	26.4	50.2	18.3	36.5	29.1	8.2	1.6	1,611
35-49	45.9	702	56.1	32.8	43.8	17.3	30.0	29.4	8.3	0.0	323
Birth order											
1	45.4	1,134	51.4	30.8	53.0	19.9	39.2	29.0	9.2	2.2	515
2-3	46.4	1,541	47.8	22.5	49.3	18.0	41.7	31.4	9.2	2.3	714
4-5	43.8	1,030	49.4	27.7	47.5	15.7	28.6	25.7	6.8	0.8	451
6+	43.6	1,067	52.1	31.2	46.8	19.2	31.6	28.6	7.7	0.0	465
Residence											
Urban	60.2	875	55.7	26.6	54.2	21.1	39.0	28.9	9.9	2.8	527
Rural	41.5	3,896	48.0	27.8	47.7	17.3	35.2	29.1	7.9	1.0	1,619
Region											
Tigray	54.1	486	51.6	20.8	47.1	23.0	30.6	25.7	13.7	0.3	263
Affar	33.5	37	34.9	13.9	51.2	10.2	36.8	24.8	4.8	1.0	12
Amhara	47.1	1,104	59.6	25.4	48.1	10.0	34.3	17.8	4.1	3.1	520
Oromiya	35.0	1,607	37.7	33.0	47.7	17.6	39.9	29.5	8.1	0.0	562
Somali	30.7	118	42.2	21.0	60.5	23.3	33.8	33.5	20.7	0.0	36
Benishangul-Gumuz	50.6	56	49.3	13.0	54.9	21.9	35.9	33.7	12.7	0.0	28
SNNPR	49.9	1,115	49.3	27.5	46.8	22.1	34.5	38.3	9.2	2.4	556
Gambela	38.1	15	49.7	31.7	58.1	32.2	36.9	26.8	14.2	0.6	6
Harari	52.9	13	33.1	26.6	56.2	21.1	30.2	26.5	1.8	1.1	7
Addis Ababa	74.9	192	66.9	32.3	67.1	25.2	45.4	36.8	8.9	0.7	144
Dire Dawa	34.3	29	36.9	10.9	65.6	7.1	40.4	23.1	3.0	0.0	10
Education											
No education	40.0	2,580	49.5	26.9	45.6	17.0	33.4	26.9	5.4	0.7	1,032
Primary	45.6	1,577	48.2	27.0	53.2	16.9	38.9	30.2	8.9	1.3	719
Secondary	63.1	388	53.3	31.5	47.2	19.2	37.7	35.1	17.1	3.6	245
More than secondary	66.3	227	55.1	27.4	59.0	31.5	39.8	28.1	12.2	3.5	150
Wealth quintile											
Lowest	33.1	794	51.7	29.4	45.3	18.3	34.7	22.6	6.0	0.3	263
Second	38.5	935	41.7	25.3	45.1	19.1	38.2	28.3	7.9	1.4	360
Middle	40.1	996	50.8	25.2	51.3	16.1	33.9	26.3	7.3	1.7	400
Fourth	45.7	967	49.6	28.6	47.2	18.3	32.7	34.7	9.5	0.9	442
Highest	63.1	1,079	53.2	28.5	53.1	18.9	39.3	29.8	9.4	2.2	680
Total	45.0	4,771	49.9	27.5	49.3	18.2	36.2	29.0	8.4	1.5	2,145

Table 9.5 Birth preparedness plan

Among women who received antenatal care for their most recent live birth in the past 5 years, percentages who were informed about a birth preparedness plan at an antenatal care visit, and among women who were informed about a birth preparedness plan at an antenatal care visit, percentage who were informed of specific preparation plans, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who were informed about a birth prepared-ness plan	Number of women with a live birth in the past 5 years with ANC for their most recent birth	Among women who received antenatal care for their most recent live birth in the past 5 years, percentage who were informed of:							Number of women informed about birth prepared-ness plan at an antenatal care visit for their most recent birth
			Place of birth	Supplies needed for birth	Emergency transpor-tation	Money/ emergency fund	People to support during/ after birth	Potential blood donors	Other	
Mother's age at birth										
<20	50.5	561	87.4	40.6	16.6	18.9	3.8	1.5	0.0	283
20-34	55.9	3,508	86.8	40.0	19.8	19.0	5.3	2.7	0.2	1,962
35-49	60.7	702	87.6	35.3	21.4	18.1	5.5	2.7	0.4	426
Birth order										
1	57.7	1,134	86.1	44.6	22.4	18.0	5.1	2.6	0.4	654
2-3	56.4	1,541	87.8	38.2	19.5	20.5	5.8	3.0	0.2	869
4-5	53.0	1,030	85.2	36.7	16.7	15.6	3.5	1.8	0.0	546
6+	56.5	1,067	88.3	37.5	19.9	20.5	5.8	2.6	0.3	603
Residence										
Urban	59.1	875	82.5	51.2	29.5	24.2	8.4	5.8	0.5	517
Rural	55.3	3,896	88.1	36.5	17.4	17.6	4.4	1.8	0.2	2,155
Region										
Tigray	77.2	486	89.8	40.1	27.5	10.8	4.3	1.9	0.0	375
Affar	21.9	37	78.8	37.7	11.8	7.8	4.5	0.0	0.0	8
Amhara	65.8	1,104	95.3	19.5	9.9	4.4	2.3	1.3	0.0	727
Oromiya	46.3	1,607	78.9	48.9	24.9	26.9	3.9	3.0	0.4	744
Somali	32.8	118	92.9	28.5	12.7	15.7	9.4	1.3	0.0	39
Benishangul-Gumuz	48.9	56	90.1	21.4	17.8	17.1	12.1	0.0	0.0	27
SNNPR	54.2	1,115	89.3	46.1	17.3	26.7	7.8	3.6	0.6	604
Gambela	42.9	15	91.7	48.9	29.4	17.8	2.7	2.9	0.0	6
Harari	60.8	13	78.8	16.1	27.5	17.5	9.8	5.3	0.0	8
Addis Ababa	62.9	192	64.5	72.5	36.8	43.3	17.6	5.8	0.0	121
Dire Dawa	45.6	29	87.9	32.6	13.9	27.2	0.9	2.4	0.0	13
Education										
No education	54.1	2,580	88.6	33.0	15.8	16.6	4.1	2.1	0.1	1,395
Primary	55.9	1,577	86.4	41.6	19.6	20.4	5.6	1.5	0.0	882
Secondary	62.5	388	81.9	58.5	32.6	17.4	7.0	2.7	2.0	242
More than secondary	67.5	227	84.4	53.8	35.4	32.6	9.4	12.1	0.0	153
Wealth quintile										
Lowest	49.0	794	87.9	36.7	19.4	14.8	2.2	0.0	0.0	389
Second	49.9	935	90.8	34.0	13.6	13.0	4.2	2.7	0.4	467
Middle	56.7	996	86.7	35.9	15.7	21.2	4.2	1.8	0.3	565
Fourth	58.8	967	89.8	34.9	18.4	16.8	5.8	2.2	0.0	568
Highest	63.3	1,079	81.8	51.0	28.5	25.0	7.8	4.9	0.4	683
Total	56.0	4,771	87.0	39.3	19.7	18.9	5.2	2.6	0.2	2,672

Table 9.6 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the 5 years before the survey, percentage receiving two or more tetanus toxoid (TT) injections during the pregnancy for the most recent live birth and percentage whose most recent live birth was protected against neonatal tetanus, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage receiving two or more injections during the pregnancy for the most recent live birth	Percentage whose most recent live birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	40.5	47.3	835
20-34	43.2	51.2	5,428
35-49	32.5	40.9	1,326
Birth order			
1	48.4	56.9	1,445
2-3	42.8	52.0	2,288
4-5	38.3	45.9	1,751
6+	36.4	42.9	2,105
Residence			
Urban	56.9	72.4	969
Rural	38.7	45.6	6,621
Region			
Tigray	41.2	62.0	537
Affar	28.1	30.2	71
Amhara	35.7	44.8	1,632
Oromiya	41.4	46.7	3,129
Somali	32.2	38.4	269
Benishangul-Gumuz	44.4	53.4	81
SNNPR	44.3	50.9	1,601
Gambela	49.2	55.4	21
Harari	63.9	70.1	17
Addis Ababa	61.7	81.5	198
Dire Dawa	63.3	71.5	33
Education			
No education	34.9	41.3	4,791
Primary	49.1	57.4	2,150
Secondary	59.5	76.0	420
More than secondary	61.6	82.5	230
Wealth quintile			
Lowest	30.6	35.8	1,651
Second	37.3	43.8	1,654
Middle	38.8	46.6	1,588
Fourth	47.2	54.5	1,427
Highest	55.7	69.8	1,269
Total	41.1	49.0	7,590

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

Table 9.7 Tetanus vaccination card

Among women age 15-49 with a live birth in the 5 years before the survey who received tetanus toxoid (TT) injection, percentage who received a tetanus vaccination card during the pregnancy for the most recent live birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage with TT vaccination card			Total	Number of mothers who had TT injection
	TT card seen	TT card not seen	Never had a TT card		
Mother's age at birth					
<20	11.9	75.7	12.4	100.0	454
20-34	10.8	74.0	15.2	100.0	3,071
35-49	12.5	74.6	12.9	100.0	562
Birth order					
1	13.6	73.0	13.4	100.0	909
2-3	12.3	74.0	13.7	100.0	1,354
4-5	8.9	74.2	16.9	100.0	863
6+	9.2	75.8	15.0	100.0	961
Residence					
Urban	16.9	73.1	9.9	100.0	723
Rural	9.9	74.5	15.6	100.0	3,365
Region					
Tigray	7.1	71.7	21.2	100.0	319
Affar	16.3	61.6	22.2	100.0	27
Amhara	6.8	76.0	17.2	100.0	863
Oromiya	13.6	71.0	15.4	100.0	1,607
Somali	7.9	56.1	36.0	100.0	116
Benishangul-Gumuz	9.5	77.0	13.4	100.0	43
SNNPR	8.7	83.8	7.5	100.0	907
Gambela	4.7	85.3	10.1	100.0	13
Harari	1.4	92.7	5.9	100.0	13
Addis Ababa	36.0	58.6	5.4	100.0	154
Dire Dawa	14.1	82.5	3.4	100.0	26
Education					
No education	9.9	74.3	15.9	100.0	2,242
Primary	10.1	75.2	14.7	100.0	1,350
Secondary	18.3	71.5	10.3	100.0	316
More than secondary	22.6	71.8	5.7	100.0	179
Wealth quintile					
Lowest	5.5	76.9	17.6	100.0	690
Second	10.6	74.3	15.2	100.0	817
Middle	8.0	75.4	16.6	100.0	828
Fourth	13.2	72.2	14.6	100.0	851
Highest	16.9	73.2	9.9	100.0	902
Total	11.1	74.3	14.6	100.0	4,087

Table 9.8 Place of delivery

Percent distribution of live births in the 5 years before the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Health facility			Home	Other	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector	NGO					
Mother's age at birth								
<20	30.1	1.0	0.3	66.8	1.7	100.0	31.4	1,301
20-34	24.9	1.2	0.3	72.4	1.2	100.0	26.4	8,090
35-49	20.0	0.9	0.3	77.8	1.0	100.0	21.2	1,632
Birth order								
1	44.9	2.5	0.9	50.4	1.3	100.0	48.3	2,070
2-3	27.5	1.3	0.2	69.4	1.5	100.0	29.1	3,366
4-5	17.5	0.6	0.1	80.9	0.9	100.0	18.2	2,609
6+	14.2	0.5	0.1	84.2	1.1	100.0	14.7	2,978
Antenatal care visits[1]								
None	8.0	0.4	0.0	90.7	0.9	100.0	8.4	2,818
1-3	33.4	0.5	0.4	64.1	1.6	100.0	34.3	2,342
4+	52.7	3.0	0.6	41.6	2.0	100.0	56.3	2,415
Residence								
Urban	71.0	6.8	1.4	20.6	0.2	100.0	79.2	1,216
Rural	19.1	0.4	0.1	79.0	1.3	100.0	19.7	9,807
Region								
Tigray	56.5	0.3	0.1	41.0	2.0	100.0	56.9	716
Affar	12.9	1.1	0.7	85.1	0.2	100.0	14.7	114
Amhara	26.4	0.5	0.2	71.4	1.5	100.0	27.1	2,072
Oromiya	17.8	0.8	0.2	80.5	0.8	100.0	18.8	4,851
Somali	16.1	1.2	0.6	82.0	0.1	100.0	17.9	508
Benishangul-Gumuz	25.4	0.0	0.3	73.3	1.1	100.0	25.7	122
SNNPR	25.0	0.3	0.2	72.5	2.0	100.0	25.5	2,296
Gambela	38.1	1.8	5.0	53.6	1.4	100.0	45.0	27
Harari	41.7	6.9	1.7	49.4	0.3	100.0	50.2	26
Addis Ababa	71.4	22.2	3.0	3.0	0.4	100.0	96.6	244
Dire Dawa	49.8	6.4	0.0	42.1	1.7	100.0	56.2	47
Mother's education								
No education	15.5	0.4	0.1	83.0	1.1	100.0	15.9	7,284
Primary	34.9	1.3	0.5	61.7	1.6	100.0	36.8	2,951
Secondary	71.8	4.3	1.3	21.9	0.7	100.0	77.4	514
More than secondary	75.6	13.8	2.0	8.5	0.0	100.0	91.5	274
Wealth quintile								
Lowest	10.5	0.1	0.1	88.1	1.3	100.0	10.6	2,636
Second	18.6	0.0	0.0	80.2	1.2	100.0	18.6	2,520
Middle	21.7	0.5	0.1	76.1	1.6	100.0	22.2	2,280
Fourth	26.4	0.8	0.1	71.2	1.5	100.0	27.3	1,999
Highest	60.9	6.1	1.6	31.2	0.1	100.0	68.6	1,588
Total	24.8	1.1	0.3	72.6	1.2	100.0	26.2	11,023

Note: Total includes 15 weighted cases with information missing on antenatal care visits.
[1] Includes only the most recent birth in the 5 years before the survey.

Table 9.9 Assistance during delivery

Percent distribution of live births in the 5 years before the survey by person providing assistance during delivery, percentage of birth assisted by a skilled provider, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Person providing assistance during delivery									Percentage delivered by a skilled provider[1]	Number of births
	Doctor	Nurse/ midwife	Health officer	Health extension worker (HEW)	Traditional birth attendant	Relative/ friends/ neighbors	Other	No one	Total		
Mother's age at birth											
<20	4.8	25.3	0.3	2.4	40.3	14.3	1.1	11.3	100.0	32.8	1,301
20-34	5.8	19.7	0.5	1.8	42.1	14.3	0.9	14.9	100.0	27.8	8,090
35-49	4.6	17.0	0.2	1.3	45.6	12.3	0.9	18.0	100.0	23.1	1,632
Birth order											
1	11.8	35.2	0.6	2.1	30.8	12.6	1.0	5.8	100.0	49.8	2,070
2-3	6.9	22.2	0.4	1.5	40.9	13.8	0.4	13.9	100.0	31.0	3,366
4-5	2.3	14.7	0.8	1.3	46.4	15.2	1.0	18.3	100.0	19.0	2,609
6+	2.2	11.6	0.0	2.4	48.6	14.3	1.4	19.6	100.0	16.2	2,978
Antenatal care visits[2]											
None	1.4	7.2	0.2	0.9	53.9	13.3	1.4	21.7	100.0	9.7	2,818
1-3	5.4	26.8	0.4	3.1	37.5	14.4	1.1	11.3	100.0	35.7	2,342
4+	13.7	40.8	1.1	2.6	23.0	11.3	0.4	7.0	100.0	58.2	2,415
Place of delivery											
Health facility	19.6	73.0	1.5	4.7	0.5	0.2	0.3	0.2	100.0	98.9	2,892
Public facility	17.0	75.5	1.6	5.0	0.4	0.2	0.2	0.2	100.0	99.1	2,734
Private facility	64.9	29.8	0.0	0.0	2.5	0.0	2.8	0.0	100.0	94.7	126
NGO	67.9	31.4	0.0	0.0	0.2	0.0	0.5	0.0	100.0	99.3	31
Elsewhere	0.4	1.1	0.0	0.8	57.3	19.0	1.2	20.2	100.0	2.4	8,131
Residence											
Urban	30.0	48.7	0.7	0.6	12.1	3.8	0.0	4.0	100.0	80.1	1,216
Rural	2.4	16.4	0.4	2.0	46.1	15.3	1.0	16.3	100.0	21.2	9,807
Region											
Tigray	8.5	49.6	0.1	1.0	23.2	13.1	0.6	3.8	100.0	59.3	716
Affar	5.8	10.3	0.2	0.0	83.5	0.1	0.0	0.0	100.0	16.4	114
Amhara	6.7	19.6	0.2	1.2	55.8	11.7	0.4	4.4	100.0	27.7	2,072
Oromiya	2.4	15.6	0.3	1.3	45.1	14.1	1.4	19.8	100.0	19.7	4,851
Somali	5.0	14.4	0.1	0.5	75.0	2.8	0.1	2.2	100.0	20.0	508
Benishangul-Gumuz	4.1	19.7	0.3	4.5	41.8	6.7	0.1	22.7	100.0	28.6	122
SNNPR	3.6	20.0	1.0	4.0	25.9	21.9	1.0	22.6	100.0	28.6	2,296
Gambela	11.4	34.6	0.1	0.7	30.4	10.1	0.3	12.4	100.0	46.9	27
Harari	17.3	33.2	0.6	0.2	45.5	0.5	0.0	2.8	100.0	51.2	26
Addis Ababa	61.1	35.1	0.0	0.6	2.3	0.5	0.0	0.4	100.0	96.8	244
Dire Dawa	23.0	33.3	0.2	0.1	32.8	0.2	0.0	10.4	100.0	56.7	47
Mother's education											
No education	2.1	13.2	0.3	1.6	49.1	14.5	1.1	18.1	100.0	17.2	7,284
Primary	7.4	28.1	0.7	2.4	34.2	15.7	0.7	10.7	100.0	38.6	2,951
Secondary	23.1	51.7	1.1	2.5	14.8	3.9	0.2	2.7	100.0	78.4	514
More than secondary	39.5	52.7	0.9	0.1	2.7	3.5	0.6	0.1	100.0	93.2	274
Wealth quintile											
Lowest	1.1	9.1	0.0	0.8	57.5	15.5	1.6	14.3	100.0	11.0	2,636
Second	2.2	16.8	0.0	1.8	47.0	12.1	0.6	19.5	100.0	20.8	2,520
Middle	2.7	17.4	1.0	3.1	42.8	15.2	0.7	17.1	100.0	24.2	2,280
Fourth	4.1	22.3	0.5	1.6	36.2	19.1	1.3	14.9	100.0	28.5	1,999
Highest	23.6	44.0	0.8	1.9	17.2	6.6	0.3	5.7	100.0	70.3	1,588
Total	5.5	20.0	0.4	1.8	42.4	14.0	0.9	15.0	100.0	27.7	11,023

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes 15 weighted cases with information missing on antenatal care visits.

[1] Skilled provider includes doctor, nurse, midwife, health officer, and health extension worker (HEW).

[2] Includes only the most recent birth in the 5 years before the survey.

Table 9.10 Caesarean section

Percentage of live births in the 5 years before the survey delivered by caesarian section (C-section), percentage delivered by C-section that was planned before the onset of labor pains, and percentage delivered by C-section that was decided after the onset of labor pains, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage delivered by C-section	Timing of decision to conduct C-section		Number of births
		Decided before onset of labor pains	Decided after onset of labor pains	
Mother's age at birth				
<20	1.1	0.3	0.8	1,301
20-34	2.1	0.8	1.3	8,090
35-49	1.9	0.9	1.0	1,632
Birth order				
1	4.3	1.5	2.8	2,070
2-3	2.9	1.2	1.7	3,366
4-5	0.6	0.3	0.3	2,609
6+	0.4	0.1	0.4	2,978
Antenatal care visits[1]				
None	0.5	0.2	0.3	2,818
1-3	1.3	0.2	1.1	2,342
4+	5.7	2.3	3.4	2,415
Place of delivery				
Health facility	7.4	2.7	4.6	2,892
Public facility	6.5	2.2	4.4	2,734
Private facility	23.0	14.6	8.4	126
NGO	16.2	3.8	12.4	31
Residence				
Urban	10.6	5.5	5.1	1,216
Rural	0.9	0.1	0.7	9,807
Region				
Tigray	2.0	0.5	1.5	716
Affar	0.7	0.1	0.6	114
Amhara	2.3	1.0	1.2	2,072
Oromiya	0.9	0.3	0.6	4,851
Somali	0.4	0.2	0.3	508
Benishangul-Gumuz	1.0	0.2	0.7	122
SNNPR	1.9	0.1	1.9	2,296
Gambela	1.3	0.4	1.0	27
Harari	9.0	5.0	4.0	26
Addis Ababa	21.4	13.5	7.9	244
Dire Dawa	5.3	1.9	3.3	47
Mother's education				
No education	0.7	0.2	0.5	7,284
Primary	2.5	0.9	1.7	2,951
Secondary	6.3	2.8	3.5	514
More than secondary	20.8	10.0	10.8	274
Wealth quintile				
Lowest	0.6	0.3	0.3	2,636
Second	1.0	0.1	0.9	2,520
Middle	1.0	0.2	0.8	2,280
Fourth	1.0	0.0	1.0	1,999
Highest	8.1	3.9	4.2	1,588
Total	1.9	0.7	1.2	11,023

Note: The question on C-section is asked only of women who delivered in a health facility. In this table, it is assumed that women who did not give birth in health facility did not receive a C-section. Total includes 15 weighted cases with information missing on antenatal care visits.
[1] Includes only the most recent birth in the 5 years before the survey.

Table 9.11 Duration of stay in health facility after birth

Among women with a birth in the 5 years before the survey who delivered their most recent live birth in a health facility, percent distribution by duration of stay in the health facility following their most recent live birth, according to type of delivery, Ethiopia DHS 2016

Type of delivery	<6 hours	6-11 hours	12-23 hours	1-2 days	3+ days	Don't know	Total	Number of women
Vaginal birth	26.7	26.3	15.6	26.7	4.6	0.1	100.0	2,225
Caesarean section	4.8	2.3	3.8	10.1	79.0	0.0	100.0	183

Table 9.12 Timing of first postnatal check-up for the mother

Among women age 15-49 giving birth in the 2 years before the survey, percent distribution of the mother's first postnatal check for the most recent live birth by time after delivery, and percentage of women with a live birth in the 2 years before the survey who received a postnatal check during the first 2 days after giving birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Time after delivery of mother's first postnatal check[1]						No postnatal check-up[2]	Total	Percentage of women with a postnatal check during the first 2 days after birth[1]	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
Mother's age at birth										
<20	10.6	1.8	0.5	1.2	0.4	0.3	85.2	100.0	13.0	508
20-34	13.6	3.4	0.8	0.8	1.9	0.2	79.3	100.0	17.8	3,126
35-49	9.4	2.8	0.8	0.3	1.2	0.4	85.1	100.0	13.1	674
Birth order										
1	15.6	4.4	0.6	1.9	1.6	0.2	75.6	100.0	20.6	885
2-3	15.3	4.0	0.5	0.6	2.6	0.2	76.8	100.0	19.8	1,320
4-5	11.4	2.4	1.9	0.7	0.7	0.0	82.9	100.0	15.6	939
6+	8.2	1.9	0.3	0.1	1.2	0.4	87.9	100.0	10.4	1,165
Place of delivery										
Health facility	32.9	7.8	1.5	1.5	1.6	0.4	54.3	100.0	42.2	1,560
Public facility	32.8	7.8	1.6	1.4	1.6	0.5	54.3	100.0	42.2	1,497
Private facility	37.2	7.4	0.0	4.5	2.0	0.0	48.9	100.0	44.6	48
NGO	(27.5)	(4.1)	(0.3)	(0.0)	(0.0)	(0.0)	(68.2)	(100.0)	(31.8)	15
Elsewhere	1.1	0.5	0.3	0.3	1.6	0.1	96.1	100.0	1.9	2,748
Residence										
Urban	33.1	11.2	0.9	2.6	1.3	0.3	50.6	100.0	45.2	520
Rural	9.8	2.1	0.7	0.5	1.6	0.2	85.1	100.0	12.6	3,788
Region										
Tigray	33.4	9.0	3.0	1.0	2.2	0.9	50.5	100.0	45.4	314
Affar	10.2	1.1	0.2	0.9	0.9	0.0	86.6	100.0	11.6	43
Amhara	14.5	2.9	0.9	2.2	2.0	0.5	76.9	100.0	18.4	789
Oromiya	6.7	1.6	0.7	0.0	1.3	0.0	89.7	100.0	9.0	1,915
Somali	10.3	1.1	0.5	0.3	0.3	0.1	87.4	100.0	11.9	178
Benishangul-Gumuz	9.9	3.1	1.5	1.0	0.3	0.5	83.7	100.0	14.5	45
SNNPR	13.5	3.4	0.0	0.6	1.8	0.1	80.6	100.0	16.9	876
Gambela	12.3	2.9	1.7	0.5	0.0	0.5	82.2	100.0	16.9	10
Harari	29.3	7.6	0.5	0.0	1.2	0.4	60.9	100.0	37.4	10
Addis Ababa	37.5	17.4	0.5	3.7	4.5	1.1	35.3	100.0	55.4	110
Dire Dawa	20.8	6.6	0.4	2.4	0.4	0.0	69.5	100.0	27.8	18
Education										
No education	8.2	1.6	0.7	0.6	1.5	0.2	87.2	100.0	10.6	2,606
Primary	15.7	4.2	0.8	0.5	1.7	0.3	76.8	100.0	20.7	1,319
Secondary	27.9	8.0	1.2	1.1	2.1	0.0	59.6	100.0	37.1	262
More than secondary	39.2	14.7	0.6	6.7	2.0	1.0	35.9	100.0	54.4	121
Wealth quintile										
Lowest	5.4	1.5	0.4	0.1	0.9	0.1	91.7	100.0	7.3	1,011
Second	9.5	1.2	0.2	0.7	1.7	0.2	86.6	100.0	10.8	943
Middle	10.0	2.7	1.7	0.4	1.7	0.2	83.4	100.0	14.3	890
Fourth	11.3	2.9	1.1	0.9	2.4	0.5	80.9	100.0	15.3	796
Highest	32.9	9.4	0.7	2.1	1.5	0.2	53.3	100.0	43.0	667
Total	12.6	3.2	0.8	0.7	1.6	0.2	80.9	100.0	16.5	4,308

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes women who received a check-up from a doctor, nurse, midwife, health officer, health extension worker (HEW), or traditional birth attendant.
[2] Includes women who received a check-up after 41 days.

Table 9.13 Type of provider for the first postnatal check for the mother

Among women age 15-49 giving birth in the 2 years before the survey, percent distribution by type of provider for the mother's first postnatal health check during the 2 days after the last live birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Type of health provider for mother's first postnatal check-up			No postnatal check during the first 2 days after the birth	Total	Number of women
	Doctor/nurse/ midwife	Health officer	Health extension worker			
Mother's age at birth						
<20	12.2	0.5	0.3	87.0	100.0	508
20-34	16.4	0.6	0.9	82.2	100.0	3,126
35-49	13.1	0.0	0.0	86.9	100.0	674
Birth order						
1	19.6	0.8	0.2	79.4	100.0	885
2-3	18.6	0.5	0.7	80.2	100.0	1,320
4-5	14.2	0.6	0.8	84.4	100.0	939
6+	9.5	0.0	0.9	89.6	100.0	1,165
Place of delivery						
Health facility	40.2	1.2	0.9	57.8	100.0	1,560
Public facility	40.1	1.2	0.9	57.8	100.0	1,497
Private facility	44.6	0.0	0.0	55.4	100.0	48
NGO	(31.8)	(0.0)	(0.0)	(68.2)	(100.0)	15
Elsewhere	1.3	0.1	0.5	98.1	100.0	2,748
Residence						
Urban	43.8	1.4	0.0	54.8	100.0	520
Rural	11.5	0.3	0.8	87.4	100.0	3,788
Region						
Tigray	43.6	0.7	1.1	54.6	100.0	314
Affar	11.2	0.0	0.4	88.4	100.0	43
Amhara	17.9	0.0	0.4	81.6	100.0	789
Oromiya	7.8	0.7	0.4	91.0	100.0	1,915
Somali	11.7	0.2	0.0	88.1	100.0	178
Benishangul-Gumuz	13.1	0.0	1.4	85.5	100.0	45
SNNPR	15.0	0.4	1.5	83.1	100.0	876
Gambela	16.3	0.6	0.0	83.1	100.0	10
Harari	37.0	0.0	0.4	62.6	100.0	10
Addis Ababa	55.4	0.0	0.0	44.6	100.0	110
Dire Dawa	27.2	0.6	0.0	72.2	100.0	18
Education						
No education	9.5	0.4	0.6	89.4	100.0	2,606
Primary	19.8	0.3	0.6	79.3	100.0	1,319
Secondary	35.6	0.0	1.5	62.9	100.0	262
More than secondary	49.7	4.8	0.0	45.6	100.0	121
Wealth quintile						
Lowest	6.8	0.2	0.2	92.7	100.0	1,011
Second	9.9	0.5	0.4	89.2	100.0	943
Middle	12.7	0.3	1.4	85.7	100.0	890
Fourth	13.6	0.4	1.3	84.7	100.0	796
Highest	41.9	1.1	0.0	57.0	100.0	667
Total	15.4	0.5	0.7	83.5	100.0	4,308

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

Table 9.14 Timing of first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years before the survey by time after birth of first postnatal check, and percentage of births with a postnatal check during the first 2 days after birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Time after delivery of newborn's first postnatal check[1]						No postnatal check-up[2]	Total	Percentage of births with a postnatal check during the first 2 days after birth[1]	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know				
Mother's age at birth										
<20	1.9	7.8	1.6	0.4	1.3	0.0	86.9	100.0	11.8	508
20-34	3.1	7.5	2.3	1.2	0.5	0.3	85.2	100.0	14.0	3,126
35-49	1.2	5.4	2.3	0.8	0.5	0.1	89.7	100.0	9.7	674
Birth order										
1	3.5	11.5	3.1	0.9	1.8	0.4	78.8	100.0	19.0	885
2-3	3.6	7.8	2.0	1.5	0.1	0.4	84.6	100.0	14.9	1,320
4-5	2.8	6.1	1.7	1.2	0.6	0.0	87.6	100.0	11.8	939
6+	0.9	4.1	2.3	0.4	0.2	0.1	92.1	100.0	7.6	1,165
Place of delivery										
Health facility	6.9	19.1	5.8	2.3	1.2	0.7	63.9	100.0	34.2	1,560
Public facility	6.8	19.3	5.6	2.3	1.2	0.7	64.1	100.0	34.1	1,497
Private facility	8.3	18.4	8.0	2.1	3.1	1.0	59.1	100.0	36.8	48
NGO	(6.6)	(4.2)	(20.7)	(3.2)	(0.0)	(0.0)	(65.3)	(100.0)	(34.7)	15
Elsewhere	0.3	0.4	0.2	0.3	0.2	0.0	98.6	100.0	1.1	2,748
Residence										
Urban	9.4	18.5	6.8	2.7	2.2	0.6	59.8	100.0	37.4	520
Rural	1.7	5.6	1.6	0.8	0.4	0.2	89.7	100.0	9.8	3,788
Region										
Tigray	5.5	19.2	3.6	2.9	1.6	0.2	67.0	100.0	31.2	314
Affar	2.3	2.8	1.2	0.3	0.2	1.2	92.1	100.0	6.5	43
Amhara	2.9	6.7	0.9	0.9	1.3	0.3	87.0	100.0	11.4	789
Oromiya	1.8	3.6	2.2	0.9	0.0	0.2	91.4	100.0	8.4	1,915
Somali	1.0	7.7	2.1	0.8	1.6	0.6	86.2	100.0	11.6	178
Benishangul-Gumuz	3.4	6.8	2.3	2.3	2.4	0.0	82.9	100.0	14.7	45
SNNPR	2.3	9.3	2.0	0.6	0.0	0.1	85.7	100.0	14.2	876
Gambela	1.4	11.2	2.2	3.7	1.4	0.4	79.7	100.0	18.4	10
Harari	5.5	25.8	3.6	0.0	0.2	0.4	64.5	100.0	34.8	10
Addis Ababa	14.0	19.8	10.1	2.2	5.2	1.8	46.9	100.0	46.1	110
Dire Dawa	3.9	17.9	4.8	0.4	0.6	0.0	72.3	100.0	27.1	18
Mother's education										
No education	0.9	4.3	1.1	0.9	0.5	0.2	92.0	100.0	7.3	2,606
Primary	4.1	9.2	2.3	1.2	0.4	0.2	82.5	100.0	16.9	1,319
Secondary	6.7	20.6	5.6	1.0	0.9	0.2	65.1	100.0	33.9	262
More than secondary	15.2	18.1	16.9	1.8	4.7	1.3	42.0	100.0	51.9	121
Wealth quintile										
Lowest	0.3	2.3	0.9	0.6	0.5	0.0	95.4	100.0	4.1	1,011
Second	1.4	4.8	0.7	0.5	0.3	0.3	91.9	100.0	7.5	943
Middle	2.2	4.5	1.9	1.2	0.5	0.5	89.2	100.0	9.7	890
Fourth	2.8	9.5	1.6	0.9	0.2	0.0	84.9	100.0	14.8	796
Highest	8.5	18.8	7.6	2.3	1.7	0.4	60.8	100.0	37.1	667
Total	2.7	7.2	2.2	1.0	0.6	0.2	86.1	100.0	13.1	4,308

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes newborns who received a check-up from a doctor, nurse, midwife, health officer, health extension worker (HEW), or traditional birth attendant.
[2] Includes newborns who received a check-up after the first week of life.

Table 9.15 Type of provider for the first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years before the survey by type of provider for the newborn's first postnatal health check during the 2 days after the birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Type of health provider for newborn's first postnatal check-up				No postnatal check-up in the first 2 days after birth	Total	Number of births
	Doctor/ nurse/ midwife	Health officer	Health extension worker	Traditional birth attendant			
Mother's age at birth							
<20	11.1	0.0	0.0	0.7	88.2	100.0	508
20-34	12.4	0.5	1.1	0.0	86.0	100.0	3,126
35-49	9.0	0.2	0.4	0.0	90.3	100.0	674
Birth order							
1	18.5	0.0	0.1	0.4	81.0	100.0	885
2-3	12.9	0.9	1.1	0.0	85.1	100.0	1,320
4-5	10.4	0.5	0.8	0.0	88.2	100.0	939
6+	6.3	0.1	1.2	0.0	92.4	100.0	1,165
Place of delivery							
Health facility	31.6	1.1	1.5	0.0	65.8	100.0	1,560
Public facility	31.4	1.1	1.5	0.0	65.9	100.0	1,497
Private facility	36.8	0.0	0.0	0.0	63.2	100.0	48
NGO	(34.7)	(0.0)	(0.0)	(0.0)	(65.3)	(100.0)	15
Elsewhere	0.4	0.1	0.5	0.1	98.9	100.0	2,748
Residence							
Urban	36.1	1.3	0.0	0.0	62.6	100.0	520
Rural	8.4	0.3	1.0	0.1	90.2	100.0	3,788
Region							
Tigray	30.4	0.0	0.8	0.0	68.8	100.0	314
Affar	6.5	0.0	0.0	0.0	93.5	100.0	43
Amhara	10.2	0.2	1.0	0.0	88.6	100.0	789
Oromiya	7.1	0.5	0.7	0.2	91.6	100.0	1,915
Somali	11.3	0.2	0.0	0.1	88.4	100.0	178
Benishangul-Gumuz	12.7	0.0	2.0	0.0	85.3	100.0	45
SNNPR	12.0	0.7	1.4	0.0	85.8	100.0	876
Gambela	17.9	0.6	0.0	0.0	81.6	100.0	10
Harari	33.4	0.6	0.0	0.9	65.2	100.0	10
Addis Ababa	45.6	0.5	0.0	0.0	53.9	100.0	110
Dire Dawa	25.6	1.4	0.0	0.0	72.9	100.0	18
Mother's education							
No education	6.2	0.2	0.9	0.0	92.7	100.0	2,606
Primary	15.3	0.5	0.8	0.3	83.1	100.0	1,319
Secondary	32.7	0.2	1.0	0.0	66.1	100.0	262
More than secondary	46.6	4.8	0.5	0.0	48.1	100.0	121
Wealth quintile							
Lowest	3.6	0.0	0.4	0.0	95.9	100.0	1,011
Second	6.8	0.0	0.7	0.0	92.5	100.0	943
Middle	7.1	0.5	1.7	0.4	90.3	100.0	890
Fourth	13.1	0.8	0.9	0.0	85.2	100.0	796
Highest	35.6	1.0	0.5	0.0	62.9	100.0	667
Total	11.7	0.4	0.9	0.1	86.9	100.0	4,308

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

Table 9.16 Content of postnatal care for newborns

Among most recent live births in the 2 years before the survey, percentage for whom selected functions were performed during the first 2 days after the birth, and percentage with at least two signal functions performed during the first 2 days after the birth, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Among most recent live births in the 2 years before the survey, percentage for whom the selected function was performed during the first 2 days after the birth:						Percentage with at least two signal functions performed during the first 2 days after birth	Number of births
	Cord examined	Temperature measured	Counselling on danger signs	Counselling on breastfeeding	Observation of breastfeeding	Weighed[1]		
Mother's age at birth								
<20	8.7	13.1	9.1	25.5	27.0	15.8	26.6	508
20-34	10.9	14.3	12.4	25.6	29.9	19.2	27.7	3,126
35-49	8.1	11.4	9.8	25.9	25.9	12.7	25.9	674
Birth order								
1	13.5	20.1	14.4	36.1	40.1	31.2	40.2	885
2-3	11.4	16.6	14.5	27.9	32.1	21.0	30.1	1,320
4-5	10.3	11.4	10.4	23.8	25.5	12.5	23.6	939
6+	6.1	7.4	7.0	16.8	19.6	8.1	17.2	1,165
Place of delivery								
Health facility	24.5	33.7	25.8	55.5	60.4	46.9	62.2	1,560
Public facility	24.3	32.9	25.7	55.3	60.2	46.1	61.8	1,497
Private facility	34.0	59.1	30.2	61.6	65.9	73.8	73.4	48
NGO	(18.9)	(29.9)	(20.7)	(56.1)	(63.9)	(46.1)	(62.7)	15
Elsewhere	2.0	2.4	3.5	8.7	11.1	1.2	7.5	2,748
Residence								
Urban	25.6	41.1	30.0	60.6	65.0	65.1	71.8	520
Rural	8.1	9.9	9.0	20.9	24.0	11.3	21.2	3,788
Region								
Tigray	31.1	34.9	31.8	55.2	64.4	36.7	63.4	314
Affar	3.3	3.9	5.4	14.7	23.4	8.8	17.0	43
Amhara	8.2	16.4	12.0	34.2	35.1	12.6	31.4	789
Oromiya	7.7	9.0	6.1	14.8	18.7	12.5	16.9	1,915
Somali	5.3	6.6	2.4	13.1	15.4	13.3	14.1	178
Benishangul-Gumuz	6.3	11.4	10.3	28.2	41.5	24.2	32.6	45
SNNPR	7.9	10.4	14.2	28.2	29.6	17.7	28.6	876
Gambela	6.2	9.6	6.1	19.6	22.6	35.1	23.9	10
Harari	19.9	16.3	13.4	31.7	55.4	40.4	40.4	10
Addis Ababa	35.7	57.4	43.4	71.8	72.5	91.5	85.6	110
Dire Dawa	20.5	19.1	13.8	34.8	32.7	49.0	41.0	18
Mother's education								
No education	6.6	7.9	8.0	19.1	21.4	8.5	18.9	2,606
Primary	12.6	17.6	14.3	28.9	33.4	23.1	31.2	1,319
Secondary	25.4	32.5	26.6	54.6	59.3	51.1	64.7	262
More than secondary	27.4	54.9	25.1	68.8	77.0	87.1	84.9	121
Wealth quintile								
Lowest	3.2	5.5	5.4	13.0	16.8	5.7	12.1	1,011
Second	6.9	7.3	6.2	18.0	20.8	8.8	18.9	943
Middle	9.9	10.9	9.4	25.9	27.4	13.2	25.6	890
Fourth	11.2	15.6	15.2	27.6	30.2	16.8	29.3	796
Highest	24.6	36.8	27.0	53.1	59.5	56.0	62.0	667
Total	10.2	13.7	11.6	25.7	29.0	17.8	27.3	4,308

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes newborns who were weighed "at birth." May exclude some newborns who were weighed during the 2 days after birth.

Table 9.17 Newborn care

Among most recent live births in the 2 years before the survey delivered in a health facility, percentage of births given Vitamin K injection and percentage of births with TTC eye ointment applied, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage given Vitamin K injection	Percentage having TTC eye ointment applied	Number of live births delivered in a health facility in the 2 years before the survey
Mother's age at birth			
<20	36.3	32.2	198
20-34	42.3	34.8	1,170
35-49	36.1	32.7	192
Birth order			
1	40.4	32.1	521
2-3	45.8	33.4	518
4-5	36.5	41.6	277
6+	35.5	32.2	244
Residence			
Urban	47.4	37.7	467
Rural	37.9	32.8	1,093
Region			
Tigray	59.9	57.2	226
Affar	33.7	32.2	9
Amhara	31.6	24.0	295
Oromiya	38.3	28.1	515
Somali	40.3	53.2	39
Benishangul-Gumuz	41.9	53.2	15
SNNPR	37.8	32.7	330
Gambela	24.3	31.1	5
Harari	39.3	53.3	6
Addis Ababa	46.1	37.9	107
Dire Dawa	60.0	37.1	12
Mother's education			
No education	37.6	33.7	617
Primary	39.9	33.7	613
Secondary	43.8	33.1	215
More than secondary	56.5	42.3	115
Wealth quintile			
Lowest	27.6	29.7	150
Second	36.5	30.0	262
Middle	34.4	32.9	285
Fourth	41.4	37.4	324
Highest	49.4	36.4	539
Total	40.7	34.2	1,560

Note: Total includes 4 weighted cases with information missing on antenatal care visits.

Table 9.18 Care of umbilical cord

Among most recent live births in the 2 years before the survey, percentage who had something applied on stump after umbilical cord was cut, and description of what was applied on stump, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of birth with something applied on stump after umbilical cord was cut	Number of recent live births in the 2 years before the survey	Description of what was applied on stump					Number of births who had something applied on stump
			Any type of oil	Dung	Ash	Ointment	Other	
Mother's age at birth								
<20	19.1	508	76.6	0.0	0.8	16.0	6.6	97
20-34	15.3	3,126	65.9	1.3	2.4	19.3	12.2	478
35-49	11.0	674	68.3	1.4	0.5	20.2	12.5	74
Birth order								
1	20.9	885	64.1	2.1	0.5	22.4	12.3	185
2-3	16.8	1,320	70.0	0.3	1.2	18.3	11.4	222
4-5	14.1	939	65.2	0.3	1.4	20.2	13.2	132
6+	9.5	1,165	72.6	2.1	6.6	12.7	7.5	110
Residence								
Urban	20.2	520	46.6	0.1	0.7	33.7	22.6	105
Rural	14.4	3,788	71.8	1.3	2.2	16.0	9.2	545
Region								
Tigray	39.3	314	61.5	2.5	0.0	21.2	16.3	124
Affar	6.8	43	*	*	*	*	*	3
Amhara	9.0	789	(34.4)	(0.0)	(0.0)	(11.9)	(53.7)	71
Oromiya	13.2	1,915	81.4	0.0	2.0	16.7	0.0	254
Somali	18.0	178	58.5	0.6	18.8	13.0	12.2	32
Benishangul-Gumuz	6.2	45	*	*	*	*	*	3
SNNPR	16.2	876	68.7	2.8	0.0	24.2	5.1	142
Gambela	8.3	10	*	*	*	*	*	1
Harari	26.7	10	54.5	1.5	29.5	8.0	12.5	3
Addis Ababa	14.6	110	(66.3)	(0.0)	(0.0)	(30.1)	(20.7)	16
Dire Dawa	15.2	18	(88.2)	(0.0)	(0.0)	(9.5)	(2.4)	3
Mother's education								
No education	10.9	2,606	68.6	1.0	4.2	15.5	11.1	284
Primary	20.7	1,319	69.2	1.6	0.2	18.5	11.5	273
Secondary	23.8	262	69.9	0.1	0.2	25.4	8.1	62
More than secondary	24.3	121	(42.9)	(0.0)	(0.4)	(41.1)	(19.3)	30
Wealth quintile								
Lowest	14.6	1,011	68.1	1.9	7.6	11.9	10.8	147
Second	12.7	943	78.7	0.4	0.3	16.1	4.7	120
Middle	14.0	890	75.0	1.3	0.5	17.3	6.3	125
Fourth	16.2	796	62.6	1.7	0.2	21.0	15.4	129
Highest	19.2	667	55.4	0.1	0.2	29.0	19.1	128
Total	15.1	4,308	67.8	1.1	2.0	18.9	11.4	650

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 9.19 Obstetrical fistula

Percentage of women age 15-49 who have heard of obstetrical fistula, and percentage of women who have experienced obstetric fistula, by background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women who have heard of obstetrical fistula	Percentage of women who have experienced obstetrical fistula	Number of women
Age			
15-19	36.8	0.2	3,381
20-24	41.6	0.3	2,762
25-29	38.5	0.6	2,957
30-34	36.6	0.6	2,345
35-39	35.9	0.4	1,932
40-44	43.4	0.7	1,290
45-49	41.1	0.6	1,017
Residence			
Urban	66.6	0.3	3,476
Rural	30.7	0.5	12,207
Region			
Tigray	65.8	1.1	1,129
Affar	35.5	0.5	128
Amhara	45.0	0.7	3,714
Oromiya	28.6	0.2	5,701
Somali	31.0	0.3	459
Benishangul-Gumuz	40.2	0.5	160
SNNPR	28.0	0.3	3,288
Gambela	40.0	0.4	44
Harari	62.5	0.0	38
Addis Ababa	81.5	0.4	930
Dire Dawa	45.1	0.2	90
Education			
No education	27.9	0.5	7,498
Primary	37.0	0.4	5,490
Secondary	65.2	0.1	1,817
More than secondary	84.9	0.1	877
Wealth quintile			
Lowest	26.4	0.5	2,633
Second	26.1	0.3	2,809
Middle	29.2	0.5	2,978
Fourth	35.9	0.5	3,100
Highest	63.6	0.4	4,163
Total 15-49	38.6	0.4	15,683

Table 9.20 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 DHS 2016

Background characteristic	Problems in accessing health care					
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Age						
15-19	32.9	50.5	46.7	44.3	67.8	3,381
20-34	31.8	54.2	50.4	41.0	69.2	8,064
35-49	32.1	59.3	53.1	42.0	73.2	4,238
Number of living children						
0	28.0	46.7	41.4	39.5	63.7	5,185
1-2	29.3	53.2	47.0	39.8	66.8	3,770
3-4	34.5	59.7	55.9	43.1	73.9	3,064
5+	38.8	63.6	61.7	46.9	78.9	3,664
Marital status						
Never married	28.1	47.7	41.2	39.5	64.2	4,036
Married or living together	34.3	56.3	54.6	43.6	71.9	10,223
Divorced/separated/widowed	27.6	63.9	45.2	37.5	73.0	1,423
Employed last 12 months						
Not employed	36.2	59.1	55.5	45.9	73.7	7,819
Employed for cash	25.8	50.3	37.2	30.7	61.5	3,693
Employed not for cash	30.1	50.5	52.2	44.6	70.6	4,171
Residence						
Urban	15.1	34.7	17.0	21.4	45.6	3,476
Rural	37.0	60.5	59.8	47.9	76.9	12,207
Region						
Tigray	15.3	46.1	37.4	24.6	60.7	1,129
Affar	28.2	51.7	54.3	41.8	66.6	128
Amhara	15.4	35.3	33.7	34.6	55.7	3,714
Oromiya	58.3	70.1	68.9	57.0	82.9	5,701
Somali	25.7	63.0	47.3	32.2	72.6	459
Benishangul-Gumuz	36.5	62.4	57.4	43.8	76.8	160
SNNPR	18.4	59.1	52.7	39.5	75.4	3,288
Gambela	24.3	44.3	41.0	33.7	61.2	44
Harari	16.3	28.2	18.1	13.8	30.8	38
Addis Ababa	8.7	29.2	10.8	14.5	40.0	930
Dire Dawa	58.7	64.5	57.4	55.2	71.4	90
Education						
No education	37.6	62.9	59.2	47.1	78.0	7,498
Primary	31.9	55.7	50.3	43.2	71.1	5,490
Secondary	18.2	33.2	27.8	27.8	48.1	1,817
More than secondary	15.9	23.8	20.6	20.4	39.8	877
Wealth quintile						
Lowest	40.0	70.9	67.7	54.5	85.3	2,633
Second	42.1	67.0	66.8	52.7	82.9	2,809
Middle	35.2	61.0	59.4	47.6	77.3	2,978
Fourth	33.8	50.2	49.8	41.2	68.2	3,100
Highest	17.0	35.2	22.1	23.4	47.7	4,163
Total	32.1	54.8	50.3	42.0	70.0	15,683

CHILD HEALTH 10

Key Findings

- ***Child size and birth weight:*** Information on birth weight was obtained for only 14% of births. Thirteen percent of babies weighed less than 2.5 kg at birth.
- ***Vaccinations:*** Close to two in every five children age 12-23 months (39%) received all basic vaccinations at some time, and 22% were vaccinated by the appropriate age. The percentage of children age 12-23 months who are fully vaccinated increased by 15%, from 24% in 2011 to 39% in 2016.
- ***Symptoms of acute respiratory infection (ARI):*** Seven percent of children under age 5 had symptoms of ARI in the 2 weeks before the survey. Three out of 10 of these children sought treatment.
- ***Fever:*** Fourteen percent of children under age 5 were reported to have fever in the 2 weeks before the survey. Treatment from a health facility or provider was sought only for 35% of children with fever.
- ***Diarrhoea:*** Twelve percent of children under age 5 had diarrhoea in 2 weeks before the survey. More than four out of 10 children under age 5 (44%) who had diarrhoea sought treatment. Among children under age 5 with diarrhoea, 46% received some form of ORT, while 39% received ORT or increased liquids.

Information on child health and survival can help policymakers and programme managers assess the efficacy of current strategies, formulate appropriate interventions to prevent deaths from childhood illnesses, and improve the health of children in the country.

This chapter presents information on birth weight and vaccination status for young children. The chapter also looks at the prevalence of and treatment practices for three common childhood illnesses: symptoms of acute respiratory infection (ARI), fever, and diarrhoea. Because appropriate sanitary practices can help prevent and reduce the severity of diarrheal disease, information is also provided on the disposal of children's faecal matter.

10.1 BIRTH WEIGHT

Low birth weight is closely associated with foetal and neonatal morbidity, inhibited growth and cognitive development, and chronic diseases in life (Negrato et al. 2013). Birth weight is a good summary measure of multifaceted public health problems that include long-term maternal malnutrition, ill health, and poor health care during pregnancy.

In this survey, information on birth weight was collected by either a written record or the mother's report. The mother's assessment of the child's weight was necessary because information on birth weight was rarely available. Children are considered to have a low birth weight if they weigh less than 2.5

kilogrammes (kg) at birth. The mother's estimate of weight is subjective and interpretation of the finding should be viewed with caution.

Low birth weight

Percentage of births with a reported birth weight <2.5 kilogrammes regardless of gestational age.

Sample: Live births in the 5 years before the survey that have a reported birth weight, either from a written record or mother's report

Information on birth weight was obtained from only 14% of births (**Table 10.1**). Among these, 13% weighed less than 2.5 kg at birth. **Table 10.1** also includes information on mothers' subjective estimates of their infant's size in the 5 years before the survey. This estimate was obtained because birth weight is unknown for most (86%) newborns in Ethiopia. According to mother's report, 16% of births are very small, 10% are smaller than average, and 73% are average or larger.

Patterns by background characteristics

- Births to mothers with no education are more likely to have low birth weight (18%) compared with births to women with primary and secondary education (11% and 8%, respectively). Data on low birth weight by mother's education should be carefully interpreted because the data were available for 84% of births to mothers with secondary education compared with only 6% of births to mothers with no education.

Trends: The percentage of mothers who reported information on birth weight in the 5 years before the survey has increased from 3% in 2005 to 5% in 2011, and 14% in 2016. The proportion of births weighing less than 2.5 kg at birth in the past three DHS surveys was 14% in 2005, 11% in 2011, and 13% in 2016.

10.2 VACCINATION OF CHILDREN

All basic vaccinations coverage

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card, health facility visit, or the mother's report). To have received all basic vaccinations, a child must receive at least:

- one dose of BCG vaccine, which protects against tuberculosis
- three doses of DPT-HepB-Hib, which protects against diphtheria, pertussis (whooping cough), and tetanus
- three doses of polio vaccine
- one dose of measles vaccine

Sample: Living children age 12-23 months

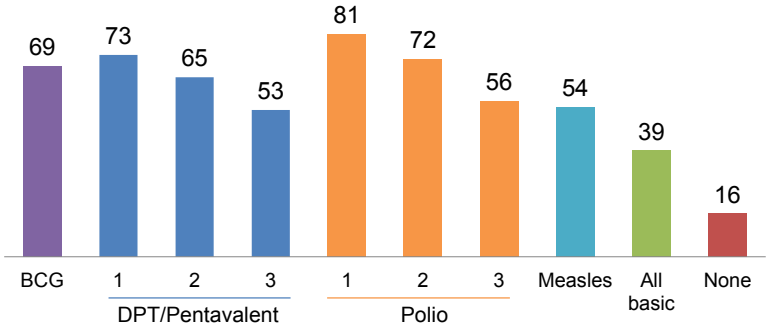
The Expanded Programme for Immunisation (EPI) in Ethiopia, launched in 1980, has been one of the core priorities in the past Health Sector Development Programmes (HSDPs) and the current Health Sector Transformation Plan (HSTP) (MOH 2015). The country has mobilised women development armies or volunteers, health extension workers, and health facilities to deliver its immunisation services. Improved district planning and management were initiated in 2011 with a goal of reaching every district. Stationary, outreach, and mobile are the three important service delivery platforms for vaccination services. In addition, several campaigns provided polio, measles and other antigens to children.

Information on vaccination coverage was obtained in three ways in the 2016 EDHS: written vaccination records (including the infant immunisation card and other health cards), mothers' verbal reports, and health facility records. In the 2016 EDHS, for each child born in the 3 years before the survey, mothers were asked to provide information about the vaccinations her child has received. Unlike the previous EDHS surveys, in the 2016 EDHS, a separate team visited the health facility to collect complementary vaccination records if the mother was not able to present the infant immunisation card and the child had visited a health facility. Consent was obtained from mothers prior to contacting the facilities and verifying child vaccination records. The purpose of obtaining information at the health facility was to complement the information collected by mother's recall.

In Ethiopia, four in ten children age 12-23 months (39%) received all basic vaccinations at some time, and 22% received these vaccinations before their first birthday (**Table 10.2** and **Figure 10.1**).

Figure 10.1 **Childhood vaccinations**

Percentage of children age 12-23 months vaccinated at any time before the survey



In Ethiopia, the vaccination coverage among children age 12-23 months is highest for the first dose of polio vaccine (81%) followed by first dose of DPT-HepB-Hib vaccine (73%). More than half (53%) of children in Ethiopia have received three doses of DPT-HepB-Hib vaccine and 54% received the measles vaccination. There is a 20 percentage-point dropout rate at the national level from the first to the third dose of DPT-HepB-Hib vaccine and a 25 percentage-point dropout rate from the first to the third dose of polio vaccine.

10.2.1 Uptake of the Newly Introduced Vaccines

The government of Ethiopia introduced the pneumococcal conjugate vaccine (PCV) and monovalent human rotavirus vaccine (RV) into the national infant immunisation programme in November 2011 and October 2012, respectively. The PCV protects against streptococcus pneumoniae bacteria, which cause severe pneumonia, meningitis, and other illnesses. Rotavirus is a virus that causes gastroenteritis, an inflammation of the stomach and intestines. If left untreated, rotavirus can lead to severe dehydration and death.

Among children age 12-23 months, 49% received the third dose of PCV and 56% received the second dose of RV.

Trends: The EDHS surveys have shown a steady progress in EPI coverage. The percentage of children age 12-23 months who received all basic vaccinations increased from 14% in 2000, to 20% in 2005, 24% in 2011, and 39% in 2016. However, the proportion of children age 12-23 months with no vaccination decreased from 24% in 2005 to 16% in 2016 (**Figure 10.2**).

Patterns by background characteristics

- Among children age 12-23, vaccination coverage declines as the birth order of children increases, from 47% for first order births to 29% for sixth or higher order births (**Table 10.3**).
- Children age 12-23 months in rural areas are more likely to receive all basic vaccinations than children in urban areas (65% versus 35%).
- At the regional level, coverage of all basic vaccinations is highest in Addis Ababa (89%), Dire Dawa (76%), and Tigray (67%) and lowest in Affar (15%), Somali (22%) and Oromiya (25%) (**Figure 10.3**).
- Children are more likely to receive all basic vaccinations if their mothers have more than secondary education (72%) or secondary education (70%), than if their mothers have only a primary education (46%) or no education (31%) (**Figure 10.4**).
- Children in the highest household wealth quintile are more likely to receive all basic vaccinations than children in the lowest quintile (63% versus 22%).

Figure 10.2 Trends in childhood vaccinations

Percentage of children age 12-23 months who received all basic vaccinations at any time before the survey

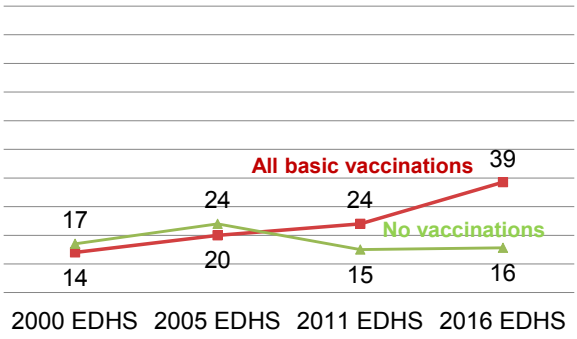


Figure 10.3 Vaccination coverage by region

Percentage of children age 12-23 months who received all basic vaccinations at any time before the survey

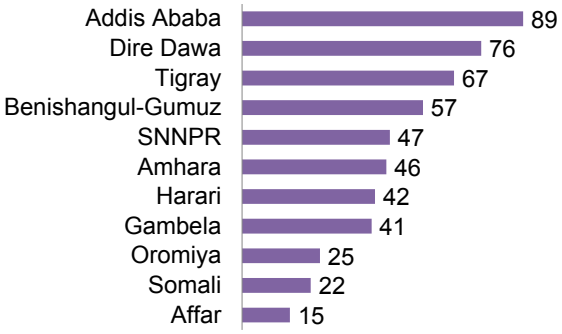
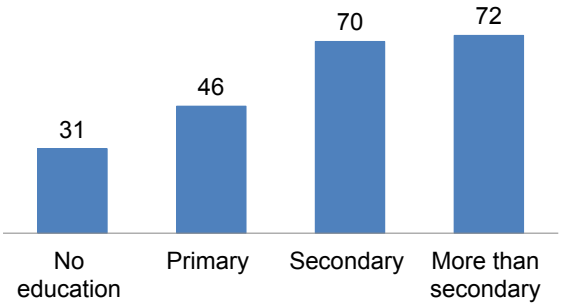


Figure 10.4 Vaccination coverage by mother's education

Percentage of children age 12-23 months who received all basic vaccinations at any time before the survey



10.2.2 Vaccination Card Ownership and Availability

Vaccination cards are critical tools in ensuring that children receive all recommended vaccinations according to schedule. The 2016 EDHS found that 46% of children age 12-23 months and 35% of children age 24 -35 months were reported to have a vaccination card. However, interviewers were able to see a vaccination card, booklet, or other home-based record for only 34% of children age 12-23 months and 17% of children age 24-35 months (**Table 10.4**).

10.2.3 Health Facility Visit

Tables 10.5, **10.6**, and **10.7** present results from the health facilities visit. **Table 10.5** presents information on children age 0-35 months, while **Tables 10.6** and **10.7** present information on children age 12-35

months. **Table 10.6** shows that 74% of children age 12-35 months did not have a vaccination card that was seen during home visit. Among these children, 51% had received at least one vaccination at a health facility. For 46% of the children, interviewers were able to obtain the mother's consent to search for the health record at a health facility. Vaccination history was searched at a health facility for 45% of children, and information on vaccination history was found for 32% of children.

Table 10.7 shows that among the children with a vaccination history searched at health facility, vaccination history was found and seen by interviewers for 71% of children; for 16% of children, vaccination records were not located at the health facilities by the interviewer, and for 13% of children, while other vaccination records were located at health facilities, records for the specific children identified without vaccination records during home interview were not found by the health facility teams. For detailed information on health facility, see **Tables 10.5** and **10.6**.

10.3 Symptoms of Acute Respiratory Infection

In Ethiopia, 88 in 1,000 children under age 5 die before their fifth birthday (CSA 2012). Acute respiratory infection (ARI), and particularly pneumonia, is one of leading causes of morbidity and mortality that accounts for 18% of deaths (WHO and UNICEF 2013). Improving early care is a key strategy for early diagnosis and treatment. Ethiopia has made investments to reduce the morbidly and mortality of ARI. Integrated management of common childhood illness and community case management are among the programme initiatives scaled up nationally to address ARI (Miller et al. 2013).

Treatment of acute respiratory infection (ARI) symptoms

Children with ARI symptoms for whom advice or treatment was sought. The ARI symptoms include cough accompanied by (1) short, rapid breathing that is chest-related, and/or (2) difficult breathing that is chest-related.

Sample: Children under age 5 with symptoms of ARI in the 2 weeks before the survey

Seven percent of children under age 5 had symptoms of ARI in the 2 weeks before the survey. Treatment was sought for three out of 10 children and only 3% of these children received treatment on the same or next day (**Table 10.8**). Government health centres are the most commonly preferred sources for care of ARI (64%) (**Table 10.9**).

10.4 Fever

Fever is an abnormally high body temperature, which is usually accompanied by shivering, headache, and restlessness. Fever indicates the presence of various illnesses such as malaria, pneumonia, an ear problem, the common cold, influenza, and other infections.

Treatment of fever

Children with fever for whom advice or treatment was sought.

Sample: Children under age 5 with fever in the 2 weeks before the survey

Fourteen percent of children under 5 were reported to have fever in the 2 weeks before the survey. Treatment was sought only for one-third (35%) of febrile children, while for less than one in ten children (8%) treatment was sought within the same or next day of onset of illness. Twenty-seven percent of children with fever were given antibiotics for the illness (**Table 10.10**).

Patterns by background characteristics

- Fever is more prevalent among children age 6-35 months than those age less than 6 months.
- The percentage of children with fever who were taken to a health facility or provider for advice or treatment is higher in urban than in rural areas (59% versus 32%).
- Care-seeking for children with fever increases with the mother's level of education and the wealth quintile. The likelihood that a child received an antibiotic also increases with the mother's education and wealth quintile.

10.5 Diarrhoeal Disease

10.5.1 Prevalence of Diarrhoea

Diarrhoea is one of the major contributors to deaths for under age 5 children in Ethiopia. Based on the WHO/CHERG estimates, diarrhoea contributes to more than one in every ten (13%) child deaths in Ethiopia (WHO 2014).

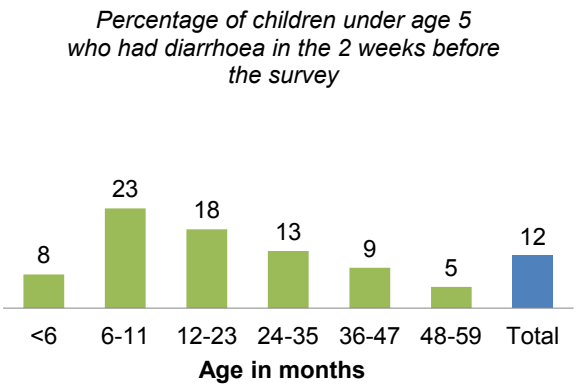
Mothers reported that 12% of children under age 5 had a diarrhoeal episode in the 2 weeks before the survey (**Table 10.11**). Among children under age 5 who had diarrhoea in the 2 weeks before the survey, advice or treatment was sought for 44%.

Trend: The percentage of children under age 5 who had diarrhoea in the 2 weeks before the survey period decreased from 24% in 2000, to 18% in 2005, 13% in 2011, and 12% in 2016.

Patterns by background characteristics

- The prevalence of diarrhoea increases after age 6 months, from 8% among children under age 6 months to 23% among those 6-11 months, when complimentary foods and other liquids are introduced. Prevalence remains high (18%) at age 12-23 months, which is the time when children begin walking and are at increased risk of contamination from the environment (**Figure 10.5**).
- The prevalence of diarrhoea is slightly higher for children in households with unimproved sanitation than for children in households with improved sanitation
- The prevalence of diarrhoea is lower among children whose mothers have more than a secondary education than among children whose mothers have a secondary or less education (7% versus 11% or higher).

Figure 10.5 **Diarrhoea prevalence by age**



10.5.2 Feeding Practices

Appropriate feeding practices

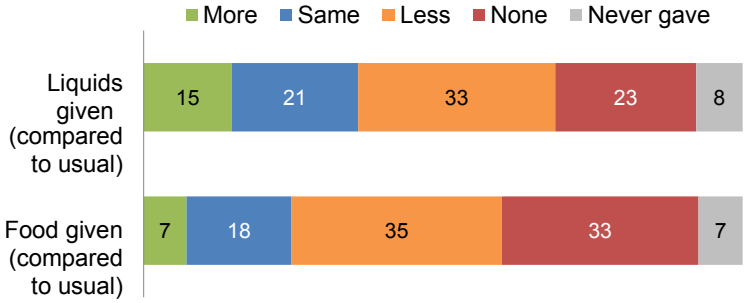
Children with diarrhoea are given more liquids than usual, and as much food or more than usual.

Sample: Children under age 5 with diarrhoea in the 2 weeks before the survey

To reduce dehydration and minimise the effects of diarrhoea on nutritional status, mothers are encouraged to continue normal feeding of children with diarrhoea and to increase the amount of fluids. Mothers in the 2016 EDHS reported that 15% of children under age 5 with diarrhoea in the 2 weeks before the survey were given more liquids than usual, 21% were given the usual amount of liquids, and 33% received somewhat less amount of liquids than usual (**Table 10.12**). With food intake during a diarrhoea episode in the past 2 weeks, 7% were fed more food, 18% were fed the usual amount, and 60% were given less food (35% were fed somewhat less and 25% were fed much less than usual) (**Figure 10.6**).

Figure 10.6 **Feeding practices during diarrhoea**

Percentage of children under age 5 with diarrhoea in the 2 weeks before the survey



For additional information on feeding practices during diarrhoea, see **Table 10.12**.

10.5.3 Oral Rehydration Therapy and Other Treatments for Diarrhoea

Deaths from diarrhoea can easily be averted with early and proper treatment. Oral rehydration therapy (ORT) is most commonly used and most simple therapy for treating diarrhoea. Depending on the severity, treatment may involve administration of antibiotics, oral rehydration therapy, as well as anti-motility and intravenous solutions. Zinc supplementation helps to reduce the severity, frequency, and duration of the diarrhoea episode.

Oral rehydration therapy

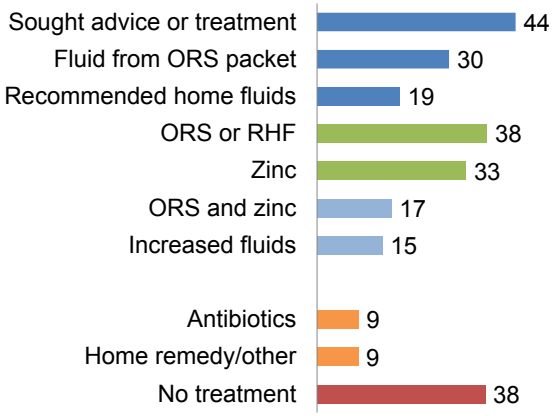
Children with diarrhoea are given increased fluids, or a fluid made from a special packet of oral rehydration salts (ORS), or government episode-recommended homemade fluids (RHF).

Sample: Children under age 5 with diarrhoea in the 2 weeks before the survey

Close to half (46%) of children under age 5 with diarrhoea in the 2 weeks before the survey received some form of ORT, either ORS packets (30%), recommended home fluids (19%), or increased fluids. One in three children (33%) under age 5 with diarrhoea received zinc and 17% received a combination of ORS and zinc. Antibiotics were given to 9% of children with diarrhoea. Close to two in five (38%) of children with diarrhoea did not receive any treatment (**Table 10.13** and **Figure 10.7**).

Figure 10.7 **Treatment of diarrhoea**

Percentage of children under age 5 with diarrhoea in the 2 weeks before the survey



Trends: The percentage of under age 5 children with diarrhoea who received treatment has increased from 13% in 2000, 22% in 2005, 32% in 2011, and 44% in 2016. The percentage of children who received no treatment has decreased from 42% in 2011 to 38% in 2016.

Patterns by background characteristics

- Children with access to improved drinking water and improved toilet facilities, as well as urban dwellers, those whose mother is more educated, and those who live in wealthier households are more likely to seek advice for treatment from a health provider or facility than other children.
- Three in four (76%) of children under age 2 with diarrhoea for whom advice or treatment was sought were taken to a public health facility for treatment (**Table 10.14**).

10.5.4 Knowledge of ORS Packets

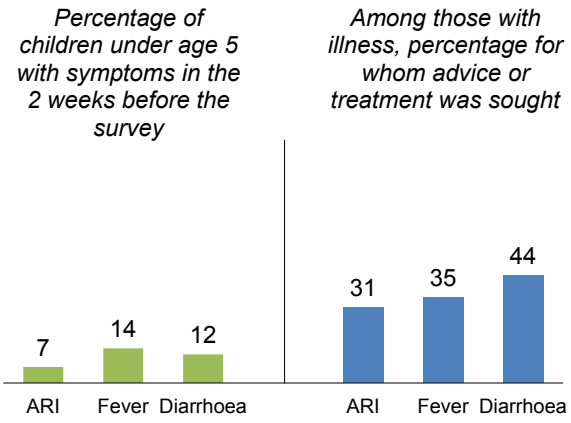
Oral rehydration solutions (ORS), which can be given at home and are available over the counter, prevents dehydration through the replenishment of water and the replacement of electrolytes in the body. In the Ethiopian context, an ORS packet is referred as LEMLEM.

Two in three (66%) women age 15-49 in Ethiopia know about ORS packets (LEMLEM) or pre-packaged liquids for the treatment of diarrhoea (**Table 10.15**). Knowledge of ORS packets is highest among women in urban areas (90%), those with more than secondary education (96%), and those in the wealthiest households (86%).

10.5.5 Treatment of Childhood Illnesses

During the 2 weeks before the survey, ARI symptoms, fever, and diarrhoea were found in 7%, 14%, and 12% of children under age 5, respectively. Advice from a health facility or treatment was sought for 31% of children with ARI, 35% of children with fever, and 44% of children with diarrhoea (**Figure 10.8**).

Figure 10.8 **Prevalence and treatment of childhood illness**



10.6 Disposal of Children's Stools

Globally, close to nine in ten of the diarrhoeal disease burden has been estimated to be linked to poor water, sanitation, and hygiene provision. Proper disposal of children's faeces is important in preventing the spread of diseases. If faeces is left uncontained, diseases may spread by direct contact or animal contact (WHO/UNICEF 2013).

Safe disposal of children's stools

The child's last stools were put in or rinsed into a toilet or latrine, buried, or the child used a toilet or latrine.

Sample: Youngest child under age 2 living with the mother

Forty percent of children under age 2 had their last stool disposed of safely, either by using a toilet or latrine or having the stool rinsed or put in a toilet or latrine. In contrast, 44% had their stool disposed unsafely, either left in the open (26%) or thrown into garbage (18%) (**Table 10.16**).

Patterns by background characteristics

- Safe disposal of children's stools increases with increasing mother's education, and the wealth quintile.
- Children's stools are less likely to be disposed of safely in households that use open defecation (14%), as compared with improved sanitation (50%).

- Children's stools are more likely to be disposed safely in urban households (61%) than in rural households (37%).

- The percentage of children whose last stool was disposed of safely ranges from 29% in Somali to 62% in SNNPR.

List of Tables

For more information on low birth weight, vaccinations, childhood illness, and disposal of children's stools, see the following tables:

- **Table 10.1 Child's size and weight at birth**
- **Table 10.2 Vaccinations by source of information**
- **Table 10.3 Vaccinations by background characteristics**
- **Table 10.4 Possession and observation of vaccination cards, according to background characteristics**
- **Table 10.5 Observation of vaccination history at health facilities: Children 0-35 months**
- **Table 10.6 Observation of vaccination history at health facilities: Children 12-35 months**
- **Table 10.7 Outcome of health facilities visit**
- **Table 10.8 Prevalence and treatment of symptoms of ARI**
- **Table 10.9 Source of advice or treatment for children with symptoms of ARI**
- **Table 10.10 Prevalence and treatment of fever**
- **Table 10.11 Prevalence and treatment of diarrhoea**
- **Table 10.12 Feeding practices during diarrhoea**
- **Table 10.13 Oral rehydration therapy, zinc, and other treatments for diarrhoea**
- **Table 10.14 Source of advice or treatment for children with diarrhoea**
- **Table 10.15 Knowledge of ORS packets (LEMLEM) or pre-packaged liquids**
- **Table 10.16 Disposal of children's stools**

Table 10.1 Child's size and weight at birth

Percent distribution of live births in the 5 years before the survey by mother's estimate of baby's size at birth, percentage of live births in the 5 years before the survey that have a reported birth weight, and among live births in the 5 years before the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percent distribution of births by size of baby at birth					Percentage of births that have a reported birth weight[1]	Number of births	Among births with a reported birth weight[1]	
	Very small	Smaller than average	Average or larger	Don't know	Total			Percentage less than 2.5 kg	Number of births
Mother's age at birth									
<20	16.3	14.5	68.5	0.7	100.0	14.1	1,301	16.9	183
20-34	15.6	9.5	74.0	0.9	100.0	14.5	8,090	12.9	1,171
35-49	17.5	9.1	72.9	0.5	100.0	9.0	1,632	10.8	147
Birth order									
1	15.4	11.0	72.3	1.3	100.0	27.1	2,070	11.6	561
2-3	15.2	10.3	73.9	0.6	100.0	15.8	3,366	13.6	533
4-5	17.7	8.8	72.8	0.7	100.0	8.6	2,609	20.6	224
6+	15.7	10.2	73.3	0.9	100.0	6.1	2,978	7.8	183
Mother's smoking status									
Smokes cigarettes/tobacco	3.6	9.5	86.4	0.5	100.0	7.0	85	*	6
Does not smoke	16.1	10.0	73.1	0.8	100.0	13.7	10,938	13.2	1,496
Residence									
Urban	12.8	7.3	78.8	1.1	100.0	60.1	1,216	10.9	730
Rural	16.4	10.4	72.5	0.8	100.0	7.9	9,807	15.4	772
Region									
Tigray	13.9	10.5	74.0	1.7	100.0	29.3	716	7.6	210
Affar	39.1	13.4	47.2	0.4	100.0	5.7	114	(26.2)	7
Amhara	21.8	11.8	66.2	0.3	100.0	9.9	2,072	22.2	205
Oromiya	14.8	10.5	73.8	0.9	100.0	8.8	4,851	13.1	428
Somali	16.6	7.7	75.1	0.6	100.0	10.2	508	11.1	52
Benishangul-Gumuz	7.7	9.6	79.1	3.6	100.0	21.2	122	9.9	26
SNNPR	13.4	8.1	77.6	0.9	100.0	13.9	2,296	13.1	319
Gambela	12.6	8.0	77.8	1.6	100.0	32.1	27	11.9	9
Harari	20.3	3.8	75.2	0.7	100.0	36.9	26	4.4	10
Addis Ababa	10.7	7.4	81.1	0.9	100.0	89.2	244	11.5	218
Dire Dawa	20.5	8.0	69.2	2.3	100.0	43.6	47	9.2	20
Mother's education									
No education	17.4	11.0	70.8	0.8	100.0	5.9	7,284	18.3	433
Primary	13.5	8.2	77.4	0.9	100.0	19.4	2,951	11.0	571
Secondary	11.9	7.7	79.7	0.6	100.0	52.1	514	7.7	268
More than secondary	12.4	8.5	78.8	0.3	100.0	83.7	274	15.4	230
Wealth quintile									
Lowest	18.2	12.6	68.3	0.9	100.0	3.9	2,636	11.3	104
Second	17.3	10.2	71.3	1.1	100.0	6.1	2,520	18.7	155
Middle	16.0	10.2	73.2	0.6	100.0	9.2	2,280	17.3	209
Fourth	13.4	8.8	77.3	0.5	100.0	12.1	1,999	15.7	242
Highest	13.3	6.7	78.9	1.1	100.0	49.9	1,588	10.5	792
Total	16.0	10.0	73.2	0.8	100.0	13.6	11,023	13.2	1,502

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

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey, by source of information (vaccination card, health facility, or mother's report), and percentage who received specific vaccines by the appropriate age, Ethiopia DHS 2016

	Children age 12-23 months					Children age 24-35 months				
	Vaccinated at any time before the survey according to:				Vaccinated by appro-priate age[2,3]	Vaccinated at any time before the survey according to:				Vaccinated by appro-priate age[2,3]
Vaccine	Vaccination card[1]	Health facility	Mother's report	Any source		Vaccination card[1]	Health facility	Mother's report	Any source	
BCG	29.4	22.0	17.7	69.2	67.9	16.4	24.0	27.6	67.9	62.9
DPT-HepB-Hib										
1	33.7	23.1	16.4	73.2	56.7	17.1	24.1	26.0	67.1	44.8
2	30.7	22.4	12.0	65.1	45.2	15.4	22.8	18.5	56.7	34.2
3	26.4	21.3	5.5	53.2	32.2	14.9	21.2	8.8	44.9	23.5
Polio										
1	33.5	23.3	23.8	80.6	79.1	17.0	24.1	36.4	77.6	73.0
2	30.5	22.8	18.5	71.7	69.9	15.4	22.9	31.3	69.6	64.9
3	25.9	22.2	8.3	56.4	54.4	14.0	21.8	15.8	51.6	46.7
Pneumococcal (PCV)										
1	31.2	22.8	13.0	67.0	65.8	15.2	22.5	21.3	58.9	56.2
2	28.1	21.5	10.8	60.5	59.2	14.0	21.1	15.3	50.4	47.5
3	24.0	19.9	5.3	49.1	47.6	13.2	17.8	7.7	38.8	35.3
Rotavirus (RV)										
1	30.2	21.3	12.5	64.0	62.5	11.1	17.8	21.6	50.4	46.9
2	26.7	19.6	9.7	56.0	54.1	10.0	16.3	17.8	44.1	40.1
Measles	21.5	20.5	12.4	54.3	47.4	12.5	22.2	20.0	54.6	41.8
All basic vaccinations[4]	18.6	18.4	1.5	38.5	22.3	11.5	19.8	3.5	34.8	16.5
All age appropriate vaccinations[5]	16.8	15.5	1.0	33.3	19.4	6.8	12.8	2.5	22.1	12.0
No vaccinations	0.1	0.0	15.7	15.9	na	0.0	0.0	18.7	18.8	na
Number of children	684	468	852	2,004	2,004	335	477	1,132	1,944	1,944

na = Not applicable.
BCG = Bacille Calmette-Guérin.
DPT = Diphtheria-pertussis-tetanus,
HepB = Hepatitis B.
Hib = Haemophilus influenzae type b.
[1] Vaccination card, booklet, or other home-based record.
[2] Received by age 12 months.
[3] For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
[4] BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and one dose of measles.
[5] BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of measles.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card, health facility, or the mother's report), percentage with all basic vaccinations, and percentage with all age appropriate vaccinations, according to background characteristics, Ethiopia DHS 2016

Background characteristic	BCG	DPT-HepB-Hib			Polio[1]			Pneumococcal (PCV)			Rotavirus (RV)		Measles	All basic vaccinations[2]	All age appropriate vaccinations[3]	No vaccinations	Number of children
		1	2	3	1	2	3	1	2	3	1	2					
Sex																	
Male	68.9	73.5	63.3	52.9	79.5	71.2	56.5	64.1	58.8	48.6	62.4	54.5	52.7	36.5	31.6	16.0	926
Female	69.4	73.0	66.6	53.3	81.5	72.2	56.3	69.5	62.0	49.6	65.4	57.2	55.8	40.3	34.7	15.7	1,078
Birth order																	
1	71.7	73.7	69.5	59.6	81.1	73.0	60.6	71.9	66.7	55.3	68.7	64.9	59.4	47.1	43.1	13.4	374
2-3	73.5	78.2	71.1	58.3	85.2	76.3	61.7	72.8	66.5	52.8	66.9	58.5	57.3	42.5	36.6	12.8	611
4-5	68.2	76.9	66.0	54.0	83.7	72.7	56.4	67.8	58.4	48.2	66.5	53.4	56.1	37.7	30.2	12.00	453
6+	63.5	64.6	54.8	42.7	72.7	65.3	47.9	56.9	51.7	41.7	55.9	49.4	46.3	29.3	25.7	23.9	566
Residence																	
Urban	88.8	91.1	87.8	79.5	92.7	87.1	79.5	81.4	78.6	72.9	82.1	79.1	76.0	64.6	60.9	3.8	232
Rural	66.6	70.9	62.1	49.7	79.0	69.7	53.4	65.1	58.1	46.0	61.7	52.9	51.5	35.1	29.7	17.4	1,772
Region																	
Tigray	88.1	92.3	90.1	81.4	92.3	86.9	79.3	90.6	87.9	77.7	84.0	79.8	80.1	67.3	62.1	4.7	152
Affar	43.5	47.1	26.8	20.1	68.5	53.5	36.4	38.3	24.3	17.5	32.5	23.3	30.1	15.2	12.4	28.2	20
Amhara	75.2	80.8	75.2	63.8	87.0	81.1	66.1	75.9	68.9	60.5	68.2	59.1	61.9	45.8	39.9	8.3	364
Oromiya	59.7	64.8	53.5	39.9	74.3	61.6	43.4	58.8	51.5	38.3	58.2	50.2	43.2	24.7	24.3	21.4	881
Somali	55.9	61.6	47.6	36.3	77.4	64.7	43.8	55.1	42.8	34.9	53.6	41.3	48.1	21.8	19.9	19.6	76
Benishangul-Gumuz	76.8	81.9	81.4	76.2	85.6	79.1	70.5	77.8	77.8	71.0	78.8	76.6	70.8	57.4	51.6	13.4	21
SNNPR	76.2	76.7	70.9	59.0	82.2	77.4	63.6	66.9	61.6	48.6	63.7	54.7	57.6	46.9	31.7	15.9	419
Gambela	69.9	73.1	67.3	54.8	78.9	73.8	57.6	65.4	60.2	46.1	65.8	60.5	62.1	41.1	36.5	16.3	5
Harari	77.0	78.8	66.8	58.7	96.4	88.8	79.3	80.5	67.6	58.6	71.7	61.3	53.6	42.2	40.4	2.8	5
Addis Ababa	94.6	97.5	96.8	95.7	96.8	96.8	96.8	93.9	93.2	91.4	93.5	91.7	93.1	89.2	81.6	1.5	52
Dire Dawa	96.8	98.2	92.8	84.9	98.2	92.8	82.1	89.9	85.1	75.3	92.3	85.3	86.9	75.9	65.5	1.5	9
Mother's education																	
No education	64.3	68.4	58.4	45.3	77.5	67.2	49.5	61.6	53.8	42.4	58.0	49.6	49.0	30.7	26.1	18.9	1,257
Primary	74.3	79.6	73.6	62.3	84.4	77.5	65.0	74.1	69.1	57.1	72.2	62.7	58.7	46.1	39.4	12.1	577
Secondary	84.1	86.6	84.3	80.3	90.7	88.4	78.2	81.3	80.7	70.0	79.5	79.1	78.3	69.6	61.1	6.5	103
More than secondary	93.6	87.7	87.5	79.0	88.5	81.8	78.6	85.2	80.4	74.3	82.1	81.5	79.6	71.8	71.5	5.3	68
Wealth quintile																	
Lowest	57.7	62.3	53.0	36.4	72.4	61.4	43.4	57.4	49.7	36.0	53.2	43.6	43.2	22.2	19.2	24.7	504
Second	65.2	71.8	60.6	50.4	78.7	69.2	53.8	64.0	55.7	48.9	58.2	50.7	49.9	38.1	31.0	17.2	396
Middle	69.4	70.2	61.1	51.4	81.3	71.8	56.0	64.6	58.4	44.2	63.3	53.0	54.4	36.7	29.9	13.3	450
Fourth	77.4	83.2	77.0	63.2	86.6	79.0	62.4	77.9	71.0	56.0	72.8	64.6	58.6	44.6	39.7	11.3	366
Highest	83.9	86.4	83.2	76.3	88.4	84.1	75.8	77.9	76.0	71.3	81.1	78.6	74.3	63.0	58.3	8.4	288
Total	69.2	73.2	65.1	53.2	80.6	71.7	56.4	67.0	60.5	49.1	64.0	56.0	54.3	38.5	33.3	15.9	2,004

Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card, child's information found in the health facility, or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
BCG = Bacille Calmette-Guérin.
DPT = Diphtheria-pertussis-tetanus.
HepB = Hepatitis B.
Hib = Haemophilus influenzae type b.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, three doses of [DPT-HepB-Hib], three doses of oral polio vaccine (excluding polio vaccine given at birth), and one dose of measles.
[3] BCG, hepatitis B (birth dose), three doses of DPT-HepB-Hib], three doses of oral polio vaccine (excluding polio vaccine given at birth), three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of measles.

Table 10.4 Possession and observation of vaccination cards, according to background characteristics

Percentage of children age 12-23 months and children age 24-35 months who ever had a vaccination card, and percentage with a vaccination card seen, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Children age 12-23 months			Children age 24-35 months		
	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children	Percentage who ever had a vaccination card[1]	Percentage with a vaccination card seen[1]	Number of children
Sex						
Male	45.7	30.9	926	35.1	17.7	1,048
Female	45.3	36.9	1,078	34.5	16.7	895
Birth order						
1	48.4	35.0	374	45.7	28.2	392
2-3	51.2	42.1	611	40.6	19.9	587
4-5	47.4	35.6	453	28.1	13.3	459
6+	35.9	23.7	566	25.9	9.2	506
Residence						
Urban	77.2	67.3	232	71.5	57.4	201
Rural	41.3	29.8	1,772	30.6	12.6	1,742
Region						
Tigray	65.4	58.3	152	53.9	45.4	128
Affar	24.2	16.7	20	18.8	12.0	22
Amhara	50.3	44.5	364	36.7	18.4	354
Oromiya	39.7	25.9	881	29.6	9.2	858
Somali	35.6	21.0	76	22.3	8.5	100
Benishangul-Gumuz	51.5	41.4	21	40.8	23.4	22
SNNPR	42.3	28.8	419	34.7	18.1	400
Gambela	55.8	41.4	5	55.7	24.3	4
Harari	56.0	44.9	5	44.9	28.8	5
Addis Ababa	93.3	90.3	52	91.9	86.9	43
Dire Dawa	60.9	53.7	9	66.3	48.7	8
Mother's education						
No education	40.4	28.8	1,257	28.0	11.2	1,275
Primary	49.7	38.8	577	42.1	21.0	535
Secondary	64.3	57.0	103	60.3	45.3	80
More than secondary	75.3	59.1	68	86.4	83.0	53
Wealth quintile						
Lowest	30.1	17.3	504	24.2	8.2	501
Second	40.2	32.8	396	33.9	9.8	477
Middle	47.7	28.8	450	29.2	13.8	371
Fourth	50.0	44.8	366	32.1	15.0	315
Highest	70.5	60.3	288	66.2	53.2	280
Total	45.5	34.1	2,004	34.8	17.2	1,944

[1] Vaccination card, booklet, or other home-based record.

Table 10.5 Observation of vaccination history at health facilities: Children 0-35 months

Percentage of children age 0-35 months who did not have a vaccination card seen during home visit; and among children age 0-35 months without vaccination card seen during home visit; percentage of children who received at least one vaccination at a health facility; percentage of children with mother's consent for visiting health facilities, percentage of children with vaccination history searched at health facilities, and percentage of children with vaccination history found and seen by interviewer at health facilities, according to background characteristics, Ethiopia DHS 2016

			Among children age 0-35 months who did not have vaccination card during home visit				
Background characteristic	Percentage of children who did not have vaccination card during home visit	Number of children	Percentage of children who received at least one vaccination at a health facility	Percentage of children with mother's consent for visiting health facilities	Percentage of children with vaccination history searched at health facilities	Percentage of children with vaccination history found and seen by interviewer	Number of children
Age in months							
<6	69.5	1,200	27.3	23.2	22.2	16.9	834
6-11	58.2	1,071	45.1	37.0	36.8	31.6	624
12-23	65.9	2,004	52.3	47.1	46.1	35.4	1,320
24-35	82.8	1,944	50.3	45.0	44.6	29.6	1,608
Sex							
Male	72.2	3,076	47.6	41.1	40.2	29.6	2,221
Female	68.9	3,143	44.0	39.6	39.1	28.8	2,166
Birth order							
1	63.6	1,283	48.9	44.5	43.7	32.0	816
2-3	64.6	1,889	50.5	45.1	44.3	33.0	1,220
4-5	72.9	1,387	41.6	38.0	37.6	27.1	1,012
6+	80.6	1,659	42.8	35.3	34.5	25.7	1,338
Residence							
Urban	33.0	719	57.4	51.5	50.3	39.5	237
Rural	75.4	5,500	45.2	39.7	39.0	28.7	4,149
Region							
Tigray	43.9	439	78.8	78.5	78.5	61.1	193
Affar	83.0	63	12.6	8.9	8.5	5.9	52
Amhara	64.8	1,139	58.5	53.6	53.3	40.0	738
Oromiya	79.7	2,760	33.4	26.4	26.1	18.2	2,201
Somali	79.4	281	23.0	21.0	14.0	12.2	223
Benishangul-Gumuz	62.4	66	73.7	69.9	68.7	49.8	42
SNNPR	70.6	1,261	63.9	59.7	59.2	44.5	890
Gambela	59.7	15	56.6	51.2	41.2	21.0	9
Harari	56.4	15	35.6	32.6	31.7	22.5	8
Addis Ababa	11.5	153	(75.8)	(71.7)	(71.7)	(51.9)	18
Dire Dawa	46.3	26	91.8	88.2	82.7	63.7	12
Mother's education							
No education	77.4	3,854	40.8	35.6	34.7	25.5	2,983
Primary	65.3	1,849	55.8	49.6	49.4	36.3	1,207
Secondary	42.7	341	56.5	54.7	54.0	40.2	146
More than secondary	28.8	175	69.4	61.2	59.3	50.8	50
Wealth quintile							
Lowest	83.4	1,504	37.2	33.5	32.4	23.3	1,255
Second	78.3	1,401	46.7	40.4	39.9	28.9	1,097
Middle	74.2	1,278	46.6	39.1	38.4	28.6	949
Fourth	65.0	1,098	51.8	48.3	48.0	35.3	714
Highest	39.6	938	58.6	51.3	50.5	40.3	371
Total	70.5	6,219	45.8	40.4	39.6	29.2	4,386

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

Table 10.6 Observation of vaccination history at health facilities: Children 12-35 months

Percentage of children age 12-35 months who did not have a vaccination card seen during home visit; and among children age 12-35 months without vaccination card seen during home visit, percentage of children who received at least one vaccination at a health facility; percentage of children with mother's consent for visiting health facilities, percentage of children with vaccination history searched at health facilities, and percentage of children with vaccination history found and seen by interviewer at health facilities, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of children who did not have vaccination card during home visit[1]	Number of children	Among children age 12-35 months who did not have vaccination card during home visit: Percentage of children who received at least one vaccination at a health facility	Percentage of children with mother's consent for visiting health facilities	Percentage of children with vaccination history searched at health facilities	Percentage of children with vaccination history found and seen by interviewer	Number of children
Age in months							
12-23	65.9	2,004	52.3	47.1	46.1	35.4	1,320
24-35	82.8	1,944	50.3	45.0	44.6	29.6	1,608
Sex							
Male	76.1	1,975	53.4	46.9	45.9	32.7	1,503
Female	72.2	1,973	49.0	45.0	44.5	31.8	1,425
Birth order							
1	68.5	766	60.2	54.7	53.5	39.0	525
2-3	68.7	1,197	55.4	50.7	49.8	35.0	823
4-5	75.6	912	46.5	41.9	41.3	28.9	689
6+	83.1	1,072	45.8	39.6	39.2	28.3	891
Residence							
Urban	37.3	433	62.0	55.3	53.6	40.1	162
Rural	78.7	3,514	50.6	45.4	44.7	31.8	2,767
Region							
Tigray	47.6	279	87.5	87.5	87.5	70.3	133
Affar	85.7	42	13.8	9.8	9.3	6.7	36
Amhara	68.4	718	62.8	57.4	57.0	39.3	491
Oromiya	82.3	1,739	38.2	31.0	30.8	21.3	1,431
Somali	86.1	176	26.6	25.4	17.0	15.2	151
Benishangul-Gumuz	67.8	43	78.4	75.5	73.8	49.7	29
SNNPR	76.4	818	70.2	66.9	66.6	47.7	625
Gambela	66.5	10	60.1	56.2	46.6	22.6	6
Harari	62.8	10	40.7	37.9	36.8	25.8	6
Addis Ababa	11.2	95	*	*	*	*	11
Dire Dawa	48.7	18	91.4	87.3	83.2	66.3	9
Mother's education							
No education	80.1	2,532	45.2	39.8	38.8	27.3	2,028
Primary	69.7	1,112	64.0	58.9	58.8	42.6	775
Secondary	48.1	183	68.7	68.1	67.5	47.6	88
More than secondary	30.4	121	72.8	61.5	59.4	50.5	37
Wealth quintile							
Lowest	87.2	1,006	42.6	38.7	37.4	26.5	877
Second	79.8	873	52.0	45.6	45.4	30.6	696
Middle	78.0	820	50.3	43.5	42.9	31.2	640
Fourth	68.9	681	59.8	56.7	56.2	40.4	470
Highest	43.2	568	66.0	58.8	57.7	44.7	245
Total	74.2	3,947	51.2	46.0	45.2	32.3	2,928

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

Table 10.7 Outcome of health facilities visit

Among children age 12-35 months with no vaccination card seen during home visit and whose information was searched at health facilities, percentage with vaccination history found and seen by interviewer, percentage of children with other vaccination records located at health facilities, but record for specific children not found, and percentage with no vaccination records located at health facilities, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Among children age 12-35 months with vaccination history search at health facilities: Percentage of children with vaccination history found and seen by interviewer	Percentage of children with other vaccination records located at health facilities, but record for specific children not found	Percentage with no vaccination records located at health facilities	Other	Number of children with history searched at health facilities
Age in months					
12-23	76.9	10.9	11.2	1.0	608
24-35	66.5	14.1	19.3	0.1	717
Sex					
Male	71.3	12.1	15.7	0.9	690
Female	71.3	13.2	15.5	0.0	634
Birth order					
1	73.0	8.0	18.4	0.7	281
2-3	70.3	13.4	15.3	1.1	410
4-5	69.8	14.9	15.3	0.0	285
6+	72.4	13.6	14.0	0.0	349
Residence					
Urban	74.8	6.9	17.7	0.5	87
Rural	71.1	13.0	15.4	0.5	1,238
Region					
Tigray	80.3	1.2	18.5	0.0	116
Affar	(72.1)	(0.0)	(25.5)	(2.4)	3
Amhara	69.0	5.0	25.3	0.7	280
Oromiya	69.1	15.9	14.2	0.9	441
Somali	89.1	6.4	3.7	0.8	26
Benishangul-Gumuz	67.4	27.7	3.7	1.3	21
SNNPR	71.6	17.0	11.4	0.0	417
Gambela	48.6	36.2	14.3	0.9	3
Harari	70.0	22.1	7.8	0.0	2
Addis Ababa	*	*	*	*	8
Dire Dawa	79.6	18.5	0.0	1.8	7
Mother's education					
No education	70.3	14.6	14.5	0.5	788
Primary	72.5	9.7	17.3	0.5	456
Secondary	70.6	11.5	17.8	0.2	59
More than secondary	(84.9)	(3.4)	(11.7)	(0.0)	22
Wealth quintile					
Lowest	70.9	12.7	16.3	0.0	328
Second	67.3	11.7	20.4	0.6	316
Middle	72.7	14.0	11.9	1.4	275
Fourth	71.9	14.7	13.4	0.1	264
Highest	77.5	8.0	14.3	0.2	142
Total	71.3	12.6	15.6	0.5	1,325

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 10.8 Prevalence and treatment of symptoms of ARI

Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks before the survey; and among children with symptoms of ARI in the 2 weeks before the survey, percentage for whom advice or treatment was sought, according to background characteristics, Ethiopia DHS 2016

	Among children under age 5:		Among children under age 5 with symptoms of ARI:		
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[2]	Percentage for whom treatment was sought same or next day	Number of children
Age in months					
<6	6.0	1,200	(33.5)	(3.5)	72
6-11	8.9	1,071	43.1	0.7	95
12-23	9.1	2,004	33.7	3.2	183
24-35	5.9	1,944	27.0	2.3	114
36-47	6.7	2,007	22.5	4.8	135
48-59	4.2	2,191	30.5	3.7	91
Sex					
Male	6.5	5,342	34.1	2.7	349
Female	6.7	5,075	28.4	3.5	342
Cooking fuel					
Electricity or gas	3.5	350	*	*	12
Kerosene	(0.0)	7	*	*	0
Charcoal	4.2	475	(39.3)	(5.0)	20
Wood/straw3	7.0	8,964	30.9	3.0	631
Animal dung	4.4	614	*	*	27
Other fuel	*	7	*	*	0
Residence					
Urban	4.1	1,163	59.1	4.8	48
Rural	6.9	9,254	29.2	3.0	643
Region					
Tigray	7.7	686	33.6	4.7	53
Affar	4.3	105	(44.3)	(5.7)	4
Amhara	8.0	1,967	29.1	2.9	157
Oromiya	7.4	4,571	26.4	0.7	339
Somali	2.1	476	(32.2)	(2.9)	10
Benishangul-Gumuz	1.8	113	*	*	2
SNNPR	5.4	2,169	43.2	8.3	117
Gambela	3.5	25	*	*	1
Harari	0.7	24	*	*	0
Addis Ababa	2.7	236	*	*	6
Dire Dawa	3.9	44	*	*	2
Mother's education					
No education	6.9	6,858	26.7	2.4	476
Primary	6.3	2,807	40.7	3.3	177
Secondary	5.3	493	*	*	26
More than secondary	4.4	260	*	*	11
Wealth quintile					
Lowest	5.3	2,499	25.0	3.1	133
Second	7.2	2,386	26.9	4.4	172
Middle	8.1	2,159	28.9	1.2	176
Fourth	7.9	1,860	41.0	3.5	147
Highest	4.1	1,513	40.2	3.6	63
Total	6.6	10,417	31.3	3.1	691

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] Symptoms of ARI include cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related.

[2] Includes advice or treatment from the following sources: Public sector, private medical sector, NGO medical sector, shop, drug vendor, and market. Excludes advice or treatment from a traditional practitioner.

[3] Includes grass, shrubs, and crop residues.

Table 10.9 Source of advice or treatment for children with symptoms of ARI

Percentage of children under age 5 with symptoms of ARI in the 2 weeks before the survey for whom advice or treatment was sought from specific sources; and among children under age 5 with symptoms of ARI in the 2 weeks before the survey for whom advice or treatment was sought, and the percentage for whom advice or treatment was sought from specific sources, Ethiopia DHS 2016

	Percentage for whom advice or treatment was sought from each source:	
Source	Among children with symptoms of ARI[1]	Among children with symptoms of ARI for whom advice or treatment was sought[1]
Any public sector source	24.6	76.0
Government hospital	1.2	3.7
Government health centre	20.7	64.0
Other public sector	2.7	8.4
NGO sector	0.4	1.1
Health facility	0.4	1.1
Any private sector source	5.0	15.5
Private hospital	0.1	0.2
Private clinic	4.8	14.8
Other private medical sector	0.2	0.6
Any other source	2.6	8.0
Shop	1.8	5.6
Traditional practitioner	0.8	2.3
Number of children	691	224

[1] Symptoms of ARI include short, rapid breathing which was chest-related and/or by difficult breathing which was chest-related.

Table 10.10 Prevalence and treatment of fever

Among children under age 5, the percentage who had a fever in the 2 weeks before the survey and among children with fever in the 2 weeks before the survey, percentage for whom advice or treatment was sought, and percentage who received antibiotics as treatment, according to background characteristics, Ethiopia DHS 2016

	Among children under age 5:		Among children under age 5 with fever:			
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought [1]	Percentage for whom treatment was sought same or next day	Percentage who took antibiotic drugs	Number of children with fever
Age in months						
<6	11.8	1,200	30.0	8.4	19.0	141
6-11	20.5	1,071	40.8	4.2	27.8	220
12-23	19.7	2,004	36.4	6.9	29.6	395
24-35	14.8	1,944	36.0	10.7	35.2	287
36-47	11.6	2,007	35.2	10.2	22.8	232
48-59	10.0	2,191	30.5	8.7	20.4	219
Sex						
Male	14.4	5,342	35.9	8.0	25.9	768
Female	14.3	5,075	34.7	8.3	28.1	727
Residence						
Urban	16.5	1,163	59.3	20.4	48.6	192
Rural	14.1	9,254	31.8	6.4	23.8	1,303
Region						
Tigray	23.8	686	34.1	7.9	20.2	163
Affar	16.8	105	41.3	9.0	28.3	18
Amhara	12.6	1,967	31.4	10.7	31.4	248
Oromiya	13.9	4,571	35.0	6.1	23.8	635
Somali	8.5	476	26.8	2.6	20.5	40
Benishangul-Gumuz	7.3	113	41.6	10.7	37.6	8
SNNPR	15.4	2,169	36.7	9.8	31.9	335
Gambela	15.1	25	45.0	15.5	23.6	4
Harari	9.6	24	53.8	15.5	27.0	2
Addis Ababa	14.9	236	62.5	16.6	42.4	35
Dire Dawa	13.2	44	51.2	12.5	41.2	6
Mother's education						
No education	13.1	6,858	29.5	5.6	22.7	898
Primary	17.1	2,807	43.5	11.1	32.3	481
Secondary	15.9	493	39.9	15.9	32.7	78
More than secondary	14.3	260	(59.0)	(16.1)	(49.5)	37
Wealth quintile						
Lowest	12.5	2,499	23.8	5.7	15.3	313
Second	13.3	2,386	30.4	5.7	26.6	317
Middle	14.2	2,159	33.0	6.5	26.9	306
Fourth	17.3	1,860	42.3	10.0	27.4	322
Highest	15.7	1,513	50.5	14.4	42.6	237
Total	14.3	10,417	35.3	8.2	27.0	1,495

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes advice or treatment from the following sources: Public sector, private medical sector, NGO medical sector, shop, drug vendor, market. Excludes advice or treatment from a traditional practitioner.

Table 10.11 Prevalence and treatment of diarrhoea

Percentage of children under age 5 who had diarrhoea in the 2 weeks before the survey; among children with diarrhoea in the 2 weeks before the survey, percentage for whom advice or treatment was sought, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage with diarrhoea	Number of children	Among children under age 5 with diarrhoea: Percentage for whom advice or treatment was sought[1]	Among children under age 5 with diarrhoea: Number of children with diarrhoea
Age in months				
<6	7.6	1,200	(31.4)	92
6-11	22.5	1,071	52.4	241
12-23	17.8	2,004	52.7	357
24-35	12.9	1,944	37.4	250
36-47	9.1	2,007	40.6	183
48-59	4.8	2,191	(32.1)	105
Sex				
Male	12.1	5,342	40.9	649
Female	11.4	5,075	48.3	578
Source of drinking water[2]				
Improved	12.1	5,863	48.4	709
Not improved	11.4	4,554	38.8	519
Toilet facility[3]				
Improved sanitation	7.0	577	(56.9)	40
Unimproved sanitation	12.1	9,841	43.9	1,187
Shared facility[4]	13.1	486	48.0	64
Unimproved facility	12.3	5,527	43.2	680
Open defecation	11.6	3,827	44.5	444
Residence				
Urban	10.8	1,163	60.3	126
Rural	11.9	9,254	42.5	1,101
Region				
Tigray	13.0	686	50.7	89
Affar	11.5	105	53.0	12
Amhara	13.7	1,967	(40.0)	270
Oromiya	10.7	4,571	41.9	487
Somali	6.0	476	(44.7)	29
Benishangul-Gumuz	9.0	113	(61.3)	10
SNNPR	13.9	2,169	47.8	301
Gambela	14.5	25	58.7	4
Harari	10.8	24	(54.5)	3
Addis Ababa	7.4	236	*	18
Dire Dawa	12.1	44	(68.2)	5
Mother's education				
No education	11.2	6,858	37.5	767
Primary	13.2	2,807	56.7	370
Secondary	14.7	493	(46.1)	72
More than secondary	7.3	260	(73.9)	19
Wealth quintile				
Lowest	10.2	2,499	40.1	254
Second	11.9	2,386	39.6	284
Middle	12.4	2,159	43.5	267
Fourth	13.6	1,860	44.0	253
Highest	11.2	1,513	60.6	169
Total	11.8	10,417	44.4	1,227

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] Includes advice or treatment from the following sources: Public sector, private medical sector, NGO medical sector, shop, drug vendor, market. Excludes advice or treatment from a traditional practitioner.
[2] See Table 2.1 for definition of categories.
[3] See Table 2.2 for definition of categories.
[4] Facilities that would be considered improved if they were not shared by two or more households.

Table 10.12 Feeding practices during diarrhoea

Percent distribution of children under age 5 who had diarrhoea in the 2 weeks before the survey by amount of liquids and food offered compared with normal practice, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Amount of liquids given							Amount of food given								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	12.2	28.0	21.7	14.8	23.3	0.0	100.0	8.0	15.3	19.0	8.1	0.0	47.4	2.1	100.0	92
6-11	11.8	23.5	38.3	18.7	6.5	1.2	100.0	7.7	19.8	36.9	15.9	9.6	10.1	0.0	100.0	241
12-23	12.9	26.4	30.0	24.2	6.5	0.0	100.0	4.0	17.8	35.8	27.1	11.4	3.9	0.0	100.0	357
24-35	13.7	16.0	33.8	32.0	4.4	0.1	100.0	7.1	15.8	39.0	32.1	4.3	1.6	0.0	100.0	250
36-47	20.8	13.1	33.1	20.6	9.9	2.5	100.0	13.3	16.5	32.9	26.5	6.9	0.4	3.6	100.0	183
48-59	20.3	16.3	35.2	23.1	4.9	0.1	100.0	6.5	19.5	39.1	31.0	3.8	0.1	0.1	100.0	105
Sex																
Male	12.9	21.6	34.1	24.3	7.0	0.0	100.0	6.5	18.6	35.6	25.5	5.9	7.3	0.6	100.0	649
Female	16.5	20.3	31.2	22.3	8.4	1.3	100.0	8.1	16.4	34.8	23.9	9.1	6.8	0.9	100.0	578
Breastfeeding status																
Breastfeeding	13.5	24.0	32.3	21.1	8.8	0.4	100.0	7.8	18.1	34.5	20.5	7.8	10.9	0.3	100.0	784
Not breastfeeding	16.5	15.7	33.5	27.5	5.8	1.1	100.0	6.2	16.5	36.5	32.3	6.8	0.2	1.5	100.0	443
Residence																
Urban	17.1	32.9	23.0	20.7	6.2	0.0	100.0	8.8	24.2	27.2	27.4	10.3	2.0	0.2	100.0	126
Rural	14.3	19.6	33.8	23.7	7.8	0.7	100.0	7.1	16.8	36.2	24.5	7.1	7.6	0.8	100.0	1,101
Region																
Tigray	14.5	32.0	32.8	19.5	1.3	0.0	100.0	5.7	26.6	23.3	27.1	8.2	9.1	0.0	100.0	89
Affar	1.4	20.8	28.1	36.9	12.3	0.5	100.0	0.0	15.0	28.6	38.8	10.2	4.8	2.7	100.0	12
Amhara	25.7	32.2	20.5	12.6	9.0	0.0	100.0	9.2	23.2	27.2	13.3	16.5	10.4	0.0	100.0	270
Oromiya	12.6	12.1	34.9	28.8	10.3	1.2	100.0	8.8	12.3	33.4	31.0	6.8	6.3	1.3	100.0	487
Somali	6.7	19.8	41.5	26.3	5.7	0.0	100.0	2.3	14.1	34.8	39.5	3.2	6.2	0.0	100.0	29
Benishangul-Gumuz	25.2	22.1	32.9	14.4	2.9	2.5	100.0	19.6	33.0	32.9	9.0	2.0	2.6	1.0	100.0	10
SNNPR	7.5	21.2	40.5	25.5	4.7	0.5	100.0	3.7	17.7	49.1	23.0	1.0	5.1	0.6	100.0	301
Gambela	21.1	31.3	23.8	14.2	9.6	0.0	100.0	5.9	23.7	31.2	27.5	4.3	7.5	0.0	100.0	4
Harari	0.0	13.6	50.5	36.0	0.0	0.0	100.0	4.4	26.5	45.4	20.7	0.0	3.0	0.0	100.0	3
Addis Ababa	(35.4)	(38.8)	(15.1)	(8.0)	(2.6)	(0.0)	100.0	(9.1)	(28.1)	(40.0)	(13.3)	(2.6)	(6.8)	(0.0)	100.0	18
Dire Dawa	21.7	6.5	25.5	46.4	0.0	0.0	100.0	6.1	3.4	34.1	50.6	2.7	3.1	0.0	100.0	5
Mother's education																
No education	15.1	18.4	33.7	23.8	7.9	1.0	100.0	7.5	17.8	34.8	24.5	6.9	7.3	1.1	100.0	767
Primary	13.9	22.0	29.7	26.0	8.4	0.0	100.0	6.5	16.7	37.1	27.2	6.7	5.7	0.0	100.0	370
Secondary	12.3	32.9	43.7	8.4	2.8	0.0	100.0	9.5	12.3	35.4	17.0	13.1	12.6	0.0	100.0	72
More than secondary	(17.7)	(58.9)	(8.0)	(13.0)	(2.4)	(0.0)	100.0	(3.2)	(42.0)	(17.4)	(17.7)	(18.9)	(0.9)	(0.0)	100.0	19
Wealth quintile																
Lowest	16.9	16.8	29.8	25.0	9.7	1.8	100.0	10.2	19.5	27.2	25.7	9.9	6.1	1.4	100.0	254
Second	13.1	23.8	38.2	20.4	4.6	0.0	100.0	5.9	20.4	43.9	18.8	3.0	8.1	0.0	100.0	284
Middle	12.9	19.1	36.0	19.8	12.1	0.0	100.0	5.3	18.2	37.3	21.4	9.3	8.5	0.1	100.0	267
Fourth	13.3	19.8	31.1	27.5	7.0	1.2	100.0	8.3	10.7	34.7	30.2	6.1	8.1	1.9	100.0	253
Highest	18.2	27.2	25.1	25.4	4.0	0.0	100.0	6.6	19.2	30.4	30.5	10.4	2.8	0.0	100.0	169
Total	14.6	21.0	32.7	23.4	7.7	0.6	100.0	7.2	17.6	35.3	24.8	7.4	7.1	0.7	100.0	1,227

Note: It is recommended that children should be given more liquids to drink during diarrhoea and food should not be reduced. Figures in parentheses are based on 25-49 unweighted cases.

Table 10.13 Oral rehydration therapy, zinc, and other treatments for diarrhoea

Among children under age 5 who had diarrhoea in the 2 weeks before the survey, percentage given fluid from an ORS packet or pre-packaged ORS fluid, recommended homemade fluids (RHF), ORS or RHF, zinc, ORS and zinc, ORS or increased fluids, oral rehydration therapy (ORT), continued feeding and ORT, and other treatments; and percentage given no treatment, according to background characteristics, Ethiopia DHS 2016

	Percentage of children with diarrhoea who were given:													
									Other treatments					
Background characteristic	Fluid from ORS packet (LEMLEM) or pre-packaged ORS fluid	Recom-mended home fluids (RHF)	Either ORS or RHF	Zinc	ORS and zinc	ORS or increased fluids	ORT (ORS, RHF, or increased fluids)	Continued feeding and ORT[1]	Anti-biotic drugs	Anti-motility drugs	Intravenous solution	Home remedy/ other	Percentage given no treatment	Number of children with diarrhoea
Age in months														
<6	5.8	5.8	6.2	23.4	5.5	18.0	18.3	15.4	4.4	1.4	0.0	6.3	60.2	92
6-11	31.7	23.2	43.2	34.0	19.3	37.5	47.6	30.1	11.6	2.9	0.7	14.4	35.9	241
12-23	36.6	23.2	46.2	41.6	22.2	44.4	52.8	29.7	10.6	2.7	0.0	9.5	29.6	357
24-35	26.1	16.3	33.5	31.5	16.7	36.2	42.8	26.0	10.4	0.9	0.0	8.8	41.5	250
36-47	31.4	14.4	38.3	29.1	13.1	42.1	48.9	31.0	5.3	0.0	0.0	7.0	39.3	183
48-59	26.2	15.0	36.6	23.6	7.6	42.9	50.8	35.5	8.7	2.4	0.0	4.0	37.2	105
Sex														
Male	30.2	19.4	38.0	30.9	17.3	38.7	45.9	29.9	9.7	2.6	0.0	8.3	38.1	649
Female	28.8	17.5	38.1	35.9	15.9	39.1	47.1	27.2	8.9	1.0	0.3	10.3	37.1	578
Residence														
Urban	40.5	25.0	52.9	50.8	24.2	49.7	58.7	35.6	12.3	4.0	0.0	11.5	22.8	126
Rural	28.3	17.7	36.3	31.3	15.8	37.7	45.0	27.9	9.0	1.6	0.2	9.0	39.3	1,101
Region														
Tigray	43.0	24.4	47.8	37.6	30.3	49.8	54.6	25.5	10.7	2.1	0.0	9.7	40.8	89
Affar	32.9	20.5	38.2	41.4	20.1	34.3	39.7	20.5	4.9	4.8	0.0	16.7	33.0	12
Amhara	28.4	13.5	35.5	28.0	15.4	44.6	48.1	26.8	8.6	2.5	0.0	14.1	41.6	270
Oromiya	22.5	17.5	32.0	33.7	11.3	31.9	41.4	26.8	7.8	0.5	0.0	5.8	37.8	487
Somali	44.2	23.3	51.2	33.4	26.1	46.2	53.2	26.1	17.4	1.3	0.0	14.2	37.1	29
Benishangul-Gumuz	55.3	16.8	58.0	47.9	35.3	64.7	65.2	58.8	7.9	0.0	0.0	8.8	23.7	10
SNNPR	33.3	20.5	42.8	34.6	19.8	38.7	47.7	32.2	11.3	3.2	0.6	9.3	35.1	301
Gambela	39.7	15.4	42.4	38.0	21.6	48.6	51.3	25.9	19.5	0.2	0.0	10.8	27.5	4
Harari	39.1	44.6	56.1	58.2	29.2	39.1	56.1	37.2	34.7	6.0	0.0	11.8	19.3	3
Addis Ababa	(55.8)	(39.1)	(68.0)	(35.0)	(23.0)	(65.3)	(72.0)	(55.1)	(9.4)	(5.4)	(0.0)	(15.3)	(22.7)	18
Dire Dawa	51.1	35.0	60.9	53.3	36.3	56.5	65.2	29.8	5.1	3.5	0.0	8.1	17.9	5
Mother's education														
No education	27.9	13.8	33.5	26.1	13.5	37.8	42.8	27.6	8.1	1.9	0.2	9.1	41.6	767
Primary	31.6	27.8	47.1	47.1	21.4	41.2	54.8	31.9	10.8	1.3	0.0	7.8	28.8	370
Secondary	31.7	20.5	35.3	33.8	19.7	36.2	39.8	21.1	10.9	0.0	0.0	13.3	46.1	72
More than secondary	(48.0)	(18.6)	(53.8)	(50.2)	(37.7)	(50.6)	(53.8)	(37.6)	(22.9)	(16.5)	(0.0)	(26.1)	(20.1)	19
Wealth quintile														
Lowest	26.7	17.8	33.5	29.2	15.7	38.3	44.2	23.8	8.8	1.9	0.0	6.6	41.9	254
Second	27.7	15.9	36.3	27.1	11.2	35.9	44.5	34.2	8.2	2.7	0.0	8.0	36.5	284
Middle	32.4	16.9	39.9	30.5	18.1	39.5	46.9	28.5	8.8	1.7	0.0	9.2	41.5	267
Fourth	23.4	18.6	33.2	36.7	14.5	34.5	42.5	25.5	10.2	0.0	0.7	10.3	37.0	253
Highest	41.4	26.2	52.0	49.2	28.1	50.7	58.0	31.4	11.6	3.4	0.0	13.7	27.9	169
Total	29.5	18.5	38.0	33.3	16.6	38.9	46.4	28.7	9.3	1.8	0.1	9.2	37.6	1,227

Note: Figures in parentheses are based on 25-49 unweighted cases.
ORS = Oral rehydration salts.
[1] Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode.

Table 10.14 Source of advice or treatment for children with diarrhoea

Percentage of children under age 5 with diarrhoea in the 2 weeks before the survey for whom advice or treatment was sought from specific sources; among children under age 5 with diarrhoea in the 2 weeks before the survey for whom advice or treatment was sought, percentage for whom advice or treatment was sought from specific sources; and among children with diarrhoea who received ORS, percentage for whom advice or treatment was sought from specific sources, Ethiopia DHS 2016

	Percentage for whom advice or treatment was sought from each source:		
Source	Among children with diarrhoea	Among children with diarrhoea for whom advice or treatment was sought	Among children with diarrhoea who received ORS[1]
Any public sector source	33.9	75.7	63.3
Government hospital	2.2	4.8	4.7
Government health centre	24.8	55.4	47.3
Other public sector	7.2	16.0	11.9
NGO sector	0.2	0.3	0.5
Health facility	0.2	0.3	0.5
Any private sector source	9.0	20.0	14.3
Private hospital	1.1	2.4	1.5
Private clinic	7.7	17.2	12.4
Any other source	2.2	4.9	1.1
Shop	1.7	3.7	1.1
Market	0.1	0.3	0.0
Other	0.4	0.9	0.0
Number of children	1,227	549	362

ORS = Oral rehydration salts
[1] Fluid from ORS packet or pre-packaged ORS fluid.

Table 10.15 Knowledge of ORS packets (LEMLEM) or pre-packaged liquids

Percentage of women age 15-49 with a live birth in the 5 years before the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhoea, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women who know about ORS packets called LEMLEM or ORS pre-packaged liquids	Number of women
Age		
15-19	56.0	339
20-24	67.1	1,465
25-34	67.8	3,826
35-49	62.8	1,959
Residence		
Urban	89.7	969
Rural	62.3	6,621
Region		
Tigray	89.7	537
Affar	84.8	71
Amhara	63.0	1,632
Oromiya	59.6	3,129
Somali	85.1	269
Benishangul-Gumuz	84.3	81
SNNPR	63.6	1,601
Gambela	78.6	21
Harari	93.3	17
Addis Ababa	94.5	198
Dire Dawa	83.9	33
Education		
No education	60.3	4,791
Primary	70.5	2,150
Secondary	88.6	420
More than secondary	96.4	230
Wealth quintile		
Lowest	60.5	1,651
Second	58.5	1,654
Middle	61.7	1,588
Fourth	66.8	1,427
Highest	86.4	1,269
Total	65.8	7,590

ORS = Oral rehydration salts.

Table 10.16 Disposal of children's stools

Percent distribution of youngest children under age 2 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 DHS 2016

Background characteristic	Manner of disposal of children's stools							Total	Percentage of children whose stools are disposed of safely[1]	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other			
Age of child in months										
0-1	0.1	31.7	5.1	4.7	8.6	24.0	25.8	100.0	36.9	388
2-3	0.4	26.4	4.0	2.6	15.4	22.5	28.7	100.0	30.8	379
4-5	0.0	31.3	2.4	3.6	13.9	22.2	26.6	100.0	33.7	418
6-8	0.6	35.8	1.0	2.9	19.9	28.5	11.3	100.0	37.5	561
9-11	0.1	46.8	2.4	3.7	21.2	18.8	7.0	100.0	49.3	499
12-17	0.8	37.2	2.9	3.5	21.2	29.4	5.1	100.0	40.9	1,085
18-23	1.9	37.6	2.9	4.8	19.7	26.1	6.9	100.0	42.5	816
6-23	1.0	38.7	2.4	3.8	20.6	26.5	7.1	100.0	42.1	2,960
Toilet facility[2]										
Improved sanitation	1.6	47.6	0.3	2.6	20.1	17.4	10.3	100.0	49.5	217
Unimproved sanitation	0.7	35.5	3.0	3.8	18.2	25.9	12.9	100.0	39.2	3,928
Shared facility[3]	1.1	53.6	2.0	2.4	27.7	6.3	6.9	100.0	56.7	214
Unimproved facility	1.0	50.2	3.1	4.5	13.2	16.9	11.1	100.0	54.3	2,217
Open defecation	0.2	11.2	2.9	2.9	24.3	42.0	16.5	100.0	14.3	1,497
Residence										
Urban	1.5	58.1	1.6	3.7	23.8	4.0	7.3	100.0	61.2	498
Rural	0.6	33.2	3.0	3.7	17.6	28.4	13.5	100.0	36.8	3,647
Region										
Tigray	1.7	27.4	5.7	4.2	26.9	21.7	12.5	100.0	34.7	304
Affar	0.6	23.9	5.9	8.9	22.3	19.9	18.4	100.0	30.4	40
Amhara	0.9	33.5	4.3	2.4	20.7	16.8	21.4	100.0	38.7	761
Oromiya	0.4	28.4	2.5	4.0	16.1	38.9	9.8	100.0	31.3	1,848
Somali	0.5	24.0	4.9	2.9	42.1	20.6	5.0	100.0	29.4	170
Benishangul-Gumuz	0.6	48.5	4.7	1.9	22.7	12.9	8.7	100.0	53.8	44
SNNPR	0.9	59.9	0.9	3.9	9.4	10.4	14.6	100.0	61.7	836
Gambela	0.7	32.7	3.7	1.7	24.3	20.7	16.2	100.0	37.1	10
Harari	1.6	40.0	2.1	12.7	14.6	22.2	6.7	100.0	43.7	10
Addis Ababa	1.5	45.9	0.0	4.9	44.3	0.0	3.4	100.0	47.4	105
Dire Dawa	2.1	53.4	1.0	11.1	14.1	17.5	0.8	100.0	56.5	17
Mother's education										
No education	0.3	31.8	3.2	3.9	18.2	29.4	13.2	100.0	35.3	2,500
Primary	1.4	40.4	2.3	3.4	17.2	22.5	12.7	100.0	44.1	1,279
Secondary	0.7	46.4	2.5	4.1	21.0	11.6	13.6	100.0	49.7	254
More than secondary	3.7	62.6	0.0	2.2	27.3	2.3	1.8	100.0	66.3	112
Wealth quintile										
Lowest	0.0	18.3	2.6	3.5	22.0	39.8	13.8	100.0	20.9	975
Second	1.3	28.5	4.2	2.4	17.1	33.0	13.6	100.0	33.9	905
Middle	0.6	39.3	3.2	3.9	17.2	22.1	13.7	100.0	43.0	867
Fourth	0.7	45.1	2.3	5.3	15.0	18.3	13.4	100.0	48.1	755
Highest	1.3	59.4	1.4	4.1	19.8	6.0	8.0	100.0	62.2	642
Total	0.7	36.2	2.8	3.7	18.3	25.5	12.8	100.0	39.7	4,145

[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 2.3 for definition of categories.
[3] Facilities that would be considered improved if they were not shared by two or more households.

NUTRITION OF CHILDREN AND ADULTS 11

Key Findings

- ***Nutritional status of children:*** Thirty-eight percent of children under age 5 are stunted (short for their age); 10% are wasted (thin for their height); 24% are underweight (thin for their age), and 1% are overweight (heavy for their height).
- ***Breastfeeding:*** Almost all children (97%) are breastfed at some point. However, only 58% of infants under age 6 months are exclusively breastfed.
- ***Minimum acceptable diet:*** The feeding practices of only 7% of children age 6-23 months meet the minimum acceptable dietary standards. Only 14% of children had an adequately diverse diet.
- ***Anaemia:*** More than half of children age 6-59 months (57%) and 24% of women age 15-49 are anaemic.
- ***Salt iodisation:*** Eighty-nine percent of households use iodised salt for cooking.
- ***Maternal nutrition:*** Twenty-two percent of women age 15-49 are thin (with BMI less than 18.5), while 8% are overweight or obese.

In an effort to accelerate the reduction of undernutrition, the Government of Ethiopia developed the National Nutrition Strategy (FDRE 2008) and the National Nutrition Programmes (NNP). The second phase of NNP (NNP II), which covers the period from 2016 to 2020, addresses the multi-sectoral and multi-dimensional nature of nutrition, and guides policies, strategies, programmes, and partnerships that deliver evidence-based, cost-effective nutrition interventions (FDRE 2016c). Several additional initiatives embody the government's commitment for improved nutrition. The Seqota Declaration (2015-2030) aims to eliminate all forms of malnutrition among children under age 2 by 2030 (FDRE 2015b). Nutrition is fully integrated in the Health Sector Transformation Plan (HSTP) (FDRE 2015a). In a broader context, nutrition indicators are included in the Growth and Transformation Plan (GTP), an economic development plan of the Government of Ethiopia (FDRE 2016a).

This chapter focuses on the nutritional status of children and adults, and provides indicators that can be used in planning and monitoring national efforts to improve nutrition. The chapter describes the nutritional status of children under age 5, and infant and young child feeding practices, which include breastfeeding and feeding with solid/semisolid foods. The chapter also describes the diversity of foods and the frequency of feeding as well as micronutrient status, supplementation, and fortification. Relevant aspects of the nutritional status of women and men age 15-49 and 15-59 are also addressed.

11.1 NUTRITIONAL STATUS OF CHILDREN

The anthropometric data on the height and weight collected in the 2016 EDHS permit the measurement and evaluation of the nutritional status of infants and young children using nutritional indices. This evaluation allows for the identification of subgroups of the child population that are at increased risk of faltered growth, impaired mental development, and death.

11.1.1 Measurement of Nutritional Status among Young Children

The 2016 EDHS collected data on the nutritional status of children by measuring the weight and height of children under age 5 in all sampled households, regardless of whether their mothers were interviewed in the survey. Weight was measured with an electronic mother-infant scale (SECA 878 flat) designed for mobile use. Height was measured with a measuring board (Shorr Board®). Children younger than age 24 months were measured lying down on the board (recumbent length), while standing height was measured for the older children.

Children's height/length, weight, and age data were used to calculate three indices: height-for-age, weight-for-height, and weight-for-age. Each index provides different information about growth and body composition for assessing nutritional status. As indicated below, *stunting* (low height-for-age) is a sign of chronic undernutrition that reflects failure to receive adequate nutrition over a long period. Stunting can also be affected by recurrent and chronic illness. *Wasting* (low weight-for-height) is a measure of acute undernutrition that represents the failure to receive adequate nutrition in the period immediately before the survey. Wasting may result from inadequate food intake or from a recent episode of illness that caused weight loss. The opposite of wasting is overweight (high weight-for-height), which is a measure of overnutrition. Weight-for-age is a composite index of weight-for-height and height-for-age. Thus, weight-for-age, which includes both acute (wasting) and chronic (stunting) undernutrition, is an indicator of overall undernutrition.

Stunting (assessed via height-for-age)

Height-for-age is a measure of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted), or chronically undernourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted.

Sample: Children under age 5

Wasting or weight-for-height

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted), or acutely undernourished. Children whose weight-for-height Z-score is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely wasted.

Sample: Children under age 5

Underweight or weight-for-age

Weight-for-age is a composite index of height-for-age and weight-for-height that accounts for both acute and chronic undernutrition. Children whose weight-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age Z-score is below minus three standard deviations (-3 SD) from the median are considered severely underweight.

Sample: Children under age 5

Overweight children

Children whose weight-for-height Z-score is more than two standard deviations (+2 SD) above the median of the reference population are considered overweight.

Sample: Children under age 5

The means of the Z-scores for height-for-age, weight-for-height, and weight-for-age are also calculated as summary statistics that represent the nutritional status of children in a population. These mean scores describe the nutritional status of the entire population of children without the use of a cut-off point. A mean Z-score of less than 0 (a negative mean value for stunting, wasting, or underweight) suggests a downward shift in the entire sample population's nutritional status relative to the reference population. The farther away the mean Z-scores are from 0, the higher the prevalence of undernutrition.

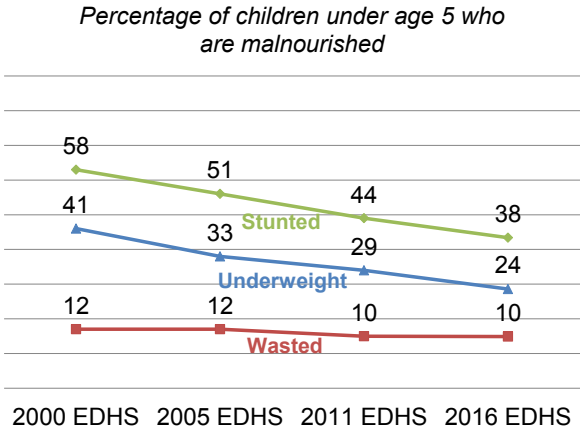
11.1.2 Data Collection

A total of 10,752 children under age 5 were eligible for height and weight measurements. For some eligible children, however, complete or valid data were not obtained due to misclassifications or errors. In this report, height-for-age data are analysed based on 88% of eligible children with complete and credible measurement, weight-for-height on 89% of eligible children, and weight-for-age data on 90% of eligible children.

11.1.3 Levels of Child Malnutrition

Table 11.1 shows that 38% of children under age 5 are stunted or too short for their age, and 18% severely stunted. Ten percent are wasted or too thin for their height, including 3% who are severely wasted. Twenty-four percent of children under age 5 are underweight or too thin for their age, with 7% severely underweight. The prevalence of overweight children remained low at 1%.

Figure 11.1 **Trends in nutritional status of children**



Trends: **Figure 11.1** shows the trend in the reduction of child undernutrition between 2000 and 2016. The prevalence of stunting has decreased considerably from 58% in 2000 to 38% in 2016, an average decline of more than 1 percentage point per year. On the other hand, the prevalence of wasting changed little over the same time period, with a wasting rate of 10% at the time of the EDHS 2016, which was the same level as in 2011. The prevalence of underweight has consistently decreased from 41% to 24% over the 16-year period.

Patterns by background characteristics

- Stunting for children under age 5 sharply increases between age 6 and 23 months, and peaks at age 24-35 months; this represents the impact of undernutrition in the first 1,000 days of life.
- Child malnutrition is associated with childbirth size and maternal malnutrition. Children who are smaller at birth are more likely to be stunted, wasted, or underweight than children who are normal or larger at birth. Likewise, children whose mothers are thin (with BMI less than 18.5) are more likely to be stunted, wasted, or underweight than children whose mothers have a normal BMI, or those children whose mothers are overweight or obese.

- Stunting, underweight, and wasting prevalence is higher among children in rural areas than those in urban areas.
- Amhara, Benishangul-Gumuz, Affar, and Dire Dawa are most highly affected by child stunting (41-46%) (**Figure 11.2**), whereas wasting imposes the heaviest burden in Somali, Affar, and Gambela, with rates of 23%, 18%, and 14%, respectively.
- The proportions of children who are stunted and underweight decline with increasing mother's education (**Figure 11.3**) and increasing household wealth.

Figure 11.2 **Stunting in children by region**

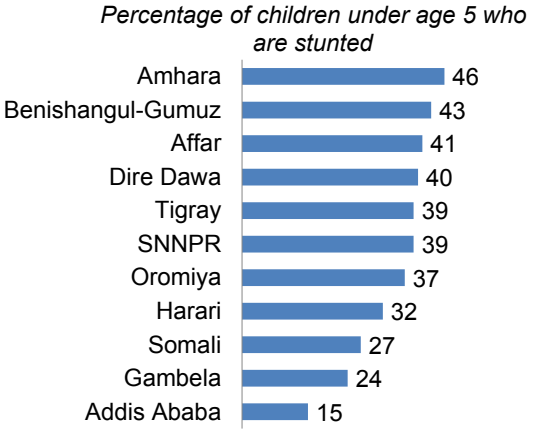
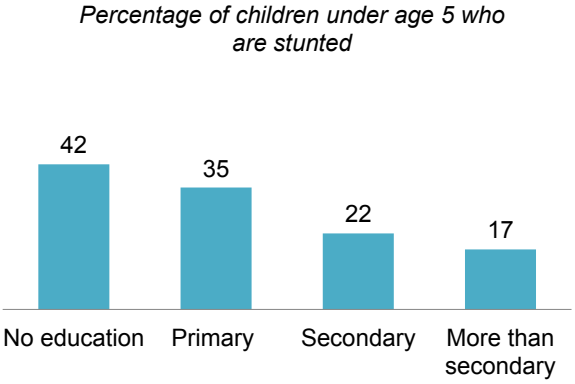


Figure 11.3 **Stunting in children by mother's education**



11.2 Infant and Young Child Feeding Practices

Appropriate infant and young child feeding (IYCF) practices include exclusive breastfeeding in the first 6 months of life, continued breastfeeding through age 2, introduction of solid and semisolid foods at age 6 months, and gradual increases in the amount of food given and frequency of feeding as the child grows older. It is also important for young children to receive a diverse diet, which includes eating foods from different food groups that satisfy children's growing micronutrient needs (WHO 2008).

11.2.1 Breastfeeding

Initiation of Breastfeeding

Early initiation of breastfeeding is important for both the mother and the child. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also encourages bonding between the mother and her newborn, and facilitates the production of regular breast milk. Thus, it is recommended that children be put to the breast immediately or within 1 hour after birth and that prelacteal feeding (feeding newborns anything other than breast milk before breast milk is initiated or regularly given in the first days) be discouraged.

Early initiation of breastfeeding
Initiation of breastfeeding within 1 hour of birth.
Sample: Last born children who were born in the 2 years before the survey

In 2016, the Ministry of Health (MoH) established the National Nutrition Programme II (NNP II) and the National Guideline on Adolescent, Maternal, Infant, and Young Child Nutrition (AMIYCN) (FDRE 2106b) to promote optimal feeding and care practices that follow international recommendations. Mothers are encouraged to breastfeed exclusively until the child is age 6 months without adding any water, other fluids or foods, and to continue breastfeeding until the child turns age 2.

Table 11.2 shows that 97% of last-born children born in the 2 years before the survey were breastfed at some point. A little less than three-quarter (73%) were breastfed within 1 hour of birth, and nearly all infants (92%) were breastfed within 1 day of birth. Eight percent of children received prelacteal feeding.

Trends: Seventy-three percent of children began breastfeeding within 1 hour of birth, and 92% within 1 day of birth, which are 22 and 12 percentage points higher than in 2011, respectively. The practice of prelacteal feeding, likewise, decreased from 29% in 2005 to 27% in 2011, and dropped further to 8% in 2016.

Patterns by background characteristics

- Only 61% of infants whose mothers have more than secondary education started breastfeeding within 1 hour of birth, compared with 73-74% infants whose mothers had lower education levels.
- Infants in urban areas were more likely to receive prelacteal feeding than those in rural areas (12% and 7%, respectively).
- Affar Region has the lowest level of early initiation of breastfeeding (42%) and the highest level of prelacteal feeding (41%).
- Children born to mothers with more than secondary education were more likely to receive a prelacteal feeding (17%), compared with children of mothers with secondary education or lower (7-8%).

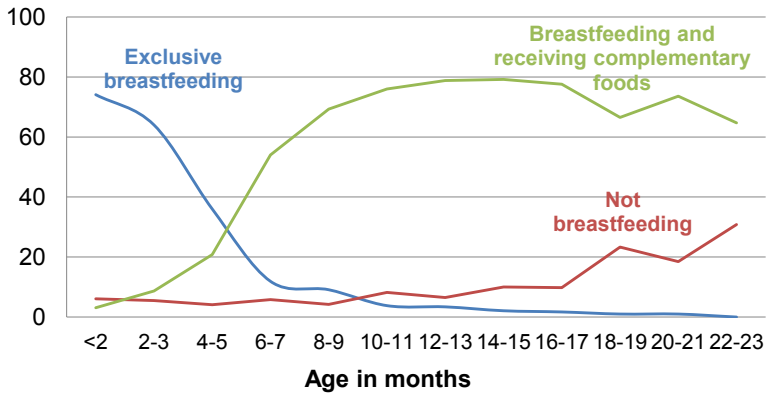
Exclusive Breastfeeding

Breast milk contains all the nutrients needed by children in the first 6 months of life and is an uncontaminated nutritional source. It is recommended that children be exclusively breastfed during the first 6 months of their life; this means that they should be given nothing but breast milk. Complementing breast milk before age 6 months is unnecessary and is discouraged because of the likelihood of contamination and the resulting high risk of diarrheal diseases. Early initiation of complementary feeding also reduces breast milk output because the production and release of breast milk is stimulated by the frequency and intensity of suckling.

Overall, 58% of children under age 6 months are exclusively breastfed, and the percentage of exclusive breastfeeding declines with age from 74% in 0-1 months to 36% in 4-5 months (**Table 11.3** and **Figure 11.4**). Contrary to the recommendation that children under the age of 6 months be exclusively breastfed, many infants are also fed with other liquids such as water (17%), non-milk liquids (5%), and other milks (5%) before reaching age 6 months (0-5 months). Moreover, 11% of infants begin complementary foods before 6 months of age, with more than one-fifth of children (21%) consuming complementary foods by age 4-5 months.

Figure 11.4 **Breastfeeding practices by age**

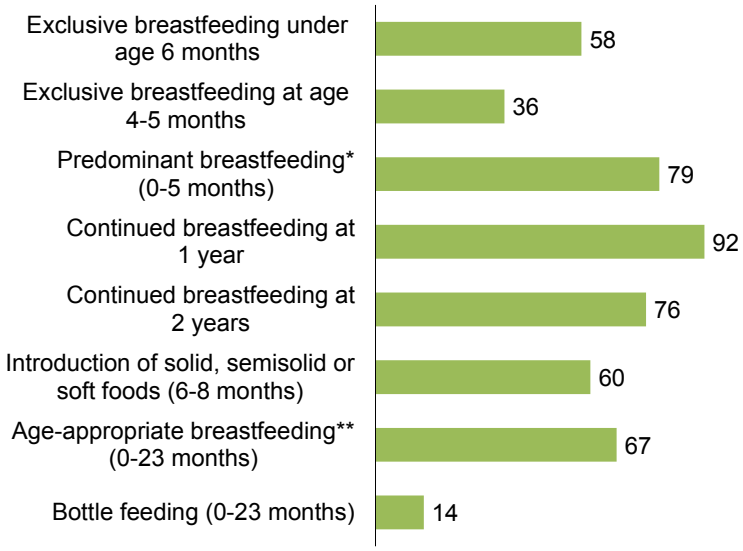
Percentage of children under age 2



Among children under age 24 months, 67% are receiving age-appropriate breastfeeding. Sixty percent of children are introduced to solid, semi-solid, or soft foods at 6-8 months, which is an improvement since 2011 (49%). Continued breastfeeding is relatively long at 92% at age 1, while 76% continue breastfeeding until their second birthdays. Fourteen percent of children under age 2 are being fed by bottles with nipples (**Figure 11.5**).

Trends: Exclusive breastfeeding among children under age 6 months has consistently increased from 49% in 2005 to 52% in 2011 and 58% in 2016.

Figure 11.5 **IYCF indicators on breastfeeding status**



* Predominant breastfeeding includes exclusive breastfeeding, breastfeeding plus water, and breastfeeding plus non-milk liquids/juice
**Age appropriate breastfeeding = Children age 0-5 months who are exclusively breastfed + children age 6-23 months who receive breast milk and complementary foods

11.2.2 Median Duration of Breastfeeding

In Ethiopia, the median duration of breastfeeding is 23.9 months for children less than age 36 months. The median duration of exclusive breastfeeding, the time by which half of children have stopped exclusive breastfeeding, is 3.1 months. The median duration of predominant breastfeeding, the period in which an infant receives only water or other non-milk liquids in addition to breast milk, is 5.5 months (**Table 11.4**).

Patterns by background characteristics

- On average, female children have a longer median duration (6.0 months) of predominant breastfeeding than male children (5.1 months).
- The median duration of any breastfeeding is highest in Amhara (31.2 months) and Benishangul-Gumuz (28.4 months) and lowest in the Somali and Harari Regions (14.3 and 18.4 months, respectively).
- In general, the median duration for any breastfeeding increases with the household wealth, from 22.4 months in the lowest quintile to 24.7 months in the highest quintile.

11.2.3 Complementary Feeding

After the first 6 months, breast milk is no longer adequate to meet the nutritional needs of the infant, and complementary foods should be added to the child's diet. The transition from exclusive breastfeeding to family foods is referred to as complementary feeding. This is the most critical period for children, because children are most vulnerable to malnutrition during this transition. Complementary feeding should be timely, which means that all infants should start receiving foods in addition to breast milk at age 6 months.

Appropriate complementary feeding should include feeding children a variety of foods to ensure that nutritional requirements are met. Fruits and vegetables rich in vitamin A should be consumed daily. Eating a range of fruits and vegetables, in addition to those rich in vitamin A, is also important. Studies have shown that plant-based complementary foods are insufficient to meet the needs for certain micronutrients. Therefore, it has been recommended that meat, poultry, fish, or eggs should be part of the daily diet, and eaten as often as possible (WHO 1998).

In the 2016 EDHS, women who had at least one child living with them who was born in 2014 or later were asked questions about the types of liquids and foods the child had consumed during the day or night before the interview. Mothers who had more than one child born in 2014 or a later year were asked questions about the youngest child living with them.

Table 11.5 indicates the types of foods and liquids children under 2 years of age living with the mother consumed during the day and night before the interview, by their age and breastfeeding status. Overall, the food items most commonly given to children were food made from grains, followed by fruits and vegetables rich in vitamin A, cheese, yogurt, or other milk products.

Patterns by background characteristics

- Except for infant formula and foods made from roots and tubers, the consumption of all types of foods is higher among non-breastfed children than among breastfed children of the same age group (age 6-23 months).
- Fifty-six percent of breastfed children age 6-23 months and 63% of non-breastfed children age 6-23 months consumed food made from grains in the 24 hours before the survey.
- Twenty-eight percent of breastfed children age 6-23 months and 32% of non-breastfed children age 6-23 months received fruits and vegetables rich in vitamin A.
- Children age 6-23 months are much less likely to consume meat, fish, and poultry than other food groups (8% for breastfeeding children and 14% for non-breastfeeding children).

11.2.4 Minimum Acceptable Diet

The minimum acceptable diet (MAD) is a combination of the minimum dietary diversity (MDD) and minimum meal frequency (MMF). Infant and young children should be fed a minimum acceptable diet (MAD) to ensure appropriate growth and development. Without adequate diversity and meal frequency, infants and young children are vulnerable to undernutrition, especially stunting and micronutrient deficiencies, and increased morbidity and mortality. The WHO minimum acceptable diet recommendation is different for breastfed and non-breastfed children. The definition of the composite indicator of a MAD for all children age 6-23 months is shown below.

Dietary diversity is a proxy for adequate micronutrient density of foods. Minimum dietary diversity assesses food intake among children age 6-23 months from at least four food groups. The cut-off of four food groups is associated with better-quality diets for both breastfed and non-breastfed children. Consumption of food from at least four food groups means that the child has a high likelihood of consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food (grains, roots, or tubers) (WHO 2008). The four food groups should come from a list of seven food groups: grains, roots, and tubers; legumes and nuts; dairy products (milk yogurt, cheese); flesh foods (meat, fish, poultry, and liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

Minimum meal frequency, a proxy for a child's energy requirements, examines the number of times children received foods other than breastmilk. The minimum number is specific to the age and breastfeeding status of the child. Breastfed children are considered to be consuming minimum meal frequency if they receive solid, semi-solid, or soft foods at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months. Non-breastfed children age 6-23 months are considered to be fed with a minimum meal frequency if they receive solid, semi-solid, or soft foods at least four times a day.

Minimum acceptable diet

Proportion of children age 6-23 months who receive a minimum acceptable diet (apart from breast milk). This composite indicator is calculated from the following two fractions:

$$\frac{\text{Breastfed children age 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day}}{\text{Breastfed children age 6-23 months}}$$

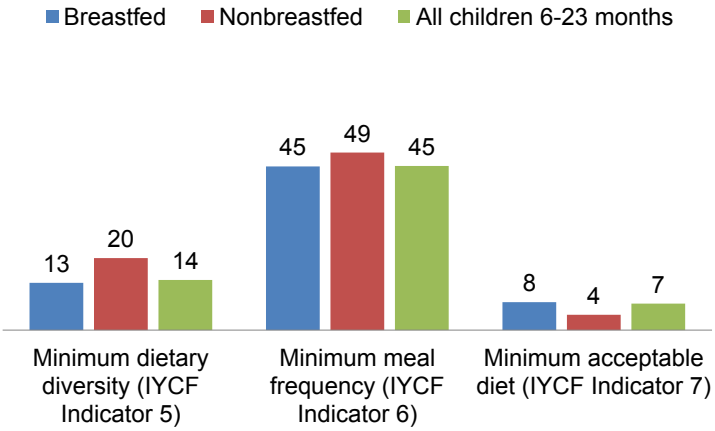
and

$$\frac{\text{Non-breastfed children age 6-23 months who received at least two milk feedings and had at least the minimum dietary diversity (not including milk feeds) and the minimum meal frequency during the previous day}}{\text{Non-breastfed children age 6-23 months}}$$

According to the EDHS results, the feeding practices of only 7% of children in Ethiopia age 6-23 months meet the minimum standards with respect to all three IYCF practices (breastfeeding status, number of food groups, and times they were fed during the day or night before the survey) (**Table 11.6**). Fourteen percent of children had an adequately diverse diet in which they had been given foods from the appropriate number of food groups, and 45% had been fed the minimum number of times appropriate for their age (**Figure 11.6**).

Figure 11.6 **IYCF indicators on minimum acceptable diet (MAD)**

Percentage of children age 6-23 months



Trends: The percentage of children fed according to the minimum acceptable diet standards shows only a small increase from 4% in 2011 to 7% in 2016.

Patterns by background characteristics

- The proportion fed according to the minimum acceptable dietary standards is somewhat lower among non-breastfed children (4%) than among breastfed children (8%). This is because only 40% of non-breastfed children are fed with milk or milk products as recommended.
- Children in urban areas (19%) are more likely to fed according to the minimum acceptable dietary standards than those in rural areas (6%).
- A significant regional variation exists in the proportion of children who receive the minimum acceptable diet, with the highest level of 27% in Addis Ababa and the lowest levels (2-3%) in Affar, Somali, and Amhara.
- The likelihood that a child is receiving the minimum acceptable diet generally improves with the mother's education level and household wealth. However, the proportions of children fed according to the minimum acceptable dietary standards are quite low even among children whose mothers have secondary education (15%) and children in the highest wealth quintile (16%).

11.3 ANAEMIA PREVALENCE IN CHILDREN

Anaemia in children

Anaemia status	Haemoglobin level in grams/decilitre*
Anaemic	<11.0
Mildly anaemic	10.0-10.9
Moderately anaemic	7.0-9.9
Severely anaemic	<7.0
Not anaemic	11.0 or higher
*Haemoglobin levels are adjusted for altitude in enumeration areas that are above 1,000 metres	

Sample: Children 6-59 months

Anaemia is a condition marked by low levels of haemoglobin in the blood. Iron is a key component of haemoglobin, and iron deficiency is estimated to be responsible for half of all anaemia globally. Other causes of anaemia include malaria, hookworm and other helminths, other nutritional deficiencies, chronic infections, and genetic conditions. Anaemia is a serious concern for children because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases.

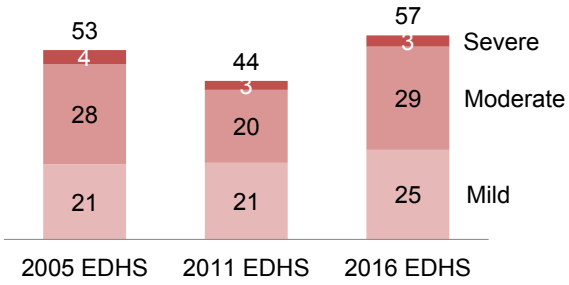
In the EDHS, haemoglobin testing was performed for children age 6-59 months, using the methodology described in Chapter 1. The testing was successfully completed for 88% of eligible children. The prevalence of anaemia in children is presented in **Table 11.7**.

In Ethiopia, 57% of children age 6-59 months suffered from some degree of anaemia (haemoglobin levels below 11 g/dl). Twenty-five percent of children are classified with mild anaemia, 29% with moderate anaemia, and 3% with severe anaemia.

Trends: Between 2005 and 2016, the prevalence of anaemia among Ethiopian children declined from 54% to 44% from 2005 to 2011, but increased to 57% in 2016 (**Figure 11.7**).

Figure 11.7 **Trends in childhood anaemia**

Percentage of children age 6-59 months

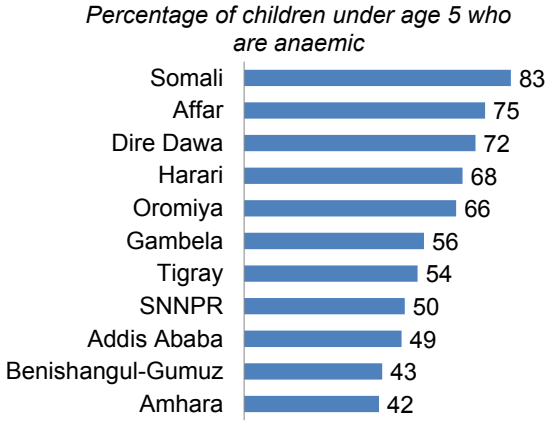


Patterns by background characteristics

- The prevalence of anaemia decreases with the child's age, ranging from a high of 78% among children age 6-8 months to a low of 40% among children age 48-59 months.
- Children in rural areas (58%) are more likely to be anaemic than those in urban areas (49%).

- The Somali Region has the highest level of childhood anaemia (83%), followed by Affar (75%) and Dire Dawa (72%); the Amhara Region has the lowest anaemia prevalence among children (42%) (**Figure 11.8**).
- The prevalence of anaemia generally decreases with increasing mother's education and household wealth.

Figure 11.8 **Anaemia in children by region**



11.4 Micronutrient Intake and Supplementation among Children

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Micronutrients are available in foods and can also be provided through direct supplementation. Breastfeeding children benefit from supplements given to the mother.

The information collected on food consumption among the youngest children under age 2 is useful in assessing the extent to which children are consuming food groups rich in two key micronutrients—vitamin A and iron—in their daily diet. Iron deficiency is one of the primary causes of anaemia, which has serious health consequences for both women and children. Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage and is the leading cause of childhood blindness. VAD also increases the severity of infections such as measles and diarrheal disease in children and slows recovery from illness. VAD is common in dry environments where fresh fruits and vegetables are not readily available. In addition to questions on food consumption, the 2016 EDHS included questions to ascertain whether young children had received vitamin A supplements or deworming medication in the 6 months before the survey.

Consumption of foods rich in vitamin A or iron remains low among young children in Ethiopia. Thirty-eight percent of children age 6-23 months consumed foods rich in vitamin A, and 22% consumed iron-rich foods during the 24 hours before the interview. Among children age 6-59 months, 9% were given iron supplements in the 7 days before the survey, 45% were given vitamin A supplements in the 6 months before the survey, and 13% were given deworming medication during the same period (**Table 11.8**). Although the deworming prevention programme guided by the Ministry of Health targets only children age 24-59 months, 8-10% of children age 6-23 months were reported to have received deworming medication. This indicates that these children may have received a deworming tablet as a treatment instead of prophylaxis. Thus, the results related to deworming medication should be interpreted with caution.

Patterns by background characteristics

- Intake of both vitamin A rich and iron rich foods increases with increasing age.
- Among children age 6-23 months, considerable regional variation exists for vitamin A rich foods consumption in the 24 hours before the survey, ranging from 11% in Affar to 69% in Addis Ababa.
- Children in urban areas (59%) are more likely to receive a vitamin A supplement in the 6 months before the survey than those in rural areas (43%).
- Consumption of vitamin A and iron rich foods tends to increase with household wealth and maternal education.

11.5 PRESENCE OF IODISED SALT IN HOUSEHOLDS

Iodine is an essential micronutrient, and iodised salt prevents goitre or other thyroid-related health problems among children and adults. In compliance with food and drug regulations, household salt should be fortified with iodine to at least 15 parts per million (ppm).

The 2016 EDHS tested the presence of potassium iodate in household salt. Overall, salt was tested in 96% of households (**Table 11.9**). Among households in which salt was tested, 89% had iodised salt. Household salt was tested for the presence or absence of iodine only, and the iodine content in the salt was not measured.

Trends: The coverage of iodised salt has greatly improved over the last 5 years from 15% (2011) to 89% (2016).

Patterns by background characteristics

- The use of iodised salt is relatively widespread in Ethiopia, and there are no large differences by residence, or household wealth.
- The coverage of iodised salt is relatively homogenous across regions, except in Somali and Affar, where the levels were lowest at 63% and 74%, respectively.

11.6 ADULTS' NUTRITIONAL STATUS

11.6.1 Nutritional Status of Women

Chronic energy deficiency is caused by eating too little or having an unbalanced diet that lacks adequate nutrients. Women of reproductive age are especially vulnerable to chronic energy deficiency and malnutrition due to low dietary intake, inequitable distribution of food within the household, improper food storage and preparation, dietary taboos, infectious diseases, and inadequate care practices. It is well known that chronic energy deficiency leads to low productivity among adults and is related to heightened morbidity and mortality. In addition, chronic undernutrition among women is a major risk factor for adverse birth outcomes.

The 2016 EDHS collected anthropometric data on height and weight for women age 15-49. These data were used to calculate several measures of nutritional status such as maternal height and body mass index (BMI).

Body mass index (BMI)

BMI is calculated by dividing weight in kilograms by height in metres squared (kg/m^2).

Status	BMI
Too thin for their height	Less than 18.5
Normal	Between 18.5 and 24.9
Overweight	Between 25.0 and 29.9
Obese	Greater than or equal to 30.0

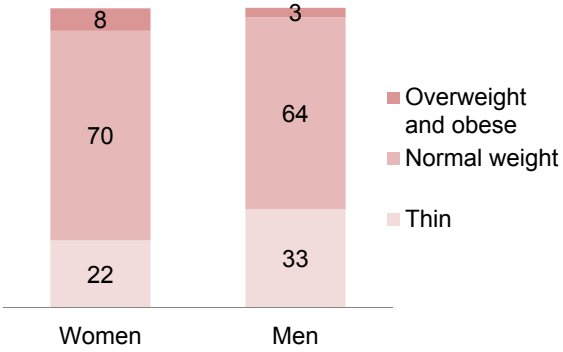
Sample: Women age 15-49 who are not pregnant and who have not had a birth in the 2 months before the survey and men age 15-49

Two percent of women age 15-49 are of short stature (below 145cm). The women's mean BMI is 20.7. Seventy percent of women have a normal BMI (between 18.5 and 24.9), 22% are thin, and 8% are overweight or obese (**Table 11.10.1** and **Figure 11.9**).

Trends: Undernutrition among women age 15-49, as measured by BMI less than 18.5, has declined over the last 16 years. The percentage of thin women dropped from 30% in 2000 to 22% in 2016. In contrast, the proportion of women who are overweight or obese, which is indicative of overnutrition, has increased during the same period. The proportion of women who are overweight or obese has increased from 3% in 2000 to 8% in 2016.

Figure 11.9 **Nutritional status of women and men**

Percent distribution of women and men age 15-49



Patterns by background characteristics

- Adolescent girls age 15-19 (29%) are most likely to be thin (BMI below 18.5).
- Rural areas have a higher percentage of thin women (25%) than urban areas (15%). Conversely, the percentage of overweight or obese women is higher in urban areas (21%) than in rural areas (4%).
- Overweight/obesity increases with education and wealth. For example, women with more than secondary education are more than four times as likely to be overweight or obese than those with no education (22% and 5%, respectively).

11.6.2 Nutritional Status of Men Age 15-49 Years

Anthropometric data were also collected on the height and weight for men age 15-49 interviewed in the survey. These data were used to calculate the BMI by using the same formula used for women. The mean BMI for men age 15-49 is 19.6. Sixty-four percent of men have a normal BMI (between 18.5 and 24.9), 33% are thin (BMI below 18.5), and 3% overweight or obese (BMI over 24.9) (**Table 11.10.2** and **Figure 11.9**).

Patterns by background characteristics

- Adolescent boys (age 15-19) are most likely to be thin (59%). The rate decreases rapidly thereafter, reaching 23% for men age 40-49.
- Chronic energy deficiency among men, as measured by BMI less than 18.5, is more prevalent in rural areas (34%) than in urban areas (26%); conversely, urban residents have a higher proportion of overweight or obese men (12%) than rural residents (1%).
- The percentage of overweight or obese men tends to increase with education and wealth and is much more common among men in the highest wealth quintile (10 percent) than among men in lower quintiles (1% or less).

11.7 ANAEMIA PREVALENCE IN ADULTS

Haemoglobin levels below which women and men are considered anaemic

Respondents	Haemoglobin level in grams/ decilitre*
Non-pregnant women age 15-49	Less than 11.0
Pregnant women age 15-49	Less than 12.0
Men age 15-49	Less than 13.0
*Haemoglobin levels are adjusted for cigarette smoking, and for altitude in enumeration areas that are above 1,000 metres	

Anaemia among women and men age 15-49 was measured with similar procedures used for children age 6-59 months, except that capillary blood was collected exclusively from a finger prick.

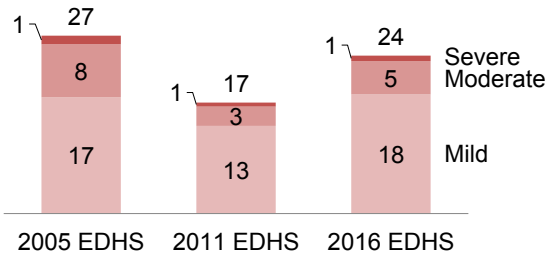
11.7.1 Anaemia Prevalence in Women

Table 11.11.1 shows that 24% percent of women in Ethiopia are anaemic. Eighteen percent of women are classified as mildly anaemic, 5% moderately anaemic, and 1% severely anaemic.

Trends: In Ethiopia, anaemia prevalence among women age 15-49 declined from 27% in 2005 to 17% in 2011 but then increased to 24% in 2016; these data suggest that anaemia is a moderate public health problem (**Figure 11.10**). Increases were observed from 2011 to 2016 in all anaemia categories.

***Figure 11.10* Trends in anaemia status among women**

Percentage of women age 15-49 who are anaemic



Patterns by background characteristics

- Anaemia is more prevalent among women who have had six or more births and among women who are using IUDs.
- Anaemia varies by maternity status. Women who are pregnant or breastfeeding are more likely to be anaemic (29% for both groups) than those who are neither pregnant nor breastfeeding (21%).
- Women living in rural areas are more likely to be anaemic (25%) than those living in urban areas (17%).
- Women in the Somali and Affar Regions are most highly affected by anaemia, with rates of 60% and 45%, respectively.
- The prevalence of anaemia decreases with increasing women's education and household wealth.

11.7.2 Anaemia Prevalence in Men

Fifteen percent of men age 15-49 are anaemic (**Table 11.11.2**). In many aspects, the patterns of anaemia prevalence among men are similar to those among women.

Patterns by background characteristics

- Men living in rural areas are more likely to be anaemic (16%) than those living in urban areas (7%).
- Similar to women, men from the Somali and Affar Regions are more affected by anaemia, with prevalence of 21 and 24 %, respectively.
- The prevalence of anaemia decreases with increasing men's education level and household wealth.

11.8 Micronutrient Intake among Mothers

During pregnancy, women are at a higher risk of anaemia due to an increase in blood volume. Severe anaemia can put both the mother and the baby in danger through increased risk of blood loss during labour, preterm delivery, low birth weight, and perinatal mortality. To prevent anaemia, pregnant women are advised to take iron folate supplements, eat iron-rich foods, and prevent intestinal worms.

According to the findings from the 2016 EDHS, more than half of the women with a child born in the last 5 years (58%) did not take any iron tablets during their most recent pregnancy. Only 5% percent of women took iron tablets for 90 days or more during their most recent pregnancy, while only 6% of women took deworming medication (**Table 11.12**).

Trends: The percentage of women taking iron supplementation for 90 days or more has improved from less than 1% in 2011 to 5% in 2016, but remains at a substandard level. The number of women who do not take any iron supplementation has decreased from 83% in 2011 to 58% in the current survey. Deworming during pregnancy did not show improvement during the last 5 years.

Patterns by background characteristics

- Women in urban areas were more likely than those in rural areas to have taken iron supplements during pregnancy for at least 90 days (10% versus 4%), and to have taken deworming tablets during pregnancy (8% versus 5%)
- Women in Addis Ababa have the highest proportion of taking iron supplements for 90 days or more (18%), followed by the Tigray Region (16%). Conversely, women living in the Oromiya and Somali Regions have the lowest percentage (3% and 2%, respectively).
- The proportion of women taking iron tablets for 90 days or more increases with increasing education level and household wealth. For instance, 17% of women with more than secondary education took iron tablets for 90 days or more, compared with 4% of women with no education.
- The proportion of women taking both iron tablets (for 90 days or more) and deworming medication during pregnancy increases with household wealth.

List of Tables

For more information on nutrition of children and adults, see the following tables:

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- **Table 11.2 Initial breastfeeding**
- **Table 11.3 Breastfeeding status according to age**
- **Table 11.4 Median duration of breastfeeding**
- **Table 11.5 Foods and liquids consumed by children in the day or night before the interview**
- **Table 11.6 Minimum acceptable diet**
- **Table 11.7 Prevalence of anaemia in children**
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- **Table 11.9 Presence of iodised salt in household**
- **Table 11.10.1 Nutritional status of women**
- **Table 11.10.2 Nutritional status of men**
- **Table 11.11.1 Prevalence of anaemia in women**
- **Table 11.11.2 Prevalence of anaemia in men**
- **Table 11.12 Micronutrient intake among mothers**

Table 11.1 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, Ethiopia 2016

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age				
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months														
<6	6.6	16.2	-0.3	1,108	5.8	15.4	9.6	-0.3	1,077	5.1	12.3	2.7	-0.4	1,158
6-8	5.3	15.3	-0.3	570	4.9	15.4	3.9	-0.6	572	3.6	12.7	1.2	-0.8	574
9-11	8.1	19.4	-0.7	500	3.7	11.0	3.6	-0.5	499	5.0	17.8	2.0	-0.8	511
12-17	15.0	34.9	-1.4	1,128	3.0	14.7	3.0	-0.6	1,142	7.6	22.6	0.9	-1.1	1,152
18-23	17.6	47.2	-1.7	892	2.3	10.6	2.7	-0.5	896	9.1	25.3	0.7	-1.2	902
24-35	21.9	47.8	-1.8	1,941	3.0	8.9	0.9	-0.4	1,951	7.9	25.9	0.6	-1.3	1,967
36-47	22.8	46.4	-1.8	2,012	1.8	6.8	2.3	-0.3	2,023	7.6	25.6	0.7	-1.3	2,040
48-59	21.1	42.2	-1.7	2,224	1.9	6.7	1.2	-0.5	2,253	6.7	29.4	0.3	-1.4	2,248
Sex														
Male	19.3	41.3	-1.5	5,305	2.9	10.2	2.9	-0.5	5,358	7.6	25.2	1.0	-1.2	5,424
Female	15.8	35.3	-1.3	5,071	2.9	9.6	2.7	-0.4	5,054	6.2	21.9	0.9	-1.1	5,128
Birth interval in months[3]														
First birth[4]	16.5	36.3	-1.4	1,770	2.1	8.8	3.7	-0.4	1,768	5.5	20.9	0.8	-1.1	1,802
<24	23.0	45.3	-1.6	1,511	3.1	10.5	2.3	-0.5	1,514	8.8	29.2	0.9	-1.3	1,537
24-47	18.3	38.7	-1.4	4,266	3.8	11.2	2.7	-0.5	4,294	7.7	24.9	0.8	-1.2	4,337
48+	12.8	35.4	-1.4	2,139	2.1	8.6	2.6	-0.4	2,128	6.1	20.3	0.9	-1.1	2,176
Size at birth[3]														
Very small	22.5	45.8	-1.7	1,536	3.6	13.2	1.7	-0.7	1,529	12.5	33.6	0.6	-1.5	1,561
Small	20.6	43.3	-1.6	981	3.9	12.2	3.0	-0.7	978	9.2	30.7	0.2	-1.4	999
Average or larger	16.0	36.4	-1.4	7,106	2.8	9.2	3.1	-0.4	7,134	5.6	20.8	1.0	-1.1	7,229
Missing	18.6	31.5	-1.4	63	0.2	7.9	0.0	-0.7	64	9.6	20.5	0.0	-1.4	63
Mother's interview status														
Interviewed	17.5	38.6	-1.4	9,686	3.0	10.1	2.8	-0.5	9,704	7.1	23.8	0.8	-1.2	9,852
Not interviewed but in household	21.3	33.6	-1.2	230	1.3	8.0	2.9	-0.3	225	5.9	21.9	4.5	-0.9	233
Not interviewed and not in the household[5]	17.8	36.5	-1.4	460	1.6	7.4	2.8	-0.2	483	4.2	19.4	1.1	-1.0	467
Mother's nutritional status[6]														
Thin (BMI<18.5)	19.3	41.9	-1.5	1,741	4.3	13.1	1.8	-0.8	1,733	9.4	30.5	0.4	-1.4	1,748
Normal (BMI 18.5-24.9)	17.4	39.1	-1.5	5,939	2.4	9.5	2.4	-0.4	5,967	6.4	23.1	0.7	-1.2	6,043
Overweight/obese (BMI≥25)	9.0	20.3	-0.7	469	1.4	3.9	3.3	-0.0	470	1.7	9.0	2.6	-0.4	474

(Continued…)

Table 11.1—*Continued*

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age				
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Residence														
Urban	10.6	25.4	-1.0	1,131	2.1	8.7	3.1	-0.2	1,130	4.3	13.4	2.1	-0.7	1,140
Rural	18.4	39.9	-1.5	9,245	3.0	10.1	2.8	-0.5	9,283	7.3	24.8	0.8	-1.2	9,412
Region														
Tigray	13.4	39.3	-1.5	691	3.4	11.1	1.3	-0.6	690	5.2	23.0	0.3	-1.3	699
Affar	22.3	41.1	-1.6	98	5.3	17.7	0.5	-1.0	101	14.4	36.2	0.5	-1.6	100
Amhara	19.6	46.3	-1.8	2,087	2.2	9.8	1.3	-0.6	2,079	8.3	28.4	0.3	-1.4	2,107
Oromiya	17.1	36.5	-1.3	4,491	3.5	10.6	3.8	-0.4	4,510	6.6	22.5	0.9	-1.1	4,573
Somali	12.8	27.4	-0.9	417	6.1	22.7	1.5	-1.1	431	10.1	28.7	1.4	-1.3	427
Benishangul-Gumuz	21.7	42.7	-1.7	106	3.1	11.5	1.5	-0.6	106	11.9	34.3	0.7	-1.4	108
SNNPR	20.2	38.6	-1.5	2,188	1.7	6.0	2.7	-0.2	2,195	6.4	21.1	1.6	-1.0	2,234
Gambela	7.4	23.5	-0.9	23	3.4	14.1	1.6	-0.7	23	6.4	19.4	0.3	-1.1	23
Harari	12.6	32.0	-1.1	20	3.0	10.7	2.2	-0.5	20	5.8	20.0	0.7	-1.0	20
Addis Ababa	3.1	14.6	-0.6	216	0.4	3.5	7.0	0.1	216	0.3	5.0	2.9	-0.2	218
Dire Dawa	16.9	40.2	-1.3	40	4.2	9.7	1.5	-0.7	41	7.9	26.2	0.8	-1.3	42
Mother's education[7]														
No education	20.0	41.8	-1.5	6,533	3.5	10.7	2.6	-0.5	6,555	8.6	27.5	0.7	-1.3	6,642
Primary	14.7	35.1	-1.3	2,687	2.0	9.1	3.3	-0.4	2,686	4.4	18.0	1.0	-1.0	2,742
Secondary	5.9	21.9	-0.7	471	1.4	7.3	3.3	-0.2	463	2.4	11.3	2.9	-0.5	474
More than secondary	5.3	17.3	-0.8	226	3.7	7.3	1.8	-0.2	225	4.6	10.6	0.6	-0.6	227
Wealth quintile														
Lowest	22.6	44.6	-1.7	2,391	4.1	13.7	3.4	-0.6	2,424	10.5	30.7	0.6	-1.4	2,460
Second	20.4	42.8	-1.6	2,415	2.7	9.4	2.2	-0.5	2,436	8.3	27.0	0.9	-1.3	2,456
Middle	16.4	37.9	-1.4	2,161	2.9	10.5	2.1	-0.5	2,156	6.2	23.0	0.7	-1.2	2,178
Fourth	15.3	35.4	-1.4	1,927	2.0	7.2	3.4	-0.3	1,920	4.1	18.0	0.8	-1.0	1,953
Highest	9.6	25.6	-1.0	1,481	2.4	7.3	3.0	-0.2	1,476	3.7	14.4	2.0	-0.7	1,506
Total	17.6	38.4	-1.4	10,376	2.9	9.9	2.8	-0.5	10,412	7.0	23.6	0.9	-1.2	10,552

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.
[1] Recumbent length is measured for children under age 2; 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 and other multiple births are counted as first births because they do not have a previous birth interval.
[5] Includes children whose mothers are deceased.
[6] Excludes children whose mothers were not weighed and measured, children whose mothers were not interviewed, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.1.
[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire

Table 11.2 Initial breastfeeding

Among last-born children who were born in the 2 years before the survey, percentage who were ever breastfed and percentages who started breastfeeding within 1 hour and within 1 day of birth; and among last-born children born in the 2 years before the survey who were ever breastfed, percentage who received a prelacteal feed, according to background characteristics, Ethiopia 2016

	Among last-born children born in the past 2 years:				Among last-born children born in the past 2 years who were ever breastfed:	
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	96.1	71.3	90.3	2,091	8.9	2,010
Female	97.4	75.2	93.3	2,216	6.9	2,159
Assistance at delivery						
Health professional[3]	96.9	73.2	91.4	1,603	7.3	1,554
Traditional birth attendant	95.9	73.1	90.2	1,476	9.4	1,416
Other	99.1	72.5	96.6	588	5.6	583
No one	96.3	74.9	92.4	640	8.0	616
Place of delivery						
Health facility	97.0	73.7	91.3	1,560	7.2	1,513
At home	96.6	73.5	92.1	2,664	8.3	2,574
Other	97.9	59.9	95.3	84	5.2	82
Residence						
Urban	95.2	72.6	87.0	520	12.3	495
Rural	97.0	73.4	92.5	3,788	7.3	3,674
Region						
Tigray	97.7	63.0	93.1	314	6.0	307
Affar	95.9	42.0	81.5	43	40.7	41
Amhara	97.5	66.0	85.9	789	7.9	769
Oromiya	96.1	76.7	94.8	1,915	4.1	1,841
Somali	95.6	78.2	85.9	178	38.8	170
Benishangul-Gumuz	98.0	71.7	87.8	45	3.1	44
SNNPR	97.3	77.1	93.1	876	7.2	852
Gambela	95.0	67.1	82.9	10	10.2	10
Harari	98.3	89.4	95.8	10	27.0	10
Addis Ababa	97.6	67.5	86.3	110	20.9	107
Dire Dawa	96.2	90.5	93.9	18	9.5	18
Mother's education						
No education	96.5	73.4	92.1	2,606	8.2	2,515
Primary	97.4	74.1	92.8	1,319	6.6	1,284
Secondary	97.0	73.7	91.8	262	6.8	254
More than secondary	95.6	61.3	78.0	121	17.3	116
Wealth quintile						
Lowest	96.2	73.9	89.2	1,011	11.5	972
Second	98.3	75.6	95.7	943	5.4	927
Middle	96.7	73.4	93.2	890	6.1	861
Fourth	96.2	69.0	90.9	796	7.0	766
Highest	96.3	74.4	89.9	667	9.6	643
Total	96.8	73.3	91.9	4,308	7.9	4,169

Note: Table is based on last-born children born in the 2 years before the survey regardless of whether the children are living or dead at the time of interview.
[1] Includes children who started breastfeeding within 1 hour of birth.
[2] Children given something other than breast milk during the first 3 days of life.
[3] Doctor, nurse/midwife, health officer, or health extension worker.

Table 11.3 Breastfeeding status according to age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status and percentage currently breastfeeding; and percentage of all children under age 2 using a bottle with a nipple, according to age in months, Ethiopia 2016

		Breastfeeding status									
Age in months	Not breast-feeding	Exclusively breast-feeding	Breast-feeding and consuming plain water only	Breast-feeding and consuming non milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under age 2 living with the mother	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	6.1	74.1	12.6	2.6	1.5	3.1	100.0	93.9	388	3.7	391
2-3	5.5	64.0	14.1	2.9	4.8	8.7	100.0	94.5	379	9.3	389
4-5	4.1	36.0	24.2	7.9	7.0	20.8	100.0	95.9	418	14.1	420
6-8	4.9	12.0	16.0	5.8	5.0	56.3	100.0	95.1	561	18.5	568
9-11	7.2	4.5	6.7	2.2	2.7	76.6	100.0	92.8	499	19.5	503
12-17	8.6	2.5	7.3	1.7	1.2	78.6	100.0	91.4	1,085	13.4	1,124
18-23	24.0	0.7	5.2	0.6	1.3	68.2	100.0	76.0	816	12.9	880
0-3	5.8	69.2	13.3	2.7	3.1	5.9	100.0	94.2	767	6.5	780
0-5	5.2	57.5	17.2	4.6	4.5	11.1	100.0	94.8	1,185	9.2	1,200
6-9	5.0	10.5	14.2	4.4	4.4	61.4	100.0	95.0	736	19.4	745
12-15	8.2	2.8	7.0	2.0	1.1	79.0	100.0	91.8	777	11.8	800
12-23	15.2	1.7	6.4	1.2	1.3	74.2	100.0	84.8	1,900	13.2	2,004
20-23	24.5	0.5	4.4	0.4	0.8	69.3	100.0	75.5	501	10.4	550

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%. 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 although they may also receive plain water. Any children who are given 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.

Table 11.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the 3 years before the survey, according to background characteristics, Ethiopia 2016

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breast-feeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	23.4	2.9	5.1
Female	24.4	3.3	6.0
Residence			
Urban	25.0	2.9	5.0
Rural	23.8	3.1	5.6
Region			
Tigray	24.6	3.8	6.4
Affar	19.8	2.7	4.9
Amhara	31.2	4.1	6.8
Oromiya	22.7	2.8	4.5
Somali	14.3	a	3.8
Benishangul-Gumuz	28.4	4.6	7.9
SNNPR	26.8	3.0	6.7
Gambela	25.6	2.9	6.8
Harari	18.4	*	5.5
Addis Ababa	24.2	2.9	4.2
Dire Dawa	24.6	3.2	4.3
Mother's education			
No education	23.9	3.1	5.6
Primary	24.0	3.1	5.7
Secondary	23.0	3.0	4.4
More than secondary	(24.8)	*	*
Wealth quintile			
Lowest	22.4	3.0	6.2
Second	24.2	3.6	5.4
Middle	26.0	2.8	4.6
Fourth	23.6	(2.3)	4.8
Highest	24.7	3.7	5.6
Total	23.9	3.1	5.5
Mean for all children	24.5	4.5	7.3

Note: Median and mean durations are based on breastfeeding status of the child at the time of the survey (current status). Includes living and deceased 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] For last-born children under age 24 months who live with the mother and are breastfeeding, information to determine exclusive and predominant breastfeeding comes from a 24-hour dietary recall. Tabulations assume that last-born children age 24 months or older who live with the mother and are breastfeeding are neither exclusively nor predominantly breastfed. It is assumed that last-born children not currently living with the mother and all non-last-born children are not currently breastfeeding.

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

Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under age 2 who are living with the mother by type of foods consumed in the day or night before the interview, according to breastfeeding status and age, Ethiopia 2016

	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 vege-tables	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	Number of children under age 2
BREASTFEEDING CHILDREN														
0-1	0.1	2.4	3.2	0.0	2.2	0.0	0.0	0.0	1.0	0.0	0.2	2.0	3.3	365
2-3	1.0	4.9	6.9	1.1	2.5	1.6	0.8	1.4	0.8	0.0	1.0	3.8	9.2	358
4-5	1.7	9.8	14.5	0.6	7.5	5.0	1.6	3.7	1.4	0.0	4.1	13.4	21.7	401
6-8	1.6	16.5	31.8	5.3	33.3	13.6	4.2	12.1	10.2	2.5	9.8	22.4	59.2	533
9-11	1.5	16.2	27.4	5.0	55.1	24.1	10.9	17.7	27.4	5.8	17.7	27.2	82.5	463
12-17	2.1	15.5	34.7	3.1	62.2	33.1	11.1	27.2	21.7	11.0	18.2	24.8	86.0	991
18-23	0.9	14.5	33.0	1.4	66.8	33.8	13.1	31.1	25.5	9.7	20.9	26.5	89.8	620
6-23	1.6	15.6	32.4	3.4	56.1	27.7	10.1	23.4	21.3	8.0	17.0	25.1	80.8	2,607
Total	1.4	12.6	25.2	2.6	40.5	20.0	7.3	16.9	15.2	5.6	12.5	19.6	60.0	3,730
NONBREASTFEEDING CHILDREN														
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	24
2-3	*	*	*	*	*	*	*	*	*	*	*	*	*	21
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	17
6-8	*	*	*	*	*	*	*	*	*	*	*	*	*	28
9-11	(4.3)	(22.9)	(55.9)	(6.0)	(70.4)	(56.5)	(18.8)	(25.8)	(18.3)	(11.6)	(44.0)	(56.3)	(90.7)	36
12-17	1.9	29.6	43.5	8.0	53.9	25.8	7.1	21.5	25.7	16.0	20.6	40.7	75.9	94
18-23	1.0	29.2	33.7	2.5	70.1	32.4	11.1	25.5	23.2	13.5	15.4	36.2	90.4	196
6-23	1.5	27.0	39.6	4.1	62.5	32.4	11.5	23.1	22.3	13.5	18.5	40.5	85.4	353
Total	1.4	23.6	34.5	3.5	55.2	27.6	9.9	19.7	19.0	11.5	16.1	35.5	75.0	415

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

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

[2] Does not include plain water. Includes juice, juice drinks, clear broth, or other non-milk liquids.

[3] Includes fortified baby food.

[4] Includes pumpkin, carrots, squash, or yellow or orange sweet potatoes, and any dark green, leafy vegetables like kale, spinach, or amaranth leaves, ripe mangoes, ripe papayas, and other locally grown fruits and vegetables rich in vitamin A.

Table 11.6 Minimum acceptable diet

Percentage of youngest children age 6-23 months living with their mother who are fed a minimum acceptable diet based on breastfeeding status, number of food groups, and times they are fed during the day or night before the survey, according to background characteristics, Ethiopia 2016

	Among breastfed children age 6-23 months, percentage fed:				Among non-breastfed children age 6-23 months, percentage fed:					Among all children age 6-23 months, percentage fed:				
Background characteristic	Minimum dietary diversity[1]	Minimum meal frequency[2]	Minimum acceptable diet[3]	Number of breastfed children 6-23 months	Milk or milk products[4]	Minimum dietary diversity[1]	Minimum meal frequency[5]	Minimum acceptable diet[6]	Number of non-breastfed children 6-23 months	Breastmilk, milk, or milk products[7]	Minimum dietary diversity[1]	Minimum meal frequency[8]	Minimum acceptable diet[9]	Number of all children 6-23 months
Age in months														
6-8	5.0	44.0	3.9	533	*	*	*	*	28	97.0	5.3	43.9	3.7	561
9-11	13.3	36.9	7.9	463	(57.7)	(42.0)	(62.5)	(19.2)	36	97.0	15.3	38.7	8.7	499
12-17	17.5	43.9	8.8	991	42.6	19.4	40.6	3.7	94	95.0	17.7	43.6	8.3	1,085
18-23	12.6	52.2	9.2	620	35.2	17.0	51.3	2.3	196	84.4	13.7	52.0	7.5	816
Sex														
Male	13.9	43.2	8.1	1,226	38.3	14.4	43.2	4.8	165	92.7	14.0	43.2	7.7	1,390
Female	12.2	45.9	7.3	1,381	41.0	24.4	53.7	3.7	189	92.9	13.7	46.9	6.9	1,570
Residence														
Urban	30.1	59.7	19.6	319	56.3	33.3	55.6	10.1	42	94.9	30.5	59.3	18.5	361
Rural	10.7	42.5	6.1	2,287	37.5	18.0	47.9	3.4	311	92.5	11.5	43.2	5.7	2,599
Region														
Tigray	13.0	49.4	5.7	209	*	*	*	*	14	95.2	13.7	50.6	5.4	223
Affar	2.5	35.4	1.9	23	(43.9)	(2.8)	(49.0)	(0.0)	6	87.6	2.6	38.4	1.5	29
Amhara	3.1	56.3	3.1	516	*	*	*	*	29	95.4	3.2	55.7	2.9	545
Oromiya	16.9	39.6	9.6	1,124	39.1	23.2	46.8	4.4	174	91.8	17.8	40.6	8.9	1,298
Somali	3.8	31.6	3.1	77	74.8	6.8	64.1	0.9	38	91.7	4.8	42.4	2.4	116
Benishangul-Gumuz	20.4	46.7	16.7	29	*	*	*	*	2	92.9	20.6	45.3	15.4	31
SNNPR	12.5	41.9	6.8	543	(30.2)	(16.6)	(37.5)	(6.2)	69	92.1	13.0	41.4	6.7	613
Gambela	14.7	45.2	12.1	6	*	*	*	*	1	94.4	14.2	44.4	10.8	7
Harari	18.8	53.2	10.7	6	(47.6)	(15.6)	(66.4)	(7.0)	1	89.3	18.1	55.9	9.9	7
Addis Ababa	40.7	65.3	30.3	63	(72.1)	(54.6)	(76.2)	(13.9)	15	94.5	43.4	67.4	27.1	78
Dire Dawa	14.0	37.5	5.6	11	(35.6)	(37.5)	(41.6)	(13.1)	2	88.4	18.2	38.2	6.9	13
Mother's education														
No education	10.0	42.1	5.7	1,578	39.1	16.4	49.1	3.5	224	92.4	10.8	43.0	5.4	1,802
Primary	13.8	45.4	7.7	816	32.9	21.7	41.5	3.5	96	93.0	14.6	45.0	7.2	911
Secondary	22.5	59.0	16.2	141	(43.7)	(32.9)	(70.9)	(2.8)	20	93.1	23.8	60.5	14.5	161
More than secondary	51.2	62.8	35.3	72	(92.1)	(41.4)	(62.4)	(22.2)	14	98.7	49.6	62.8	33.2	86

(Continued…)

Table 11.6—*Continued*

Background characteristic	Among breastfed children age 6-23 months, percentage fed:				Among non-breastfed children age 6-23 months, percentage fed:					Among all children age 6-23 months, percentage fed:				
	Minimum dietary diversity[1]	Minimum meal frequency[2]	Minimum acceptable diet[3]	Number of breastfed children 6-23 months	Milk or milk products[4]	Minimum dietary diversity[1]	Minimum meal frequency[5]	Minimum acceptable diet[6]	Number of non-breastfed children 6-23 months	Breastmilk, milk, or milk products[7]	Minimum dietary diversity[1]	Minimum meal frequency[8]	Minimum acceptable diet[9]	Number of all children 6-23 months
Wealth quintile														
Lowest	6.7	37.6	2.9	590	43.7	12.6	43.8	2.6	95	92.2	7.5	38.5	2.8	684
Second	11.5	42.8	7.6	550	18.8	11.0	31.6	0.1	78	89.9	11.4	41.4	6.7	628
Middle	11.9	47.1	8.4	591	(45.3)	(15.2)	(64.3)	(4.0)	58	95.1	12.2	48.7	8.0	650
Fourth	12.0	43.7	5.1	473	(40.6)	(34.2)	(54.2)	(6.5)	66	92.7	14.7	45.0	5.2	539
Highest	27.4	54.8	17.0	403	55.7	32.1	59.0	10.2	55	94.6	28.0	55.3	16.2	458
Total	13.0	44.6	7.7	2,607	39.8	19.8	48.8	4.2	353	92.8	13.8	45.1	7.3	2,960

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] Children receive foods from four or more of the following food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts.
[2] For breastfed children, minimum meal frequency is receiving solid or semi-solid food at least twice a day for infants 6-8 months and at least three times a day for children 9-23 months.
[3] Breastfed children age 6-23 months are considered to be fed a minimum acceptable diet if they are fed the minimum dietary diversity as described in footnote 1 and the minimum meal frequency as defined in footnote 2.
[4] Includes two or more feedings of commercial infant formula, fresh, tinned and powdered animal milk, and yogurt
[5] 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.
[6] Non-breastfed children age 6-23 months are considered to be fed a minimum acceptable diet if they receive other milk or milk products at least twice a day, receive the minimum meal frequency as defined in footnote 5, and receive solid or semi-solid foods from at least four food groups not including the milk or milk products food group.
[7] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt.
[8] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 5.
[9] Children age 6-23 months are considered to be fed a minimum acceptable diet if they receive breast milk, other milk, or milk products as described in footnote 7, are fed the minimum dietary diversity as described in footnote 1, and are fed the minimum meal frequency as described in footnotes 2 and 5.

Table 11.7 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Ethiopia 2016

Background characteristic	Anaemia status by haemoglobin level				
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (<7.0 g/dl)	Number of children age 6-59 months
Age in months					
6-8	78.0	30.6	44.8	2.6	549
9-11	76.3	26.8	44.4	5.1	494
12-17	72.1	27.3	39.8	5.0	1,130
18-23	65.5	25.2	37.9	2.3	891
24-35	59.0	24.5	29.6	5.0	1,948
36-47	51.0	23.8	25.2	2.0	2,019
48-59	40.0	23.4	15.1	1.6	2,235
Sex					
Male	57.3	24.4	29.6	3.3	4,811
Female	56.6	25.6	28.1	3.0	4,455
Mother's interview status					
Interviewed	57.5	25.1	29.3	3.1	8,569
Not interviewed but in household	47.7	25.7	20.0	2.0	219
Not interviewed and not in the household[1]	51.3	22.4	24.7	4.3	479
Residence					
Urban	49.3	24.3	23.5	1.5	937
Rural	57.8	25.1	29.5	3.3	8,330
Region					
Tigray	53.6	26.2	25.9	1.5	612
Affar	74.8	27.5	43.3	4.0	91
Amhara	42.2	22.6	17.3	2.3	1,861
Oromiya	65.5	26.8	34.9	3.8	4,008
Somali	82.9	17.7	52.4	12.8	371
Benishangul-Gumuz	42.5	23.8	18.1	0.7	96
SNNPR	50.0	24.9	23.7	1.4	1,992
Gambela	56.2	24.2	31.3	0.7	21
Harari	67.9	24.0	38.3	5.6	16
Addis Ababa	49.2	20.4	27.0	1.8	165
Dire Dawa	71.5	23.7	38.6	9.3	35
Mother's education[2]					
No education	58.2	24.5	30.2	3.5	5,914
Primary	56.8	27.2	27.4	2.2	2,343
Secondary	48.8	23.2	23.7	1.9	353
More than secondary	49.9	23.3	26.0	0.6	177
Wealth quintile					
Lowest	67.8	24.1	37.3	6.4	2,164
Second	57.6	27.2	27.2	3.2	2,166
Middle	52.6	24.7	26.2	1.7	1,963
Fourth	54.0	23.8	28.2	2.1	1,723
Highest	47.9	24.6	22.4	0.9	1,250
Total	56.9	25.0	28.9	3.1	9,267

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 in CDC, 1998. Haemoglobin in grams per decilitre (g/dl).

[1] Includes children whose mothers are deceased.

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

Table 11.8 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours before the survey; among all children age 6-23 months, among all children age 6-59 months, percentages who were given vitamin A supplements in the 6 months before the survey, who were given iron supplements in the 7 days before the survey, and who were given deworming medication in the 6 months before the survey; and among all children age 6-59 months who live in households in which salt was tested for iodine, percentage who live in households with iodised salt, according to background characteristics, Ethiopia 2016

	Among youngest children age 6-23 months living with the mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodised salt	
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given iron supplements in past 7 days[3]	Percentage given vitamin A supplements in past 6 months[4]	Percentage given deworming medication in past 6 months[3,5]	Number of children	Percentage living in households with iodised salt[6]	Number of children
Age in months									
6-8	21.4	11.5	561	6.7	33.1	8.5	568	87.8	556
9-11	39.6	22.4	499	6.3	45.8	7.8	503	88.5	486
12-17	42.7	25.0	1,085	9.7	50.6	10.1	1,124	88.0	1,108
18-23	43.8	24.6	816	7.0	46.3	8.6	880	87.8	866
24-35	na	na	na	9.0	44.9	14.7	1,944	88.6	1,884
36-47	na	na	na	10.2	44.6	13.9	2,007	87.2	1,953
48-59	na	na	na	10.6	43.7	15.1	2,191	87.7	2,140
Sex									
Male	38.8	22.5	1,390	9.7	44.9	13.6	4,759	88.2	4,647
Female	38.1	21.4	1,570	8.8	44.4	11.8	4,458	87.4	4,346
Breastfeeding status									
Breastfeeding	37.6	21.4	2,607	8.4	46.9	10.5	3,726	88.6	3,641
Not breastfeeding	44.4	25.9	353	9.8	43.2	14.3	5,492	87.3	5,352
Mother's age at birth									
15-19	53.2	34.9	158	6.2	41.3	9.6	246	89.3	239
20-29	38.7	21.4	1,539	9.6	44.5	12.8	4,500	87.0	4,396
30-39	36.2	20.6	1,054	8.7	44.4	12.9	3,618	88.3	3,522
40-49	36.2	21.9	209	10.3	48.0	12.5	853	90.1	837
Residence									
Urban	59.6	39.1	361	10.3	59.3	18.9	1,021	90.7	1,007
Rural	35.5	19.5	2,599	9.1	42.9	12.0	8,196	87.5	7,986
Region									
Tigray	38.2	31.9	223	16.4	73.8	26.5	604	88.9	581
Affar	11.3	8.1	29	3.1	35.0	3.4	94	78.6	91
Amhara	19.2	10.1	545	5.5	47.8	10.7	1,746	92.2	1,694
Oromiya	42.4	27.3	1,298	10.4	37.6	13.3	4,015	90.6	3,939
Somali	15.7	9.0	116	3.4	36.1	3.9	421	63.0	394
Benishangul-Gumuz	47.2	22.1	31	7.9	63.7	23.7	100	96.7	98
SNNPR	48.2	17.4	613	10.3	47.1	10.2	1,944	83.3	1,908
Gambela	47.9	31.3	7	7.2	56.8	19.7	23	88.6	21
Harari	52.3	40.8	7	2.2	39.6	8.0	21	84.0	21
Addis Ababa	69.0	42.2	78	2.0	53.9	17.0	209	87.6	209
Dire Dawa	40.3	26.1	13	15.4	71.2	19.9	40	80.3	37
Mother's education									
No education	32.3	17.7	1,802	8.2	41.3	10.3	6,153	87.5	5,988
Primary	43.6	23.9	911	10.8	48.4	16.0	2,434	88.0	2,384
Secondary	57.7	39.0	161	14.3	61.5	19.9	399	88.8	392
More than secondary	76.3	55.1	86	10.5	67.3	31.0	231	93.9	228
Wealth quintile									
Lowest	29.0	15.8	684	6.9	40.9	9.3	2,207	85.1	2,132
Second	32.2	17.2	628	8.3	41.3	11.8	2,107	88.1	2,030
Middle	41.2	22.9	650	10.7	42.4	11.5	1,939	87.2	1,907
Fourth	39.4	19.3	539	11.6	46.3	15.7	1,643	89.0	1,621
Highest	56.0	38.9	458	9.5	57.8	18.1	1,323	91.6	1,303
Total	38.4	21.9	2,960	9.2	44.7	12.7	9,218	87.9	8,993

na = Not applicable.
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, carrots, squash, or yellow or orange sweet potatoes, and any dark green, leafy vegetables like kale, spinach, or amaranth leaves, ripe mangoes, ripe papayas, and other locally grown fruits and vegetables that are rich in vitamin A.
[2] Includes meat (including organ meat), fish, poultry, and eggs.
[3] Based on mother's recall.
[4] Based on both mother's recall, health facility information (where available), and the vaccination card (where available).
[5] Deworming for intestinal parasites is commonly done for helminthes and schistosomiasis.
[6] Excludes children in households in which salt was not tested.

Table 11.9 Presence of iodised salt in household

Among all households, percentage with salt tested for iodine content, percentage with salt in the household but the salt was not tested, and percentage with no salt in the household; and among households with salt tested, percentage with iodised salt, according to background characteristics, Ethiopia 2016

Background characteristic	Among all households, percentage				Among households in which salt was tested:	
	With salt tested	With salt, but salt not tested[1]	With no salt in the household	Number of households	Percentage with iodised salt	Number of households
Residence						
Urban	93.7	0.3	6.0	3,384	91.9	3,172
Rural	96.2	0.2	3.6	13,266	88.6	12,767
Region						
Tigray	95.3	0.2	4.4	1,186	87.7	1,130
Affar	94.4	0.0	5.6	140	74.1	132
Amhara	96.0	0.1	3.9	4,239	91.6	4,069
Oromiya	96.2	0.0	3.8	6,062	91.9	5,829
Somali	91.0	0.3	8.7	511	62.5	465
Benishangul-Gumuz	94.9	0.1	5.0	182	94.2	172
SNNPR	96.3	0.6	3.1	3,388	86.3	3,263
Gambela	85.1	0.2	14.7	50	86.4	43
Harari	93.9	0.1	6.0	46	87.2	43
Addis Ababa	94.3	0.4	5.4	751	90.7	708
Dire Dawa	87.3	0.2	12.4	95	83.5	83
Wealth quintile						
Lowest	94.1	0.1	5.7	3,202	85.8	3,015
Second	96.0	0.3	3.7	3,203	90.1	3,075
Middle	97.4	0.1	2.5	3,121	89.4	3,041
Fourth	97.2	0.2	2.6	3,084	89.3	2,998
Highest	94.3	0.2	5.5	4,040	91.2	3,811
Total	95.7	0.2	4.1	16,650	89.3	15,939

[1] Includes households in which salt could not be tested for technical or logistical reasons, including availability of test kits.

Table 11.10.1 Nutritional status of women

Among women age 15-49, percentage with height under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, according to background characteristics, Ethiopia 2016

	Height		Body Mass Index[1]								
				Normal	Thin			Overweight/obese			
Background characteristic	Percent-age below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moder-ately and severely thin)	≥25.0 (Total over-weight or obese)	25.0-29.9 (Over-weight)	≥30.0 (Obese)	Number of women
Age											
15-19	2.9	3,220	20.0	67.6	29.0	18.5	10.6	3.4	3.2	0.2	3,087
20-29	1.6	5,543	20.7	74.1	19.4	14.1	5.3	6.5	5.6	0.9	4,715
30-39	3.0	4,113	21.1	69.1	20.3	14.9	5.4	10.6	8.1	2.5	3,668
40-49	2.3	2,237	20.9	66.0	23.4	16.8	6.6	10.6	7.4	3.2	2,173
Residence											
Urban	1.5	3,282	22.4	63.8	14.8	10.8	4.0	21.4	15.8	5.6	3,100
Rural	2.6	11,832	20.2	71.8	24.7	17.2	7.5	3.5	3.1	0.3	10,544
Region											
Tigray	2.8	1,091	19.8	60.4	34.0	21.4	12.5	5.6	4.9	0.7	1,005
Affar	1.7	122	19.8	52.7	39.1	19.0	20.1	8.3	6.5	1.7	107
Amhara	2.9	3,666	20.2	73.7	22.9	15.9	7.0	3.4	3.2	0.3	3,385
Oromiya	1.9	5,465	20.6	67.9	24.7	18.1	6.7	7.4	5.6	1.7	4,826
Somali	0.2	434	20.9	53.7	31.2	17.6	13.6	15.1	10.9	4.2	358
Benishangul-Gumuz	1.6	147	20.6	73.1	20.1	14.7	5.4	6.9	6.4	0.5	132
SNNPR	2.8	3,157	20.9	79.5	14.9	11.1	3.8	5.6	4.7	0.8	2,847
Gambela	1.9	42	20.3	59.7	31.8	19.1	12.7	8.5	6.2	2.3	39
Harari	2.2	34	21.7	59.2	21.0	14.7	6.3	19.8	15.7	4.1	30
Addis Ababa	2.3	873	23.1	57.2	13.4	8.8	4.6	29.4	21.7	7.7	840
Dire Dawa	1.9	81	22.0	56.3	22.1	14.7	7.4	21.6	15.8	5.8	75
Education											
No education	2.8	7,272	20.3	72.1	23.3	16.7	6.6	4.6	4.0	0.6	6,456
Primary	2.3	5,293	20.6	68.9	23.8	15.9	7.9	7.3	5.7	1.6	4,809
Secondary	1.3	1,723	21.4	70.4	16.4	12.3	4.2	13.2	10.2	3.0	1,600
More than secondary	0.5	825	22.2	58.5	19.4	13.6	5.8	22.1	16.0	6.1	779
Wealth quintile											
Lowest	3.8	2,536	19.9	69.3	28.1	18.6	9.5	2.5	2.3	0.2	2,207
Second	2.9	2,732	20.2	73.7	23.6	16.8	6.8	2.7	2.4	0.3	2,356
Middle	2.4	2,904	20.0	72.6	24.9	18.2	6.8	2.5	2.5	0.0	2,627
Fourth	2.0	3,001	20.3	72.3	23.4	15.8	7.6	4.3	3.8	0.6	2,756
Highest	1.3	3,940	22.1	64.5	15.9	11.4	4.5	19.6	14.7	4.9	3,698
Total	2.4	15,114	20.7	70.0	22.4	15.7	6.7	7.6	6.0	1.5	13,644

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

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, according to background characteristics, Ethiopia 2016

	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)	Number of men
Age									
15-19	18.2	40.3	59.0	30.2	28.8	0.6	0.6	0.0	2,425
20-29	19.7	69.9	28.0	22.2	5.8	2.1	1.8	0.3	3,604
30-39	20.2	71.8	23.5	18.2	5.3	4.7	4.0	0.7	2,857
40-49	20.3	71.2	23.1	17.0	6.1	5.6	5.2	0.5	2,056
Residence									
Urban	20.8	61.8	25.8	16.9	8.9	12.4	10.6	1.7	2,082
Rural	19.3	64.6	34.4	23.1	11.3	0.9	0.9	0.0	8,860
Region									
Tigray	19.0	53.1	44.3	26.8	17.6	2.6	2.2	0.4	680
Affar	19.2	45.1	50.2	30.6	19.7	4.7	4.0	0.7	76
Amhara	19.3	64.9	33.7	21.8	11.9	1.4	1.4	0.0	2,833
Oromiya	19.6	64.1	33.0	23.1	9.9	2.9	2.5	0.4	4,098
Somali	18.6	42.3	54.6	22.1	32.5	3.1	2.8	0.3	260
Benishangul-Gumuz	19.7	66.3	30.9	24.1	6.7	2.8	2.7	0.2	103
SNNPR	19.7	69.8	28.3	20.6	7.7	1.9	1.8	0.1	2,273
Gambela	19.7	61.8	34.0	22.7	11.2	4.2	4.1	0.2	33
Harari	20.4	61.1	29.9	20.8	9.1	9.0	8.1	0.9	23
Addis Ababa	21.8	62.8	17.6	11.4	6.2	19.6	16.7	2.9	507
Dire Dawa	20.4	63.3	27.8	18.5	9.4	8.8	7.3	1.5	56
Education									
No education	19.4	68.3	30.4	21.5	8.9	1.3	1.2	0.1	3,032
Primary	19.3	61.5	36.9	23.6	13.3	1.6	1.5	0.2	5,346
Secondary	19.9	63.8	30.7	20.4	10.3	5.6	4.6	0.9	1,646
More than secondary	21.2	66.1	20.4	16.5	3.9	13.5	12.1	1.4	918
Wealth quintile									
Lowest	19.1	60.7	38.4	24.5	13.9	0.9	0.8	0.1	1,740
Second	19.2	63.7	35.3	23.8	11.5	1.0	0.9	0.1	2,032
Middle	19.3	66.5	32.7	22.3	10.5	0.7	0.7	0.0	2,147
Fourth	19.3	65.9	33.5	23.0	10.5	0.6	0.6	0.0	2,339
Highest	20.7	63.1	26.7	17.7	8.9	10.3	8.9	1.3	2,684
Total 15-49	19.6	64.1	32.8	21.9	10.8	3.1	2.8	0.4	10,942
50-59	20.4	66.1	26.8	20.7	6.1	7.1	6.2	0.8	1,044
Total 15-59	19.7	64.3	32.3	21.8	10.4	3.5	3.1	0.4	11,985

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).

Table 11.11.1 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia, by background characteristics, Ethiopia 2016

Background characteristic	Not pregnant / Pregnant	Anaemia status by haemoglobin level: Any	Mild	Moderate	Severe	Number of women
		Any	Mild	Moderate	Severe	
	Not pregnant	<12.0 g/dl	10.0-11.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
	Pregnant	<11.0 g/dl	10.0-10.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
Age						
15-19		19.9	15.6	3.9	0.4	3,165
20-29		24.2	17.3	5.8	1.0	5,467
30-39		25.5	19.2	5.3	1.0	4,078
40-49		24.3	19.9	4.2	0.2	2,213
Number of children ever born						
0		18.2	14.1	3.7	0.3	4,745
1		22.7	17.0	4.5	1.3	1,744
2-3		23.4	16.7	6.1	0.6	2,971
4-5		28.4	21.6	5.6	1.1	2,423
6+		29.1	22.2	6.0	1.0	3,040
Maternity status						
Pregnant		29.1	16.5	10.4	2.2	1,088
Breastfeeding		28.6	21.9	5.7	1.0	4,554
Neither		20.6	16.0	4.1	0.5	9,281
Using IUD						
Yes		29.1	25.8	3.3	0.0	221
No		23.6	17.7	5.1	0.8	14,702
Smoking status						
Smokes cigarettes/tobacco		23.3	17.3	5.7	0.2	81
Does not smoke		23.6	17.8	5.0	0.8	14,842
Residence						
Urban		17.0	13.9	2.9	0.2	3,169
Rural		25.4	18.9	5.6	0.9	11,754
Region						
Tigray		19.7	15.9	3.5	0.3	1,073
Affar		44.7	28.8	13.9	2.0	119
Amhara		17.2	14.6	2.4	0.1	3,645
Oromiya		27.3	20.2	5.9	1.2	5,422
Somali		59.5	30.0	24.8	4.8	417
Benishangul-Gumuz		19.2	15.8	3.2	0.2	146
SNNPR		22.5	17.4	4.6	0.5	3,124
Gambela		26.1	20.6	5.2	0.3	42
Harari		27.7	18.9	7.5	1.2	32
Addis Ababa		16.0	12.7	3.2	0.1	825
Dire Dawa		30.1	21.0	7.9	1.3	77
Education						
No education		27.8	20.3	6.3	1.2	7,215
Primary		21.7	16.8	4.4	0.4	5,244
Secondary		17.8	14.3	2.9	0.5	1,676
More than secondary		11.5	9.2	2.4	0.0	789
Wealth quintile						
Lowest		34.3	23.0	9.1	2.2	2,519
Second		25.3	18.7	5.7	0.9	2,717
Middle		23.7	18.6	4.8	0.3	2,891
Fourth		21.0	16.6	3.8	0.6	2,979
Highest		17.4	14.2	3.0	0.2	3,816
Total		23.6	17.8	5.0	0.8	14,923

Note: Prevalence is adjusted for altitude and smoking status if known using formulas in CDC 1998.

Table 11.11.2 Prevalence of anaemia in men

Percentage of men age 15-49 with anaemia, according to background characteristics, Ethiopia 2016

Background characteristic	Anaemia status by haemoglobin level: Any anaemia <13.0 g/dl	Number of men
Age		
15-19	18.2	2,375
20-29	12.4	3,539
30-39	12.2	2,800
40-49	17.4	2,016
Residence		
Urban	7.2	1,963
Rural	16.2	8,767
Region		
Tigray	16.9	671
Affar	23.7	76
Amhara	13.5	2,808
Oromiya	15.8	4,020
Somali	21.3	249
Benishangul-Gumuz	11.1	102
SNNPR	14.1	2,221
Gambela	10.0	32
Harari	14.0	22
Addis Ababa	4.8	475
Dire Dawa	16.3	54
Education		
No education	17.9	3,006
Primary	16.0	5,267
Secondary	9.1	1,598
More than secondary	4.4	859
Wealth quintile		
Lowest	22.4	1,716
Second	17.4	2,015
Middle	15.2	2,123
Fourth	13.0	2,318
Highest	7.9	2,557
Total 15-49	14.5	10,730
50-59	19.3	1,038
Total 15-59	15.0	11,768

Note: Prevalence is adjusted for altitude and smoking status, if known, using formulas in CDC 1998.

Table 11.12 Micronutrient intake among mothers

Among women age 15-49 with a child born in the 5 years before the survey, percent distribution by number of days they took iron tablets or syrup during the pregnancy of the last child, and percentage who took deworming medication during the pregnancy of the last child; and among women age 15-49 with a child born in the 5 years before the survey and who live in households that were tested for iodised salt, percentage who live in households with iodised salt, according to background characteristics, Ethiopia 2016

	Among women with a child born in the past 5 years:								Among women with a child born in the past 5 years who live in households in which salt was tested:	
	Number of days women took iron tablets during pregnancy of last birth						Percentage of women who took deworming medication during pregnancy of last birth	Number of women	Percentage living in households with iodised salt[1]	Number of women
Background characteristic	None	<60	60-89	90+	Don't know/ missing	Total				
Age										
15-19	56.6	31.2	6.6	4.6	1.1	100.0	5.5	339	88.4	329
20-29	53.5	33.2	6.3	5.8	1.2	100.0	6.2	3,630	87.9	3,544
30-39	60.9	27.5	5.1	4.6	1.9	100.0	5.8	2,867	88.7	2,788
40-49	66.4	23.4	5.0	3.6	1.5	100.0	3.1	753	90.4	738
Residence										
Urban	39.2	39.3	8.5	10.3	2.7	100.0	7.7	969	90.8	956
Rural	60.4	28.6	5.3	4.3	1.3	100.0	5.4	6,621	88.1	6,443
Region										
Tigray	22.2	43.8	14.2	16.1	3.7	100.0	8.7	537	88.9	517
Affar	56.6	33.3	3.9	5.1	1.1	100.0	4.5	71	76.0	69
Amhara	46.4	38.5	7.9	5.2	2.0	100.0	6.7	1,632	91.5	1,581
Oromiya	69.9	22.6	3.5	2.8	1.3	100.0	5.3	3,129	91.0	3,069
Somali	72.1	22.7	2.3	2.3	0.7	100.0	1.4	269	63.9	252
Benishangul-Gumuz	51.5	29.6	7.6	10.6	0.7	100.0	9.0	81	96.1	79
SNNPR	58.7	32.3	4.2	4.2	0.5	100.0	5.0	1,601	84.7	1,567
Gambela	58.4	33.2	2.1	3.1	3.2	100.0	4.7	21	87.5	19
Harari	49.0	30.9	11.7	7.0	1.3	100.0	3.8	17	85.3	17
Addis Ababa	35.6	29.0	14.7	18.0	2.6	100.0	5.4	198	88.5	198
Dire Dawa	39.5	31.7	16.9	7.5	4.4	100.0	11.8	33	82.3	32
Education										
No education	63.6	26.9	4.5	3.5	1.5	100.0	4.8	4,791	88.3	4,657
Primary	51.9	32.6	7.5	6.5	1.5	100.0	7.1	2,150	88.5	2,103
Secondary	35.2	44.1	9.6	9.4	1.7	100.0	8.2	420	86.9	414
More than secondary	31.1	44.2	7.7	16.5	0.4	100.0	6.5	230	94.3	226
Wealth quintile										
Lowest	68.4	22.3	4.0	4.3	1.0	100.0	3.9	1,651	86.4	1,590
Second	58.3	30.9	5.0	3.7	2.2	100.0	4.5	1,654	88.9	1,595
Middle	60.6	29.0	5.9	3.4	1.1	100.0	6.3	1,588	87.6	1,557
Fourth	54.4	32.3	7.1	5.2	1.0	100.0	7.0	1,427	88.8	1,405
Highest	43.3	37.5	7.2	9.8	2.2	100.0	7.3	1,269	91.4	1,253
Total	57.7	30.0	5.7	5.1	1.5	100.0	5.7	7,590	88.5	7,399

[1] Excludes women in households where salt was not tested.

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

12

Key Findings

- ***Knowledge about HIV transmission and prevention:*** Twenty percent of women age 15-49 and 38% of men age 15-49 have comprehensive knowledge about the modes of HIV transmission and prevention.
- ***Knowledge of mother-to-child transmission of HIV:*** Fifty-seven percent of women and 55% of men know that HIV can be transmitted during pregnancy, labour/delivery, or breastfeeding.
- ***Discriminatory attitudes:*** Forty-eight percent of women and 35% of men thought that children living with HIV should not be able to attend school with children who are HIV negative; 55% of women and 47% of men would not buy fresh vegetables from a shopkeeper with HIV.
- ***Sexual partners:*** Less than 1% of women and 3% of men reported having two or more sexual partners in the past 12 months.
- ***Condom use:*** Only 20% of women and 51% of men who had a non-cohabiting partner in the past 12 months reported using a condom during last sexual intercourse with such a partner.
- ***Coverage of HIV testing:*** Sixty-nine percent of women and 84% of men know where to obtain an HIV test, and 40% women and 43% men have ever been tested for HIV and received the test results. In the 12 months before the survey, 20% of women and 19% of men had been tested for HIV and received the most recent test results.
- ***Male circumcision:*** Overall, 91% of men 15-49 are circumcised.

12.1 BACKGROUND INFORMATION ON HIV AND AIDS IN ETHIOPIA

In response to the HIV epidemic, the Ethiopian government, in collaboration with its key development partners, has been at the forefront of developing and implementing national strategies that adhere to global directions and combine innovations with best practices within the country. Ethiopia developed a five-year national HIV and AIDS strategic plan (2015-2020) based on the investment framework strategy of UNAIDS in 2014 (FHAPCO 2014).

This chapter provides key HIV and AIDS-related findings from the 2016 EDHS survey. The chapter is organized in two main sections; the first focuses on the adult population age 15-59. The data in this section are national and include background characteristics of the respondents such as HIV/AIDS knowledge, attitude and behaviour, which includes knowledge of HIV prevention methods, stigma and discrimination, number of sexual partners, condom use, self-reported HIV testing, prevention of mother-to-child

transmission (PMTCT), and voluntary medical male circumcision in Ethiopia. The second section presents selected indicators for individuals age 15-24.

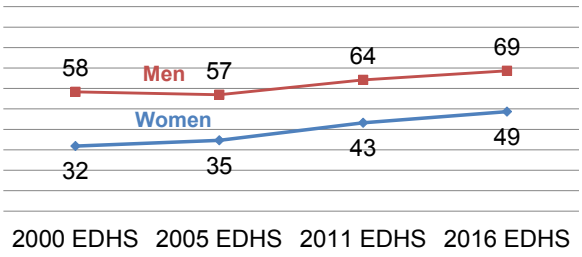
12.2 HIV/AIDS Knowledge, Transmission, and Prevention Methods

Forty-nine percent of women and 69% of men know that consistent condom use and having sex with only one uninfected partner can reduce the risk of HIV infection; 58% of women and 77% of men know that using condom during sexual intercourse can reduce the risk of HIV. In addition, 69% of women and 81% of men identified limiting sexual intercourse to one uninfected partner with no other partners can reduce the risk of HIV (**Table 12.1**).

Trends: The percentage of respondents who know that using condoms consistently and limiting sexual intercourse to one uninfected partner with no other partners can reduce the risk of HIV has increased from 32% in 2000 to 49% in 2016 among women and from 58% to 69% among men (**Figure 12.1**).

Figure 12.1 **Knowledge of HIV prevention methods**

*Percentage of women and men age 15-49 who have knowledge of HIV prevention methods**



* Percentage who, in response to prompted question, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners.

Patterns by background characteristics

- Among women, knowledge of HIV/AIDS prevention decreases with age; 52% of women age 15-24 know that using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV, compared with 43% of women age 40-49.
- Knowledge of the two methods of HIV prevention is higher among urban women and men than rural women and men.
- There are notable differences in knowledge of HIV/AIDS prevention methods by region, ranging from 66% among women and 84% of men in Tigray compared with 10% of women and 38% of men in Somali.
- For women and men, knowledge of prevention methods increases with education and wealth quintile.

Comprehensive knowledge of HIV

Knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV.

Sample: Women and men age 15-24 and 15-49

Table 12.2 shows that 20% of women age 15-49 and 38% of men age 15-49 have comprehensive knowledge of HIV. Thirty percent of women and 49% of men know that a healthy looking person can have HIV and reject that HIV can be transmitted by mosquito bites and that a person can become infected by sharing food with a person who has HIV.

Trends: The percentage of women and men with comprehensive knowledge about HIV/AIDS has only increased a few percentage points between 2011 and 2016, moving from 19% to 20% among women and 32% to 38% among men.

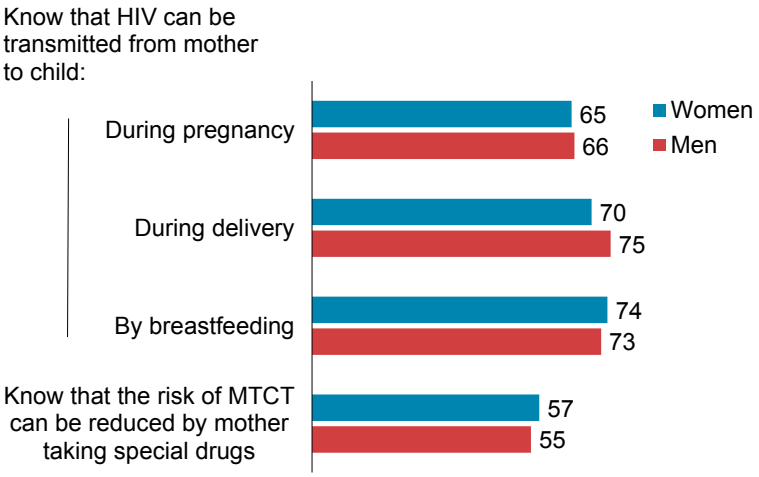
12.3 KNOWLEDGE ABOUT MOTHER-TO-CHILD TRANSMISSION

Increasing the level of general knowledge about transmission of HIV from mother to child and reducing the risk of transmission by using antiretroviral drugs are critical in reducing mother-to-child transmission (MTCT) of HIV. To assess MTCT knowledge, respondents were asked whether HIV can be transmitted from mother to child through breastfeeding and whether a mother with HIV can reduce the risk of transmission to her baby by taking certain drugs during pregnancy.

More than half (57%) of women age 15-49 know that HIV can be transmitted by all the three modes of transmission; during pregnancy (65%), labour and delivery (70%), and breastfeeding (74%). Similarly, 55% of men age 15-49 identified all three modes of HIV mother-to-child transmissions; 66% know that HIV can be transmitted during pregnancy, 75% during delivery, and 73% during breastfeeding (**Table 12.3** and **Figure 12.2**).

***Figure 12.2* Knowledge of mother-to-child transmission (MTCT)**

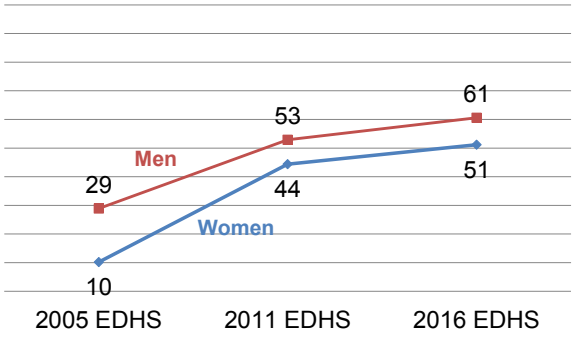
Percentage of women and men age 15-49



More men (61%) know that the risk of MTCT can be reduced by mother taking special medications compared with women (51%). Knowledge of medications that can be taken to reduce the risk of MTCT is highest among women age 20-24 (56%) and among men age 25-29 (66%), and lowest among women and men age 40-49 (45% and 58%, respectively).

***Figure 12.3* Trends in knowledge of mother-to-child transmission (MTCT)**

Percentage of women and men age 15-49 who know that the risk of MTCT can be reduced by mother taking special drugs



Trends: The percentage of women who know that MTCT of HIV can be reduced by taking special medications has increased in both women and men age 15-49 since 2005. The proportion of women who reported that MTCT of HIV can be reduced by mother taking special drugs has increased five times, from 10% in 2005 to 51% in 2016. A similar trend is observed for men, from 29% in 2005 to 61% in 2016 (**Figure 12.3**).

12.4 DISCRIMINATORY ATTITUDES TOWARDS PEOPLE LIVING WITH HIV

Widespread stigma and discrimination in a population can adversely affect people's willingness to be tested as well as their initiation of and adherence to antiretroviral therapy (ART). Thus, reduction of stigma and discrimination in a population are important indicators of the success of programs that target HIV/AIDS prevention and control.

Discriminatory attitudes towards people living with HIV

Women and men are asked two questions to assess discriminatory attitudes towards people living with HIV. Respondents with discriminatory attitudes towards people living with HIV are those who say that they would not buy fresh vegetables from a shopkeeper or vendor if they knew that person had HIV, or who say that children living with HIV should not be allowed to attend school with children who do not have HIV.

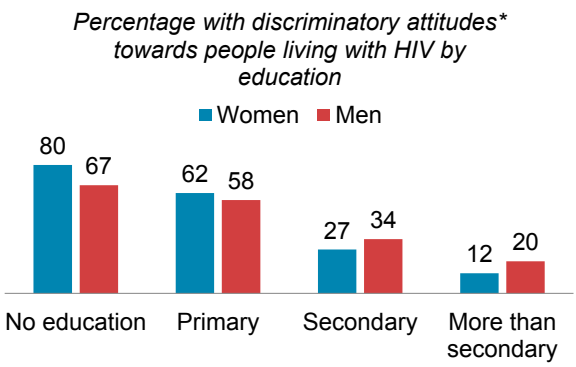
Sample: Women and men age 15-49

The 2016 EDHS found that discriminatory attitudes are higher in women than in men. For instance, 48% of women and 35% of men thought that children living with HIV should not be able to attend school with children who are HIV negative, while 55% of women and 47% of men would not buy fresh vegetables from a shopkeeper who has HIV (**Table 12.4**).

Patterns by background characteristics

- Considerable differences in discriminatory attitudes are observed between urban and rural areas; 28% of women and 27% of men in urban areas have discriminatory attitudes, compared with 73% for women and 60% for men in rural areas.
- Discriminatory attitudes are higher in the Somali Region (78% for women and 73% for men), and lower in Addis Ababa (18% for women and 17% for men).
- Discriminatory attitudes decrease with education level; 80% of women and 67% of men with no education have discriminatory attitudes, compared with 12% of women and 20% of men with more than secondary education (**Figure 12.4**).

Figure 12.4 **Discriminatory attitudes* towards people living with HIV by education**



* Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative or would not buy fresh vegetables from a shopkeeper who has HIV

- Discriminatory attitudes decrease with wealth quintile. Among women, the percentage with discriminatory attitudes toward people living with HIV decreases from 81% among those in the lowest wealth quintile to 33% in the highest wealth quintile. Among men, the percentage decreases from 67% among those in the lowest wealth quintile to 33% in the highest wealth quintile.

12.5 Multiple Sexual Partners

Given that most HIV infections in Ethiopia are acquired through heterosexual intercourse, information on the number of sexual partners and use of safe sex practices is important in designing and monitoring programmes that control the spread of HIV.

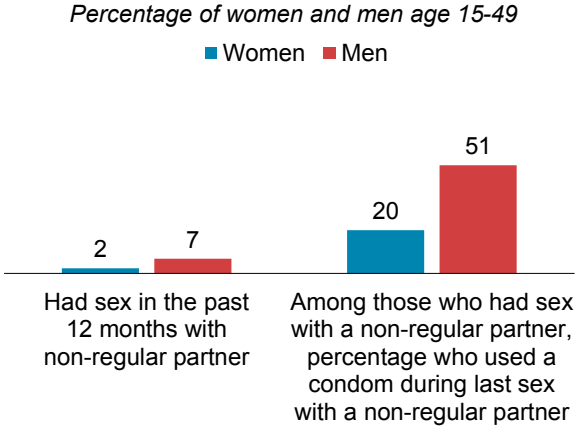
Table 12.5.1 shows that less than 1% of women age 15-49 reported having two or more sexual partners in the 12 months before the survey, and 2% had sexual intercourse in the past 12 months with a person who was neither their husband nor lived with them. Among women with a non-marital, non-cohabiting partner, 20% reported using a condom during last sexual intercourse with such a partner

Among men age 15-49, 3% reported having two or more sexual partners in the 12 months before the survey, and 7% of men had sexual intercourse in the past 12 months with a person who was neither their wife nor lived with them (**Table 12.5.2**). Fifty-one percent of men who had intercourse in the past 12 months with a non-marital, non-cohabiting partner reported using a condom during the last sexual intercourse with such a partner (**Figure 12.5**).

The mean number of lifetime sexual partners is 1.6 among women and 2.9 among men.

***Figure 12.5* Sex and condom use with non-regular partners**

Percentage of women and men age 15-49



Patterns by background characteristics

- Men who are married are more likely to have more than one partner in the past 12 months than those who were never married (4% compared to 2%).
- Men in urban areas are more likely to have had intercourse in the past 12 months with a person who was neither their wife nor lived with them than men in rural areas (16% compared to 5%).
- The percentage of men who had sex with non-marital, non-cohabiting partners is highest in Addis Ababa (26%) and lowest in Somali (1%).
- Using a condom during last sexual intercourse with a non-marital, non-cohabiting partner was higher among men with higher education levels, 58% among men with more than secondary education compared to 26% among men with no education.
- The highest mean number of lifetime sexual partners is reported by men in Addis Ababa (5.2).

12.6 Paid Sex

The act of paying for sex introduces an uneven negotiating ground for safer sexual intercourse. Transactional sex is the exchange of money, favours, or gifts for sexual intercourse. This type of sexual intercourse is associated with a greater risk of contracting HIV and other STIs because of compromised power relations and the likelihood of having multiple partners.

Three percent of men have ever paid for sex. The percentage of men who have ever paid for sex increases with increasing age. The highest (5%) is found among men age 50-59 compared with the lowest (less than 1%) among men age 15-19. Payment for sex in the past 12 months is less than 1% among men 15-49. Eight in ten men (81%) who paid for sex in the past 12 months reported using condoms during the last paid sexual intercourse (**Table 12.6**).

Trends: The percentage of men who reported paying for sex in the 12 months before the survey remained the same in 2011 and 2016 (1% for each). However, condom use during the last paid sex increased from 30% in 2011 to 81% in 2016.

12.7 COVERAGE OF HIV TESTING SERVICES

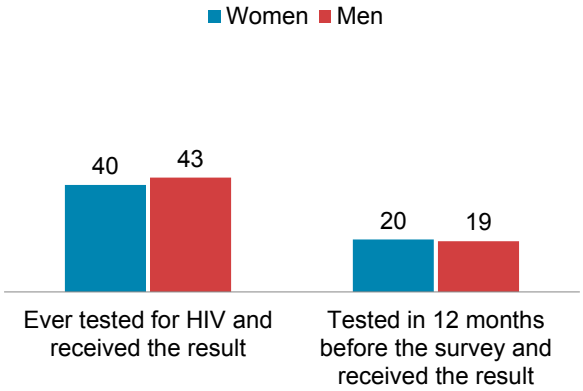
Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain disease free. Among those who are living with HIV, knowledge of their status allows them to take action to protect their sexual partners, access care, and receive treatment.

12.7.1 Awareness of HIV Testing Services and Experience with HIV Testing

The majority of respondents (69% of women and 84% of men) know where to obtain an HIV test, while 40% of women and 43% of men have ever been tested and received the test results. Overall, 20% of women and 19% men had been tested for HIV in the 12 months before the survey and received the last test results (**Tables 12.7.1** and **12.7.2**, and **Figure 12.6**).

Figure 12.6 **HIV testing**

Percentage of women and men age 15-49



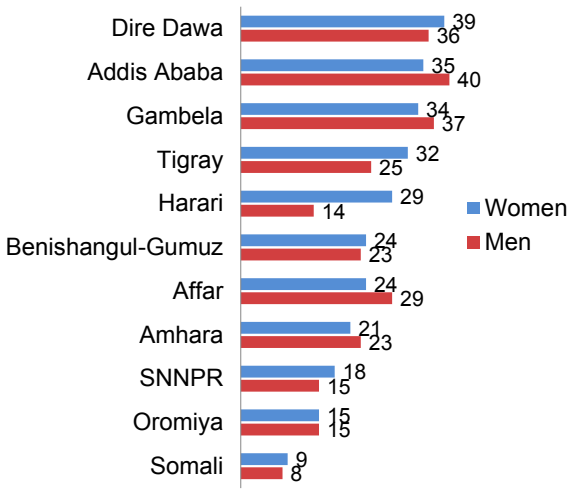
Trends: The proportion of women and men who were tested for HIV in the 12 months before the survey and received the test results increased from 2% for women and men in 2005 to 20% for women and 21% for men in 2011. However, the HIV testing coverage remains unchanged between 2011 and 2016.

Patterns by background characteristics

- The proportion of respondents who have never been tested for HIV is highest among women and men age 15-19 (75% and 80%, respectively) compared with 46% of women and 41% of men age 25-59.
- Among women, knowledge of where to obtain HIV test services is much higher among urban residents (92%) than among rural residents (63%).
- The proportion of women and men who have been tested for HIV in the past 12 months is twice as high in urban areas (36% for women and 33% for men) as in rural areas (15% each for women and men).
- HIV testing coverage in the 12 months before the survey is highest in Dire Dawa (39% for women and 36% for men) and lowest in Somali (9% for women and 8% for men) (**Figure 12.7**).

Figure 12.7 **Recent HIV testing by region**

Percentage of women and men who were tested for HIV in the year before the survey and received results



- HIV testing coverage in the last 12 months tends to increase with rising level of education, from 14% of women with no education to 44% among women with more than secondary education. Among men, the HIV testing varies from 13% among those with no education to 39% among those with more than secondary education level (**Figure 12.8**).

***Figure 12.8* Recent HIV testing by education**

Percentage of women and men who were tested for HIV in the year before the survey and received results

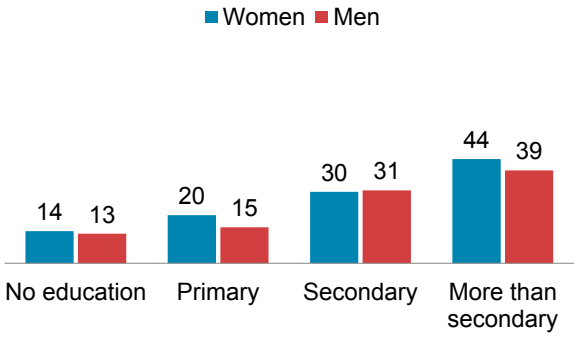


Table 12.8 presents information on self-reported HIV testing among currently married women age 15-49, before getting married or living with a partner. Women living in urban areas, highly educated women, and women from the highest wealth quintile are more likely to report being tested for HIV prior to getting married or living with a partner than most other women. For detailed information on self-reported HIV testing among currently married women before getting married or living with a partner, see **Table 12.8**.

12.7.2 HIV Testing of Pregnant Women

Table 12.9 presents information on self-reported HIV testing during pregnancy and delivery among all women age 15-49 who gave birth in the 2 years before the survey. One in five women (23%) received counselling on HIV during an ANC visit. One in three women (34%) had an HIV test during an ANC visit or labour and received the test results. Twenty-two percent of women were tested for HIV during an ANC visit and received the test results and post-test counselling, 11% were tested and received the results but no post-test counselling, and 3% were tested but did not receive the test results. Overall, 19% of women received counselling on HIV, an HIV test during an antenatal care (ANC) visit, and the test results.

Patterns by background characteristics

- Women in urban areas are more likely to receive HIV counselling than rural women, 59% and 18%, respectively.
- More than half (56%) of women in urban areas received counselling on HIV, an HIV test during an ANC visit, and the test results compared to 14% women in rural areas.
- The proportion of women who had HIV testing during an ANC visit or during labour and who received the result increases with education level, from 24% for women with no education to 88% for women with more than secondary education.

12.8 Male Circumcision

Table 12.10 shows that 91% of men age 15-49 have been circumcised; 17% by a health professional, and 71% by traditional practitioners or family friends.

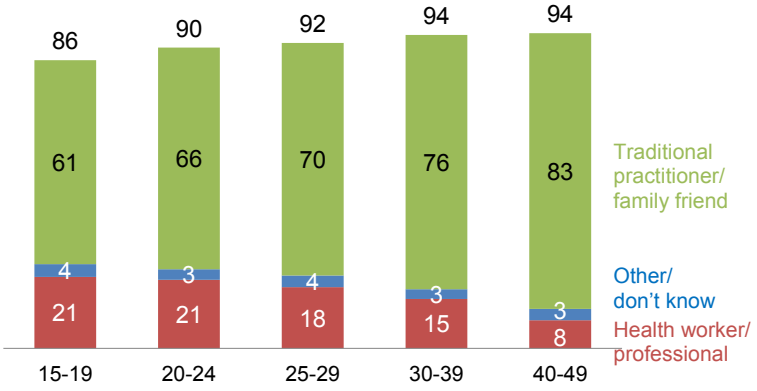
Trends: The percentage of men who are circumcised remained essentially the same in 2005 (93%), 2011 (92%), and 2016 (91%).

Patterns by background characteristics

- The proportion of men who are circumcised increases by age, ranging from 86% among men age 15-19 to 94% among men age 40-49 (**Figure 12.9**).

***Figure 12.9* Male circumcision by age**

Percentage of men who report having been circumcised



- Younger men are more likely to have been circumcised by a health professional than their older counterparts, with 21% among men age 15-24, compared to 8% among those age 40-49. In contrast, older men are more likely than younger men to have been circumcised by traditional practitioners, family, or friends, with 83% among men age 45-49, compared to 61% among those age 15-19.

- The proportion of men who have been circumcised by a health care professional is higher in urban areas than in rural areas (20% versus 16%).

- Male circumcision is almost universal or above 90% in all regions except in SNNPR (85%) and Gambela (72%).

12.9 Self-Reporting of Sexually Transmitted Infections

Sexually transmitted infections (STIs) and symptoms

Respondents who have ever had sex are asked whether they had an STI or symptoms of an STI (a bad-smelling, abnormal discharge from the vagina/penis or a genital sore or ulcer) in the 12 months before the survey.

Sample: Women and men age 15-49

Overall, 4% of women and men age 15-49 reported having an STI and/or symptoms of an STI in the past 12 months (**Table 12.11**). Among men, the percentage was 6% in Oromiya, and 5% in Harari compared to less than 1% in the Tigray and Benishangul-Gumuz.

Fewer than one in three women and men (32% for each) who had an STI or STI symptoms sought advice or treatment from a clinic, hospital, private doctor, or other health professional. One percent of women and 3% of men sought advice or treatment from a shop or pharmacy. However, 67% of women and 66% men did not seek any advice or treatment (**Table 12.12**).

12.10 HIV/AIDS-Related Knowledge and Behaviour among Young People

This section addresses HIV/AIDS-related knowledge among young people age 15-24 and also assesses the extent to which young people are engaged in behaviours that may place them at risk of contracting HIV.

12.10.1 Knowledge

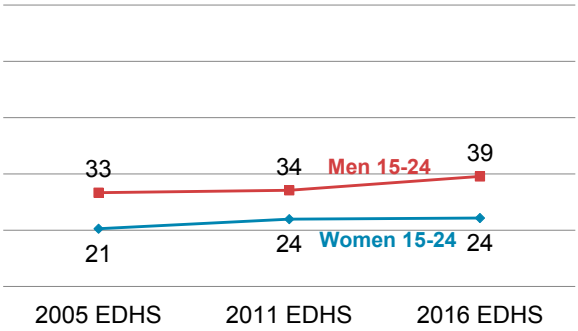
Knowledge of HIV transmission is crucial to enabling people to avoid HIV infection. This is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours.

In Ethiopia, 24% of women age 15-24 and 39% of men age 15-24 have comprehensive knowledge of HIV, which includes knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy–looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV (**Table 12.13**).

Trends: The percentage of young women with comprehensive knowledge about HIV has increased slightly from 2005 to 2016, 21% to 24% among young women, and from 33% to 39% among young men (**Figure 12.10**).

***Figure 12.10* Trends in comprehensive HIV knowledge among youth**

Percentage of young women and men age 15-24 who know how to prevent HIV transmission and reject local myths



Patterns by background characteristics

- Comprehensive knowledge about HIV is lowest among women and men age 15-17; 23% of women and 34% of men age 15-17 have comprehensive knowledge compared with 26% of women and 43% of men age 18-19.
- Urban youth (42% of women and 48% of men) are more likely than rural youth (19% of women and 37% of men) to have comprehensive knowledge on HIV and AIDS.
- Comprehensive HIV knowledge increases with increasing education among women and men age 15-24. Eight percent of women and 27% of men with no education have comprehensive knowledge about HIV compared with 51% of women and 58% of men with more than secondary school.

12.10.2 First Sex

Young people who initiate sex at an early age are typically at higher risk of becoming pregnant or contracting an STI than young people who initiate sex at a later age. Consistent condom use can reduce such risks.

Table 12.14 provides information on the percentage of young women and men who have had sexual intercourse before age 15 and before age 18. Overall, a higher percentage of young women reported having sex before the age of 15 (9%) compared with young men (1%). An even higher percentage of women reported having sex before age18 (40%) compared with men (12%).

Patterns by background characteristics

- Young women in rural areas are more likely to have had sex before age 15 than their urban counterparts, with 3% in urban compared with 11% in rural areas.
- Among women age 15-24, the percentage who had sexual intercourse before age 15 declines with increasing level of education, from 22% among women with no education to 1% among those with more than secondary education.
- Among women and men age 18-24, the percentage who had sexual intercourse before age 18 decreases with increasing level of education. Sixty-six percent of women age 18-24 with no education had sexual intercourse before age 18 compared with 8% of women with more than secondary education. Similar trends can be noted with the percentage of men who have had their first sexual intercourse before age 18.

Trends: Overall, the percentage of young people age 15-24 who have had sex before age 15 has decreased from 16% in 2005, 11% in 2011, and 9% in 2016 for women. The corresponding proportions for men are 2%, 1%, and 1%, respectively. The percentage of young people age 18-24 who have had sex before age 18 has increased from 35% in 2005 to 40% in 2016 among women and from 9% to 12% among men.

12.10.3 Premarital Sex

Table 12.15 shows that 93% of never-married women and 86% of never-married men age 15-24 have never had sexual intercourse. The percentage of never-married women and men who have never had sexual intercourse decreases sharply with age; from 97% of never-married women and men age 15-17 to 85% among never-married women and 61% among never-married men age 23-24.

Among never-married women age 15-24, the percentage of those who have never had sexual intercourse is higher in rural areas than in urban areas (95% versus 89%). The same trend is observed among never-married men; the percentage of those who have never had sexual intercourse is higher in rural areas than in rural areas (88% versus 77%).

12.10.4 Multiple Sexual Partners

Young men age 15-24 are more likely than their female counterparts to have had more than one partner in the previous 12 months; 2% of men have had more than one partner in the last 12 months, compared with less than 1% of women (**Tables 12.16.1** and **12.16.2**). Young men are also more likely than young women to have had intercourse with a non-marital, non-cohabiting partner in the last 12 months (9% of men versus 3% of women). Condom use at last sex with a non-marital, non-cohabiting partner is 24% among young women and 55% among young men. Condom use at last sex with a non-marital, non-cohabiting partner is higher in urban areas than in rural areas; 31% of women and 64% of men in urban areas have had sex with a non-marital partner, non-cohabiting partner in the last 12 months and used a condom during last sexual intercourse with such a partner, compared with 12% of women and 50% of men in rural areas.

12.10.5 Coverage of HIV Testing Services

Seeking an HIV test may be more difficult for young people than adults because many young people lack experience in accessing health services and because there are often barriers to young people obtaining services. **Table 12.17** provides information on sexually active youth age 15-24 who have been tested for HIV and received the results of the last test.

Overall, among young people age 15-24 who have had sexual intercourse in the previous 12 months, 27% of young women and 29% of young men were tested for HIV and had received the results of their last test.

Patterns by background characteristics

- The proportion of young people tested for HIV in the previous 12 months increases with age, 22% among women 15-17 compared to 30% among women age 23-24, and 21% among men age 15-17 compared to 31% among men age 23-24.
- Those who have never-married are more likely to have been tested for HIV in the past 12 months and to have received the results of the last test; 43% among never-married women compared with 26% among ever-married women, and 37% among never-married men compared with 22% among ever-married men.

12.10.6 Coverage of HIV Testing Services among Children

One additional question to assess HIV coverage among children was included in the 2016 EDHS. Women who had children less than 15 years old were asked if any of their children were tested for HIV. According to the mothers, only 6% of children below age 15 have been tested for HIV (**Table 12.18**).

- Twenty-two percent of children living in urban areas had been tested for HIV, compared with 5% of children living in rural areas.
- Children in the Somali Region (2%) are least likely to be tested for HIV compared with 23% of children living in Addis Ababa.
- Children whose mothers have more education and those from the higher wealth quintile are more likely to have been tested for HIV than those whose mothers have less education and those from the lower wealth quintiles.

List of Tables

For more information on HIV/AIDS-related knowledge, attitudes, and behaviour, see the following tables:

- **Table 12.1 Knowledge of HIV prevention methods**
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- **Table 12.4 Discriminatory attitudes towards people living with HIV**
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- **Table 12.18 HIV tests among children**

Table 12.1 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 HIV using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, according to background characteristics, Ethiopia DHS 2016

	Women				Men			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
15-24	61.7	70.3	52.0	6,143	76.5	78.6	67.2	4,455
15-19	61.2	68.6	50.6	3,381	74.2	77.0	65.9	2,572
20-24	62.3	72.4	53.8	2,762	79.6	80.8	69.0	1,883
25-29	58.5	69.5	49.1	2,957	80.0	82.2	71.4	1,977
30-39	55.6	68.8	46.9	4,277	78.2	83.3	70.1	3,020
40-49	50.0	65.4	42.6	2,306	74.3	80.0	66.6	2,154
Residence								
Urban	78.8	81.1	68.8	3,476	83.4	83.8	73.5	2,303
Rural	51.7	65.5	43.0	12,207	75.6	79.9	67.3	9,302
Region								
Tigray	75.0	81.9	66.0	1,129	89.8	90.2	84.2	708
Affar	36.4	61.6	30.6	128	81.0	81.5	71.6	82
Amhara	61.2	72.5	52.1	3,714	83.2	85.5	76.1	2,914
Oromiya	52.8	68.4	45.9	5,701	75.3	78.6	65.7	4,409
Somali	13.4	25.6	10.3	459	42.5	57.9	38.1	301
Benishangul-Gumuz	44.2	49.7	32.8	160	77.8	79.0	67.8	118
SNNPR	56.3	65.5	43.8	3,288	70.3	78.7	62.1	2,371
Gambela	55.9	60.5	43.9	44	78.3	80.8	69.2	35
Harari	52.8	72.0	47.3	38	67.4	81.8	62.0	29
Addis Ababa	84.6	82.3	73.4	930	91.2	81.6	76.5	573
Dire Dawa	61.5	60.2	45.5	90	75.3	80.5	64.8	66
Education								
No education	44.6	61.4	37.0	7,498	71.5	77.2	64.2	3,203
Primary	62.8	71.6	51.9	5,490	76.1	79.4	66.8	5,608
Secondary	81.0	83.2	71.7	1,817	84.4	87.4	75.9	1,785
More than secondary	89.4	88.4	81.1	877	87.7	87.4	79.3	1,010
Wealth quintile								
Lowest	40.6	57.4	33.8	2,633	71.1	74.9	62.8	1,839
Second	49.7	65.9	42.5	2,809	74.3	80.0	66.7	2,118
Middle	52.8	66.5	43.2	2,978	75.7	79.8	67.0	2,246
Fourth	57.7	69.2	46.9	3,100	78.0	81.1	69.0	2,466
Highest	77.5	80.0	67.6	4,163	83.2	85.2	74.3	2,935
Total 15-49	57.7	69.0	48.7	15,683	77.1	80.7	68.6	11,606
50-59	na	na	na	na	73.0	81.9	67.2	1,082
Total 15-59	Na	na	na	na	76.8	80.8	68.4	12,688

na = Not applicable
[1] Using condoms every time they have sexual intercourse.
[2] Partner who has no other partners.

Table 12.2 Comprehensive knowledge about HIV

Percentage of women and men age 15-49 who say that a healthy-looking person can have HIV and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of HIV, and percentage with a comprehensive knowledge about HIV, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of respondents who say that:				Percentage who say that a healthy looking person can have HIV and who reject the two most common local miscon-ceptions[1]	Percentage with a compre-hensive knowledge about HIV[2]	Number of respondents
	A healthy-looking person can have HIV	HIV cannot be transmitted by mosquito bites	HIV cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has HIV			
			WOMEN				
Age							
15-24	60.7	56.2	77.7	77.0	35.6	24.3	6,143
15-19	61.0	57.1	76.4	75.5	35.5	24.0	3,381
20-24	60.3	55.0	79.3	78.7	35.6	24.6	2,762
25-29	61.5	47.7	72.4	74.6	29.8	19.4	2,957
30-39	60.3	43.1	72.5	70.4	27.4	18.0	4,277
40-49	57.2	39.0	69.3	67.5	22.2	14.1	2,306
Residence							
Urban	75.8	67.4	91.4	92.7	51.8	39.4	3,476
Rural	55.8	43.1	69.1	67.8	24.2	14.7	12,207
Region							
Tigray	77.5	43.7	85.0	79.3	31.8	24.9	1,129
Affar	57.9	36.1	64.8	58.4	22.8	12.2	128
Amhara	65.0	47.7	80.1	82.1	32.3	22.0	3,714
Oromiya	55.0	43.6	59.8	63.3	24.3	17.3	5,701
Somali	26.6	22.4	38.3	31.9	8.4	3.5	459
Benishangul-Gumuz	55.0	59.7	81.2	80.3	35.5	14.0	160
SNNPR	56.9	57.0	86.9	78.2	33.4	17.5	3,288
Gambela	62.0	61.0	82.2	78.8	40.3	22.8	44
Harari	45.5	58.7	84.7	82.2	28.3	20.1	38
Addis Ababa	82.4	67.6	95.7	96.0	55.9	44.1	930
Dire Dawa	54.7	61.6	68.8	78.2	32.5	22.0	90
Total 15-49	60.2	48.5	74.0	73.4	30.3	20.2	15,683
			MEN				
Age							
15-24	75.1	65.4	84.4	86.1	50.0	39.1	4,455
15-19	72.1	63.8	82.4	84.5	47.9	37.6	2,572
20-24	79.3	67.7	87.2	88.2	52.9	41.1	1,883
25-29	78.1	68.2	86.8	87.6	52.3	41.5	1,977
30-39	76.6	63.3	87.0	86.4	47.4	37.9	3,020
40-49	76.8	58.3	86.5	86.6	44.8	34.3	2,154
Residence							
Urban	83.3	74.8	91.9	94.0	61.8	48.6	2,303
Rural	74.6	61.3	84.4	84.7	45.5	35.7	9,302
Region							
Tigray	89.6	57.2	91.7	91.5	50.4	43.5	708
Affar	78.6	54.6	78.7	82.8	39.7	32.3	82
Amhara	81.5	64.3	91.6	88.9	51.8	44.0	2,914
Oromiya	74.2	63.2	77.8	83.6	46.3	35.3	4,409
Somali	53.2	33.1	52.7	55.4	19.9	12.1	301
Benishangul-Gumuz	64.8	52.6	82.5	86.6	37.8	30.9	118
SNNPR	69.9	69.1	94.2	88.9	49.2	35.8	2,371
Gambela	69.4	75.1	91.4	87.1	52.4	41.8	35
Harari	65.8	73.6	75.3	85.1	46.6	34.8	29
Addis Ababa	91.0	73.8	97.2	97.2	65.9	51.5	573
Dire Dawa	81.3	74.2	82.1	90.9	60.9	44.0	66
Total 15-49	76.3	64.0	85.9	86.5	48.7	38.3	11,606
50-59	77.0	57.3	83.7	81.9	40.9	32.1	1,082
Total 15-59	76.4	63.4	85.7	86.1	48.1	37.8	12,688

[1] Two most common local misconceptions: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV.

Table 12.3 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 during pregnancy, during delivery, by breastfeeding, and by all three means, and percentage who know that the risk of mother to child transmission (MTCT) of HIV can be reduced by mother taking special drugs, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who know that HIV can be transmitted from mother to child: During pregnancy	During delivery	By breast-feeding	By all three means	Percentage who know that the risk of MTCT can be reduced by mother taking special drugs	Number of respondents
			WOMEN			
Age						
15-24	66.0	71.2	75.2	56.6	54.0	6,143
15-19	64.7	70.3	73.9	55.6	52.7	3,381
20-24	67.6	72.4	76.9	57.8	55.7	2,762
25-29	65.5	69.5	75.2	57.3	52.4	2,957
30-39	64.0	70.3	73.5	57.3	49.9	4,277
40-49	64.2	67.7	70.5	57.2	44.6	2,306
Residence						
Urban	76.6	83.5	84.2	67.5	78.0	3,476
Rural	61.8	66.4	71.2	54.0	43.6	12,207
Region						
Tigray	72.8	79.5	81.6	63.4	69.5	1,129
Affar	69.2	74.3	74.5	65.4	42.4	128
Amhara	72.8	77.6	83.0	65.0	55.5	3,714
Oromiya	60.4	64.1	68.0	51.7	46.3	5,701
Somali	31.7	35.9	36.7	29.5	14.4	459
Benishangul-Gumuz	53.4	60.9	67.4	47.1	46.8	160
SNNPR	62.4	69.0	73.8	54.6	44.3	3,288
Gambela	59.9	69.5	76.0	53.6	63.6	44
Harari	68.1	73.9	78.8	65.2	56.4	38
Addis Ababa	81.4	88.6	87.2	72.6	84.6	930
Dire Dawa	58.9	62.2	72.0	51.2	65.3	90
Total 15-49	65.1	70.1	74.1	57.0	51.2	15,683
			MEN			
Age						
15-24	64.0	74.0	72.6	53.3	59.3	4,455
15-19	63.3	70.9	71.1	53.1	56.5	2,572
20-24	64.9	78.3	74.6	53.7	63.2	1,883
25-29	67.0	76.9	73.0	54.6	65.7	1,977
30-39	67.5	76.5	73.6	56.5	61.4	3,020
40-49	66.0	72.8	70.5	56.1	57.7	2,154
Residence						
Urban	73.0	83.7	76.1	59.3	79.5	2,303
Rural	64.0	72.8	71.6	53.8	56.0	9,302
Region						
Tigray	64.7	80.0	82.5	51.7	77.9	708
Affar	69.7	76.7	70.7	59.3	50.9	82
Amhara	66.2	79.6	76.2	55.0	62.2	2,914
Oromia	66.4	70.9	71.0	55.7	61.9	4,409
Somali	53.1	57.9	57.6	48.2	16.7	301
Benishangul-Gumuz	52.5	67.9	70.2	41.7	59.4	118
SNNPR	63.2	75.1	69.1	54.1	51.0	2,371
Gambela	63.8	74.5	75.8	52.8	69.8	35
Harari	60.5	62.8	62.9	44.7	63.8	29
Addis Ababa	80.0	86.4	76.5	62.2	84.5	573
Dire Dawa	66.0	74.3	72.4	50.6	74.1	66
Total 15-49	65.8	74.9	72.5	54.9	60.6	11,606
50-59	67.8	75.8	74.5	57.3	57.4	1,082
Total 15-59	66.0	75.0	72.7	55.1	60.4	12,688

Table 12.4 Discriminatory attitudes towards people living with HIV

Among women and men age 15-49 who have heard of HIV or AIDS, percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative, percentage who would not buy fresh vegetables from a shopkeeper who has HIV, and percentage with discriminatory attitudes towards people living with HIV, according to background characteristics, Ethiopia DHS 2016

	Women				Men			
Background characteristic	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discriminatory attitudes towards people living with HIV[1]	Number of women who have heard of HIV or AIDS	Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative	Percentage who would not buy fresh vegetables from a shopkeeper who has HIV	Percentage with discriminatory attitudes towards people living with HIV[1]	Number of men who have heard of HIV or AIDS
Age								
15-24	40.4	48.6	56.3	5,750	30.5	43.3	49.8	4,294
15-19	39.6	47.0	55.1	3,123	31.2	44.3	51.1	2,441
20-24	41.4	50.6	57.7	2,628	29.6	42.0	48.1	1,853
25-29	48.8	53.7	61.4	2,763	32.1	44.2	50.1	1,937
30-39	54.4	59.8	68.3	3,962	39.4	49.7	56.0	2,978
40-49	54.9	62.7	71.2	2,124	39.3	52.3	58.8	2,119
Marital status								
Never married	33.0	39.6	46.6	3,820	28.1	39.8	46.1	4,691
Ever had sex	23.8	23.5	30.4	388	21.1	30.8	37.4	1,053
Never had sex	34.1	41.4	48.4	3,431	30.1	42.5	48.7	3,638
Married/Living together	54.8	61.3	70.0	9,465	39.9	52.2	58.6	6,362
Divorced/separated/widowed	41.7	50.5	57.0	1,314	29.0	40.7	47.2	275
Residence								
Urban	19.5	21.1	28.2	3,437	18.3	20.0	27.4	2,271
Rural	56.6	65.0	73.3	11,162	38.9	53.5	59.6	9,057
Region								
Tigray	42.1	50.5	57.9	1,113	29.0	40.1	48.4	703
Affar	46.4	46.8	59.5	118	32.5	30.5	46.3	79
Amhara	37.5	51.2	57.2	3,584	24.5	41.0	46.3	2,880
Oromiya	58.6	59.2	69.9	5,087	43.9	51.5	57.3	4,279
Somali	67.6	71.6	77.5	313	59.5	67.7	73.4	262
Benishangul-Gumuz	35.2	47.0	54.0	145	27.7	51.7	55.3	111
SNNPR	54.7	65.4	72.3	3,153	35.9	56.1	63.3	2,316
Gambela	26.2	32.9	39.6	40	27.2	33.3	44.9	33
Harari	33.4	33.9	40.2	37	31.3	33.9	39.5	28
Addis Ababa	12.0	12.2	18.2	925	13.0	7.1	16.7	572
Dire Dawa	25.8	30.1	36.9	83	18.4	23.5	29.1	65
Education								
No education	63.7	70.8	79.5	6,633	46.1	61.2	67.0	3,071
Primary	45.3	53.8	62.1	5,285	37.2	51.2	57.8	5,475
Secondary	16.7	20.6	27.1	1,805	20.6	27.1	33.6	1,779
More than secondary	8.6	7.4	12.4	876	12.2	14.1	19.8	1,003
Wealth quintile								
Lowest	67.5	71.9	81.2	2,236	46.5	61.8	67.2	1,756
Second	62.0	70.7	78.6	2,519	42.7	59.6	65.1	2,061
Middle	57.8	65.6	74.2	2,761	38.3	51.1	57.6	2,186
Fourth	46.9	57.2	65.2	2,968	32.9	46.8	53.4	2,425
Highest	22.6	26.3	33.3	4,114	20.8	25.4	32.6	2,901
Total 15-49	47.9	54.7	62.7	14,599	34.7	46.8	53.1	11,328
50-59	na	na	na	0	40.3	54.4	60.1	1,068
Total 15-59	na	na	na	0	35.2	47.5	53.7	12,396

na = Not applicable

[1] Percentage who do not think that children living with HIV should be able to attend school with children who are HIV negative or would not buy fresh vegetables from a shopkeeper who has HIV.

Table 12.5.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them; among women age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Ethiopia DHS 2016

	All women			Women who had intercourse in the past 12 months with a person who was neither their husband nor lived with them		Women who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age							
15-24	0.3	2.8	6,143	21.8	175	1.3	2,862
15-19	0.3	2.1	3,381	26.0	71	1.1	832
20-24	0.3	3.7	2,762	19.0	103	1.4	2,030
25-29	0.5	3.2	2,957	18.4	95	1.5	2,699
30-39	0.2	1.8	4,277	21.3	78	1.7	4,168
40-49	0.5	1.2	2,306	(15.4)	29	2.1	2,291
Marital status							
Never married	0.2	4.8	4,036	20.9	194	1.7	401
Married or living together	0.2	0.7	10,223	5.6	72	1.6	10,206
Divorced/separated/widowed	1.4	7.8	1,423	29.0	111	2.1	1,413
Residence							
Urban	0.5	6.3	3,476	30.5	217	1.8	2,323
Rural	0.2	1.3	12,207	6.6	160	1.6	9,697
Region							
Tigray	0.5	4.4	1,129	23.9	50	1.7	874
Affar	0.2	1.5	128	*	2	1.6	110
Amhara	0.4	2.6	3,714	(12.0)	95	1.8	2,976
Oromiya	0.3	1.9	5,701	(7.0)	106	1.7	4,517
Somali	0.1	0.1	459	*	0	1.1	358
Benishangul-Gumuz	0.2	1.1	160	*	2	1.8	128
SNNPR	0.2	1.0	3,288	*	32	1.2	2,352
Gambela	0.7	7.0	44	30.8	3	2.3	37
Harari	0.2	1.6	38	*	1	1.4	30
Addis Ababa	0.5	8.8	930	41.8	82	1.9	572
Dire Dawa	0.3	4.4	90	27.2	4	1.7	67
Education							
No education	0.3	1.2	7,498	8.2	88	1.7	7,090
Primary	0.3	2.3	5,490	18.5	124	1.6	3,493
Secondary	0.1	4.7	1,817	32.5	85	1.3	866
More than secondary	0.6	9.2	877	23.5	81	1.3	570
Wealth quintile							
Lowest	0.1	1.3	2,633	(2.4)	34	1.5	2,254
Second	0.2	0.9	2,809	*	26	1.4	2,311
Middle	0.3	1.3	2,978	(0.3)	37	1.8	2,354
Fourth	0.5	1.9	3,100	(11.0)	60	1.8	2,295
Highest	0.4	5.3	4,163	30.4	219	1.7	2,807
Total 15-49	0.3	2.4	15,683	20.4	377	1.6	12,020

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 12.5.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Ethiopia DHS 2016

	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who was neither their wife nor lived with them		Men who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15-24	1.8	9.0	4,455	45.5	78	50.5	402	2.2	1,064
15-19	0.8	4.5	2,572	(56.9)	20	51.7	115	2.4	204
20-24	3.1	15.2	1,883	41.5	58	50.0	287	2.1	860
25-29	3.1	11.2	1,977	41.4	60	54.5	221	2.9	1,500
30-39	4.0	4.5	3,020	8.3	120	52.9	136	2.8	2,787
40-49	6.2	1.8	2,154	3.9	133	29.3	38	3.3	2,055
Marital status									
Never married	2.2	13.8	4,882	60.6	108	53.9	672	3.7	1,009
Married or living together	4.3	1.0	6,441	1.6	274	37.8	63	2.7	6,130
Divorced/separated/ widowed	3.3	22.5	282	*	9	33.2	63	3.9	266
Type of union									
In polygynous union	65.4	0.2	309	0.0	202	*	1	3.4	286
In non-polygynous union	1.2	1.0	6,132	6.1	72	38.0	62	2.7	5,844
Not currently in union	2.3	14.2	5,164	60.7	118	52.1	735	3.7	1,276
Residence									
Urban	3.6	15.6	2,303	64.0	83	61.5	359	4.3	1,481
Rural	3.3	4.7	9,302	7.3	308	42.4	439	2.5	5,925
Region									
Tigray	2.6	8.5	708	(42.5)	18	59.4	60	3.3	440
Affar	5.9	17.3	82	(16.5)	5	42.2	14	3.3	67
Amhara	1.6	5.2	2,914	*	47	48.3	152	2.8	1,956
Oromiya	4.2	7.0	4,409	11.5	184	39.3	310	2.9	2,657
Somali	4.7	0.8	301	1.6	14	*	2	1.6	184
Benishangul-Gumuz	5.6	11.4	118	18.0	7	58.3	13	3.3	91
SNNPR	3.7	3.4	2,371	8.8	87	52.6	80	2.4	1,514
Gambela	5.5	20.4	35	(32.4)	2	58.5	7	3.5	27
Harari	2.2	6.7	29	*	1	(72.8)	2	1.8	19
Addis Ababa	4.7	26.1	573	71.0	27	72.4	150	5.2	405
Dire Dawa	2.5	11.0	66	*	2	74.3	7	3.1	46
Education									
No education	3.4	1.9	3,203	1.7	108	26.1	59	2.6	2,632
Primary	3.3	5.4	5,608	15.6	185	46.8	304	2.5	3,103
Secondary	2.9	12.2	1,785	46.4	52	56.2	218	3.6	898
More than secondary	4.6	21.4	1,010	45.0	47	58.4	217	4.4	773
Wealth quintile									
Lowest	4.5	2.8	1,839	8.7	83	30.7	52	2.6	1,232
Second	2.3	3.3	2,118	(9.9)	48	48.4	69	2.1	1,446
Middle	3.0	4.1	2,246	2.2	67	44.5	91	2.5	1,420
Fourth	3.5	6.9	2,466	9.8	85	43.0	171	2.6	1,457
Highest	3.7	14.1	2,935	50.2	108	58.6	415	4.2	1,850
Total 15-49	3.4	6.9	11,606	19.4	392	51.0	798	2.9	7,405
50-59	5.8	1.0	1,082	0.7	63	*	11	4.4	1,029
Total 15-59	3.6	6.4	12,688	16.8	454	50.5	809	3.1	8,435

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 12.6 Payment for sexual intercourse and condom use at last paid sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, and among them, percentage reporting that a condom was used the last time they paid for sexual intercourse, according to age, Ethiopia DHS 2016

	Among all men:			Among men who paid for sex in the past 12 months:	
Age	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men	Percentage reporting condom use at last paid sexual intercourse	Number of men
15-24	1.0	0.7	4,455	(94.4)	30
15-19	0.5	0.5	2,572	*	13
20-24	1.7	0.9	1,883	(90.3)	17
25-29	2.9	1.0	1,977	(73.5)	20
30-39	3.2	1.0	3,020	(72.9)	29
40-49	4.3	0.5	2,154	*	11
Total 15-49	2.5	0.8	11,606	81.0	90
50-59	4.8	0.3	1,082	*	3
Total 15-59	2.7	0.7	12,688	79.0	93

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 12.7.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to obtain an HIV test, percent distribution of women by testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the past 12 months and received the results of the last test, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who know where to obtain an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	68.3	34.1	3.6	62.3	100.0	37.7	18.0	6,143
15-19	61.7	22.4	2.9	74.8	100.0	25.2	12.4	3,381
20-24	76.5	48.4	4.5	47.1	100.0	52.9	24.9	2,762
25-29	73.2	49.1	5.0	45.9	100.0	54.1	24.4	2,957
30-39	69.3	43.3	4.6	52.1	100.0	47.9	20.3	4,277
40-49	67.2	38.5	3.5	58.0	100.0	42.0	16.7	2,306
Marital status								
Never married	68.9	27.9	2.9	69.1	100.0	30.9	14.3	4,036
Ever had sex	87.3	66.3	1.9	31.8	100.0	68.2	38.0	401
Never had sex	66.9	23.7	3.1	73.3	100.0	26.7	11.7	3,636
Married/living together	69.0	43.4	4.7	51.8	100.0	48.2	21.3	10,223
Divorced/separated/widowed	73.1	50.3	3.2	46.5	100.0	53.5	22.8	1,423
Residence								
Urban	91.6	67.8	2.6	29.6	100.0	70.4	36.1	3,476
Rural	63.0	32.2	4.6	63.3	100.0	36.7	15.0	12,207
Region								
Tigray	89.0	61.6	4.5	33.8	100.0	66.2	32.1	1,129
Affar	62.3	37.5	3.1	59.5	100.0	40.5	23.5	128
Amhara	77.2	49.1	4.0	46.8	100.0	53.2	20.8	3,714
Oromiya	55.4	28.4	4.0	67.6	100.0	32.4	15.4	5,701
Somali	43.4	12.8	1.1	86.1	100.0	13.9	8.5	459
Benishangul-Gumuz	73.5	43.6	2.9	53.4	100.0	46.6	23.5	160
SNNPR	73.8	36.5	5.7	57.8	100.0	42.2	17.6	3,288
Gambela	80.2	58.2	2.6	39.3	100.0	60.7	33.5	44
Harari	81.3	53.6	4.5	41.9	100.0	58.1	29.3	38
Addis Ababa	95.1	71.6	1.5	26.8	100.0	73.2	34.8	930
Dire Dawa	80.8	60.9	2.6	36.5	100.0	63.5	39.0	90
Education								
No education	59.0	31.4	4.3	64.3	100.0	35.7	13.6	7,498
Primary	71.9	39.8	4.2	56.0	100.0	44.0	20.4	5,490
Secondary	91.1	57.6	4.0	38.4	100.0	61.6	30.3	1,817
More than secondary	96.7	79.3	2.6	18.1	100.0	81.9	44.2	877
Wealth quintile								
Lowest	50.7	21.2	3.2	75.6	100.0	24.4	8.5	2,633
Second	59.6	28.4	4.9	66.7	100.0	33.3	12.0	2,809
Middle	63.8	33.2	3.8	63.0	100.0	37.0	14.6	2,978
Fourth	72.8	41.0	5.9	53.1	100.0	46.9	21.0	3,100
Highest	89.1	64.1	3.1	32.8	100.0	67.2	34.4	4,163
Total 15-49	69.3	40.1	4.1	55.8	100.0	44.2	19.7	15,683

[1] Includes 'don't know/missing'.

Table 12.7.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men by testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, Ethiopia DHS 2016

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 have been tested for HIV in the past 12 months and received the results of the last test	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	79.2	28.9	2.0	69.1	100.0	30.9	14.7	4,455
15-19	73.7	18.2	1.6	80.2	100.0	19.8	8.9	2,572
20-24	86.6	43.7	2.5	53.8	100.0	46.2	22.8	1,883
25-29	88.4	56.1	2.9	41.0	100.0	59.0	27.6	1,977
30-39	85.9	50.8	3.1	46.1	100.0	53.9	20.4	3,020
40-49	87.9	48.4	3.2	48.4	100.0	51.6	17.7	2,154
Marital status								
Never married	80.6	32.6	1.7	65.8	100.0	34.2	16.6	4,882
Ever had sex	95.2	61.6	1.4	37.0	100.0	63.0	36.1	1,061
Never had sex	76.6	24.5	1.7	73.7	100.0	26.3	11.2	3,821
Married/Living together	86.5	49.9	3.4	46.7	100.0	53.3	20.3	6,441
Divorced/separated/widowed	90.5	60.4	4.2	35.4	100.0	64.6	29.6	282
Residence								
Urban	94.6	64.8	2.2	33.0	100.0	67.0	33.2	2,303
Rural	81.5	37.4	2.8	59.8	100.0	40.2	15.4	9,302
Region								
Tigray	89.6	55.8	2.5	41.6	100.0	58.4	24.6	708
Affar	90.9	49.9	1.4	48.7	100.0	51.3	29.1	82
Amhara	91.0	52.7	1.6	45.7	100.0	54.3	23.4	2,914
Oromiya	76.9	33.0	3.0	63.9	100.0	36.1	14.8	4,409
Somali	68.8	14.7	0.3	85.0	100.0	15.0	7.6	301
Benishangul-Gumuz	70.6	47.2	2.2	50.6	100.0	49.4	23.4	118
SNNPR	86.2	40.9	3.9	55.2	100.0	44.8	14.7	2,371
Gambela	86.4	61.9	2.5	35.7	100.0	64.3	36.6	35
Harari	77.8	31.3	3.4	65.3	100.0	34.7	13.7	29
Addis Ababa	98.3	71.1	1.9	27.0	100.0	73.0	40.4	573
Dire Dawa	92.2	60.3	2.5	37.2	100.0	62.8	35.8	66
Education								
No education	77.2	34.1	3.0	62.8	100.0	37.2	12.5	3,203
Primary	82.1	36.1	2.6	61.3	100.0	38.7	15.2	5,608
Secondary	95.2	60.9	2.3	36.8	100.0	63.2	30.9	1,785
More than secondary	97.6	76.3	2.6	21.1	100.0	78.9	39.4	1,010
Wealth quintile								
Lowest	74.2	24.8	2.8	72.4	100.0	27.6	7.7	1,839
Second	78.6	33.4	3.0	63.6	100.0	36.4	11.1	2,118
Middle	80.9	37.7	2.0	60.3	100.0	39.7	15.5	2,246
Fourth	87.3	45.3	3.3	51.4	100.0	48.6	21.1	2,466
Highest	94.1	62.9	2.3	34.8	100.0	65.2	32.5	2,935
Total 15-49	84.1	42.9	2.7	54.5	100.0	45.5	19.0	11,606
50-59	84.9	44.9	2.5	52.7	100.0	47.3	14.5	1,082
Total 15-59	84.2	43.0	2.7	54.3	100.0	45.7	18.6	12,688

[1] Includes 'don't know/missing'.

Table 12.8 Coverage of prior HIV testing among married women

Percentage of currently married women age 15-49 ever tested before getting married or living with a partner, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage ever tested	Number of currently married women
Residence		
Urban	56.9	1,658
Rural	18.2	8,565
Region		
Tigray	37.4	658
Affar	24.9	96
Amhara	33.7	2,414
Oromiya	16.9	3,987
Somali	2.9	324
Benishangul-Gumuz	19.6	114
SNNPR	20.1	2,173
Gambela	35.2	29
Harari	31.4	25
Addis Ababa	67.9	355
Dire Dawa	32.6	50
Education		
No education	13.6	6,253
Primary	32.7	2,895
Secondary	61.5	654
More than secondary	71.5	421
Wealth quintile		
Lowest	12.0	1,953
Second	15.1	2,074
Middle	18.6	2,057
Fourth	24.4	1,999
Highest	50.6	2,140
Total	24.5	10,223

Table 12.9 Pregnant women counselled and tested for HIV

Among all women age 15-49 who gave birth in the 2 years before the survey, percentage who received HIV pretest counselling, percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counselling, and percentage who received an HIV test during an ANC visit or labour for their most recent birth by whether they received their test results, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who received counselling on HIV during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who:			Percentage who received counselling on HIV and an HIV test during ANC, and the results	Percentage who had an HIV test during ANC or labour and who:[2]		Number of women who gave birth in the past two years[3]
		Received results and received post-test counselling	Received results and did not receive post-test counselling	Did not receive results		Received results	Did not receive results	
Age								
15-24	22.5	22.9	10.8	3.2	17.5	36.0	3.5	1,260
15-19	21.0	20.0	10.3	1.0	16.7	32.5	1.7	281
20-24	23.0	23.8	11.0	3.8	17.7	36.9	4.0	979
25-29	25.5	23.1	10.9	3.6	21.4	36.1	3.9	1,264
30-39	23.1	21.5	9.6	3.0	19.5	32.5	3.2	1,512
40-49	17.9	12.8	12.3	2.8	14.0	28.9	1.7	271
Marital status								
Never married	(15.9)	(19.2)	(27.9)	(0.0)	(15.9)	(57.1)	(8.2)	31
Married or living together	23.5	21.9	10.6	3.3	19.2	34.3	3.4	4,102
Divorced/separated/ widowed	19.9	22.5	5.0	3.3	18.7	31.2	3.3	175
Residence								
Urban	58.8	56.6	19.7	3.6	55.5	78.9	3.1	520
Rural	18.4	17.1	9.2	3.2	14.1	28.2	3.4	3,788
Region								
Tigray	46.6	49.6	20.1	3.4	44.0	71.1	3.6	314
Affar	14.0	16.9	9.9	3.2	11.4	28.2	3.2	43
Amhara	32.5	31.5	17.8	6.3	28.9	51.3	5.4	789
Oromiya	13.7	11.6	6.5	1.4	9.9	20.1	2.0	1,915
Somali	5.7	5.8	7.4	1.1	4.7	14.2	0.9	178
Benishangul-Gumuz	23.7	21.2	8.3	2.0	18.5	31.1	2.3	45
SNNPR	24.4	21.6	8.7	5.1	17.2	32.9	5.3	876
Gambela	22.4	31.9	22.0	1.2	21.5	55.3	1.2	10
Harari	27.5	41.3	4.6	2.0	25.9	47.6	2.9	10
Addis Ababa	78.3	76.9	18.1	1.9	76.4	95.8	1.9	110
Dire Dawa	40.5	41.5	17.1	2.8	36.4	60.2	2.6	18
Education								
No education	15.1	13.4	8.4	2.6	11.7	23.5	2.5	2,606
Primary	30.0	29.4	11.6	3.2	24.8	43.3	4.3	1,319
Secondary	51.5	49.5	19.7	8.8	45.0	72.0	7.2	262
More than secondary	65.7	62.1	24.5	5.4	60.3	88.4	3.9	121
Wealth quintile								
Lowest	9.4	8.3	6.0	2.2	7.2	15.2	2.2	1,011
Second	15.1	13.7	9.5	2.5	11.2	24.8	2.9	943
Middle	19.1	17.5	9.9	3.3	14.1	31.0	3.9	890
Fourth	27.9	28.1	11.8	4.6	21.6	42.1	4.5	796
Highest	56.2	52.2	17.8	4.1	52.2	71.8	4.0	667
Total 15-49	23.3	21.9	10.5	3.2	19.1	34.3	3.4	4,308

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] In this context, "pretest counselling" means that someone talked with the respondent about all three of the following topics: 1) babies getting HIV from their mother, 2) preventing the virus, and 3) getting tested for HIV.
[2] Women are asked whether they received an HIV test during labour only if they gave birth in a health facility.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past 2 years.

Table 12.10 Male circumcision

Percent distribution of men age 15-49 by circumcision status and provider of circumcision, and percentage of men circumcised, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Circumcised by:			Not circumcised	Don't know/ missing circumcision status	Total	Percentage of men circumcised[1]	Number of men
	Health worker/ professional	Traditional practitioner/ family friend	Other/don't know					
Age								
15-24	21.0	63.3	3.5	11.7	0.4	100.0	87.9	4,455
15-19	21.4	61.1	3.8	13.2	0.5	100.0	86.3	2,572
20-24	20.5	66.4	3.2	9.6	0.2	100.0	90.1	1,883
25-29	18.3	69.7	3.5	8.2	0.3	100.0	91.5	1,977
30-39	14.8	76.2	2.9	6.0	0.1	100.0	93.9	3,020
40-49	8.4	82.6	3.4	5.4	0.2	100.0	94.4	2,154
Residence								
Urban	20.0	69.5	6.7	3.5	0.2	100.0	96.3	2,303
Rural	15.7	71.8	2.5	9.7	0.3	100.0	90.0	9,302
Region								
Tigray	2.9	83.4	11.0	2.6	0.1	100.0	97.3	708
Affar	12.7	84.9	1.3	0.9	0.2	100.0	98.9	82
Amhara	5.3	84.3	3.6	6.2	0.6	100.0	93.2	2,914
Oromiya	14.3	74.7	1.9	8.9	0.1	100.0	90.9	4,409
Somali	7.1	91.5	0.8	0.6	0.0	100.0	99.4	301
Benishangul-Gumuz	2.8	75.5	17.3	4.1	0.2	100.0	95.6	118
SNNPR	37.6	46.3	0.7	15.3	0.1	100.0	84.6	2,371
Gambela	14.9	54.2	2.8	27.9	0.1	100.0	72.0	35
Harari	13.3	68.9	16.6	0.7	0.4	100.0	98.9	29
Addis Ababa	30.4	55.5	12.0	1.3	0.8	100.0	97.9	573
Dire Dawa	14.9	78.3	6.3	0.5	0.1	100.0	99.4	66
Religion								
Orthodox	10.5	78.8	5.7	4.7	0.4	100.0	94.9	5,160
Catholic	16.5	63.4	0.1	20.0	0.0	100.0	80.0	78
Protestant	32.2	47.8	0.7	19.0	0.2	100.0	80.7	2,561
Muslim	14.3	78.9	2.0	4.8	0.1	100.0	95.2	3,649
Traditional	(4.4)	(16.7)	(0.2)	(78.6)	(0.0)	100.0	21.4	31
Other	21.5	46.3	0.0	32.2	0.0	100.0	67.8	128
Ethnic group								
Affar	10.0	87.6	1.4	0.7	0.2	100.0	99.1	63
Amhara	7.2	82.1	4.5	5.7	0.5	100.0	93.8	3,497
Guragie	16.6	72.9	9.2	1.3	0.0	100.0	98.6	311
Hadiya	23.4	72.1	1.2	2.5	0.8	100.0	96.7	217
Oromo	15.1	75.2	2.2	7.3	0.2	100.0	92.5	4,175
Sidama	54.1	24.5	0.4	21.1	0.0	100.0	78.9	490
Somalie	6.5	92.1	0.7	0.7	0.0	100.0	99.3	299
Tigray	4.9	81.6	10.8	2.3	0.3	100.0	97.4	778
Welaita	75.5	21.7	0.0	2.9	0.0	100.0	97.1	321
Others	25.4	50.2	1.4	23.0	0.0	100.0	77.0	1,455
Total 15-49	16.6	71.4	3.3	8.5	0.3	100.0	91.3	11,606
50-59	7.3	85.4	2.4	4.7	0.2	100.0	95.1	1,082
Total 15-59	15.8	72.6	3.3	8.1	0.3	100.0	91.6	12,688

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes all men who report they are circumcised, regardless of provider.

Table 12.11 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, percentage reporting having an STI and/or symptoms of an STI in the past 12 months, according to background characteristics, Ethiopia DHS 2016

	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual inter-course	STI	Bad smelling/ abnormal discharge from penis	Genital sore or ulcer	STI/ abnormal discharge from penis/ sore or ulcer	Number of men who ever had sexual inter-course
Age										
15-24	0.3	2.2	1.8	3.4	2,865	1.0	2.2	1.8	3.1	1,117
15-19	0.3	1.9	1.3	2.5	832	0.1	2.2	1.4	3.6	209
20-24	0.3	2.3	1.9	3.7	2,033	1.3	2.2	1.9	3.0	907
25-29	0.3	2.4	2.0	3.9	2,702	2.2	1.4	0.8	3.2	1,602
30-39	0.2	2.4	2.1	3.8	4,175	2.4	2.4	1.9	3.9	2,916
40-49	0.4	3.5	2.4	4.9	2,291	2.7	2.4	1.6	3.7	2,134
Marital status										
Never married	0.4	3.3	4.4	6.4	401	2.1	2.3	1.9	3.2	1,061
Married or living together	0.3	2.5	1.9	3.8	10,217	2.4	2.2	1.5	3.7	6,433
Divorced/separated/ widowed	0.4	2.5	2.2	4.3	1,415	0.2	2.1	1.5	2.3	274
Male circumcision										
Circumcised[1]	na	na	na	na	na	2.3	2.3	1.7	3.8	7,221
Not circumcised	na	na	na	na	na	1.0	0.4	0.0	1.4	534
Residence										
Urban	0.5	3.4	2.5	5.4	2,332	1.7	1.8	1.1	3.0	1,545
Rural	0.3	2.3	1.9	3.6	9,701	2.4	2.3	1.7	3.7	6,224
Region										
Tigray	1.2	2.4	1.9	4.4	876	0.4	0.4	0.5	0.9	445
Affar	0.3	1.1	1.3	2.4	110	0.6	1.9	0.7	2.5	67
Amhara	0.1	3.6	2.2	4.9	2,978	0.9	2.6	1.1	3.3	1,957
Oromiya	0.1	2.1	2.2	3.6	4,521	4.8	3.1	2.8	5.7	2,989
Somali	1.8	3.8	3.5	4.7	358	1.9	2.7	0.9	3.0	186
Benishangul-Gumuz	0.3	1.3	0.9	1.5	128	0.2	0.5	0.6	0.9	91
SNNPR	0.2	2.1	1.6	3.1	2,356	0.2	1.0	0.5	1.5	1,519
Gambela	0.8	2.6	1.6	3.7	37	1.2	1.5	1.1	2.8	27
Harari	0.9	1.5	0.5	1.8	30	4.0	4.2	3.6	5.4	19
Addis Ababa	1.0	3.0	2.0	4.4	572	0.8	0.7	0.3	1.3	422
Dire Dawa	1.2	2.1	2.3	3.7	67	1.3	1.6	0.7	2.2	46
Education										
No education	0.2	2.2	1.8	3.3	7,095	2.5	2.9	2.2	3.8	2,737
Primary	0.5	2.8	2.1	4.3	3,500	2.2	1.7	1.4	3.5	3,266
Secondary	0.4	2.4	2.5	4.1	866	1.8	2.1	0.6	3.7	971
More than secondary	0.7	5.8	3.9	9.3	573	2.1	2.0	1.3	3.1	793
Wealth quintile										
Lowest	0.4	2.3	2.3	3.5	2,254	2.1	2.2	1.9	3.1	1,270
Second	0.1	2.2	1.9	3.6	2,313	2.7	2.2	1.5	3.9	1,514
Middle	0.1	2.2	1.5	3.1	2,354	2.1	2.7	2.0	3.7	1,466
Fourth	0.4	2.3	1.9	3.6	2,297	2.5	2.2	1.6	4.1	1,553
Highest	0.4	3.6	2.5	5.6	2,815	1.8	1.8	1.1	3.2	1,965
Total 15-49	0.3	2.6	2.0	3.9	12,033	2.2	2.2	1.6	3.6	7,768
50-59	na	na	na	na	na	2.3	1.1	1.5	2.5	1,080
Total 15-59	na	Na	na	na	na	2.2	2.1	1.5	3.5	8,849

na = Not applicable
Notes: Total includes 13 cases with missing information on male circumcision.
[1] Includes all men who report they are circumcised, regardless of provider.

Table 12.12 Women and men seeking treatment for STIs

Percentage of women and men age 15-49 reporting an STI or symptoms of an STI in the past 12 months who sought advice or treatment, Ethiopia DHS 2016

Source of advice or treatment	Percentage of women	Percentage of men
Clinic/hospital/private doctor/other health professional	31.8	31.7
Advice or medicine from shop/pharmacy	0.9	2.6
Advice or treatment from any other source	0.5	0.0
No advice or treatment	66.7	65.7
Number with STI or symptoms of STI	474	279

Table 12.13 Comprehensive knowledge about HIV among young people

Percentage of young women and young men age 15-24 with comprehensive knowledge about HIV, according to background characteristics, Ethiopia DHS 2016

	Women age 15-24		Men age 15-24	
Background characteristic	Percentage with comprehensive knowledge of HIV[1]	Number of women	Percentage with comprehensive knowledge of HIV[1]	Number of men
Age				
15-19	24.0	3,381	37.6	2,572
15-17	22.9	2,050	34.3	1,589
18-19	25.8	1,331	43.0	983
20-24	24.6	2,762	41.1	1,883
20-22	25.0	1,808	40.1	1,216
23-24	23.8	954	42.9	667
Marital status				
Never married	28.3	3,500	39.2	3,889
Ever had sex	32.6	230	44.9	564
Never had sex	28.0	3,269	38.2	3,325
Ever married	19.0	2,643	38.2	566
Residence				
Urban	41.7	1,467	47.7	867
Rural	18.8	4,675	37.0	3,588
Education				
No education	8.4	1,230	27.2	543
Primary	21.4	3,333	37.3	2,744
Secondary	40.1	1,184	46.1	910
More than secondary	51.1	396	58.1	258
Total 15-24	24.3	6,143	39.1	4,455

[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 HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV. The components of comprehensive knowledge are presented in Tables 12.1, and 12.2.

Table 12.14 Age at first sexual intercourse among young people

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, according to background characteristics, Ethiopia DHS 2016

	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	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19	6.3	3,381	na	na	0.8	2,572	na	na
15-17	5.5	2,050	na	na	0.6	1,589	na	na
18-19	7.4	1,331	34.5	1,331	1.3	983	11.1	983
20-24	13.2	2,762	43.1	2,762	1.3	1,883	12.0	1,883
20-22	13.5	1,808	43.8	1,808	1.5	1,216	11.7	1,216
23-24	12.7	954	41.7	954	1.0	667	12.5	667
Residence								
Urban	3.0	1,467	21.7	1,004	0.4	867	11.9	582
Rural	11.4	4,675	46.4	3,089	1.2	3,588	11.6	2,285
Education								
No education	22.1	1,230	66.4	974	0.6	543	12.7	383
Primary	8.2	3,333	42.6	1,926	1.1	2,744	12.3	1,555
Secondary	2.3	1,184	18.7	822	1.3	910	10.5	686
More than secondary	1.0	396	7.5	370	0.4	258	9.4	243
Total	9.4	6,143	40.3	4,092	1.0	4,455	11.7	2,866

na = Not available.

Table 12.15 Premarital sexual intercourse among young people

Among never-married women and men age 15-24, percentage who have never had sexual intercourse, according to background characteristics, Ethiopia DHS 2016

	Women age 15-24		Men age 15-24	
Background characteristic	Percentage who have never had sexual intercourse	Number of never married women	Percentage who have never had sexual intercourse	Number of never married men
Age				
15-19	96.2	2,642	93.2	2,527
15-17	97.3	1,817	96.5	1,581
18-19	93.6	825	87.7	946
20-24	84.9	858	71.1	1,362
20-22	84.9	602	74.9	978
23-24	84.8	256	61.4	383
Residence				
Urban	89.1	1,087	76.5	820
Rural	95.4	2,413	87.9	3,069
Education				
No education	95.2	341	89.0	408
Primary	94.6	1,990	89.4	2,418
Secondary	93.5	879	80.5	828
More than secondary	82.9	289	56.5	234
Total 15-24	93.4	3,500	85.5	3,889

Table 12.16.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months among young people: Women

Among all young women age 15-24, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them; and among young women age 15-24 who had sexual intercourse in the past 12 months with a non-marital, non-cohabiting partner, percentage who used a condom during last sexual intercourse with such a partner, Ethiopia DHS 2016

	Women age 15-24			Women age 15-24 who had intercourse in the past 12 months with a person who was neither their husband nor lived with them	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women
Age					
15-19	0.3	2.1	3,381	30.3	71
15-17	0.2	1.6	2,050	(16.9)	32
18-19	0.4	3.0	1,331	41.2	39
20-24	0.3	3.7	2,762	19.4	103
20-22	0.2	3.8	1,808	18.1	68
23-24	0.4	3.7	954	21.9	35
Marital status					
Never married	0.2	3.6	3,500	21.8	127
Ever married	0.3	1.8	2,643	29.3	47
Residence					
Urban	0.6	7.5	1,467	30.7	110
Rural	0.2	1.4	4,675	12.1	64
Education					
No education	0.4	1.0	1,230	*	12
Primary	0.3	2.2	3,333	16.4	72
Secondary	0.2	4.2	1,184	29.2	49
More than secondary	0.2	10.3	396	26.7	41
Total 15-24	0.3	2.8	6,143	23.8	175

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 12.16.2 Multiple sexual partners and higher-risk sexual behaviour in the past 12 months among young people: Men

Among all young men age 15-24, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; and among young men age 15-24 who had sexual intercourse in the past 12 months with a non-marital, non-cohabiting partner, percentage who used a condom during last sexual intercourse with such a partner, Ethiopia DHS 2016

	Men age 15-24			Men age 15-24 who had 2+ partners in the past 12 months		Men age 15-24 who had intercourse in the past 12 months with a person who was neither their wife nor lived with them	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them	Number of men	Percentage who reported using a condom at last intercourse	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men
Age							
15-19	0.8	4.5	2,572	(56.9)	20	57.0	115
15-17	0.1	2.2	1,589	*	1	45.8	35
18-19	2.0	8.1	983	(57.7)	19	62.0	80
20-24	3.1	15.2	1,883	41.5	58	53.5	287
20-22	2.6	14.5	1,216	(52.5)	31	48.4	177
23-24	4.1	16.6	667	(29.0)	27	61.5	110
Marital status							
Never married	1.5	9.7	3,889	54.9	58	54.9	376
Ever married	3.6	4.7	566	*	21	(48.0)	26
Residence							
Urban	3.0	15.9	867	65.0	26	64.0	137
Rural	1.5	7.4	3,588	36.0	53	49.6	265
Education							
No education	1.4	5.3	543	*	8	(25.5)	29
Primary	1.2	6.7	2,744	(54.4)	32	52.7	185
Secondary	2.3	11.8	910	(59.4)	21	53.5	107
More than secondary	6.8	31.5	258	*	18	70.2	81
Total 15-24	1.8	9.0	4,455	45.5	78	54.5	402

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 12.17 Recent HIV tests among young people

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, percentage who were tested for HIV in the past 12 months and received the results of the last test, according background characteristics, Ethiopia DHS 2016

	Women age 15-24 who have had sexual intercourse in the past 12 months:		Men age 15-24 who have had sexual intercourse in the past 12 months:	
Background characteristic	Percentage who have been tested for HIV in the past 12 months	Number of women	Percentage who have been tested for HIV in the past 12 months	Number of men
Age				
15-19	25.3	703	18.0	148
15-17	22.1	233	20.7	38
18-19	26.9	470	17.1	110
20-24	27.7	1,804	30.7	743
20-22	26.6	1,142	30.5	383
23-24	29.6	662	30.8	360
Marital status				
Never married	42.9	129	37.1	377
Ever married	26.2	2,378	22.3	514
Total	27.0	2,507	28.6	891

Table 12.18 HIV tests among children

Among children less than 15 years old, percentage who were tested for HIV, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage ever tested for HIV	Number of children
Residence		
Urban	21.6	2,933
Rural	4.6	27,366
Region		
Tigray	14.6	1,728
Affar	5.8	271
Amhara	6.6	5,945
Oromiya	5.3	13,020
Somali	2.2	1,288
Benishangul-Gumuz	4.2	336
SNNPR	5.1	6,974
Gambela	11.3	64
Harari	9.9	63
Addis Ababa	22.5	491
Dire Dawa	10.5	119
Mother's education		
No education	4.4	22,412
Primary	9.3	6,586
Secondary	18.3	854
More than secondary	28.6	447
Wealth quintile		
Lowest	2.8	6,826
Second	3.9	6,673
Middle	4.4	6,427
Fourth	6.6	6,048
Highest	17.3	4,325
Total	6.2	30,299

ADULT AND MATERNAL MORTALITY 13

Key Findings

- ***Adult mortality:*** Women and men who have reached age 15 have a probability of dying before age 50 of 10% and 12%, respectively.
- ***Pregnancy-related mortality:*** The pregnancy related mortality ratio was 412 maternal deaths per 100,000 live births for the 7 years before the survey. The decline from the estimate of 871 for the 7 years before the 2000 EDHS or the estimate of 676 for the 7 years before the 2011 EDHS is statistically significant.
- ***Lifetime risk of pregnancy-related death:*** The lifetime risk of *pregnancy-related* death (a death related to pregnancy or childbirth) is 21 in 1,000 women in Ethiopia.

Adult and maternal mortality indicators can be used to assess the health status of a population, especially in developing countries such as Ethiopia. Estimation of these mortality rates requires complete and accurate data on adult and pregnancy-related deaths. In the 2016 EDHS, data were collected on the survivorship of the female respondents' siblings (sisters or brothers) to obtain an estimate of adult mortality. Questions to determine if deaths among female siblings were pregnancy-related enable the estimation of pregnancy-related mortality, a key indicator of maternal health and well-being, as well as the quality of maternal care.

The International Classification of Diseases (ICD-10) defines both maternal and pregnancy-related mortality. The 2016 EDHS results reflect pregnancy-related mortality, which accounts for deaths of women while pregnant, during delivery, or within 42 days of the termination of pregnancy, irrespective of the cause of death (WHO 2011). Thus, the adult and maternal mortality module used in the DHS surveys measures only the timing and not the cause of deaths. The data collected with the 2016 EDHS questionnaire are based on information about deaths during the 2 months after a birth rather than the recommended 42 days following a birth.

This chapter presents information on the levels and trends of adult mortality and pregnancy-related mortality in Ethiopia. The chapter includes results estimated from sibling history data collected in the sibling survival module (commonly referred to as the maternal mortality module) that is included in the Woman's Questionnaire. In addition to adult mortality rates for 5-year age groups, the chapter includes a summary measure ($_{35}q_{15}$) that represents the probability of dying between exact ages 15 and 50, or between the 15th and 50th birthdays.

13.1 SIBLING HISTORY DATA

To obtain a sibling history, each respondent was first asked to provide the total number of her mother's live births. The respondent was then asked to provide a list of all children born to her mother, starting with the first born, and the survival status of each sibling. The current age was collected for each surviving

sibling. The age at death and number of years since the person's death were recorded for each deceased sibling. When a respondent could not provide precise information on age at death or years since death, the interviewers were instructed to accept an approximate but quantitative answer. For sisters who died at age 12 or above, three questions were used to determine whether the death was maternity-related: "Was [NAME OF SISTER] pregnant when she died?" and, if not, "Did she die during childbirth?" and, if not, "Did she die within 2 months after the end of a pregnancy or childbirth?" Estimation of adult and pregnancy-related mortality by either direct or indirect means requires reasonably accurate reporting of the respondent's number of sisters and brothers, the number who have died, and for pregnancy-related mortality, the number of sisters who died of pregnancy related causes. **Table 13.1** shows the number of siblings reported by the respondents and the completeness of data on current age, age at death, and years since death.

Overall, 84,335 siblings were recorded in the adult mortality section of the 2016 EDHS. Survival status was not reported for only 84 (0.1%) siblings. Among surviving siblings, current age was not reported for 1,387 siblings (2%); for 5% of dead siblings, age at the death and years since death were not reported. Instead of excluding siblings with missing data from further analysis, information on the birth order of siblings in conjunction with other information was used to impute the missing data.[1]

13.2 Direct Estimates of Adult Mortality

Adult mortality rate

The number of adult deaths per 1,000 population age 15-49. Adult mortality rates by 5-year age groups are calculated as: the number of deaths to respondent's siblings in each age group is divided by the number of person-years of exposure to the risk of dying in that age group during the 7 years before the survey. The number of deaths by age group is the number of siblings (brothers or sisters) reported as having died within the 7 years before the survey by age at death. The person-years of exposure in each age group are calculated for both surviving and dead siblings based on their current age (living siblings) or age at death and years since death (dead siblings).

Sample: Siblings (both living and dead) who were age 15-49 in the 7 years before the survey, by sex and 5-year age groups

One way to assess the quality of the data used to estimate pregnancy-related mortality is to evaluate the plausibility and stability of overall adult mortality. If estimated rates of overall adult mortality are implausible, rates based on a subset of deaths (pregnancy-related deaths in particular) may have questionable plausibility.

The reported ages at death and years since death of the respondents' brothers and sisters are used to make direct estimates of adult mortality. Age and sex-specific death rates are presented in this report because of the differentials in exposure to the risk of dying. To ensure a sufficiently large number of adult deaths to generate a robust estimate, the rates are calculated for the 7-year period before the survey (approximately mid-2009 to mid-2016). Nevertheless, age-specific mortality rates obtained in this manner are subject to

[1] The imputation procedure was based on the assumption that the reported birth ordering of siblings in the history was correct. The first step was to calculate birth dates for each living sibling with a reported age and each dead sibling with complete information on age at death and years since death. For a sibling missing these data, a birth date was imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, an age was then calculated from the imputed birth date. For dead siblings, if either age at death or years since death were reported, the information was combined with the birth date to produce the missing information. If both pieces of information were missing, the distribution of the ages at death for siblings (for whom years since death were not reported but age at death was reported) was used as a basis for imputing age at death.

considerable sampling variation. Use of this 7-year period is a compromise between the desire for the most recent data and the need to minimise the sampling error.

Table 13.2 shows direct estimates of age-specific mortality rates among women and men age 15-49 for the 7-year period before the survey. Overall, the level of adult mortality among men is higher (3.54 deaths per 1,000 populations) than among women (2.74 deaths per 1,000 population). Rates by age groups show some inconsistencies, probably due to the quality of declaration of age at death of siblings.

Trends: **Table 13.3** shows the probability of dying between exact ages of 15 and 50, $_{35}q_{15,}$ which is the probability of a woman or man who has just reached age 15 dying before age 50, if age-specific death rates in the 7 years before the survey are held constant. The 2016 EDHS data show that women have lower probabilities of dying than men: 100 of 1,000 women age 15 and 124 of 1,000 men age 15 would be expected to die before age 50.

Since 2000, the probability of dying between the exact ages of 15 and 50 has declined by more than half for both women and men. For women, the probability declined from 221 per 1,000 women in the 7 years before 2000, to 100 per 1,000 women in the 7 years before 2016. The corresponding rate for men decreased from 275 per 1,000 men in the 7 years before 2000 to 124 per 1000 men in the 7 years before 2016.

13.3 Direct Estimates of Pregnancy-Related Mortality

Pregnancy-related mortality rate

The number of pregnancy-related deaths per 1,000 women age 15-49. Pregnancy-related mortality rates by 5-year age groups are calculated by dividing the number of pregnancy-related deaths to female siblings of respondents in each age group by the total person-years of exposure of the sisters to the risk of dying in that age group during the 7 years before the survey. The number of deaths is the number of sisters reported as having died in the 7 years before the survey either during pregnancy or delivery, or in the 2 months after the delivery, by their age group at the time of death. The person-years of exposure in each age group are calculated for both surviving and dead sisters based on their reported current age (living sisters) or age at death and years since death (dead sisters).

Sample: Sisters (both living and dead) age 15-49 in the 7 years before the survey, by 5 year age groups

Pregnancy-related mortality ratio

The number of pregnancy-related deaths per 100,000 live births. The pregnancy-related mortality ratio is calculated by dividing the age-standardised pregnancy-related mortality rate for women age 15-49 in the 7 years before the survey by the general fertility rate (GFR) for the same time period.

Pregnancy-related deaths are a subset of all female deaths, that are defined as any deaths that occurred during pregnancy or childbirth, or within 42 days after the birth or termination of a pregnancy. Estimates of pregnancy-related mortality are based solely on the timing of the death in relationship to the pregnancy. Two methods are generally used to estimate maternal mortality in developing countries: the indirect sisterhood method (Graham et al. 1989) and a direct variant of the sisterhood method (Rutenberg and Sullivan 1991; Stanton et al. 1997). Age-specific estimates of pregnancy-related mortality from reported survivorship of sisters are shown in **Table 13.4** for the 7-year period before the 2016 survey.

Table 13.4 shows that the pregnancy-related mortality rate among women age 15-49 is 0.66 deaths per 1,000 woman-years of exposure. By 5-year age groups, the pregnancy-related mortality rate is highest among women in the 30-34 age group (1.10), followed by women in the 40-44 age group (0.78). The

overall percentage of female deaths due to pregnancy-related causes is 25%; this percentage varies by age and ranges from 14% among women age 45-49 to 30% among women age 30-34. However, this age-specific pattern should be interpreted with caution because of the very small number of pregnancy-related deaths (118) among women of all reproductive ages.

The estimated pregnancy-related mortality ratio (PRM) is 412 deaths per 100,000 live births during the 7-year period before the survey (with a 95% confidence interval of 273 to 551). Thus, for every 1,000 live births in Ethiopia during the 7 years before the 2016 EDHS, approximately four women died during pregnancy, childbirth, or within 2 months after childbirth. The lifetime risk of pregnancy-related death (0.021) indicates that of 1,000 women of exact age 15, about 21 (one per 48 woman) would die before age 50 during pregnancy, childbirth, or within 2 months of childbirth.

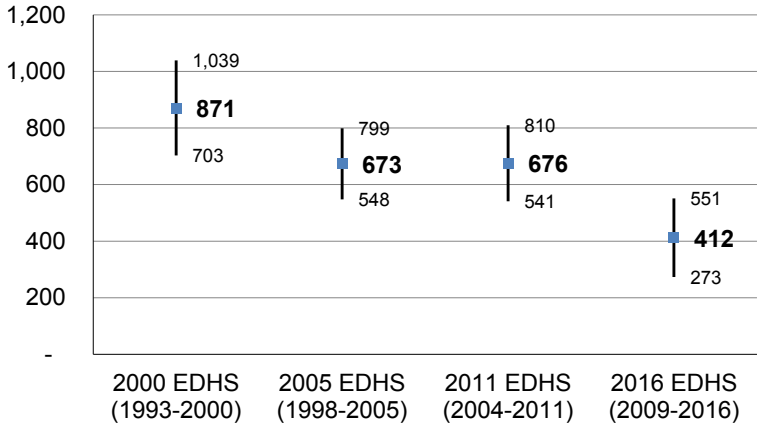
13.4 Trends in Pregnancy-Related Mortality

In accordance with the WHO definition[2], a pregnancy-related death is defined as the death of a woman while pregnant or during delivery, or in the 42 days after the delivery or within 42 days of termination of pregnancy, if the death is not due to an accident or violence. However, the term maternal mortality used in previous EDHS surveys corresponds to pregnancy-related mortality. The WHO defines a pregnancy-related death as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death (http://www.who.int/healthinfo/statistics/indmaternalmortality/en/). In compliance with this definition, the sibling survival module used in DHS surveys measures only the timing of death and not the cause of death. Thus, the data collected in previous EDHS surveys refer to deaths within 2 months after a birth rather than 42 days after a birth, and current estimates are comparable to estimates from previous EDHS surveys.

Figure 13.1 presents estimates of the pregnancy-related mortality ratio (PRMR) with confidence intervals for current and previous EDHS surveys. Estimates from EDHS surveys indicate a substantial decline in the pregnancy-related mortality ratio in Ethiopia since 2000, from 871 deaths per 100,000 live births in the 7 years before the 2000 EDHS survey to 673 deaths per 100,000 live births in the 7 years before the 2005 EDHS survey, 676 deaths per 100,000 live births in the 7 years before the 2011 EDHS survey, and 412 deaths per 100,000 live births in the 7 years before the 2016 EDHS survey. The decline, both between 2000 and 2016 and between 2011 and 2016, is statistically significant.

***Figure 13.1* Trends in pregnancy-related mortality ratio (PRMR) with confidence intervals**

Pregnancy-related deaths per 100,000 live births



List of Tables

For more information on adult and maternal mortality, see the following tables:

- **Table 13.1 Completeness of information on siblings**
- **Table 13.2 Adult mortality rates**
- **Table 13.3 Adult mortality probabilities**
- **Table 13.4 Pregnancy-related mortality rates**

[2] http://www.who.int/healthinfo/statistics/indmaternalmortality/en/

Table 13.1 Completeness of information on siblings

Completeness of data on survival status of sisters and brothers reported by interviewed women, age of living siblings, and age at death (AD) and years since death (YSD) of dead siblings (unweighted), Ethiopia DHS 2016

	Sisters		Brothers		All siblings	
	Number	Percent	Number	Percent	Number	Percent
All siblings	39,880	100.0	44,455	100.0	84,335	100.0
Living	33,272	83.4	35,913	80.8	69,185	82.0
Dead	6,583	16.5	8,483	19.1	15,066	17.9
Survival status unknown	25	0.1	59	0.1	84	0.1
Living siblings	33,272	100.0	35,913	100.0	69,185	100.0
Age reported	32,614	98.0	35,184	98.0	67,798	98.0
Age missing	658	2.0	729	2.0	1,387	2.0
Dead siblings	6,583	100.0	8,483	100.0	15,066	100.0
AD and YSD reported	5,845	88.8	7,494	88.3	13,339	88.5
Missing only AD	85	1.3	67	0.8	152	1.0
Missing only YSD	336	5.1	454	5.4	790	5.2
Missing AD and YSD	317	4.8	468	5.5	785	5.2

Table 13.2 Adult mortality rates

Direct estimates of female and male mortality rates for the 7-years before the survey, by five-year age groups, Ethiopia DHS 2016

Age	Deaths	Exposure years	Mortality rates[1]
FEMALE			
15-19	77	34,543	2.22
20-24	87	38,862	2.23
25-29	82	35,159	2.32
30-34	107	28,985	3.68
35-39	45	20,199	2.20
40-44	46	12,023	3.85
45-49	31	6,714	4.57
Total 15-49	473	176,485	2.74[a]
MALE			
15-19	105	36,865	2.86
20-24	130	40,612	3.19
25-29	110	37,683	2.93
30-34	127	32,069	3.97
35-39	93	22,708	4.11
40-44	80	13,757	5.84
45-49	29	8,047	3.60
Total 15-49	675	191,739	3.54[a]

[1] Expressed per 1,000 population.
[a] Age-adjusted rate.

Table 13.3 Adult mortality probabilities

The probability of dying between the ages of 15 and 50 for women and men for the 7-years before the survey, Ethiopia DHS 2016

Survey	Female ${}_{35}q_{15}$[1]	Male ${}_{35}q_{15}$[1]
2016 EDHS (time period: 2009-2016)	100 (CI: 84-116)	124 (CI: 107-142)
2011 EDHS (time period: 2004-2011)	157 (CI: 137-178)	181 (CI: 162-201)
2005 EDHS (time period: 1998-2005)	217 (CI: 195-239)	207 (CI: 184-229)
2000 EDHS (time period: 1993-2000)	221 (CI: 200-243)	275 (CI: 250-301)

CI = Confidence interval.
[1] The probability of dying between exact ages 15 and 50, expressed per 1,000 person at age 15.

Table 13.4 Pregnancy-related mortality rates

Direct estimates of pregnancy-related mortality rates for the 7 years before the survey, by 5-year age groups, Ethiopia DHS 2016

Age	Percentage of female deaths that are pregnancy-related	Number of pregnancy-related deaths	Exposure years	Pregnancy-related mortality rate[1]
15-19	17.4	13	34,543	0.39
20-24	28.7	25	38,862	0.64
25-29	29.3	24	35,159	0.68
30-34	30.0	32	28,985	1.10
35-39	24.4	11	20,199	0.54
40-44	20.3	9	12,023	0.78
45-49	13.7	4	6,714	0.62
15-49	25.1	118	176,485	0.66[a]

General fertility rate (GFR)[2]		160[a]
Pregnancy-related mortality ratio (PRM)[3]	412	(CI: 273-551)
Lifetime risk of maternal death[4]	0.021	

CI = Confidence interval.
[1] Expressed per 1,000 woman-years of exposure.
[2] Expressed per 1,000 woman age 15-49.
[3] Expressed per 100,000 live births; calculated as the age-adjusted pregnancy-related mortality rate times 100 divided by the age-adjusted general fertility rate.
[4] Calculated as $1-(1-MMR)^{TFR}$, where TFR represents the total fertility rate for the 7 years before the survey.
[a] Age-adjusted rate.

WOMEN'S EMPOWERMENT 14

Key Findings

- ***Employment and earnings:*** Forty-eight percent of currently married women age 15-49 were employed in the 12 months before the survey, compared with 99% of currently married men age 15-49. More than half of the men (53%) and just under half of the women (49%) were not paid for their work. The percentage of women who were not paid for their work was highest in the 15-19 age group (66%). Sixty-two percent of the currently married women with cash earnings report that decisions about how their earnings are used are usually made jointly with their husbands. Thirty percent of women make most of these decisions independently.
- ***Ownership of a home and land:*** Half of all women own a house, either alone or jointly with someone, while just over one-third of women who own a house report that there is a title or deed for the house which includes their name. Similarly, 40 percent of women own land but only one in two of the women who own land say there is a title or deed in their name for the land.
- ***Decision to marry:*** The majority (61%) of ever-married women say their parents made the decision that they would get married the first time. Only 35% say they made the decision to marry by themselves.
- ***Schooling after marriage:*** Twenty-five percent of women were attending school at the time they first married, and the majority (75%) of these women stopped going to school after they married.
- ***Participation in decision making:*** Seventy-one percent of currently married women participate in three specified household decisions (own health care, household purchases, and visits to their family), while 10% are not involved in any of these decisions.
- ***Reproductive health:*** Use of contraception and access to antenatal care, delivery assistance, and postnatal care increase with women's empowerment.

This chapter explores women's empowerment in terms of employment, earnings, control over earnings, and magnitude of earnings relative to those of their partners. The chapter presents information about ever-married women's involvement in the decision to marry, their participation in schooling after marriage, and men's participation in household chores. The chapter also employs responses to questions on women's participation in household decision making and attitudes towards wife beating to define two separate indices of women's empowerment. These indices are used to explore how selected demographic and health indicators vary by women's empowerment.

The Government of Ethiopia is strongly committed to promoting gender equality and women's empowerment, and has adopted a number of institutional and policy measures that support these goals. The 1997 Ethiopian Constitution, the 1993 Ethiopian National Policy on Women, the 2005 Family Law, and the Growth and Transformation Plan (GTP) I and II are among the milestones that further gender equality and empowerment. To strengthen accountability, the government also recently issued proclamation No. 916/2015 that requires all government institutions to address women's issues in policies, laws, and development programs and projects (FDRE 2015).

14.1 Married Women's and Men's Employment

Employment

Respondents are considered to be employed if they have done any work other than their housework in the 12 months before the survey.

Sample: Currently married women and men age 15-49

Earning cash for employment

Respondents are asked if they are paid for their labour in cash or in kind. Only those who receive payment in cash only or in cash and in kind are considered to earn cash for their employment.

Sample: Currently married women and men age 15-49 employed in the 12 months before the survey

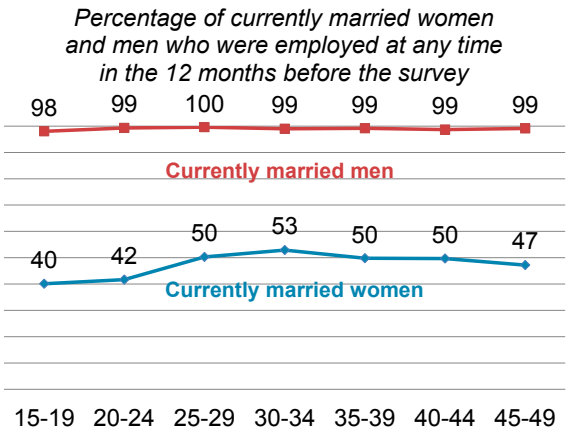
Forty-eight percent of currently married women age 15-49 were employed in the 12 months before the survey, compared with 99% of currently married men in the same age group (**Table 14.1**). Women are more likely than men to be paid in cash only for their work (35% and 23%, respectively) but slightly less likely to receive cash and in-kind payments (7% and 10%, respectively). More than half of married men (53%) and just under half of married women (49%) do not receive any payment for the work they do.

Trends: Among married women, the percentage currently employed was 32% in the 2005 EDHS. This increased moderately to 57% in the 2011 EDHS, and then declined slightly to 48% in the 2016 EDHS. The percentage of employed married women who receive cash earnings increased from 27% 2005 to 36% in 2011, and then remained essentially stable at 35% in 2016. The percentage of married women not paid for their work declined from 60% to 30% between 2005 and 2011 and then increased to 49% in 2016.

Patterns by background characteristics

- Among married women, the percentage currently employed rises with age, from 40% in the 15-19 age group to a peak of 53% in the 30-34 age group. Among married men, there is virtually no variation in the employment rate with age (**Figure 14.1**).
- The percentage of married women who are not paid for their employment is highest in the 15-19 and 45-49 age groups (66% and 56%, respectively).

Figure 14.1 **Employment by age**



14.2 CONTROL OVER WOMEN'S EARNINGS

Control over one's own cash earnings

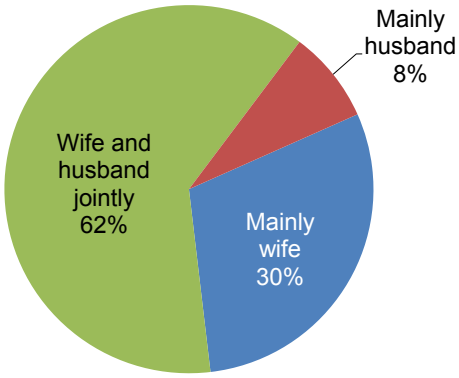
Respondents are considered to have control over their own earnings if they participate in decisions alone or jointly with their husband about how their own earnings will be used.

Sample: Currently married women age 15-49 who received cash earnings for employment during the 12 months before the survey

Women gain direct access to economic resources when they are employed for cash. However, this access is meaningless unless women also control how their earnings are used. To measure women's autonomy, currently married women age 15-49 who were paid in cash for employment in the 12 months before the survey were asked who makes decisions about the utilization of their earnings. The majority of women earning cash report that decisions about how their cash earnings are used are made either jointly with their husbands (62%) or by themselves (30%). Only 8% say the decisions are made primarily by their husbands (**Table 14.2.1** and **Figure 14.2**).

***Figure 14.2* Control over woman's earnings**

Percent distribution of currently married women with cash earnings in the 12 months before the survey



While most women earn less than their husbands (58%), 21% are paid about the same as their husbands, while 16% earn more than their husbands. The magnitude of women's earnings relative to that of their husbands makes a difference in the control of decisions about how their earnings are used. Forty-five percent of women who earn more than their husbands say they make the decisions about how their earnings are used, compared to 11% of women who earn the same as their husbands (**Table 14.3**).

Patterns by background characteristics

- The likelihood that married women with cash earnings decide for themselves about how those earnings are used increases with age, peaking at 40% among women age 45-49 (**Table 14.2.1**).
- The large majority of women in both urban and rural either decide for themselves (29% and 30%, respectively) or jointly with their husbands (67% and 59%) about how the woman's earnings will be used. Only 11% of rural women and 4% of urban women say their husbands mainly make these decisions.
- The percentage of women whose husbands make most decisions about the use of their cash earnings is highest in Benishangul-Gumuz (17%) and lowest in Addis Ababa (2%).
- Eleven percent of women with no education report that their husbands decide on how their cash earnings are used, compared with 3% of women with more than secondary education.

14.3 CONTROL OVER MEN'S EARNINGS

Married men with cash earnings and married women whose husbands have cash earnings were asked about who makes decisions about how the man's earnings are used. The majority of both men and women report that decisions about the use of the man's earnings are made jointly (81% and 70%, respectively) (**Table 14.2.2**). However, women are somewhat more likely than men to say that their husband decides how his

earnings are used (23% and 16%, respectively). Relatively few men or women report that the wife decides on how the husband's cash earnings will be used (3% and 7%, respectively).

Patterns by background characteristics

- Married men are most likely to say that they make decisions about how their earnings are used in Somali (44%) and Benishangul-Gumuz (34%). Among women, the highest percentages saying their husbands make these decisions are highest in Affar (39%) and Somali (33%) Regions (**Table 14.2.2**).
- Among both men and women, the percentage saying that the husband makes the decisions about how his earning will be used decreases with wealth quintile.

14.4 Women's and Men's Ownership of Assets

Ownership of a house or land

Respondents who own a house or land, whether alone or jointly with someone else.

Sample: Women and men age 15-49

Sixteen percent of women age 15-49 own a house alone, and 35% own a house jointly with someone. Overall, the house ownership rate among men is similar to women (51% and 50%, respectively), although men are more likely than women to own a house alone (35%), and are less likely to share ownership (17%). With land, the ownership rate is also higher among men than women (48% and 40%, respectively), with men less likely than women to own land jointly with someone (15% and 25%, respectively) (**Tables 14.4.1** and **14.4.2**).

Patterns by background characteristics

- Ownership of both housing and land increases with age among women. Similar patterns are observed among men.
- Ownership rates are higher in rural than urban areas. About 1 in 5 urban women (27%) own a house, compared to 56% of rural women.
- The rates of both housing and land ownership are much lower in Addis Ababa than in other regions. More than 8 in 10 women and men in Addis Ababa do not own a house and more than 9 in 10 do not own land.
- The percentages of men and women who do not own a house or land generally increase with increasing education. For example, among women with more than secondary education, 76% do not own a house and 91% do not own land, compared with 32% and 42% of women with no education, respectively.

14.5 Possession of Title or Deed for a House or Land

Possession of title or deed for house or land

A title or deed is available for the house or land and the respondent's name is on the title or deed.

Sample: Women and men age 15-49 who own a house or land

A title or deed that includes the owner's name is important in establishing legal rights to property. The 2016 EDHS sought information from currently married women and men who own a house or land about whether or not they possess a title or deed for their property, and whether or not their name appears on the title or deed. More than half of women (51%) and nearly two-thirds of men (66%) who own a house do not

have a title or deed for their house (**Tables 14.5.1** and **14.5.2**). Although possession of a title or deed is somewhat more common for land than for housing, large proportions of both women and men who own land do not have a title or deed (40% and 48%, respectively) (**Tables 14.6.1** and **14.6.2**). The majority of women and men who have a title or deed for their property say that their name is on the document. However, the percentage of respondents who report their name is not on a title or deed is somewhat higher among women than men in the case of housing (8% and 2%, respectively) and land (7% and 2%, respectively).

Patterns by background characteristics

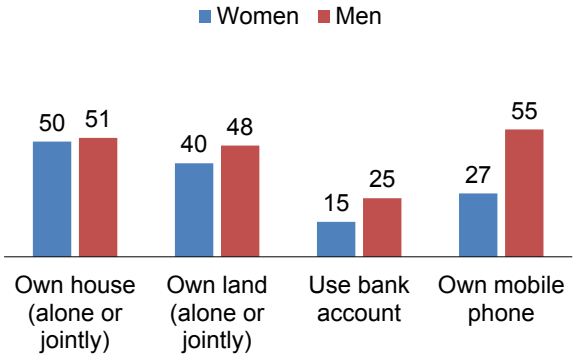
- Possession of a title and deed for their house and land generally increases with age among both women and men. For example, 71% of women age 15-19 who own a house do not have a title for the house, as compared to 46% of women age 45-49.
- Urban residents are generally more likely to have a title or deed for the house they own than rural residents. However, rural women are slightly more likely than urban women to have a title or deed for the land they own.
- Women in the Affar and Somali Regions are more likely not to have a title and deed for their house (86% and 74%, respectively) or land (79% and 83%, respectively) than women in other regions. Similar patterns are observed for men.
- Among women and men, the percentage that possesses a title or deed increases with wealth quintile for both housing and land.

14.6 Ownership and Use of Bank Accounts and Mobile Phones

Ownership of a bank account and a mobile phone are reflections of autonomy and financial independence. Women and men interviewed in the 2016 EDHS were asked if they used an account in bank or other financial institution and if they owned a mobile phone. Those who owned phones were also asked if they used the phone for financial transactions.

Figure 14.3 **Ownership of assets**

Percentage of women and men age 15-49 by ownership of specific items



Wider disparities are observed between women and men in the use of bank accounts and especially in the ownership of mobile phones than with respect to ownership of housing or land (**Figure 14.3**). Fifteen percent of women age 15-49 use an account in a bank or other financial institution, compared with 25% of men. Twenty-seven percent of women and 55% of men owned mobile phones at the time of the survey. Among those with mobile phones, only 5% of women and 9% of men use their phone for financial transactions (**Tables 14.7.1** and **14.7.2**).

Patterns by background characteristics

- Large differences in the use of financial accounts and ownership of mobile phones are observed between urban and rural residents. For example, 44% of urban women use a bank account, compared with only 7% of rural women, while 71% of urban women own a mobile phone, compared with 15% of rural women.

- More educated women and men are likely to use a bank account or own a mobile phone. For example, virtually all women and men with more than secondary education (98 percent each) own a mobile phone, compared with 9% of women and 32% of men with no education.

- Use of a bank account and ownership of a mobile phone increase with wealth quintile. Among women, the percentage using a bank account ranges from 3% in the lowest wealth quintile to 40% in the highest wealth quintile. Only 7 percent of women in the lowest wealth quintile own a mobile phone, compared with 67% in the highest wealth quintile. Similar patterns are observed for men.

14.7 Decision to Marry

A critical aspect of women's autonomy is control over the decision to marry. Ever-married respondents age 15-49 were asked about the person who made the decision when they married the first time. This information is especially useful in designing effective programmes for addressing the problem of child marriage in Ethiopia.

More than one-third of ever-married women age 15-49 (35%) reported that they made the decision to marry, while 61% say that their parents made the decision and 3% report the decision was made by other family members or relatives (**Table 14.8**).

Patterns by background characteristics

- Younger women are more likely than older women to make the decision to marry. Nevertheless, only 41% of ever-married women age 15-19 and 47% of women age 20-24 made their own decision to marry.

- As expected, parents play a greater role in marriage decisions in rural areas than urban areas. Sixty-six percent of ever-married women in rural areas say their parents made the decision when they married, compared to 39% of urban women.

- Parents made the decisions about marriage most often in Amhara (83%), Affar (82%), and Tigray (80%), while they were least likely to be involved in the Harari Region (24%) and Addis Ababa (21%).

- The percentage of women who made their own decision to marry increases with education level, from only 25% of women with no education to 83% of women with more than secondary education.

14.8 Schooling after Marriage

The ability to continue schooling after marriage is another aspect of women's empowerment. To obtain information on schooling after marriage, ever-married women age 15-49 were asked if they were going to school at the time they married, and women who were attending school were asked if they continued to attend school after they married. In addition, women who stopped attending school after marriage were asked about the reasons for not continuing their schooling.

Twenty-five percent of women were attending school before they married. The majority of these women (75%) stopped attending school after they married. Sixty-two percent of women said that they were too busy with family to continue going to school. However, more than 1 in 5 women (23%) said they stopped going to school because their husbands did not want them to go to school (**Table 14.9**).

Patterns by background characteristics

- Rural women (86%) were more likely to have stopped attending school after marriage than urban women (54%).

- Women in Oromiya (84%) and SNNPR (82%) were more likely to have dropped out of school after marriage than women in other regions.
- Eighty-seven percent of women with primary education stopped attending school after marriage compared with only 28% of women with more than secondary education.
- Women in the highest wealth quintile are less likely (59%) to have stopped attending school after marriage than women in the lowest wealth quintile (86%).

14.9 Men's Participation in Household Chores

Currently married women were asked whether their husbands participated in household chores and, if so, the frequency with which the husbands helped with such chores. Only slightly more than one-third (37%) of husbands provide any help with household chores. Most of these husbands do not help out on a regular basis; 63% rarely participate in household chores, and only 18% assist with chores almost every day (**Table 14.10**).

Patterns by background characteristics

- In general, the likelihood that a husband assists with household chores declines with age and the number of living children.
- Half of urban women say their husbands participate in household chores compared with 34% of rural women.
- Husbands in the Somali Region (12%) are least likely and those in Addis Ababa (60%) are most likely to participate in household chores.
- The more educated and the wealthier the woman, the more likely it is that her husband participates in the household chores.

14.10 Women's Participation in Decision Making

Participation in major household decisions

Women are considered to participate in household decisions if they make decisions alone or jointly with their husband in all three of the following areas:
(1) the woman's own health care,
(2) major household purchases, and
(3) visits to the woman's family or relatives.

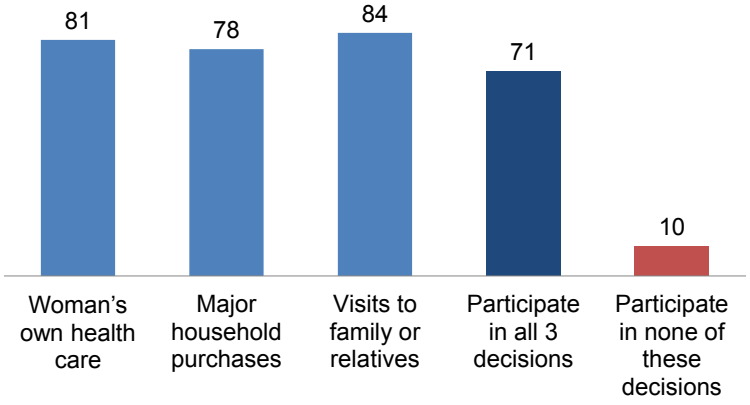
Sample: Currently married women age 15-49

Participation in household decision making is an essential aspect of women's empowerment. In the 2016 EDHS, currently married women were asked about their participation in decisions about the woman's own health care, major household purchases, and visits to their family or relatives. The majority of women reported that they are involved either alone (11-18%) or jointly (66-68%) in these decisions. However, 21% of women said their husbands usually makes decisions about major household purchases, 18% said the husband decides about the woman's health care, and 16% said the husband is primarily responsible for making decisions about visits to her family or relatives (**Table 14.11**).

The 2016 EDHS results also show that the majority of currently married men report that key household decisions are made jointly with their wives. For example, when men were asked about who makes most decisions about the man's own health care, 70% reported that the decisions are made jointly with their wives. Similarly, more than three-fourths of men (77%) said that decisions about major household purchases are typically made jointly with their wives (**Table 14.11**).

Figure 14.4 **Women's participation in decision making**

Percentage of currently married women age 15-49 participating in specific decisions



Overall, 71 percent of women participate in all decisions and only 10% are not involved in any of the three decisions (**Table 14.12.1** and **Figure 14.4**).

Patterns by background characteristics

- Employed women, whether they earn cash or not, are slightly more likely to participate in all three decisions (75% each) than women who are not employed (67%).
- Urban (81%) women are more likely to participate in all three decisions than rural women (69%).
- More than 80% of women in Harari (88%) and Addis Ababa (82%) participate in all three decisions, compared to the national level of 71%.
- Women's participation in decision making increases with increasing education level and wealth quintile. Eighty-seven percent of women with more than secondary education participate in all three decisions, compared with 68% of women with no education. Similarly, 80% of women in the highest wealth quintile participate in all three decisions compared with 65% in the lowest wealth quintile.

14.11 Attitudes toward Wife Beating

Attitudes toward wife beating

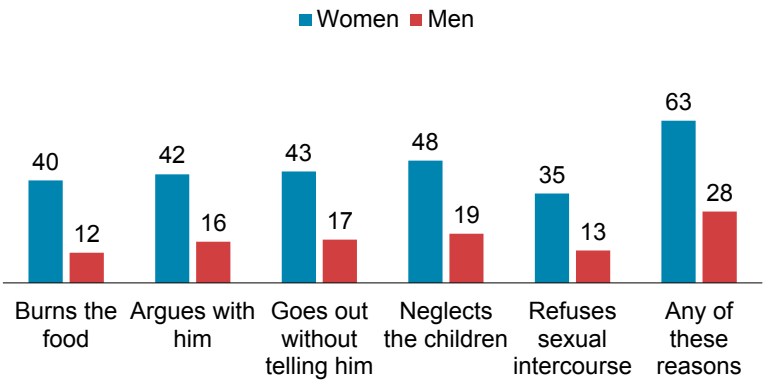
Respondents are asked if they agree that a husband is justified in hitting or beating his wife under each of the following five circumstances: she burns the food, she argues with him, she goes out without telling him, she neglects the children, and she refuses to have sex with him. If respondents answer 'yes' in at least one circumstance, they are considered to have attitudes that justify wife beating.

Sample: Women and men age 15-49

Freedom from domestic abuse is basic to women's empowerment. To gain insight into the extent to which domestic abuse is accepted, the 2016 EDHS collected information on women's and men's attitudes toward wife beating in five separate circumstances. Overall, 63% of Ethiopian women age 15-49 believe that a husband is justified in beating his wife in at least one of the five specified circumstances, compared with 28% of men (**Table 14.13.1**, **Table 14.13.2** and **Figure 14.5**).

***Figure 14.5* Attitudes towards wife beating**

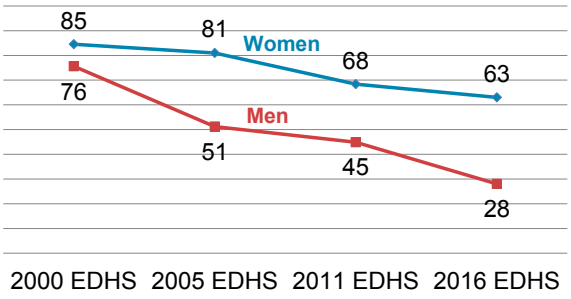
Percentage of women and men age 15-49 who agree that a husband is justified in beating his wife for specific reasons



Trends: The percentage of men justifying wife beating in at least one of the five specified circumstances has decreased significantly over time, from 76% in the 2000 EDHS to 28% in 2016 EDHS. The percentage of women who agree that wife beating is justified in at least one of the five specified circumstances has also declined but at a much slower rate than among men, dropping from 85% in 2000 EDHS to 63% in 2016 (**Figure 14.6**).

***Figure 14.6* Trend of wife beating justified**

Trend of percentage of women and men who believe that a husband is jusfied in beating his wife in at lease one of the five specified circumstances



Patterns by background characteristics

- Tolerance of wife beating is less common among women employed for cash than among other women; 55% of women who are employed for cash agree that wife beating is justified in at least one of the five specified circumstances, compared with 71% of women employed but not earning cash and 63% of women who are not employed.
- Wife beating is more acceptable in rural areas than urban areas; 70% of women and 31% of men in rural areas agree that wife beating is justified in at least one of the five specified circumstances, compared with 39% of women and 15% of men in urban areas.
- Acceptance of wife beating by women varies widely across Ethiopia's regions. Just over two-thirds of women in Affar and Oromiya (69% each) agree that wife beating is justified in at least one of the five specified circumstances, compared with 23% of women in Addis Ababa.
- Acceptance of wife beating decreases with increasing education level and wealth quintile. For example, 72% of women with no education agree that wife beating is justified in at least one of the five specified circumstances, compared with 26% of women with more than secondary education. Similarly, 71% of women in the lowest wealth quintile agree that wife beating is justified in at least one of the five specified circumstances, as compared with 43% of women in the highest wealth quintile.

14.12 Attitude toward Negotiating Safe Sex

The ability of women to negotiate safe sex practices is another aspect of women's empowerment. To assess attitudes about negotiating safe sex practices with husbands, women and men were asked whether

they thought that a wife is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women or in asking that her husband use a condom if she knows he has an STI.

Seventy-three percent of women age 15-49 believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women, compared with 82% of men. Similarly, 61% of women believe that a woman is justified in asking that a husband use a condom if she knows that he has an STI, compared with 80% of men (**Table 14.14**).

Patterns by background characteristics

- Rural women (70%) are less likely to believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women than urban women (86%). Similarly, 82% of urban women but only 55% of rural women believe that a woman is justified in in asking her husband to use a condom if he has an STI.

- Women are most likely to believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women in Addis Ababa (92%), followed by Amhara (86%), Tigray (84%), and SNNPR (77%), while they are least likely to accept this justification in the Somali Region (38%). The percentage of women who believe that a woman is justified in asking that her husband to use a condom if she knows that he has an STI is also lowest in the Somali Region (18%) and highest in Addis Ababa (90%).

- The more educated the woman is, the more likely she is to accept negotiating safer sexual relations with a husband. Ninety-one percent of women with more than secondary education believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows he has sex with other women, compared with 67% of women with no education. Likewise, 90% of women with more than secondary education, but only 47% of women with no education believe that a woman is justified in asking that a husband with an STI to use a condom. Similar patterns are observed by wealth status.

14.13 Ability to Negotiate Sexual Relations

The 2016 EDHS investigated whether women felt empowered to negotiate sexual relations with their husbands. To assess the ability of a woman to negotiate sexual relations with her husband, currently married women age 15-49 were asked if they can say no to their husband if they do not want to have sexual intercourse and if they can ask their husband to use a condom.

Forty-five percent of married women say that they can say no to their husbands if they do not want to have sexual intercourse, but only 30% said that they can ask their husband to use a condom (**Table 14.15**).

Patterns by background characteristics

- Rural women are less likely to be able to say no to their husbands if they don't want to have sexual intercourse than urban women (42% and 64%, respectively). Only 24% of rural women can ask their husbands to use a condom, compared with 61% of urban women.

- Women in the Somali Region are least likely to say that they can negotiate sexual relations with their husbands. For example, only 28% of women in the Somali Region say that they can say no to their husbands if they do not want to have sexual intercourse, compared with 70% of women in Tigray and 68% in Addis Ababa.

- Seventy-seven percent of women with more than secondary education, but only 40% of women with no education, can say no to their husbands if they do not want to have sexual intercourse. Similarly, 83% of women with more than secondary education can ask their husbands to use a condom, compared with 20% of women with no education. Wealth is similarly associated with a greater ability to negotiate sexual relations.

14.14 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Women's empowerment indices

Two sets of empowerment indicators, women's participation in making household decisions and women's attitudes towards wife beating, can be summarized with two indices.

The first index shows the number of decisions in which women participate either alone or jointly with their husband or partner. This index ranges from 0 to 3 and reflects the degree of decision-making control that women are able to exercise in areas that affect their lives and the level of women's empowerment in a society. The second index, which ranges from 0 to 5, is the number of reasons for which a woman thinks that a husband is justified in beating his wife. A lower score on this indicator reflects a higher status of women in the household and society.

Sample: Women age 15-49

Two indices based the information collected in the EDHS on women's participation in household decision-making and women's attitudes toward wife beating can be used to examine the relationship between women's empowerment and selected demographic and health indicators. As expected, the two indices are positively associated. The percentage of women who disagree with all the reasons that justify wife beating rises with the number of household decisions in which women participate, from 25% among women who do not participate in any of the household decisions to 36% of women who participate in all three decisions. The percentage of women participating in all the household decisions decreases with the number of reasons women accept as justifying wife beating, from 75% among women who do not agree that wife beating is justified for any reason to 66% among women who accept that wife beating is justified in all five specified reasons (**Table 14.16**).

In exploring the relationship between the empowerment indices and demographic and health outcomes, both decision making and wife beating indices are positively associated with measures of women's ability and desire to control her fertility. For example, the more women are empowered in the number of decisions in which they participate, the more likely they are to use a contraceptive method. Similarly, women who do not justify wife beating have higher use of contraception methods (**Table 14.17**).

The empowerment indices are positively associated with several additional measures that reflect women's fertility desires. For example, the mean ideal family size among currently married women declines with the number of household decisions in which women participate, from 5.8 children among women who do not participate in any household decisions to 4.7 children among women involved in all three decisions. The greater the number of household decisions in which women participate, the lower the level of unmet need for family planning. Overall, 31% of currently married women who are not participating in any of the household decisions have an unmet need for family planning, compared with 21% of women who participate in three decisions (**Table 14.18**).

Empowered women are more likely to seek and use health services to meet their reproductive health goals, including safe motherhood. Women who did not participate in any household decisions were much less likely to receive antenatal care (44%) and delivery care (24%) from a skilled provider and to have a postnatal check-up (8%), compared with women participating in all three decisions (65%, 34%, and 15% respectively) (**Table 14.19**). The percentages of women who reported receiving antenatal and delivery care from a skilled provider and having a postnatal check-up decrease as the number of reasons that justify wife beating increases.

The 2016 EDHS results also provide evidence that women's empowerment has a positive effect on children's survival. Under-five mortality declines from 86 per 1,000 live births in the 10 years before the

survey among women who do not participate any of the three household decisions to 79 deaths per 1,000 births among women who participate in all decisions (**Table 14.20**).

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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 percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Ethiopia DHS 2016

	Among currently married respondents:		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings						
Age	Percentage employed in past 12 months	Number	Cash only	Cash and in-kind	In-kind only	Not paid	Missing/ don't know	Total	Number
				WOMEN					
15-19	40.1	588	21.2	3.4	9.2	66.2	0.0	100.0	236
20-24	41.7	1,710	39.0	5.1	7.1	48.8	0.0	100.0	713
25-29	50.3	2,402	34.0	10.2	10.3	45.5	0.0	100.0	1,208
30-34	52.9	2,049	39.0	5.6	8.2	47.2	0.0	100.0	1,083
35-39	49.8	1,613	32.2	8.9	10.7	48.1	0.0	100.0	804
40-44	49.7	1,064	33.7	8.9	7.0	50.4	0.0	100.0	528
45-49	47.2	798	29.1	4.7	10.2	56.0	0.0	100.0	377
Total 15-49	48.4	10,223	34.5	7.4	9.0	49.1	0.0	100.0	4,948
				MEN					
15-19	(97.9)	26	(3.5)	(8.6)	(52.5)	(35.5)	(0.0)	100.0	26
20-24	99.3	474	20.5	11.8	14.9	52.8	0.0	100.0	471
25-29	99.6	1,227	29.1	8.1	13.1	49.7	0.0	100.0	1,222
30-34	99.0	1,389	26.2	10.3	13.4	50.1	0.0	100.0	1,376
35-39	99.2	1,285	20.3	10.6	14.3	54.8	0.0	100.0	1,275
40-44	98.7	1,137	22.4	8.0	14.5	55.1	0.0	100.0	1,122
45-49	99.1	903	16.9	10.9	15.4	56.8	0.0	100.0	895
Total 15-49	99.1	6,441	23.1	9.7	14.3	52.9	0.0	100.0	6,386
50-59	97.9	1,029	19.8	7.4	12.2	60.6	0.0	100.0	1,008
Total 15-59	99.0	7,471	22.6	9.4	14.0	54.0	0.0	100.0	7,394

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

Table 14.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months before the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, Ethiopia DHS 2016

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	Total	More	Less	About the same	Husband has no earnings	Don't know/ missing	Total	Number of women
Age												
15-19	28.4	56.2	15.4	0.0	100.0	6.3	72.5	16.8	0.6	3.9	100.0	58
20-24	25.6	67.9	6.3	0.2	100.0	8.2	63.3	21.8	4.5	2.3	100.0	315
25-29	25.5	63.9	10.6	0.0	100.0	14.6	57.7	23.1	0.6	3.9	100.0	534
30-34	31.0	64.1	4.9	0.0	100.0	18.5	56.7	21.2	1.7	1.8	100.0	482
35-39	32.0	64.2	3.8	0.0	100.0	16.6	58.1	19.4	5.6	0.3	100.0	331
40-44	34.4	51.4	14.2	0.0	100.0	22.8	49.0	20.4	6.9	1.0	100.0	225
45-49	40.1	48.8	11.0	0.1	100.0	18.2	57.9	14.4	6.6	2.9	100.0	127
Number of living children												
0	30.9	63.9	5.0	0.3	100.0	15.2	63.8	17.5	0.1	3.3	100.0	263
1-2	26.5	65.6	7.9	0.0	100.0	12.2	60.3	23.6	2.5	1.4	100.0	729
3-4	31.5	60.2	8.2	0.0	100.0	16.4	57.8	20.4	2.6	2.7	100.0	495
5+	31.9	58.5	9.6	0.0	100.0	19.8	52.3	19.4	6.3	2.3	100.0	585
Residence												
Urban	29.3	66.9	3.7	0.1	100.0	15.9	61.5	19.3	1.6	1.7	100.0	781
Rural	30.0	59.2	10.7	0.0	100.0	15.7	55.7	21.8	4.3	2.6	100.0	1,291
Region												
Tigray	29.0	64.0	7.1	0.0	100.0	7.1	58.0	29.1	3.2	2.6	100.0	180
Affar	27.9	61.8	10.1	0.2	100.0	10.6	56.9	19.0	7.4	6.2	100.0	14
Amhara	27.0	69.5	3.4	0.0	100.0	16.8	58.5	23.2	1.5	0.0	100.0	318
Oromiya	22.0	68.0	10.1	0.0	100.0	13.8	46.4	29.0	6.9	4.0	100.0	679
Somali	55.7	33.7	10.6	0.0	100.0	43.8	38.6	8.2	6.0	3.5	100.0	45
Benishangul-Gumuz	8.5	73.4	17.1	1.0	100.0	9.0	34.6	47.6	2.4	6.3	100.0	14
SNNPR	35.3	54.4	10.3	0.0	100.0	18.6	68.4	11.2	0.5	1.3	100.0	602
Gambela	44.5	49.4	6.1	0.0	100.0	13.4	56.0	20.9	4.0	5.7	100.0	9
Harari	28.5	62.9	8.6	0.0	100.0	19.2	56.4	22.6	0.0	1.8	100.0	9
Addis Ababa	40.0	58.1	1.6	0.4	100.0	13.4	71.4	12.4	1.7	1.0	100.0	187
Dire Dawa	35.0	58.1	6.9	0.0	100.0	29.5	53.7	9.6	3.7	3.5	100.0	15
Education												
No education	31.8	56.8	11.4	0.0	100.0	16.5	55.5	20.1	4.8	3.1	100.0	910
Primary	28.4	62.9	8.7	0.0	100.0	16.5	60.7	18.7	2.8	1.3	100.0	620
Secondary	28.8	70.1	1.1	0.0	100.0	8.3	61.5	25.0	0.7	4.4	100.0	208
More than secondary	27.4	69.9	2.5	0.2	100.0	16.9	56.8	24.4	1.7	0.2	100.0	334
Wealth quintile												
Lowest	27.9	60.1	12.0	0.0	100.0	13.9	49.4	25.6	8.5	2.6	100.0	232
Second	32.7	50.0	17.3	0.0	100.0	22.8	54.3	15.2	4.9	2.7	100.0	305
Middle	31.3	57.3	11.3	0.0	100.0	20.0	50.6	25.8	2.3	1.4	100.0	288
Fourth	31.6	64.2	4.2	0.0	100.0	11.2	62.4	20.0	3.3	3.2	100.0	343
Highest	28.0	67.5	4.4	0.1	100.0	14.2	61.9	20.3	1.7	1.9	100.0	904
Total	29.8	62.1	8.1	0.0	100.0	15.8	57.9	20.9	3.3	2.2	100.0	2,072

Table 14.2.2 Control over men's cash earnings

Percent distribution 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 DHS 2016

	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	Total	Number of men	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number of women
Age											
15-19	*	*	*	100.0	3	6.3	63.2	27.4	3.0	100.0	573
20-24	1.1	78.4	20.5	100.0	152	5.2	71.3	23.1	0.4	100.0	1,680
25-29	3.8	78.0	18.1	100.0	455	6.2	73.7	20.0	0.1	100.0	2,378
30-34	2.4	81.3	16.3	100.0	502	7.4	71.3	21.2	0.1	100.0	2,020
35-39	3.5	83.2	13.2	100.0	394	7.2	67.7	25.0	0.1	100.0	1,584
40-44	2.3	80.7	17.0	100.0	341	9.7	66.8	23.4	0.0	100.0	1,020
45-49	3.9	84.4	11.7	100.0	249	10.4	64.4	24.9	0.3	100.0	781
Number of living children											
0	5.9	71.3	22.8	100.0	282	6.2	69.2	22.4	2.2	100.0	907
1-2	2.5	81.2	16.4	100.0	839	7.0	71.5	21.2	0.3	100.0	3,092
3-4	3.3	83.4	13.2	100.0	507	8.0	70.4	21.5	0.0	100.0	2,718
5+	1.9	83.9	14.2	100.0	467	6.7	68.0	25.2	0.1	100.0	3,319
Residence											
Urban	5.3	77.5	17.2	100.0	748	12.3	73.1	14.3	0.2	100.0	1,632
Rural	1.7	83.0	15.3	100.0	1,348	6.1	69.2	24.3	0.4	100.0	8,403
Region											
Tigray	1.4	82.8	15.9	100.0	150	6.0	63.8	30.0	0.3	100.0	648
Affar	13.4	64.3	22.3	100.0	29	13.7	46.7	39.0	0.5	100.0	93
Amhara	1.6	85.2	13.3	100.0	287	4.2	80.4	15.0	0.3	100.0	2,346
Oromiya	2.1	87.1	10.8	100.0	736	6.1	71.4	22.2	0.3	100.0	3,898
Somali	10.3	46.2	43.5	100.0	86	17.2	49.8	33.0	0.0	100.0	319
Benishangul-Gumuz	5.5	60.2	34.3	100.0	17	11.5	64.8	23.5	0.1	100.0	113
SNNPR	1.4	82.0	16.6	100.0	560	8.5	62.0	29.1	0.5	100.0	2,167
Gambela	5.4	63.9	30.8	100.0	9	17.5	52.0	29.4	1.0	100.0	29
Harari	17.2	59.8	23.0	100.0	9	12.9	76.7	10.2	0.2	100.0	25
Addis Ababa	7.1	69.9	23.0	100.0	191	15.8	69.5	14.3	0.4	100.0	350
Dire Dawa	17.0	71.7	11.3	100.0	22	19.7	68.5	11.4	0.4	100.0	50
Education											
No education	1.6	87.1	11.3	100.0	543	6.4	68.4	25.1	0.1	100.0	6,124
Primary	2.4	78.7	18.9	100.0	819	7.8	69.1	22.2	0.8	100.0	2,855
Secondary	2.6	82.2	15.2	100.0	306	9.2	79.0	11.4	0.4	100.0	642
More than secondary	6.1	77.0	16.9	100.0	428	9.8	81.8	8.5	0.0	100.0	415
Wealth quintile											
Lowest	3.5	71.0	25.5	100.0	255	7.5	63.6	28.7	0.3	100.0	1,903
Second	2.0	83.7	14.4	100.0	296	6.1	66.8	26.7	0.4	100.0	2,033
Middle	1.9	84.9	13.2	100.0	307	6.5	69.7	23.7	0.2	100.0	2,028
Fourth	0.9	87.5	11.6	100.0	333	4.8	75.1	19.6	0.5	100.0	1,962
Highest	4.3	79.3	16.4	100.0	905	10.5	73.7	15.4	0.3	100.0	2,110
Total 15-49	3.0	81.0	16.0	100.0	2,096	7.1	69.8	22.7	0.3	100.0	10,036
50-59	5.1	82.3	12.6	100.0	274	na	na	na	na	na	na
Total 15-59	3.2	81.2	15.6	100.0	2,370	na	na	na	na	na	na

na = Not applicable.
Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 14.3 Women's control over their own earnings and 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 DHS 2016

	Person who decides how the wife's cash earnings are used:						Person who decides how husband's cash earnings are used:					
Women's earnings relative to husband's earnings	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number
More than husband	44.8	51.3	3.9	0.0	100.0	326	28.2	56.0	15.7	0.1	100.0	326
Less than husband	30.4	59.4	10.1	0.1	100.0	1,199	7.1	69.1	23.7	0.1	100.0	1,199
Same as husband	10.9	83.2	5.9	0.0	100.0	432	2.6	85.0	12.2	0.2	100.0	432
Husband has no cash earnings or did not work	51.6	46.3	2.0	0.0	100.0	68	na	na	na	na	na	na
Woman worked but has no cash earnings	na	na	na	na	na	0	6.7	73.4	19.4	0.4	100.0	2,826
Woman did not work	na	na	na	na	na	0	6.1	67.9	25.6	0.3	100.0	5,206
Don't know/missing	51.5	34.0	14.1	0.4	100.0	46	34.0	47.5	17.4	1.2	100.0	46
Total[1]	29.8	62.1	8.1	0.0	100.0	2,072	7.1	69.8	22.7	0.3	100.0	10,036

na = Not applicable.
[1] Includes cases where a woman does not know whether she earned more or less than her husband.

Table 14.4.1 Ownership of assets (house and land): Women

Percent distribution of women age 15-49 by ownership of house and land, according to background characteristics, Ethiopia DHS 2016

	Percentage who own a house:					Percentage who own land:					
Background characteristic	Alone	Jointly	Alone and jointly	Do not own a house	Total	Alone	Jointly	Alone and jointly	Do not own land	Total	Number of women
Age											
15-19	2.1	11.1	0.9	86.0	100.0	3.4	8.3	0.4	87.9	100.0	3,381
20-24	10.5	26.9	0.8	61.8	100.0	10.8	17.9	0.5	70.8	100.0	2,762
25-29	16.4	38.1	1.0	44.5	100.0	17.2	25.0	1.0	56.8	100.0	2,957
30-34	19.9	43.0	1.3	35.8	100.0	18.2	31.9	1.4	48.5	100.0	2,345
35-39	20.9	48.6	0.9	29.6	100.0	20.6	35.0	1.2	43.2	100.0	1,932
40-44	24.1	50.0	1.2	24.7	100.0	26.2	39.5	0.3	34.1	100.0	1,290
45-49	27.3	46.8	1.8	24.1	100.0	29.0	36.3	1.0	33.8	100.0	1,017
Residence											
Urban	7.7	17.9	1.2	73.3	100.0	4.8	7.9	0.3	87.0	100.0	3,476
Rural	16.7	38.4	1.0	43.9	100.0	18.1	29.0	0.9	51.9	100.0	12,207
Region											
Tigray	8.9	35.0	1.0	55.2	100.0	17.4	19.2	1.0	62.5	100.0	1,129
Affar	23.7	25.5	2.3	48.5	100.0	10.9	9.7	0.9	78.6	100.0	128
Amhara	8.1	53.7	0.8	37.4	100.0	14.2	36.1	0.7	49.0	100.0	3,714
Oromiya	19.0	26.5	0.8	53.7	100.0	17.6	18.8	0.8	62.9	100.0	5,701
Somali	11.6	44.0	1.9	42.5	100.0	5.4	25.1	0.9	68.6	100.0	459
Benishangul-Gumuz	31.5	28.4	1.3	38.8	100.0	27.5	23.9	0.9	47.7	100.0	160
SNNPR	18.9	30.2	1.7	49.2	100.0	16.6	29.5	1.1	52.9	100.0	3,288
Gambela	17.3	26.5	1.3	54.9	100.0	13.1	20.1	0.3	66.5	100.0	44
Harari	8.8	26.0	0.7	64.5	100.0	5.5	20.3	0.7	73.5	100.0	38
Addis Ababa	5.1	10.0	0.7	84.2	100.0	1.4	2.5	0.1	96.0	100.0	930
Dire Dawa	5.0	22.9	0.8	71.3	100.0	3.3	14.9	0.1	81.7	100.0	90
Education											
No education	20.8	46.5	1.2	31.6	100.0	22.0	35.1	1.0	41.9	100.0	7,498
Primary	10.4	25.8	0.9	62.9	100.0	11.3	17.9	0.8	70.1	100.0	5,490
Secondary	5.7	15.4	1.0	78.0	100.0	5.0	7.9	0.5	86.6	100.0	1,817
More than secondary	8.3	14.8	0.8	76.1	100.0	2.0	6.5	0.1	91.4	100.0	877
Wealth quintile											
Lowest	19.3	40.3	1.3	39.1	100.0	19.8	29.6	0.9	49.8	100.0	2,633
Second	17.2	41.7	1.1	40.0	100.0	18.3	31.1	1.1	49.4	100.0	2,809
Middle	15.1	40.1	0.7	44.1	100.0	17.3	31.2	0.7	50.8	100.0	2,978
Fourth	16.5	33.6	0.7	49.2	100.0	18.0	25.8	1.0	55.2	100.0	3,100
Highest	8.4	20.3	1.3	70.0	100.0	6.5	10.4	0.4	82.6	100.0	4,163
Total	14.7	33.9	1.0	50.4	100.0	15.2	24.3	0.8	59.7	100.0	15,683

Table 14.4.2 Ownership of assets (house and land): Men

Percent distribution of men age 15-49 by ownership of house and land, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who own a house:			Percent-age who do not own a house	Total	Percentage who own land:			Percent-age who do not own land	Total	Number of men
	Alone	Jointly	Alone and jointly			Alone	Jointly	Alone and jointly			
Age											
15-19	2.3	2.9	0.3	94.5	100.0	5.6	2.9	0.1	91.3	100.0	2,572
20-24	18.0	5.7	0.4	75.8	100.0	20.6	7.1	0.2	72.2	100.0	1,883
25-29	34.5	15.0	1.3	49.2	100.0	31.7	13.3	1.1	53.9	100.0	1,977
30-34	51.1	20.7	1.8	26.4	100.0	47.3	16.5	1.5	34.7	100.0	1,635
35-39	56.5	26.8	1.8	14.9	100.0	51.2	21.9	1.8	25.1	100.0	1,386
40-44	56.3	29.0	2.5	12.2	100.0	54.9	23.8	1.2	20.2	100.0	1,206
45-49	59.7	32.4	2.1	5.9	100.0	55.4	31.0	1.5	12.1	100.0	947
Residence											
Urban	16.5	9.7	0.7	73.1	100.0	9.9	6.3	0.2	83.5	100.0	2,303
Rural	38.3	17.4	1.4	42.9	100.0	38.7	15.9	1.1	44.3	100.0	9,302
Region											
Tigray	25.5	12.7	0.0	61.8	100.0	27.2	6.1	0.2	66.6	100.0	708
Affar	46.3	2.1	0.3	51.4	100.0	24.9	2.2	0.1	72.8	100.0	82
Amhara	20.7	30.8	0.5	48.0	100.0	21.6	23.6	0.3	54.5	100.0	2,914
Oromiya	44.7	9.0	0.9	45.4	100.0	43.8	9.8	0.6	45.8	100.0	4,409
Somali	42.2	8.2	0.6	49.0	100.0	24.0	7.0	0.7	68.4	100.0	301
Benishangul-Gumuz	53.0	9.9	0.1	37.0	100.0	46.0	8.0	0.0	46.0	100.0	118
SNNPR	37.1	15.1	3.6	44.2	100.0	37.4	16.9	2.8	42.8	100.0	2,371
Gambela	31.8	10.4	0.3	57.5	100.0	29.0	7.9	0.5	62.6	100.0	35
Harari	21.7	21.5	0.6	56.2	100.0	21.6	9.9	0.7	67.8	100.0	29
Addis Ababa	7.6	9.0	1.0	82.4	100.0	2.5	2.6	0.0	94.8	100.0	573
Dire Dawa	28.4	9.4	0.0	62.2	100.0	15.6	8.9	0.1	75.3	100.0	66
Education											
No education	48.0	26.4	2.1	23.5	100.0	48.4	22.0	1.2	28.4	100.0	3,203
Primary	33.4	13.4	1.2	52.0	100.0	33.2	12.8	0.9	53.1	100.0	5,608
Secondary	18.4	8.5	0.5	72.6	100.0	16.9	7.9	0.7	74.4	100.0	1,785
More than secondary	20.1	9.3	0.6	70.0	100.0	11.6	5.7	0.1	82.5	100.0	1,010
Wealth quintile											
Lowest	43.0	17.9	1.3	37.9	100.0	39.9	15.1	0.8	44.2	100.0	1,839
Second	43.3	17.6	1.6	37.5	100.0	43.6	16.1	1.2	39.1	100.0	2,118
Middle	37.6	18.4	1.7	42.2	100.0	39.6	17.2	1.2	42.0	100.0	2,246
Fourth	32.4	16.0	1.1	50.5	100.0	34.1	15.0	1.0	49.9	100.0	2,466
Highest	20.1	11.4	0.7	67.7	100.0	15.0	8.5	0.5	76.1	100.0	2,935
Total 15-49	34.0	15.9	1.3	48.9	100.0	33.0	14.0	0.9	52.1	100.0	11,606
50-59	59.7	32.0	2.0	6.3	100.0	57.2	24.6	1.4	16.9	100.0	1,082
Total 15-59	36.2	17.3	1.3	45.2	100.0	35.1	14.9	0.9	49.1	100.0	12,688

Table 14.5.1 Possession of title or deed for house: Women

Among women age 15-49 who own a house, percent distribution by whether the house owned has a title or deed and whether or not the woman's name appears on the title or deed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	House has a title or deed and:		Does not have a title deed	Don't know/ missing	Total	Number of women who own a house[1]
	Woman's name is on title/deed	Woman's name is not on title/deed				
Age						
15-19	17.6	6.8	70.6	5.0	100.0	475
20-24	29.2	12.1	53.5	5.2	100.0	1,054
25-29	34.4	7.3	54.5	3.9	100.0	1,640
30-34	41.1	9.3	45.2	4.4	100.0	1,505
35-39	41.1	8.0	48.1	2.8	100.0	1,361
40-44	44.4	7.4	45.8	2.4	100.0	971
45-49	44.7	6.3	46.3	2.7	100.0	771
Residence						
Urban	51.8	9.9	36.2	2.1	100.0	929
Rural	35.4	8.1	52.5	3.9	100.0	6,849
Region						
Tigray	30.0	23.3	43.1	3.6	100.0	506
Affar	10.9	2.1	85.8	1.2	100.0	66
Amhara	35.6	4.0	57.3	3.1	100.0	2,326
Oromiya	43.4	9.7	41.3	5.6	100.0	2,641
Somali	19.9	4.1	73.5	2.5	100.0	264
Benishangul-Gumuz	24.2	5.4	67.1	3.3	100.0	98
SNNPR	35.6	9.3	53.0	2.1	100.0	1,670
Gambela	36.1	5.2	55.2	3.5	100.0	20
Harari	25.7	8.3	61.6	4.4	100.0	14
Addis Ababa	57.3	3.3	35.9	3.5	100.0	147
Dire Dawa	42.2	3.5	50.1	4.3	100.0	26
Education						
No education	37.3	7.4	51.4	3.8	100.0	5,129
Primary	33.9	11.0	51.1	4.0	100.0	2,038
Secondary	49.0	7.7	42.3	1.0	100.0	400
More than secondary	51.5	6.3	38.2	3.9	100.0	210
Wealth quintile						
Lowest	30.5	8.7	57.5	3.4	100.0	1,603
Second	34.5	7.8	53.4	4.3	100.0	1,686
Middle	37.1	6.7	53.1	3.1	100.0	1,665
Fourth	39.6	8.4	47.9	4.1	100.0	1,575
Highest	47.9	10.8	37.7	3.5	100.0	1,248
Total	37.4	8.3	50.5	3.7	100.0	7,777

[1] Includes alone, joint, or alone and joint ownership.

Table 14.5.2 Possession of title or deed for house: Men

Among men age 15-49 who own a house, percent distribution by whether the house owned has a title or deed and whether or not the man's name appears on the title or deed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	House has a title or deed and:		Does not have a title deed	Don't know/ missing	Total	Number of men who own a house[1]
	Man's name is on title/deed	Man's name is not on title/deed				
Age						
15-19	9.2	2.2	87.4	1.3	100.0	141
20-24	21.1	1.9	77.0	0.0	100.0	455
25-29	25.4	2.2	72.4	0.0	100.0	1,004
30-34	30.9	1.7	67.3	0.0	100.0	1,204
35-39	35.5	0.6	63.9	0.0	100.0	1,179
40-44	37.1	1.5	61.4	0.0	100.0	1,059
45-49	39.7	1.5	58.8	0.0	100.0	892
Residence						
Urban	54.9	4.1	40.9	0.0	100.0	619
Rural	29.4	1.2	69.3	0.0	100.0	5,316
Region						
Tigray	45.5	5.1	49.4	0.0	100.0	271
Affar	10.4	0.1	89.4	0.1	100.0	40
Amhara	28.7	1.1	70.2	0.0	100.0	1,514
Oromiya	34.0	1.1	64.9	0.0	100.0	2,407
Somali	11.6	3.4	84.9	0.1	100.0	153
Benishangul-Gumuz	14.2	2.1	83.6	0.2	100.0	74
SNNPR	31.9	1.4	66.5	0.1	100.0	1,322
Gambela	37.2	1.9	60.9	0.0	100.0	15
Harari	41.6	2.6	55.8	0.0	100.0	13
Addis Ababa	53.7	6.6	39.7	0.0	100.0	101
Dire Dawa	22.6	5.2	71.8	0.3	100.0	25
Education						
No education	29.2	1.4	69.4	0.0	100.0	2,452
Primary	31.0	1.2	67.7	0.1	100.0	2,691
Secondary	38.6	1.8	59.6	0.0	100.0	489
More than secondary	54.2	5.2	40.6	0.0	100.0	303
Wealth quintile						
Lowest	22.2	1.3	76.4	0.0	100.0	1,143
Second	27.4	1.7	70.9	0.0	100.0	1,324
Middle	29.1	0.4	70.5	0.0	100.0	1,297
Fourth	35.2	1.2	63.6	0.0	100.0	1,221
Highest	50.4	3.6	45.8	0.2	100.0	949
Total 15-49	32.0	1.5	66.4	0.0	100.0	5,935
50-59	43.5	1.0	55.5	0.0	100.0	1,015
Total 15-59	33.7	1.5	64.8	0.0	100.0	6,950

[1] Includes alone, joint, or alone and joint ownership.

Table 14.6.1 Possession of title or deed for land: Women

Among women age 15-49 who own land, percent distribution by whether the land owned has a title or deed and whether or not the woman's name appears on the title or deed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Land has a title or deed and: Woman's name is on title/deed	Woman's name is not on title/deed	Does not have a title deed	Don't know/ missing	Total	Number of women who own land[1]
Age						
15-19	21.6	7.1	68.4	2.8	100.0	408
20-24	36.2	7.5	52.9	3.4	100.0	807
25-29	41.7	9.4	43.9	5.0	100.0	1,277
30-34	50.2	8.5	36.9	4.4	100.0	1,207
35-39	58.0	5.7	33.9	2.4	100.0	1,098
40-44	60.0	5.1	31.9	3.0	100.0	850
45-49	67.0	5.6	25.0	2.4	100.0	673
Residence						
Urban	50.1	5.9	43.1	0.9	100.0	453
Rural	49.3	7.3	39.7	3.8	100.0	5,867
Region						
Tigray	57.4	16.4	23.2	3.0	100.0	424
Affar	15.4	3.7	79.0	2.0	100.0	27
Amhara	62.7	4.8	30.4	2.1	100.0	1,895
Oromiya	47.6	7.6	38.5	6.3	100.0	2,117
Somali	10.9	3.3	83.2	2.6	100.0	144
Benishangul-Gumuz	24.7	4.7	67.3	3.3	100.0	84
SNNPR	39.3	7.8	51.0	1.9	100.0	1,549
Gambela	32.3	5.1	59.4	3.2	100.0	15
Harari	24.9	11.0	54.8	9.3	100.0	10
Addis Ababa	44.0	0.0	53.2	2.7	100.0	38
Dire Dawa	22.5	7.4	66.7	3.4	100.0	17
Education						
No education	51.8	7.0	37.2	4.0	100.0	4,357
Primary	43.2	8.3	45.7	2.8	100.0	1,644
Secondary	47.4	5.0	46.8	0.7	100.0	244
More than secondary	46.4	3.8	46.4	3.4	100.0	75
Wealth quintile						
Lowest	44.6	7.8	43.3	4.3	100.0	1,323
Second	47.0	6.5	42.4	4.2	100.0	1,421
Middle	52.1	5.3	39.7	2.9	100.0	1,464
Fourth	52.5	8.7	35.1	3.6	100.0	1,389
Highest	50.9	8.4	38.7	2.0	100.0	723
Total	49.3	7.2	39.9	3.5	100.0	6,320

[1] Includes alone, joint, or alone and joint ownership.

Table 14.6.2 Possession of title or deed for land: Men

Among men age 15-49 who own land, percent distribution by whether the land owned has a title or deed and whether or not the man's name appears on the title or deed, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Land has a title or deed and:		Does not have a title deed	Don't know/ missing	Total	Number of men who own land[1]
	Man's name is on title/deed	Man's name is not on title/deed				
Age						
15-19	15.3	1.2	83.5	0.0	100.0	223
20-24	28.6	4.2	67.2	0.0	100.0	524
25-29	38.7	2.1	59.2	0.1	100.0	911
30-34	45.9	1.9	52.1	0.2	100.0	1,067
35-39	52.6	2.4	45.0	0.0	100.0	1,037
40-44	63.2	1.3	35.5	0.0	100.0	962
45-49	69.1	0.8	29.7	0.4	100.0	833
Residence						
Urban	51.7	3.0	44.3	1.0	100.0	379
Rural	49.4	1.8	48.7	0.0	100.0	5,179
Region						
Tigray	66.0	7.6	26.4	0.0	100.0	237
Affar	15.1	3.0	80.0	1.9	100.0	22
Amhara	53.1	0.7	45.9	0.3	100.0	1,326
Oromiya	50.2	2.5	47.3	0.0	100.0	2,391
Somali	8.4	1.1	90.2	0.2	100.0	95
Benishangul-Gumuz	15.4	0.9	83.4	0.2	100.0	64
SNNPR	48.0	1.2	50.7	0.1	100.0	1,355
Gambela	32.0	1.4	66.7	0.0	100.0	13
Harari	49.9	5.0	44.4	0.7	100.0	9
Addis Ababa	38.9	3.4	56.2	1.5	100.0	30
Dire Dawa	12.0	1.4	86.6	0.0	100.0	16
Education						
No education	51.2	1.7	46.9	0.3	100.0	2,294
Primary	48.7	1.9	49.4	0.0	100.0	2,631
Secondary	46.3	2.3	51.4	0.0	100.0	456
More than secondary	50.3	4.1	45.3	0.3	100.0	176
Wealth quintile						
Lowest	42.4	1.7	55.8	0.1	100.0	1,027
Second	47.1	1.9	50.9	0.1	100.0	1,289
Middle	52.9	2.2	44.9	0.0	100.0	1,303
Fourth	50.7	1.4	47.9	0.0	100.0	1,236
Highest	56.4	2.8	40.3	0.6	100.0	703
Total 15-49	49.6	1.9	48.4	0.1	100.0	5,558
50-59	73.9	0.6	25.4	0.0	100.0	900
Total 15-59	53.0	1.7	45.2	0.1	100.0	6,458

[1] Includes alone, joint, or alone and joint ownership.

Table 14.7.1 Ownership and use of bank accounts and mobile phones: Women

Percentage of women age 15-49 who use an account in a bank or other financial institution and percentage who own a mobile phone; among women who own a mobile phone, percentage who use the phone for financial transactions, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Use a bank account	Own a mobile phone	Number of women	Use mobile phone for financial transactions	Number of women who own a mobile phone
Age					
15-19	7.8	29.3	3,381	2.6	992
20-24	16.3	37.2	2,762	6.8	1,027
25-29	18.7	32.5	2,957	5.4	961
30-34	15.9	23.7	2,345	3.3	557
35-39	17.6	18.4	1,932	9.6	355
40-44	15.7	17.3	1,290	4.4	223
45-49	17.9	16.5	1,017	4.9	167
Residence					
Urban	43.5	71.3	3,476	6.6	2,477
Rural	7.0	14.8	12,207	3.1	1,806
Region					
Tigray	22.7	31.4	1,129	8.5	355
Affar	7.4	31.3	128	1.6	40
Amhara	20.9	21.2	3,714	6.3	788
Oromiya	8.4	23.3	5,701	4.2	1,329
Somali	4.5	35.0	459	1.3	161
Benishangul-Gumuz	9.2	25.1	160	4.4	40
SNNPR	8.0	20.4	3,288	4.0	669
Gambela	18.3	46.1	44	4.2	20
Harari	26.0	55.2	38	4.9	21
Addis Ababa	53.6	87.0	930	5.9	809
Dire Dawa	29.1	55.8	90	4.8	50
Education					
No education	7.1	8.6	7,498	2.1	647
Primary	11.4	27.8	5,490	3.3	1,529
Secondary	32.3	68.9	1,817	4.9	1,251
More than secondary	70.3	97.6	877	11.0	856
Wealth quintile					
Lowest	2.8	7.2	2,633	2.4	189
Second	3.9	8.8	2,809	0.2	247
Middle	6.3	13.1	2,978	3.7	391
Fourth	10.9	21.7	3,100	3.9	673
Highest	39.8	66.9	4,163	6.2	2,784
Total	15.1	27.3	15,683	5.1	4,283

Table 14.7.2 Ownership and use of bank accounts and mobile phones: Men

Percentage of men age 15-49 who use an account in a bank or other financial institution and percentage who own a mobile phone; among men who own a mobile phone, percentage who use the phone for financial transactions, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Use a bank account	Own a mobile phone	Number of men	Use mobile phone for financial transactions	Number of men who own a mobile phone
Age					
15-19	9.7	42.2	2,572	5.2	1,086
20-24	23.3	65.2	1,883	9.9	1,228
25-29	32.3	66.0	1,977	10.2	1,304
30-34	32.3	60.5	1,635	8.3	988
35-39	27.5	54.8	1,386	9.1	760
40-44	32.3	48.6	1,206	9.7	587
45-49	31.1	42.5	947	10.6	403
Residence					
Urban	62.7	87.0	2,303	12.2	2,004
Rural	15.9	46.8	9,302	7.3	4,352
Region					
Tigray	35.5	62.3	708	5.1	441
Affar	18.4	66.0	82	6.4	54
Amhara	33.6	48.4	2,914	2.2	1,412
Oromiya	17.0	53.5	4,409	14.2	2,358
Somali	8.1	70.6	301	2.6	212
Benishangul-Gumuz	21.9	55.9	118	2.5	66
SNNPR	18.7	49.5	2,371	8.4	1,174
Gambela	37.4	73.1	35	3.2	25
Harari	32.5	77.3	29	9.3	22
Addis Ababa	66.6	94.4	573	10.5	541
Dire Dawa	43.8	75.6	66	9.7	50
Education					
No education	14.2	31.9	3,203	3.4	1,020
Primary	17.9	51.8	5,608	6.4	2,905
Secondary	36.5	80.9	1,785	9.6	1,443
More than secondary	80.1	97.7	1,010	20.4	987
Wealth quintile					
Lowest	6.7	31.4	1,839	3.1	578
Second	9.6	37.3	2,118	5.0	789
Middle	14.5	46.1	2,246	5.2	1,035
Fourth	22.8	57.6	2,466	8.1	1,421
Highest	58.1	86.3	2,935	13.2	2,533
Total 15-49	25.2	54.8	11,606	8.8	6,356
50-59	32.8	41.8	1,082	5.3	453
Total 15-59	25.8	53.7	12,688	8.6	6,808

Table 14.8 Person deciding on a woman's first marriage

Percent distribution of ever-married women age 15-49 by the person making the decision on a woman's first marriage, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Person making decision on a woman's first marriage				Total	Number of ever-married women
	Myself	Parents	Other family/ relative	Other		
Age						
15-19	41.2	55.8	1.6	1.5	100.0	739
20-24	46.7	49.0	3.3	1.0	100.0	1,904
25-29	42.9	54.0	2.1	1.0	100.0	2,612
30-34	32.5	63.0	2.7	1.8	100.0	2,249
35-39	27.2	66.8	3.9	2.2	100.0	1,870
40-44	26.2	69.7	2.7	1.4	100.0	1,266
45-49	20.8	76.2	1.6	1.4	100.0	1,006
Number of living children						
0	49.0	47.6	2.7	0.7	100.0	1,240
1-2	46.7	49.6	2.3	1.5	100.0	3,690
3-4	30.8	64.6	2.9	1.7	100.0	3,056
5+	22.4	73.1	2.8	1.6	100.0	3,661
Residence						
Urban	58.2	38.5	1.5	1.7	100.0	2,102
Rural	30.1	65.6	2.9	1.4	100.0	9,544
Region						
Tigray	19.1	80.2	0.6	0.2	100.0	847
Affar	16.8	81.5	1.1	0.6	100.0	108
Amhara	15.1	83.3	1.3	0.3	100.0	2,888
Oromiya	34.6	61.2	2.3	1.8	100.0	4,433
Somali	67.9	31.8	0.2	0.1	100.0	358
Benishangul-Gumuz	25.9	73.3	0.3	0.5	100.0	125
SNNPR	53.8	36.3	6.7	3.2	100.0	2,310
Gambela	58.2	40.3	0.7	0.8	100.0	34
Harari	75.8	23.7	0.1	0.5	100.0	29
Addis Ababa	76.9	20.9	1.2	1.0	100.0	451
Dire Dawa	62.9	36.2	0.3	0.7	100.0	63
Education						
No education	25.0	71.0	2.8	1.2	100.0	7,059
Primary	42.9	51.8	2.8	2.4	100.0	3,351
Secondary	64.9	33.0	1.6	0.5	100.0	764
More than secondary	83.4	15.3	0.7	0.7	100.0	473
Wealth quintile						
Lowest	28.9	68.0	2.4	0.7	100.0	2,219
Second	28.4	67.5	2.9	1.2	100.0	2,284
Middle	28.5	66.3	4.0	1.3	100.0	2,324
Fourth	30.7	64.4	2.4	2.4	100.0	2,242
Highest	56.5	40.2	1.7	1.7	100.0	2,576
Total	35.2	60.7	2.7	1.5	100.0	11,647

Table 14.9 Schooling after marriage

Percentage of ever-married women age 15-49 who were attending school before marriage; among women who attended school before marriage, percentage who continued to attend school after marriage; among ever married women who stopped school after marriage, reasons for discontinuing school, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage attending school before marriage	Number of ever-married women	Among women who attended school before marriage: Percentage who stopped attending school after marriage	Among women who attended school before marriage: Number who attended school before marriage	Among women who stopped attending school after marriage, reasons for discontinuing school: Graduated from school	Too busy with family life	Husband refused	Other	Total	Number of women who stopped going to school after marriage
Age										
15-19	46.5	739	72.3	344	4.9	47.2	29.7	18.2	100.0	249
20-24	41.4	1,904	79.3	788	5.9	59.0	23.0	12.2	100.0	625
25-29	28.1	2,612	74.0	733	7.0	65.7	21.0	6.3	100.0	543
30-34	18.8	2,249	73.1	422	4.4	67.2	19.9	8.4	100.0	308
35-39	16.1	1,870	76.4	302	1.8	67.8	20.6	9.9	100.0	231
40-44	16.9	1,266	78.1	214	1.6	65.1	27.2	6.1	100.0	167
45-49	13.4	1,006	67.9	135	2.4	61.9	20.8	15.0	100.0	92
Number of living children										
0	43.1	1,240	65.4	534	11.6	35.5	29.9	23.0	100.0	349
1-2	37.6	3,690	74.3	1,389	5.0	65.2	20.1	9.7	100.0	1,032
3-4	19.0	3,056	81.3	581	3.1	70.7	21.0	5.3	100.0	472
5+	11.9	3,661	83.0	435	0.7	66.8	26.0	6.5	100.0	361
Residence										
Urban	47.0	2,102	54.1	988	13.7	63.0	12.2	11.1	100.0	534
Rural	20.4	9,544	86.1	1,951	2.2	61.6	26.2	10.0	100.0	1,680
Region										
Tigray	27.4	847	66.0	232	12.7	46.8	24.9	15.7	100.0	153
Affar	14.8	108	50.0	16	3.3	48.9	32.2	15.6	100.0	8
Amhara	18.7	2,888	63.6	539	5.9	41.2	36.3	16.6	100.0	343
Oromiya	24.7	4,433	83.5	1,096	3.5	71.4	18.9	6.1	100.0	915
Somali	11.3	358	53.4	40	5.2	56.5	15.6	22.7	100.0	22
Benishangul-Gumuz	31.0	125	75.0	39	3.3	57.2	31.7	7.9	100.0	29
SNNPR	31.2	2,310	81.9	720	3.3	62.6	23.5	10.6	100.0	590
Gambela	50.5	34	48.0	17	8.1	69.0	17.0	5.9	100.0	8
Harari	33.1	29	68.5	10	4.9	86.9	4.5	3.8	100.0	7
Addis Ababa	45.5	451	59.8	205	11.4	63.6	10.3	14.7	100.0	123
Dire Dawa	38.7	63	69.4	24	4.9	78.8	7.6	8.7	100.0	17
Education										
No education	1.0	7,059	82.2	72	0.0	74.2	14.1	11.7	100.0	59
Primary	60.3	3,351	87.3	2,020	0.6	63.5	25.8	10.1	100.0	1,764
Secondary	70.0	764	56.6	535	17.6	56.4	12.9	13.1	100.0	303
More than secondary	65.9	473	28.4	311	51.7	40.4	3.2	4.7	100.0	89
Wealth quintile										
Lowest	10.6	2,219	86.3	235	1.0	64.6	22.1	12.2	100.0	203
Second	17.2	2,284	93.0	393	2.2	59.0	27.3	11.5	100.0	365
Middle	21.5	2,324	87.5	501	2.1	62.8	25.7	9.4	100.0	438
Fourth	27.9	2,242	81.7	627	2.3	56.7	31.0	9.9	100.0	512
Highest	46.0	2,576	58.8	1,184	11.2	66.0	12.8	10.0	100.0	696
Total	25.2	11,647	75.4	2,939	4.9	61.9	22.8	10.3	100.0	2,215

Table 14.10 Men's participation in household chores

Percentage of currently married women age 15-49 who reported that their husbands help with the household chores; among women whose husbands help with household chores, percent distribution by average frequency of husbands help, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women whose husband participates in household chores	Number of currently married women	Among women whose husbands participate in household chores, percent distribution by average frequency of husbands help:				
			Almost every day	At least once a week	Rarely	Total	Number of women whose husbands help with household chores
Age							
15-19	33.7	588	19.2	20.4	60.3	100.0	198
20-24	44.4	1,710	20.6	19.5	59.9	100.0	758
25-29	42.9	2,402	16.5	17.5	66.0	100.0	1,031
30-34	36.8	2,049	13.1	20.1	66.9	100.0	754
35-39	32.7	1,613	19.8	19.9	60.4	100.0	527
40-44	28.1	1,064	18.1	23.5	58.4	100.0	299
45-49	22.4	798	18.8	19.6	61.6	100.0	179
Number of living children							
0	41.0	925	23.2	15.2	61.6	100.0	379
1-2	45.5	3,137	18.6	19.6	61.8	100.0	1,427
3-4	37.4	2,761	15.2	21.0	63.8	100.0	1,032
5+	26.7	3,401	15.8	19.4	64.7	100.0	908
Residence							
Urban	49.9	1,658	23.4	18.5	58.1	100.0	828
Rural	34.1	8,565	15.8	19.8	64.5	100.0	2,920
Region							
Tigray	44.0	658	17.1	21.4	61.5	100.0	290
Affar	27.3	96	34.5	24.2	41.3	100.0	26
Amhara	44.2	2,414	16.7	19.0	64.2	100.0	1,066
Oromiya	31.1	3,987	14.3	19.2	66.5	100.0	1,242
Somali	11.8	324	17.5	12.6	69.9	100.0	38
Benishangul-Gumuz	40.0	114	8.5	13.8	77.7	100.0	46
SNNPR	36.6	2,173	19.2	19.8	61.0	100.0	794
Gambela	32.5	29	17.8	9.7	72.6	100.0	10
Harari	23.9	25	22.0	39.4	38.6	100.0	6
Addis Ababa	60.3	355	33.7	21.0	45.4	100.0	214
Dire Dawa	32.1	50	14.0	27.4	58.6	100.0	16
Education							
No education	30.4	6,253	17.1	21.0	61.9	100.0	1,902
Primary	41.6	2,895	15.3	16.9	67.8	100.0	1,204
Secondary	54.9	654	20.5	22.1	57.3	100.0	359
More than secondary	67.1	421	25.4	17.0	57.7	100.0	282
Wealth quintile							
Lowest	29.4	1,953	16.9	18.2	64.9	100.0	574
Second	32.5	2,074	17.2	18.6	64.2	100.0	674
Middle	32.1	2,057	13.3	25.0	61.8	100.0	660
Fourth	40.8	1,999	14.8	18.6	66.6	100.0	815
Highest	47.9	2,140	22.8	18.0	59.2	100.0	1,024
Total	36.7	10,223	17.5	19.5	63.0	100.0	3,747

Table 14.11 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 DHS 2016

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number of women
WOMEN							
Own health care	15.4	66.0	18.2	0.3	0.1	100.0	10,223
Major household purchases	10.6	67.6	21.4	0.4	0.1	100.0	10,223
Visits to her family or relatives	18.0	65.8	16.0	0.2	0.1	100.0	10,223
MEN							
Man's own health care	2.8	69.6	27.3	0.3	0.0	100.0	6,441
Major household purchases	4.3	76.9	18.2	0.5	0.1	100.0	6,441

Table 14.12.1 Women's participation in decision making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either alone or jointly with their husband, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Specific decisions			All three decisions	None of the three decisions	Number of women
	Woman's own health care	Making major household purchases	Visits to her family or relatives			
Age						
15-19	78.7	73.3	81.3	68.1	12.8	588
20-24	80.5	76.8	82.7	68.9	11.1	1,710
25-29	82.3	81.2	85.5	71.7	8.0	2,402
30-34	84.3	79.0	85.4	72.6	8.6	2,049
35-39	78.9	76.6	83.1	69.1	12.6	1,613
40-44	82.0	77.2	82.0	70.7	11.5	1,064
45-49	79.5	78.3	82.4	69.9	11.9	798
Employment (last 12 months)						
Not employed	78.3	73.5	81.0	66.6	13.2	5,275
Employed for cash	86.4	83.5	86.3	74.8	6.9	2,072
Employed not for cash	83.6	83.1	87.1	74.8	7.4	2,876
Number of living children						
0	81.4	78.8	85.5	70.5	8.8	925
1-2	83.1	80.7	85.0	72.9	9.0	3,137
3-4	83.1	79.5	84.4	72.3	9.7	2,761
5+	78.6	74.7	81.6	67.0	12.5	3,401
Residence						
Urban	91.0	88.1	91.7	80.9	3.2	1,658
Rural	79.6	76.3	82.2	68.6	11.7	8,565
Region						
Tigray	84.2	79.1	81.5	70.3	9.9	658
Affar	71.2	70.2	74.5	61.5	17.8	96
Amhara	87.0	86.7	90.3	78.3	4.4	2,414
Oromiya	79.8	76.7	83.8	70.9	12.3	3,987
Somali	75.9	69.3	80.5	62.3	13.8	324
Benishangul-Gumuz	79.7	73.5	83.5	67.3	12.5	114
SNNPR	76.7	71.1	76.2	61.1	14.0	2,173
Gambela	79.4	74.7	80.5	64.5	10.6	29
Harari	91.6	89.6	91.5	87.9	6.5	25
Addis Ababa	92.8	89.6	93.5	82.3	1.9	355
Dire Dawa	84.4	83.2	88.7	71.2	4.0	50
Education						
No education	79.2	75.8	82.4	68.2	12.0	6,253
Primary	82.4	78.6	82.9	70.8	9.8	2,895
Secondary	91.5	88.5	92.0	81.5	2.9	654
More than secondary	92.2	94.9	96.9	87.4	0.6	421
Wealth quintile						
Lowest	76.3	72.3	79.4	64.8	15.1	1,953
Second	77.5	75.3	80.1	67.2	13.0	2,074
Middle	81.0	75.2	81.0	67.3	11.7	2,057
Fourth	81.7	80.8	86.8	72.6	8.1	1,999
Highest	90.1	86.9	91.2	80.2	4.2	2,140
Total	81.4	78.2	83.8	70.6	10.3	10,223

Table 14.12.2 Men's participation in decision making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Specific decisions		Both decisions	Neither of the two decisions	Number of men
	Man's own health care	Making major household purchases			
Age					
15-19	(95.3)	(96.7)	(94.7)	(2.8)	26
20-24	95.2	93.5	91.8	3.0	474
25-29	95.8	94.0	92.2	2.4	1,227
30-34	97.5	95.8	95.1	1.9	1,389
35-39	96.7	94.6	93.7	2.4	1,285
40-44	98.2	96.6	95.7	0.9	1,137
45-49	97.3	95.0	94.7	2.3	903
Employment (last 12 months)					
Not employed	82.3	74.1	72.9	16.4	55
Employed for cash	97.2	94.3	93.5	2.1	2,096
Employed not for cash	97.0	95.8	94.6	1.8	4,291
Number of living children					
0	93.3	90.7	89.2	5.1	671
1-2	97.1	95.9	94.3	1.3	2,074
3-4	97.4	95.3	94.5	1.9	1,736
5+	97.5	95.6	95.1	2.0	1,961
Residence					
Urban	96.9	91.3	90.2	2.1	1,011
Rural	96.9	95.8	94.8	2.0	5,430
Region					
Tigray	95.0	96.9	92.9	1.0	352
Affar	91.7	86.2	85.4	7.5	48
Amhara	98.4	97.2	96.3	0.8	1,633
Oromiya	96.5	94.7	93.8	2.6	2,558
Somali	94.0	81.7	81.4	5.7	174
Benishangul-Gumuz	96.2	96.4	93.7	1.1	72
SNNPR	98.0	97.4	96.9	1.5	1,323
Gambela	96.7	95.3	92.9	0.9	17
Harari	85.0	77.5	76.4	13.9	16
Addis Ababa	96.9	86.4	84.5	1.3	217
Dire Dawa	69.0	58.1	55.9	28.7	32
Education					
No education	96.5	95.7	94.6	2.4	2,558
Primary	97.3	95.3	94.4	1.7	2,769
Secondary	97.7	94.2	93.4	1.6	625
More than secondary	95.9	92.0	90.6	2.7	489
Wealth quintile					
Lowest	96.0	94.3	93.1	2.8	1,161
Second	96.6	95.1	94.3	2.7	1,359
Middle	97.0	96.4	95.6	2.1	1,310
Fourth	97.8	96.8	95.8	1.1	1,255
Highest	97.1	92.9	91.6	1.6	1,357
Total 15-49	96.9	95.1	94.1	2.1	6,441
50-59	96.4	94.3	93.1	2.3	1,029
Total 15-59	96.9	95.0	93.9	2.1	7,471

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

Table 14.13.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	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	35.5	38.7	39.2	44.5	27.4	60.3	3,381
20-24	37.6	38.4	39.0	45.6	31.2	60.3	2,762
25-29	38.6	41.5	43.5	47.2	36.4	62.1	2,957
30-34	43.2	46.2	49.2	50.6	38.8	66.1	2,345
35-39	44.0	47.1	46.3	50.8	40.0	66.2	1,932
40-44	43.2	46.9	50.0	49.6	38.5	66.5	1,290
45-49	42.9	41.0	40.7	46.8	39.4	64.1	1,017
Employment (last 12 months)							
Not employed	40.0	42.4	45.2	47.7	35.4	62.5	7,819
Employed for cash	30.2	33.8	36.0	40.7	25.7	54.6	3,693
Employed not for cash	47.9	49.0	46.5	53.1	41.4	71.3	4,171
Number of living children							
0	31.7	34.4	35.7	41.6	25.4	56.0	5,185
1-2	39.1	41.6	42.0	47.2	33.7	62.3	3,770
3-4	45.5	48.7	48.4	50.9	41.6	67.7	3,064
5+	47.2	48.2	51.3	53.2	43.2	69.7	3,664
Marital status							
Never married	30.5	32.3	34.4	39.8	23.6	53.7	4,036
Married or living together	43.8	46.4	47.5	50.8	39.4	66.6	10,223
Divorced/separated/widowed	37.1	39.7	38.7	45.4	32.7	63.6	1,423
Residence							
Urban	16.3	21.1	23.6	29.0	15.4	39.2	3,476
Rural	46.4	48.1	49.0	52.7	40.2	69.8	12,207
Region							
Tigray	39.0	45.5	38.5	53.5	33.4	65.0	1,129
Affar	46.0	48.5	51.6	52.7	50.4	68.5	128
Amhara	35.8	41.5	38.0	47.0	31.2	64.7	3,714
Oromiya	45.9	47.4	53.0	51.0	39.3	68.6	5,701
Somali	19.8	30.6	29.9	27.6	29.8	42.8	459
Benishangul-Gumuz	31.5	35.5	36.7	43.6	34.4	55.2	160
SNNPR	47.6	44.7	46.2	52.3	40.5	65.7	3,288
Gambela	33.0	36.3	38.6	42.0	26.8	60.2	44
Harari	21.9	26.7	32.0	29.7	24.3	39.2	38
Addis Ababa	4.2	8.5	10.1	16.2	4.2	22.9	930
Dire Dawa	23.2	22.3	26.4	28.2	24.9	46.7	90
Education							
No education	49.3	50.9	52.2	54.5	44.0	71.9	7,498
Primary	39.4	42.3	42.3	47.7	32.9	63.7	5,490
Secondary	17.7	21.4	25.2	31.2	16.1	41.9	1,817
More than secondary	6.4	9.6	11.7	19.6	5.6	26.1	877
Wealth quintile							
Lowest	50.3	52.5	51.2	53.5	45.2	70.9	2,633
Second	50.5	53.4	54.6	57.9	44.8	75.7	2,809
Middle	46.9	48.0	48.9	53.6	41.4	70.0	2,978
Fourth	41.4	41.6	42.8	47.8	32.9	64.7	3,100
Highest	19.5	24.3	27.1	31.9	17.9	43.2	4,163
Total	39.8	42.2	43.3	47.5	34.7	63.0	15,683

Table 14.13.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	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	14.4	19.8	17.8	23.4	15.2	32.8	2,572
20-24	11.3	15.5	15.8	19.6	12.6	29.4	1,883
25-29	10.5	13.6	16.0	16.6	12.1	24.1	1,977
30-34	10.0	12.8	13.3	15.1	10.5	22.6	1,635
35-39	11.8	15.4	17.8	17.3	11.4	27.2	1,386
40-44	11.4	16.0	17.1	20.5	11.8	26.5	1,206
45-49	10.2	18.2	21.5	19.6	12.9	28.7	947
Employment (last 12 months)							
Not employed	6.7	11.7	11.5	14.9	9.0	20.9	926
Employed for cash	7.7	9.3	10.6	11.6	8.0	17.5	3,530
Employed not for cash	14.3	19.9	20.5	23.4	15.3	33.6	7,149
Number of living children							
0	11.7	16.6	16.0	20.4	13.0	29.0	5,658
1-2	11.9	14.5	16.8	17.8	12.1	25.7	2,202
3-4	11.2	15.0	16.5	17.3	11.8	26.4	1,770
5+	11.8	16.9	19.3	18.7	12.7	27.3	1,976
Marital status							
Never married	11.4	16.3	15.7	20.2	12.7	28.2	4,882
Married or living together	11.5	15.5	17.3	18.0	12.1	26.7	6,441
Divorced/separated/widowed	19.8	22.9	22.6	26.6	21.0	40.9	282
Residence							
Urban	3.8	6.3	7.2	10.6	5.9	15.1	2,303
Rural	13.6	18.4	19.2	21.2	14.3	30.8	9,302
Region							
Tigray	12.1	18.7	20.8	24.2	13.6	31.4	708
Affar	5.6	9.5	8.1	9.3	9.2	16.4	82
Amhara	18.7	25.3	25.1	33.7	19.5	45.9	2,914
Oromiya	11.1	15.8	17.2	16.5	11.7	25.9	4,409
Somali	3.8	8.8	8.6	8.7	8.8	13.9	301
Benishangul-Gumuz	10.1	12.5	16.5	17.5	10.0	27.5	118
SNNPR	7.8	9.1	9.7	10.4	9.0	14.9	2,371
Gambela	14.2	18.5	18.0	22.7	15.2	36.4	35
Harari	12.3	14.5	12.2	14.8	13.2	22.3	29
Addis Ababa	1.0	2.2	2.3	3.7	2.0	6.9	573
Dire Dawa	5.2	9.0	8.3	5.9	5.1	15.0	66
Education							
No education	16.7	21.5	22.4	25.9	17.4	36.0	3,203
Primary	12.3	17.4	17.7	19.3	13.3	29.0	5,608
Secondary	5.3	7.9	10.2	13.0	6.4	18.0	1,785
More than secondary	3.2	5.5	5.6	7.5	4.3	11.2	1,010
Wealth quintile							
Lowest	15.3	19.4	20.2	21.6	16.0	31.8	1,839
Second	15.1	20.0	20.3	23.7	16.5	32.2	2,118
Middle	13.0	18.9	20.2	22.3	13.6	31.2	2,246
Fourth	13.3	17.0	17.4	19.5	13.6	30.4	2,466
Highest	4.4	8.0	8.9	11.6	6.0	16.9	2,935
Total 15-49	11.7	16.0	16.8	19.1	12.6	27.7	11,606
50-59	11.5	14.7	18.2	18.3	12.8	26.5	1,082
Total 15-59	11.6	15.9	16.9	19.1	12.6	27.6	12,688

Table 14.14 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), according to background characteristics, Ethiopia DHS 2016

	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	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	73.7	65.2	6,143	80.4	79.0	4,455
15-19	71.9	65.6	3,381	78.5	77.6	2,572
20-24	76.0	64.6	2,762	83.0	81.0	1,883
25-29	74.5	60.8	2,957	82.8	81.0	1,977
30-39	71.8	57.5	4,277	81.8	78.8	3,020
40-49	72.0	54.3	2,306	84.3	80.4	2,154
Marital status						
Never married	75.5	71.4	4,036	79.5	78.5	4,882
Ever had sex	80.6	80.5	401	85.4	84.9	1,061
Never had sex	75.0	70.4	3,636	77.8	76.7	3,821
Married/living together	71.2	55.6	10,223	83.5	80.2	6,441
Divorced/separated/widowed	79.9	66.0	1,423	86.3	84.3	282
Residence						
Urban	85.6	82.3	3,476	87.9	86.4	2,303
Rural	69.5	54.5	12,207	80.4	77.9	9,302
Region						
Tigray	83.7	76.0	1,129	90.6	93.6	708
Affar	65.2	37.8	128	82.0	76.0	82
Amhara	86.1	69.1	3,714	91.9	87.3	2,914
Oromiya	60.9	47.9	5,701	77.0	76.0	4,409
Somali	38.0	17.7	459	64.2	45.7	301
Benishangul-Gumuz	55.6	48.0	160	79.3	71.2	118
SNNPR	76.9	67.3	3,288	76.9	74.7	2,371
Gambela	75.1	66.9	44	84.2	78.8	35
Harari	56.1	43.2	38	75.5	68.9	29
Addis Ababa	91.8	90.2	930	87.5	90.5	573
Dire Dawa	67.2	58.1	90	88.9	81.3	66
Education						
No education	66.6	47.3	7,498	76.8	73.7	3,203
Primary	74.6	66.8	5,490	81.7	79.1	5,608
Secondary	86.8	83.1	1,817	87.9	86.3	1,785
More than secondary	91.0	89.6	877	88.4	88.8	1,010
Wealth quintile						
Lowest	62.6	44.6	2,633	77.5	73.2	1,839
Second	67.3	51.5	2,809	79.2	76.6	2,118
Middle	71.0	54.1	2,978	81.6	79.7	2,246
Fourth	74.4	62.2	3,100	82.0	80.0	2,466
Highest	84.2	80.5	4,163	86.7	85.2	2,935
Total 15-49	73.1	60.7	15,683	81.9	79.6	11,606
50-59	na	na	na	81.6	77.6	1,082
Total 15-59	na	na	na	81.9	79.4	12,688

na = Not applicable.

Table 14.15 Ability to negotiate sexual relations with husband

Percentage of currently married women age 15-49 who can say no to their husband if they do not want to have sexual intercourse, and percentage who can ask their husband to use a condom, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who can say no to their husband if they do not want to have sexual intercourse	Percentage who can ask their husband to use a condom	Number of women
Age			
15-24	49.6	34.5	2,298
15-19	48.3	35.6	588
20-24	50.0	34.2	1,710
25-29	45.8	33.5	2,402
30-39	43.4	27.7	3,661
40-49	43.8	24.9	1,862
Residence			
Urban	63.8	61.3	1,658
Rural	41.9	24.1	8,565
Region			
Tigray	69.7	43.0	658
Affar	44.9	19.7	96
Amhara	64.9	33.4	2,414
Oromiya	34.1	25.6	3,987
Somali	28.3	7.2	324
Benishangul-Gumuz	41.4	29.6	114
SNNPR	36.2	28.1	2,173
Gambela	50.4	35.8	29
Harari	49.1	34.1	25
Addis Ababa	67.8	67.9	355
Dire Dawa	46.3	41.2	50
Education			
No education	39.8	20.0	6,253
Primary	48.0	36.8	2,895
Secondary	67.5	62.4	654
More than secondary	77.2	83.0	421
Wealth quintile			
Lowest	36.4	16.8	1,953
Second	39.6	23.8	2,074
Middle	42.4	22.0	2,057
Fourth	48.0	31.0	1,999
Highest	59.8	55.3	2,140
Total	45.4	30.1	10,223

Table 14.16 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decision making and percentage who disagree with all reasons that justify wife-beating, according to value on each of indicator of women's empowerment, Ethiopia DHS 2016

Empowerment indicator	Percentage who participate in all decision making	Percentage who disagree with all the reasons that justify wife-beating	Number of women
Number of decisions in which women participate[1]			
0	na	25.1	1,055
1-2	na	30.0	1,956
3	na	35.6	7,213
Number of reasons for which wife-beating is justified[2]			
0	75.1	na	3,419
1-2	71.8	na	2,078
3-4	67.3	na	2,345
5	66.1	na	2,381

na = Not applicable.
[1] See Table 14.12.1 for the list of decisions.
[2] See Table 14.13.1 for the list of reasons.

Table 14.17 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Ethiopia DHS 2016

Empowerment indicator	Any method	Any modern method[1]	Modern methods: Female sterilization	Modern methods: Temporary modern female methods[2]	Modern methods: Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[3]									
0	26.5	26.5	0.4	26.1	0.0	0.0	73.5	100.0	1,055
1-2	35.5	34.8	0.3	34.5	0.0	0.7	64.5	100.0	1,956
3	37.4	36.7	0.5	36.1	0.1	0.7	62.6	100.0	7,213
Number of reasons for which wife-beating is justified[4]									
0	40.0	39.0	0.3	38.5	0.1	1.1	60.0	100.0	3,419
1-2	37.1	36.5	0.5	35.9	0.0	0.6	62.9	100.0	2,078
3-4	35.6	35.3	0.4	34.9	0.0	0.3	64.4	100.0	2,345
5	29.2	28.8	0.5	28.3	0.0	0.4	70.8	100.0	2,381
Total	35.9	35.3	0.4	34.8	0.1	0.6	64.1	100.0	10,223

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.
[2] Pill, IUD, injectables, implants, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.
[3] See Table 14.12.1 for the list of decisions.
[4] See Table 14.13.1 for the list of reasons.

Table 14.18 Ideal number of children and unmet need for family planning by women's empowerment

Mean ideal number of children for women age 15-49, and percentage of currently married women age 15-49 with an unmet need for family planning, according to indicators of women's empowerment, Ethiopia DHS 2016

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]: For spacing	For limiting	Total	Number of currently married women
Number of decisions in which women participate[3]						
0	5.8	943	17.5	13.2	30.7	1,055
1-2	5.3	1,694	14.6	8.2	22.8	1,956
3	4.7	6,263	11.9	9.1	21.0	7,213
Number of reasons for which wife-beating is justified[4]						
0	4.3	5,370	12.6	8.1	20.7	3,419
1-2	4.2	3,018	13.2	10.8	24.1	2,078
3-4	4.6	2,898	11.8	9.1	20.9	2,345
5	4.8	2,720	14.5	10.0	24.5	2,381
Total	4.5	14,005	13.0	9.3	22.3	10,223

[1] Mean excludes respondents who gave non-numeric responses.
[2] Figures for unmet need correspond to the revised definition described in Bradley et al. 2012.
[3] Restricted to currently married women. See Table 14.12.1 for the list of decisions.
[4] See Table 14.13.1 for the list of reasons.

Table 14.19 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the 5 years before the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, according to indicators of women's empowerment, Ethiopia DHS 2016

Empowerment indicator	Percentage receiving antenatal care from a skilled provider[1]	Percentage receiving delivery care from a skilled provider[1]	Percentage of women with a postnatal check-up in the first two days after birth[2]	Number of women with a child born in the last five years
Number of decisions in which women participate[3]				
0	44.2	24.0	8.4	789
1-2	62.9	32.7	16.3	1,405
3	65.4	34.4	15.3	4,914
Number of reasons for which wife-beating is justified[4]				
0	67.7	43.2	18.6	2,482
1-2	62.0	32.1	16.3	1,561
3-4	62.3	29.5	13.2	1,720
5	55.6	24.2	10.4	1,828
Total	62.4	33.3	14.9	7,590

[1] "Skilled provider" includes doctor, nurse, midwife, health officer, and health extension worker.
[2] Includes women who received a postnatal check-up from a doctor, nurse, midwife, health officer, and health extension worker or traditional birth attendant (TBA) in the first 2 days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility.
[3] Restricted to currently married women. See Table 14.12.1 for the list of decisions.
[4] See Table 14.13.1 for the list of reasons.

Table 14.20 Early childhood mortality rates by indicators of women's empowerment

Infant, child, and under-5 mortality rates for the 10-year period before the survey, according to indicators of women's empowerment, Ethiopia DHS 2016

Empowerment indicator	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Number of decisions in which women participate[1]			
0	61	26	86
1-2	67	19	84
3	59	21	79
Number of reasons for which wife-beating is justified[2]			
0	63	21	83
1-2	69	27	94
3-4	57	19	74
5	56	21	77

[1] Restricted to currently married women. See Table 14.12.1 for the list of decisions.
[2] See Table 14.13.1 for the list of reasons.

VIOLENCE AGAINST WOMEN 15

Key Findings

- ***Experience of violence:*** Among women age 15-49, 23% have experienced physical violence and 10% have experienced sexual violence. Four percent of women have experienced physical violence during a pregnancy.
- ***Marital control:*** Sixteen percent of ever-married women have experienced at least three types of marital control behaviours by their husbands or partners. Forty-three percent have never experienced marital control behaviours by their husbands or partners.
- ***Spousal violence***: Thirty-four percent of ever-married women age 15-49 have experienced spousal physical, sexual, or emotional violence. Physical and emotional violence were experienced by 24% each, and sexual violence by10%.
- ***Injuries due to spousal violence:*** Twenty-two percent of ever-married women who experienced spousal, physical, or sexual violence reported injuries, including 19% who reported cuts, bruises, or aches and 10% who reported deep wounds and other serious injuries.
- ***Help seeking:*** About one-quarter of women who have experienced physical or sexual violence has sought help.

Gender-based violence against women, often referred to as violence against women and girls, has been acknowledged worldwide as a violation of basic human rights. Growing research has highlighted the health burdens, intergenerational effects, and demographic consequences of such violence (United Nations 2006).

In Ethiopia, violence against women and girls continues to be a major challenge and a threat to women's empowerment. Women and girls face physical, emotional, and sexual abuses that undermine their health and ability to earn a living; disrupt their social systems and relationships; and rob them of their childhood and education.

Ethiopia has put in place appropriate and effective legal and policy provisions to promote the rights of women and girls. These rights are enshrined in the Constitution. Ethiopia has also ratified many of the international and continental agreements that promote and protect women's rights, including the Convention on the Elimination of Discrimination against Women (CEDAW), and the Protocol to the African Charter on the Rights of Women in Africa. In addition, Ethiopia has established specific legal measures and actions to address violence, including the Revised Family Law in 2000 and the Revised Criminal Code in 2005 (UN Women 2016). The government has also put in place the requisite institutional mechanisms at federal and regional levels, including the establishment of (1) The Ministry of Women, Children and Youth Affairs Offices MOWCYA, (2) Child and Women Protection Units within the various police units, and (3) a Special Bench for violence against women cases within the federal criminal court.

Ethiopia's second Growth and Transformational Plan (GTP II 2015) has for the first time included ending violence against women as a priority. In the next 5 years, during the GTP II, Ethiopia will establish hotlines for women and children experiencing violence, set up 11 new one-stop centres and rehabilitation centres, and also strengthen existing ones. The new national Women's Development and Change Strategy and the revised package on how to realize the strategy has put in place a clear direction on protection, prevention, and provision of services for women survivors of violence. Furthermore, the MOWCYA is committed to ending violence against women by including indicators on violence reduction in its 5-year sectoral plan (2016-2020). Taking into account these initiatives, the 2016 EDHS was tasked with providing up-to-date, reliable, and concrete data on violence against women. This data should allow targeting in a specific, measurable way and enable informed intervention programs.

Accordingly, the 2016 EDHS implemented a module of questions on domestic violence, the most common form of violence against women. In accord with the World Health Organization's guidelines on the ethical collection of information on domestic violence, only one eligible woman per household was randomly selected for interviewing, and the module was not implemented if privacy could not be obtained (WHO 2001). In total, 5,860 women were asked questions about violence against women. Three percent of women eligible for the domestic violence module could not be successfully interviewed, mainly due to lack of privacy. Specially constructed weights were used to adjust for the selection of only one woman per household and to ensure that the domestic violence subsample was nationally representative.

15.1 MEASUREMENT OF VIOLENCE

In the 2016 EDHS, information was obtained from women who had never married on their experience of violence and from ever-married women on their experience of violence committed by their current and former husbands/partners and by others. Specifically, violence committed by the current husband/partner for currently married women and by the most recent husband/partner for formerly married women was measured by asking all ever-married women if their husband/partner ever did the following:

- ***Emotional spousal violence:*** say or do something to humiliate you in front of others; threaten to hurt or harm you or someone close to you; insult you or make you feel bad about yourself
- ***Physical spousal violence:*** push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his/her fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon
- ***Sexual spousal violence:*** physically force you to have sexual intercourse with him even when you did not want to; physically force you to perform any other sexual acts you did not want to; force you with threats or in any other way to perform sexual acts you did not want to

In addition, information was obtained from all women (married and unmarried) about physical violence committed by anyone (other than a current or most recent husband/partner) since they were age 15 by asking if anyone had hit, slapped, kicked, or done something else to hurt them physically. All women were asked about experience of sexual violence committed by anyone (other than a current or most recent husband/partner) by asking if at any time in their life, as a child or as an adult, they were forced in any way to have sexual intercourse or to perform any other sexual acts when they did not want to do so.

All women reporting any experience of physical or sexual violence were asked whether and from whom they had sought help.

15.2 Women's Experience of Physical Violence from Anyone

Physical violence by anyone

Percentage of women who have experienced any physical violence (committed by a husband or anyone else) since age 15 and in the 12 months before the survey.

Sample: Women age 15-49

15.2.1 Prevalence of Physical Violence

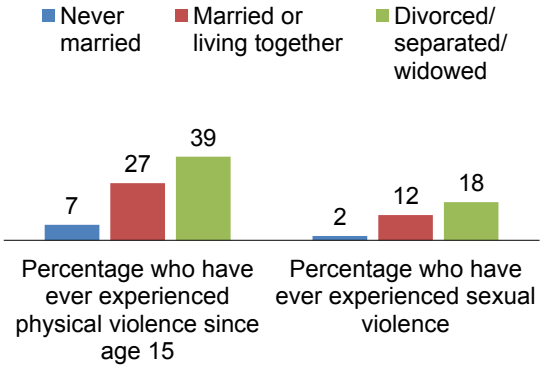
Twenty-three percent of women age 15-49 have experienced physical violence since age 15, and 15% have experienced physical violence in the past 12 months (**Table 15.1**).

Women who had ever been pregnant were asked whether they had experienced physical violence during any pregnancy. Overall, 4% of women responded affirmatively (**Table 15.2**).

Patterns by background characteristics

- The youngest women (age 15-19), women with no children, and never married women (**Figure 15.1**) are less likely to have experienced violence since age 15 than most other women (**Table 15.1**).

Figure 15.1 **Women's experience of violence by marital status**

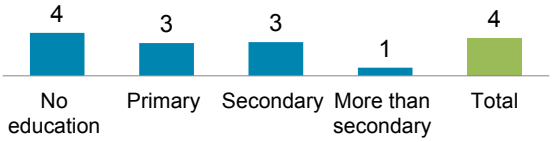


- There is only a small variation in women's experience of physical violence by urban-rural residence. Rural women are only somewhat more likely (24%) than urban women (21%) to have experienced physical violence since age 15. This is also true for the recent experience of physical violence: 16% of rural women reported experiencing physical violence in the past 12 months, compared with 11% of urban women.
- By region, the proportion of women who have experienced physical violence since age 15 ranges from 6% in Somali to 28% in Oromiya.
- The experience of physical violence was more likely among employed women, whether employed for cash or not, than among women who were not employed (25% vs. 22%).
- Women's experience of physical violence since age 15 declines sharply with increasing level of education, from 28% for women with no education, to 13% for women with more than secondary education.

- Women with no education are four times as likely to have experienced violence during pregnancy as women with more than secondary education (**Figure 15.2**).

***Figure 15.2* Violence during pregnancy by education**

Percentage among women age 15-49 who have ever been pregnant



15.2.2 Perpetrators of Physical Violence

- Among all ever-married women age 15-49 who have experienced physical violence since age 15, 68% report their current husbands/partners as perpetrators of physical violence, and 25% report former husbands/partners as perpetrators (**Table 15.3**).

- Never-married women who have ever experienced physical violence since age 15 reported most common perpetrators to be a sister or brother (27%), other relative (14%), father/step-father (13%), and teacher (11%). Eight percent of women reported former boyfriends as perpetrators.

15.3 Experience of Sexual Violence

Sexual violence

Percentage of women who have experienced any sexual violence (committed by a husband or anyone else), ever and in the 12 months before the survey

Sample: Women age 15-49

15.3.1 Prevalence of Sexual Violence

Ten percent of women age 15-49 reported that they have experienced sexual violence at some point in their lives, and 7% reported that they had experienced sexual violence in the past 12 months (**Table 15.4**). Five percent of women had experienced sexual violence by age 18, including 2% who had experienced sexual violence by age 15 (**Table 15.5**).

Patterns by background characteristics

- Women's experience of sexual violence has a linear relationship with age. The percentage of women who have experienced sexual violence increases from 4% for women age 15-19 to 14% for women age 40-49 (**Table 15.4**).

- Urban women (7%) are less likely than rural women (11%) to experience sexual violence.

- The proportion of women who have ever experienced sexual violence ranges from less than 1% in Somali to 11%-13% in Amhara, Tigray, and Oromiya. In the past 12 months, about 1 in 10 women (9%) in Oromiya has experienced sexual violence.

- Experience of sexual violence is more common among divorced/separated/widowed women (18%) and women who are currently married or living with someone (12%). Two percent of never-married women reported experiencing sexual violence. Women who have more than five children are more likely to have experienced sexual violence in the past 12 months than women with fewer than five children (11% vs. 2% to 8%).

- Women with more than secondary education (5%) are half as likely to have ever experienced sexual violence as women with no education (13%).

15.3.2 Perpetrators of Sexual Violence

The 2016 EDHS report shows that sexual violence is often committed by individuals with whom women have an intimate relationship. Among ever-married women age 15-49 who had ever experienced sexual violence, 69% reported their current husband/partner and 30% reported former husbands/partners as perpetrators. However, non-trivial percentages of all women who have experienced sexual violence also reported current/former boyfriends and other relatives (2% for each) as perpetrators (**Table 15.6**).

15.4 Experience of Different Forms of Violence

Women may experience a combination of different forms of violence. Sixteen percent of women experienced physical violence only, 3% experienced sexual violence only, and 7% experienced both physical and sexual violence. Overall, 26% of women age 15-49 have experienced either physical or sexual violence, or both (**Table 15.7**).

15.5 Marital Control by Husband

Marital control

Percentage of women whose current husband/partner (if currently married) or most recent husband/partner (if formerly married) demonstrates at least one of the following controlling behaviours: is jealous or angry if she talks to other men; frequently accuses her of being unfaithful; does not permit her to meet her female friends; tries to limit her contact with her family; and insists on knowing where she is at all times.

Sample: Ever-married women age 15-49

Attempts by husbands to closely control and monitor their wives' behaviour are important warning signs and correlates of violence in a relationship. Because the concentration of behaviours is more significant than the display of any single behaviour, the proportion of women whose husbands/partners display at least three of the specified behaviours is also discussed.

Thirty-nine percent of ever-married women reported that their husbands/partners are jealous or angry if they talk with other men, 33% reported that their husbands/partners insist on knowing where they are at all times, 16% reported that their husbands/partners try to limit their contact with their families, 15% reported that their husbands/partners do not permit them to meet their female friends, and 13% reported that their husbands/partners frequently accuse them of being unfaithful. Overall, 16% of ever-married women reported that their husbands/partners display three or more of the specified behaviours, and 43% say that they display none of them (**Table 15.8**).

Patterns by background characteristics

- Formerly married women (divorced, separated, or widowed) are more likely (25%) to report that their husbands/partners displayed at least three of the specified behaviours than currently married women (15%).
- The display of three or more types of marital control behaviour by women's husbands/partners varies greatly by region: from 22% in Oromiya to 6% in Somali and Benishangul-Gumuz.
- Women with more than secondary education are less likely to have husbands/partners that display three or more forms of marital control behaviours (8%) than women with no education (17%).
- Women's reports of controlling behaviours by their husbands/partners vary greatly by whether they report being afraid of their husband/partner or not. While 9% of women who say that they are never afraid of their husband/partner reported at least three controlling behaviours by their

husbands/partners, this percentage rose to 27% among women who were afraid of their husband/partner most of the time.

15.6 Forms of Spousal Violence

Spousal violence

Percentage of women who have experienced any of the specified acts of physical, sexual, or emotional violence committed by their current husband/partner (if currently married) or most recent husband/partner (if formerly married), ever and in the 12 months preceding the survey

Sample: Ever-married women age 15-49

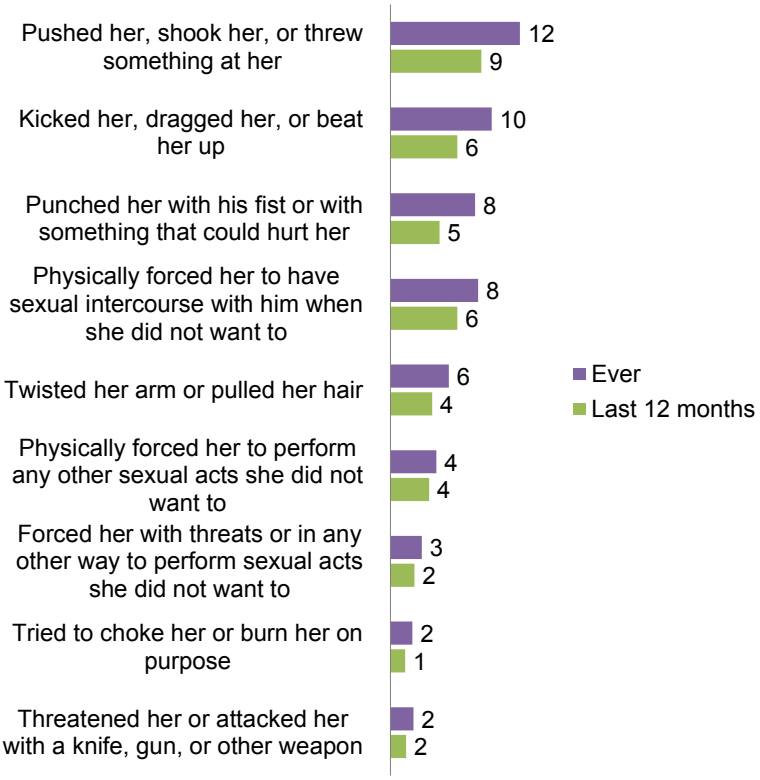
15.6.1 Prevalence of Spousal Violence

Thirty-four percent of ever-married women age 15-49 have ever experienced physical, sexual, or emotional violence by their current husband/partner if currently married or most recent husband/partner if formerly married. Twenty-seven percent of ever-married women experienced physical, sexual, or emotional violence in the past 12 months either sometimes (20%) or often (7%) (**Table 15.9**).

Twenty-four percent of ever-married women have experienced spousal physical violence, with 17% experiencing this type of violence in the past 12 months. Of the acts of physical violence committed by current or most recent husbands/partners, the most common type is slapping (19%). Twelve percent of women reported being pushed, shaken, or having something thrown at them, 10% reported being kicked, dragged, or beaten up, 8% reported being punched with the fist or with something that could hurt them, and 6% reported having their arms twisted or their hair pulled. Two percent each of women reported that their husband/partner tried to choke or burn them on purpose and that their husband/partner had threatened or attacked them with a knife, gun, or other weapon (**Figure 15.3**).

***Figure 15.3* Types of spousal violence**

Percentage of ever-married women age 15-49 who have ever experienced specfic acts of violence by their husband/partner



Ten percent of ever-married women have experienced one or more acts of spousal sexual violence, with 8% experiencing this type of violence in the past 12 months. The most frequently reported act of sexual violence, reported by 8% of ever-married women, was that their husband/partner used physical force to have sexual intercourse with them when they did not want to. Four percent reported that their husband/partner physically forced them to perform other sexual acts they did not want to do, and 3% reported that their husband/partner forced them with threats or in other ways to perform sexual acts they did not want to do.

Women reporting emotional violence were most likely to report that their husband/partner insulted them and made them feel bad about themselves (19%), followed by their husband/partner saying or doing something to humiliate them in front of others (14%), and threatening to hurt or harm them or someone close to them (8%).

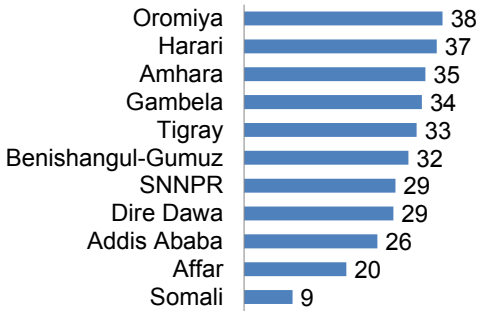
Women who were married more than once were also asked about spousal violence committed by any other husband/partner. Twenty-eight percent of women have ever experienced physical or sexual violence committed by any husband/partner: 25% have experienced physical violence, and 11% have experienced sexual violence. During the 12 months preceding the survey, 20% of ever-married women experienced physical or sexual violence bya husband/partner, either current or previous (**Table 15.9**).

Patterns by background characteristics

- By region, spousal violence (physical, sexual or emotional) is most prevalent in Oromiya (38%) and Harari (37%), and least prevalent in Somali (9%) (**Table 15.10** and **Figure 15.4**).
- All forms of spousal violence are higher among divorced/separated/widowed women than among currently married women.
- Women's education is inversely correlated with spousal violence. Women with no education are more likely to have experienced physical, sexual, or emotional violence (36%) than women with more than secondary education (17%).

Figure 15.4 Spousal violence by region

Percentage of ever-married women age 15-49 who have ever experienced physical, sexual, or emotional violence committed by their husband/partner



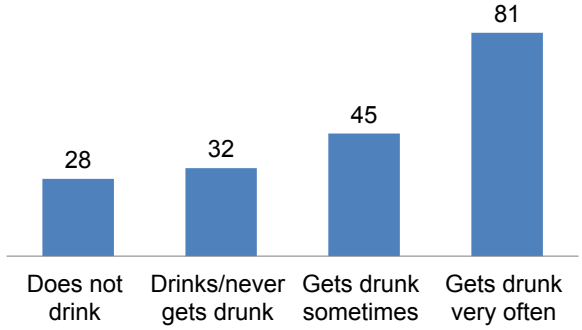
- Spousal violence does not vary consistently with wealth status; however, women in the highest wealth quintile are much less likely than women in the other wealth quintiles to experience spousal violence.

Patterns by husband's characteristics and empowerment indicators

- Husbands/partners who have more than a secondary education are less likely (18%) to commit emotional, physical, or sexual spousal violence than husbands/partners with no education (36%) or with primary (34%) education (**Table 15.11**).
- Experience of spousal violence varies greatly with the level of husbands'/partners' alcohol consumption. Eighty-one percent of women whose husbands/partners are often drunk have experienced spousal violence, compared with 28% of women whose husbands/partners do not drink alcohol (**Figure 15.5**).

Figure 15.5 Spousal violence by husband's alcohol consumption

Percentage of ever-married women who have ever experienced spousal (physical, sexual, or emotional) violence



- Women in couples where the wife is better educated than the husband/partner (38%), and in which both husband/partner and wife have no education (34%) are more than twice as likely to have experienced spousal violence as women in couples where both have equal education (15%).

- The likelihood of experiencing spousal violence increases sharply with the number of marital control behaviours displayed by husbands/partners; 88% of women whose husbands/partners display all five marital control behaviours have ever experienced spousal violence, compared with 17% of women whose husbands/partners do not display any marital control behaviours.
- Women who participate in three or more household decisions and who do not agree with any reason for wife beating have a lower prevalence of spousal violence than women who participate in no household decisions and women who agree with most reasons for wife beating (a difference of about 6 percentage points for each).
- Women who reported that their fathers beat their mothers are more likely (49%) to have themselves experienced spousal violence than women who reported that their fathers did not beat their mothers (28%).
- Women's fear of their husbands/partners and spousal violence are correlated. Women who say that they are afraid of their husbands/partners most of the time are most likely to have ever experienced any form of spousal violence (57%), followed by women who are only sometimes afraid of their husbands/partners (35%). Nonetheless, it is notable that 19% of even the women who say that they are never afraid of their husband/partner have experienced spousal violence.

15.6.2 Onset of Spousal Violence

Table 15.13 shows when spousal violence first occurred in relation to the start of their marriage among women who were married only once. Among currently married women age 15-49 who have been married only once, 9% first experienced spousal violence within the first 2 years of marriage, and 18% had experienced it by 5 years of marriage.

15.7 Injuries to Women due to Spousal Violence

Injuries due to spousal violence

Percentage of women who have the following types of injuries from spousal violence: cuts, bruises, or aches; eye injuries, sprains, dislocations, or burns; deep wounds, broken bones, broken teeth, or any other serious injury

Sample: Ever-married women age 15-49 who have experienced physical or sexual violence committed by their current husband/partner (if currently married) or most recent husband/partner (if formerly married)

Among ever-married women who have experienced any spousal physical or sexual violence, 22% have sustained some kind of physical injury (**Table 15.14**).

Cuts, bruises, or aches are the most common types of injuries (19%) reported by women who have experienced spousal physical or sexual violence. However, a significant proportion of women who have experienced spousal violence also reported having serious injuries such as deep wounds, broken bones, and broken teeth (10%), as well as eye injuries, sprains, dislocations, or burns (7%).

15.8 Violence Initiated by Women against Husbands

Initiation of physical violence by wives

Percentage of women who have ever hit, slapped, kicked, or done anything else to physically hurt their current (if currently married) or most recent (if formerly married) husband/partner at times when he was not already beating or physically hurting her.

Sample: Ever-married women age 15-49

Four percent of ever-married women reported initiating physical violence against their husbands/partners when he was not already beating or physically hurting them. Three percent reported that they initiated violence within the past 12 months.

Women who have experienced spousal violence are much more likely than women who have not experienced spousal violence to have ever initiated violence against their husbands/partners. Thirteen percent of women who have ever experienced spousal violence also perpetrated such violence compared with less than 1% for women who have never experienced spousal violence (**Table 15.15**).

Patterns by background characteristics

- Women whose husbands/partners get drunk often are more likely to initiate physical violence (12%) than women whose husbands/partners do not drink (3%) (**Table 15.16**).
- The percentage of women who have initiated violence against their husband/partner increases sharply with the number of controlling behaviours that their husbands/partners display, from 2% among women whose husbands/partners do not display any of the specified controlling behaviours to 7% among women whose husbands/partners display all five specified behaviours.

15.9 Response to Violence

15.9.1 Help-Seeking among Women Who Have Experienced Violence

Overall, only 23% of women age 15-49 who have ever experienced any type of physical or sexual violence by anyone have sought help. Notably, 66% have never sought help nor told anyone about the violence. Women who have experienced both physical and sexual violence are more likely to have sought help (27%) than women who have experienced only sexual violence (7%) or only physical violence (23%) (**Table 15.17**).

Patterns by background characteristics

- Help seeking by women who have ever experienced physical or sexual violence is less common among rural women (19%) than urban women (36%).
- Women in Addis Ababa (41%), followed by women in SNNPR and Tigray (24% each) are more likely to seek help than other women, and women in Benishangul-Gumuz are least likely to do so (9%).
- Women employed for cash are more likely to seek help (29%) than women who are not employed (19%).
- Help seeking is higher among never married women (34%), those belonging to the highest wealth quintile (33%), and those who have secondary or more than secondary education (30%-34%).

15.9.2 Sources for Help

Among women who have experienced physical or sexual violence and sought help, the most common source for help was neighbours (34%). Other common sources were the woman's own family (31%), and her husband's/partner's family (14%). Only 8% of women seek help from the police. It is not common for women who have experienced physical and sexual violence to seek help from service providers such as lawyers, doctors/medical personnel, and social work organizations: only 2%-3% have ever sought help from each of these sources (**Table 15.18**).

List of Tables

For more information on violence against women, see the following tables:

- **Table 15.1 Experience of physical violence**
- **Table 15.2 Experience of violence during pregnancy**
- **Table 15.3 Persons committing physical violence**
- **Table 15.4 Experience of sexual violence**
- **Table 15.5 Age at first experience of sexual violence**
- **Table 15.6 Persons committing sexual violence**
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- **Table 15.10 Spousal violence by background characteristics**
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- **Table 15.18 Sources for help to stop the violence**

Table 15.1 Experience of physical violence

Percentage of women age 15-49 who have experienced physical violence since age 15 and percentage who have experienced physical violence during the 12 months preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who have ever experienced physical violence since age 15[1]	Percentage who have experienced physical violence in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Age					
15-19	12.6	0.6	8.4	9.0	1,200
20-24	21.6	1.9	13.7	15.7	969
25-29	24.8	3.7	13.5	17.2	1,088
30-39	28.5	4.9	11.4	16.3	1,702
40-49	27.7	4.8	11.0	15.9	900
Religion					
Orthodox	24.9	2.7	11.1	13.9	2,588
Catholic	(15.2)	(0.1)	(11.4)	(11.4)	41
Protestant	20.9	3.3	9.7	13.0	1,401
Muslim	22.4	3.8	13.3	17.1	1,742
Traditional	(30.7)	(3.5)	(11.4)	(15.0)	48
Other	(41.3)	(20.0)	(17.5)	(37.5)	39
Ethnic group					
Affar	12.5	1.0	3.5	4.5	40
Amhara	24.5	2.6	10.8	13.4	1,792
Guragie	21.4	0.1	10.1	10.2	151
Hadiya	21.7	1.0	14.6	15.6	135
Oromo	26.7	5.4	14.1	19.4	1,967
Sidama	28.0	4.9	12.8	17.8	244
Somali	5.6	0.5	3.8	4.2	161
Tigray	23.8	1.6	8.0	9.7	422
Welaita	14.5	3.0	8.4	12.2	175
Others	16.9	1.8	10.5	12.3	773
Residence					
Urban	20.9	2.5	8.1	10.6	1,266
Rural	23.9	3.5	12.4	16.0	4,594
Region					
Tigray	25.0	2.4	8.3	10.8	405
Affar	15.5	1.0	5.0	6.0	50
Amhara	24.2	2.8	10.6	13.4	1,393
Oromiya	27.7	5.3	14.9	20.2	2,152
Somali	5.9	0.7	3.9	4.6	170
Benishangul-Gumuz	17.7	1.3	11.0	12.5	55
SNNPR	17.0	1.8	9.5	11.4	1,243
Gambela	25.3	4.6	14.3	18.9	15
Harari	24.5	5.0	15.0	19.9	13
Addis Ababa	23.4	0.7	9.4	10.2	330
Dire Dawa	20.3	1.8	9.3	11.0	35
Marital status					
Never married	7.2	0.3	3.2	3.4	1,391
Married or living together	26.7	4.1	14.0	18.1	3,897
Divorced/separated/widowed	39.0	5.3	14.8	20.1	573
Number of living children					
0	11.8	0.5	6.8	7.3	1,814
1-2	31.2	3.1	16.1	19.3	1,401
3-4	26.7	5.2	11.5	16.7	1,235
5+	27.2	5.4	12.9	18.3	1,410
Employment					
Employed for cash	24.7	3.7	10.1	13.7	1,448
Employed not for cash	24.7	2.7	12.0	14.8	1,572
Not employed	21.8	3.4	11.9	15.4	2,840
Education					
No education	28.1	4.8	12.9	17.7	2,864
Primary	20.6	2.3	12.0	14.4	1,972
Secondary	16.2	1.5	7.5	8.9	660
More than secondary	13.0	0.2	4.8	4.9	363
Wealth quintile					
Lowest	24.5	3.8	13.4	17.3	987
Second	23.4	3.8	13.0	16.8	1,051
Middle	26.4	4.1	13.1	17.3	1,146
Fourth	23.1	3.2	10.9	14.1	1,146
Highest	20.3	2.0	8.4	10.5	1,530
Total 15-49	23.3	3.3	11.5	14.8	5,860

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes violence in the past 12 months. For women who were married before age 15 and reported physical violence only by their husband/partner, the violence could have occurred before age 15.
[2] Includes women who report physical violence in the past 12 months but for whom frequency is not known.

Table 15.2 Experience of violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Age		
15-19	1.1	165
20-24	2.0	580
25-29	2.6	942
30-39	4.1	1,636
40-49	5.8	884
Religion		
Orthodox	4.9	1,726
Catholic	*	31
Protestant	3.0	996
Muslim	2.8	1,380
Traditional	(0.0)	38
Other	(9.8)	37
Ethnic group		
Affar	1.1	33
Amhara	3.7	1,213
Guragie	3.5	89
Hadiya	0.0	88
Oromo	5.1	1,507
Sidama	3.7	193
Somali	0.2	116
Tigray	5.4	299
Welaita	2.9	102
Others	1.2	567
Residence		
Urban	3.7	738
Rural	3.7	3,470
Region		
Tigray	5.5	294
Affar	1.8	38
Amhara	3.5	974
Oromiya	5.0	1,669
Somali	0.5	123
Benishangul-Gumuz	1.5	42
SNNPR	1.7	887
Gambela	3.1	12
Harari	2.9	9
Addis Ababa	4.6	140
Dire Dawa	0.7	20
Marital status		
Never married	2.8	40
Married or living together	3.1	3,684
Divorced/separated/widowed	8.7	484
Number of living children		
0	0.8	161
1-2	3.4	1,401
3-4	3.4	1,235
5+	4.8	1,410
Education		
No education	4.2	2,660
Primary	3.2	1,099
Secondary	3.3	281
More than secondary	0.8	167
Wealth quintile		
Lowest	3.0	813
Second	3.7	805
Middle	3.9	888
Fourth	3.5	793
Highest	4.5	909
Total 15-49	3.7	4,207

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 15.3 Persons committing physical violence

Among women age 15-49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's current marital status, Ethiopia DHS 2016

	Marital status		
Person	Ever-married	Never married	Total
Current husband/partner	68.2	na	63.1
Former husband/partner	25.2	na	23.3
Current boyfriend	2.5	0.0	2.3
Former boyfriend	4.1	8.1	4.4
Father/step-father	1.8	13.0	2.6
Mother/step-mother	2.5	3.9	2.6
Sister/brother	4.0	26.5	5.7
Daughter/son	0.6	1.3	0.6
Other relative	3.7	14.1	4.4
Mother-in-law	0.0	na	0.0
Father-in-law	0.2	na	0.1
Other in-law	0.4	na	0.4
Teacher	0.6	10.9	1.3
Employer/someone at work	1.0	5.0	1.3
Other	4.3	25.7	5.9
Number women who have experienced physical violence since age 15	1,264	101	1,364

Note: Women can report more than one person who committed the violence.
na = Not applicable

Table 15.4 Experience of sexual violence

Percentage of women age 15-49 who have ever experienced sexual violence and percentage who have experienced sexual violence in the 12 months preceding the survey, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage who have experienced sexual violence:		Number of women
	Ever[1]	Past 12 months	
Age			
15-19	3.5	2.4	1,200
20-24	7.9	5.3	969
25-29	12.4	8.4	1,088
30-39	12.5	7.8	1,702
40-49	13.6	8.4	900
Religion			
Orthodox	10.7	6.3	2,588
Catholic	(5.3)	(3.9)	41
Protestant	9.0	5.2	1,401
Muslim	10.1	7.9	1,742
Traditional	(10.9)	(10.9)	48
Other	(7.0)	(0.0)	39
Ethnic group			
Affar	3.3	1.0	40
Amhara	10.3	5.9	1,792
Guragie	5.2	0.9	151
Hadiya	9.2	5.9	135
Oromo	12.9	9.3	1,967
Sidama	4.5	3.3	244
Somali	0.2	0.2	161
Tigray	11.0	5.6	422
Welaita	6.1	2.4	175
Others	7.8	5.9	773
Residence			
Urban	7.3	2.0	1,266
Rural	10.8	7.7	4,594
Region			
Tigray	12.0	6.2	405
Affar	4.5	1.4	50
Amhara	10.5	6.9	1,393
Oromiya	13.2	9.4	2,152
Somali	0.3	0.3	170
Benishangul-Gumuz	6.8	4.6	55
SNNPR	6.1	3.7	1,243
Gambela	10.4	7.3	15
Harari	4.2	2.6	13
Addis Ababa	7.7	1.4	330
Dire Dawa	7.0	3.5	35
Marital status			
Never married	2.0	0.4	1,391
Married or living together	11.8	8.7	3,897
Divorced/separated/widowed	17.8	6.4	573
Employment			
Employed for cash	12.2	5.3	1,448
Employed not for cash	10.2	6.5	1,572
Not employed	8.9	7.1	2,840
Number of living children			
0	3.9	2.1	1,814
1-2	14.0	7.2	1,401
3-4	11.1	7.6	1,235
5+	13.2	10.5	1,410
Education			
No education	13.2	9.4	2,864
Primary	8.3	4.8	1,972
Secondary	4.8	1.8	660
More than secondary	4.7	1.2	363
Wealth quintile			
Lowest	12.1	9.5	987
Second	12.3	9.4	1,051
Middle	12.6	8.3	1,146
Fourth	8.6	5.7	1,146
Highest	6.4	1.8	1,530
Total 15-49	10.1	6.5	5,860

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes violence in the past 12 months

Table 15.5 Age at first experience of sexual violence

Percentage of women age 15-49 who experienced sexual violence by specific exact ages, according to current age and current marital status, Ethiopia DHS 2016

Background characteristic	Percentage who first experienced sexual violence by exact age					Percentage who have not experienced sexual violence	Number of women
	10	12	15	18	22		
Current age							
15-19	0.7	0.9	1.3	na	na	96.5	1,200
20-24	0.2	0.2	1.1	4.6	na	92.1	969
25-29	1.0	1.1	2.2	5.3	8.3	87.6	1,088
30-39	0.4	0.7	1.7	4.9	7.1	87.5	1,702
40-49	0.2	0.2	1.3	4.8	8.3	86.4	900
Marital status							
Never married	0.5	0.5	0.5	1.1	1.5	98.0	1,391
Ever married	0.5	0.7	1.9	5.7	8.4	87.4	4,469
Total	0.5	0.6	1.6	4.6	6.8	89.9	5,860

na = Not applicable

Table 15.6 Persons committing sexual violence

Among women age 15-49 who have experienced sexual violence, percentage who report specific persons who committed the violence according to the respondent's current marital status, Ethiopia DHS 2016

Person	Marital status		Total
	Ever-married[1]	Never married	
Current husband/partner	69.3	na	66.0
Former husband/partner	29.8	na	28.4
Current/former boyfriend	2.2	(7.5)	2.5
Father/step father	0.7	(0.2)	0.7
Brother/step brother	0.0	(0.0)	0.0
Other relative	1.3	(22.0)	2.3
Own friend/acquaintance	0.0	(9.3)	0.5
Family friend	0.7	(3.0)	0.8
Teacher	0.0	(0.0)	0.0
Employer/someone at work	0.6	(14.5)	1.3
Police/soldier	1.1	(0.0)	1.0
Priest/religious leader	0.0	(0.0)	0.0
Stranger	1.2	(17.6)	1.9
Other	2.4	(25.9)	3.5
Missing	0.0	(0.0)	0.0
Number women who have experienced sexual violence	562	28	589

[1] Women can report more than one person who committed the violence.
Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Table 15.7 Experience of different forms of violence

Percentage of women age 15-49 who have ever experienced different forms of violence by current age, country, Ethiopia DHS 2016

Age	Physical violence only	Sexual violence only	Physical and sexual violence	Physical or sexual violence	Number of women
15-19	10.5	1.4	2.2	14.0	1,200
15-17	10.2	0.2	2.0	12.3	743
18-19	10.9	3.3	2.5	16.7	457
20-24	16.6	2.8	5.0	24.5	969
25-29	16.3	3.9	8.5	28.7	1,088
30-39	18.9	3.0	9.6	31.4	1,702
40-49	18.4	4.3	9.3	31.9	900
Total	16.2	3.0	7.1	26.3	5,860

Table 15.8 Marital control exercised by husbands

Percentage of ever-married women age 15-49 whose husbands/partners have ever demonstrated specific types of controlling behaviours, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women whose husband/partner: Is jealous or angry if she talks to other men	Frequently accuses her of being unfaithful	Does not permit her to meet her female friends	Tries to limit her contact with her family	Insists on knowing where she is at all times	Displays 3 or more of the specific behaviours	Displays none of the specific behaviours	Number of ever-married women
Age								
15-19	48.1	12.8	16.8	14.0	39.1	19.0	37.3	289
20-24	39.8	8.8	16.3	15.3	35.5	15.1	42.3	669
25-29	38.2	10.8	12.3	14.2	35.2	13.6	42.0	982
30-39	37.5	12.9	15.1	17.6	30.8	15.7	44.2	1,642
40-49	36.5	16.8	16.1	16.4	32.9	20.7	45.8	887
Religion								
Orthodox	41.8	10.8	16.3	17.8	31.5	17.1	41.2	1,900
Catholic	*	*	*	*	*	*	*	33
Protestant	35.6	15.0	14.6	15.3	32.0	14.9	43.3	1,014
Muslim	35.5	12.8	13.2	13.7	36.3	15.6	45.7	1,448
Traditional	(37.9)	(1.0)	(1.7)	(11.9)	(33.0)	(11.7)	(50.9)	38
Other	(75.1)	(41.2)	(42.5)	(41.8)	(70.0)	(53.0)	(21.3)	37
Ethnic group								
Affar	40.0	5.5	11.2	11.6	18.8	8.6	50.7	37
Amhara	44.0	7.2	12.1	16.8	27.7	13.6	41.0	1,344
Guragie	44.7	12.1	20.8	24.2	38.7	20.2	29.9	90
Hadiya	41.2	10.1	15.1	24.3	45.2	16.6	24.7	90
Oromo	37.6	19.5	17.2	15.3	44.1	21.3	41.7	1,582
Sidama	41.5	18.4	15.1	18.2	25.9	18.0	48.6	196
Somali	19.2	2.0	7.6	6.0	10.6	5.5	73.1	124
Tigray	29.6	8.9	15.6	15.1	36.4	14.2	46.9	319
Welaita	35.6	14.6	21.0	19.9	28.7	14.8	34.7	101
Others	35.0	9.2	14.8	15.3	22.4	12.4	48.8	587
Residence								
Urban	37.4	11.7	15.9	18.3	27.7	16.5	45.2	809
Rural	38.7	12.8	14.7	15.5	34.7	16.3	42.9	3,660
Region								
Tigray	29.3	9.1	17.1	15.5	37.7	15.8	46.6	316
Affar	38.0	6.4	12.6	13.4	19.1	9.4	49.9	43
Amhara	45.7	6.7	10.5	16.0	25.0	12.7	42.8	1,085
Oromiya	37.3	19.6	17.3	15.8	46.8	21.5	39.4	1,746
Somali	20.3	2.3	7.6	6.4	11.0	5.6	71.4	132
Benishangul-Gumuz	16.2	5.6	17.4	12.8	14.1	5.5	59.4	44
SNNPR	40.4	10.1	15.4	17.9	23.0	13.8	43.8	913
Gambela	39.9	14.7	20.3	27.3	31.9	18.0	36.3	13
Harari	44.7	18.1	21.9	23.4	29.9	18.8	35.8	10
Addis Ababa	31.9	9.0	18.7	19.2	22.7	15.2	50.2	146
Dire Dawa	22.7	12.0	12.7	9.2	23.2	11.5	59.6	23
Marital status								
Married or living together	37.9	11.5	14.2	15.1	33.3	15.1	43.5	3,897
Divorced/separated/widowed	42.6	19.9	20.1	22.4	34.3	24.8	42.0	573
Number of living children								
0	41.9	11.0	16.8	15.6	34.4	17.8	41.8	454
1-2	40.2	11.1	16.5	16.6	34.2	15.9	39.6	1,376
3-4	37.6	10.9	12.9	16.8	30.7	14.6	45.3	1,232
5+	36.4	16.1	14.7	15.0	34.7	17.9	45.6	1,408
Employment								
Employed for cash	41.4	15.0	16.8	17.4	33.2	16.5	39.1	1,076
Employed not for cash	34.1	9.5	13.7	16.3	30.9	15.1	48.2	1,262
Not employed	39.6	13.2	14.7	15.2	35.0	17.0	42.6	2,131
Education								
No education	36.7	13.8	15.4	17.1	33.7	17.3	44.5	2,725
Primary	42.5	11.7	15.1	14.5	35.7	16.5	40.6	1,236
Secondary	36.2	7.8	12.9	16.9	27.9	12.3	47.1	312
More than secondary	41.1	9.1	11.7	9.7	23.4	8.2	37.4	196
Wealth quintile								
Lowest	36.2	12.5	11.9	14.5	31.8	14.2	47.1	842
Second	37.1	12.6	13.9	15.3	31.4	16.6	47.2	857
Middle	37.8	12.9	14.7	17.3	35.1	17.3	42.1	933
Fourth	42.1	11.3	16.7	16.7	39.0	16.3	35.9	848
Highest	39.1	13.5	17.2	16.3	30.1	17.1	44.2	990
Woman afraid of husband/ partner								
Most of the time afraid	44.9	21.4	22.9	27.0	47.5	26.5	33.0	950
Sometimes afraid	36.2	14.6	15.0	14.5	36.6	18.4	44.3	1,825
Never afraid	37.3	5.5	10.4	11.6	22.1	8.5	48.0	1,694
Total	38.5	12.6	15.0	16.0	33.4	16.4	43.3	4,469

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. 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 15.9 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence ever or in the 12 months preceding the survey, committed by their current or most recent husbands/partners, Ethiopia DHS 2016

Type of violence experienced	Ever experienced	Experienced in the past 12 months	In the past 12 months	
			Often	Sometimes
SPOUSAL VIOLENCE COMMITTED BY CURRENT OR MOST RECENT HUSBAND/PARTNER[1]				
Physical violence				
Any physical violence	23.5	16.9	3.7	13.2
Pushed her, shook her, or threw something at her	12.4	8.7	1.6	7.1
Slapped her	18.8	12.7	2.3	10.5
Twisted her arm or pulled her hair	5.6	4.0	1.0	3.1
Punched her with his fist or with something that could hurt her	8.1	4.7	1.1	3.6
Kicked her, dragged her, or beat her up	9.7	6.4	1.3	5.1
Tried to choke her or burn her on purpose	2.1	1.4	0.5	0.9
Threatened her or attacked her with a knife, gun, or other weapon	2.2	1.5	0.6	0.9
Sexual violence				
Any sexual violence	10.1	8.3	1.7	6.6
Physically forced her to have sexual intercourse with him when she did not want to	8.4	6.4	1.3	5.0
Physically forced her to perform any other sexual acts she did not want to	4.4	3.7	0.6	3.1
Forced her with threats or in any other way to perform sexual acts she did not want to	3.0	2.3	0.3	1.9
Emotional violence				
Any emotional violence	24.0	20.2	4.7	15.5
Said or did something to humiliate her in front of others	13.7	11.2	3.1	8.0
Threatened to hurt or harm her or someone she cared about	7.9	6.4	1.6	4.8
Insulted her or made her feel bad about herself	19.4	16.5	3.1	13.4
Any form of physical and/or sexual violence	26.3	19.7	4.5	15.3
Any form of emotional and/or physical and/or sexual violence	33.8	27.0	7.4	19.6
SPOUSAL VIOLENCE COMMITTED BY ANY HUSBAND/PARTNER				
Physical violence	24.9	16.9	na	na
Sexual violence	11.1	8.3	na	na
Physical and/or sexual violence	28.0	19.8	na	na
Number of ever-married women	4,469	4,469	4,469	4,469

na = Not available

[1] Includes current husband/partner for currently married women and most recent husband/partner for divorced, separated, or widowed women

Table 15.10 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their current or most recent husband/partner, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Age								
15-19	21.6	27.1	10.0	7.5	7.2	29.6	33.4	289
20-24	22.6	23.1	8.3	5.1	3.9	26.3	32.3	669
25-29	19.6	23.1	10.9	7.8	5.5	26.2	31.5	982
30-39	24.7	23.5	9.7	7.5	6.0	25.7	34.2	1,642
40-49	29.3	23.1	11.4	8.1	7.7	26.3	36.8	887
Religion								
Orthodox	25.6	23.8	10.5	7.0	5.6	27.2	35.3	1,900
Catholic	*	*	*	*	*	*	*	33
Protestant	24.7	22.3	8.9	6.3	5.9	24.8	33.1	1,014
Muslim	20.7	23.3	10.7	8.8	6.8	25.2	31.3	1,448
Traditional	(25.1)	(38.2)	(13.6)	(2.8)	(2.8)	(49.0)	(59.5)	38
Other	(54.9)	(40.4)	(0.0)	(0.0)	(0.0)	(40.4)	(54.9)	37
Ethnic group								
Affar	12.6	9.7	3.4	3.1	2.2	10.1	18.1	37
Amhara	24.6	23.2	9.5	6.7	5.2	26.0	34.8	1,344
Guragie	29.5	20.8	3.6	1.9	0.5	22.5	32.9	90
Hadiya	31.0	23.4	12.2	12.2	11.9	23.4	36.1	90
Oromo	24.0	28.8	13.3	10.6	8.6	31.5	36.6	1,582
Sidama	32.0	28.9	5.6	5.1	5.1	29.3	39.5	196
Somali	6.7	6.2	0.2	0.2	0.2	6.2	8.9	124
Tigray	25.7	17.3	10.8	5.0	4.8	23.2	31.9	319
Welaita	22.8	16.9	8.6	6.0	3.1	19.5	32.6	101
Others	21.5	17.7	7.5	4.2	3.7	21.0	29.2	587
Residence								
Urban	21.3	18.2	6.0	4.6	3.8	19.6	27.6	809
Rural	24.6	24.7	11.0	7.9	6.5	27.8	35.2	3,660
Region								
Tigray	26.7	18.7	11.7	5.7	5.1	24.7	33.4	316
Affar	13.4	11.7	3.0	2.4	1.9	12.3	19.8	43
Amhara	25.8	22.0	10.3	6.8	5.0	25.6	35.1	1,085
Oromiya	25.4	30.1	13.3	10.8	8.9	32.6	38.4	1,746
Somali	7.1	6.8	0.4	0.4	0.2	6.8	9.4	132
Benishangul-Gumuz	25.6	20.2	6.9	4.0	3.1	23.0	31.8	44
SNNPR	21.8	18.1	6.2	4.0	3.5	20.2	29.3	913
Gambela	23.6	24.9	8.2	5.5	4.1	27.6	34.4	13
Harari	31.2	28.4	4.5	4.5	4.2	28.4	37.3	10
Addis Ababa	18.9	20.2	4.2	4.0	4.0	20.4	25.8	146
Dire Dawa	19.2	19.9	6.7	2.3	2.0	24.2	28.9	23
Marital status								
Married or living together	22.7	21.9	9.5	6.6	5.2	24.8	32.3	3,897
Divorced/separated/ widowed	32.5	34.5	13.9	12.3	11.2	36.1	43.9	573
Number of living children								
0	22.4	23.3	9.0	6.4	5.9	25.9	31.4	454
1-2	22.0	25.0	9.9	7.2	5.2	27.8	33.7	1,376
3-4	21.4	22.5	9.5	7.4	5.4	24.6	31.4	1,232
5+	28.7	23.0	11.1	7.8	7.3	26.4	36.8	1,408
Employment								
Employed for cash	24.1	23.3	10.3	8.0	6.9	25.6	33.2	1,076
Employed not for cash	25.7	23.9	9.8	6.4	5.1	27.3	36.2	1,262
Not employed	22.9	23.4	10.2	7.5	6.0	26.1	32.6	2,131
Education								
No education	25.9	24.6	11.6	8.3	7.1	27.9	35.5	2,725
Primary	24.2	24.6	9.0	7.1	5.4	26.5	34.4	1,236
Secondary	16.7	18.2	5.5	4.3	2.1	19.4	27.0	312
More than secondary	7.8	10.0	3.9	0.1	0.0	13.9	17.2	196
Wealth quintile								
Lowest	24.0	24.2	12.3	8.7	6.2	27.7	35.8	842
Second	25.9	23.9	13.1	8.9	7.5	28.0	35.2	857
Middle	26.5	26.1	12.0	8.8	7.0	29.3	37.6	933
Fourth	25.3	26.4	9.4	7.3	6.9	28.5	35.5	848
Highest	18.8	17.7	4.5	3.4	2.6	18.8	25.7	990
Total 15-49	24.0	23.5	10.1	7.3	6.0	26.3	33.8	4,469

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. 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 15.11 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their current or most recent husband/partner, according to the husband's characteristics and women's empowerment indicators, Ethiopia DHS 2016

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical and sexual	Physical and sexual and emotional	Physical or sexual	Physical or sexual or emotional	Number of ever-married women
Husband's/partner's education[1]								
No education	25.2	24.4	10.8	8.0	6.2	27.1	35.9	1,807
Primary	23.5	23.1	10.0	6.7	5.4	26.4	33.5	1,397
Secondary	16.7	15.3	6.1	3.6	2.8	17.9	21.6	361
More than secondary	11.1	9.2	3.8	1.2	1.2	11.8	17.9	299
Husband's/partner's alcohol consumption								
Does not drink alcohol	19.5	19.1	7.8	5.5	4.4	21.4	28.2	3,058
Drinks alcohol but is never drunk	19.5	21.4	11.6	6.8	4.3	26.2	32.1	446
Is sometimes drunk	32.9	30.2	13.8	10.3	8.9	33.7	44.7	769
Is often drunk	67.9	71.1	27.7	25.6	23.2	73.2	81.4	197
Spousal education difference[1]								
Husband has more education	21.5	20.9	9.4	5.9	4.7	24.3	30.5	1,506
Wife has more education	24.6	26.6	10.4	8.5	4.7	28.5	37.7	600
Both have equal education	10.1	9.6	2.5	2.3	2.1	9.9	15.0	216
Neither has any education	24.8	22.8	10.3	7.1	6.3	25.9	34.3	1,541
DK/missing	32.2	33.9	13.8	12.0	10.9	35.7	43.3	607
Spousal age difference[1]								
Wife older	19.3	21.9	2.6	2.6	2.6	21.9	29.9	121
Wife is same age	35.0	32.5	9.2	5.2	5.2	36.4	42.6	83
Wife's 1-4 years younger	20.2	21.6	8.3	5.7	3.6	24.2	30.9	1,108
Wife's 5-9 years younger	20.9	22.6	8.6	6.1	4.2	25.1	32.1	1,515
Wife's 10+ years younger	27.3	20.4	12.9	8.7	8.5	24.6	33.5	1,070
Number of marital control behaviours displayed by husband/partner[2]								
0	9.6	10.3	4.2	2.2	1.7	12.2	16.7	1,935
1-2	24.9	25.8	11.2	8.0	5.9	29.1	37.2	1,803
3-4	52.0	46.7	21.3	16.2	14.1	51.8	65.6	566
5	85.8	73.3	29.4	29.4	29.3	73.4	87.6	165
Number of decisions in which women participate[3]								
0	31.2	26.9	11.0	8.4	8.0	29.6	36.4	378
1-2	26.8	24.1	11.1	7.0	5.3	28.2	37.6	825
3	20.3	20.5	8.8	6.2	4.8	23.1	30.1	2,694
Number of reasons for which wife-beating is justified[4]								
0	23.7	22.1	6.3	5.0	4.5	23.4	30.2	1,489
1-2	23.1	21.8	9.3	6.1	4.8	25.0	33.2	903
3-4	24.6	24.8	14.5	9.8	7.8	29.5	38.0	1,001
5	24.5	25.8	11.9	9.3	7.4	28.4	35.2	1,076
Woman's father beat her mother								
Yes	34.9	36.2	13.4	10.2	8.3	39.3	48.5	1,226
No	19.4	18.3	8.3	5.9	4.8	20.7	27.6	2,982
DK/Missing	25.3	23.7	14.8	9.9	8.9	28.7	35.3	261
Woman afraid of husband/partner								
Most of the time afraid	42.4	45.5	21.5	16.9	14.3	50.0	57.3	950
Sometimes afraid	25.1	23.4	9.3	6.9	5.3	25.8	35.3	1,825
Never afraid	12.4	11.3	4.5	2.4	2.0	13.5	18.9	1,694
Total 15-49	24.0	23.5	10.1	7.3	6.0	26.3	33.8	4,469

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Total includes 32 ever-married women with missing information on husband's/partner's education.

[1] Includes only currently married women.

[2] According to the wife's report. See 15.8 for list of behaviours.

[3] According to the wife's report. Includes only currently married women. See Table 14.12.1 for list of decisions.

[4] According to the wife's report. See Table 14.13.1 for list of reasons.

Table 15.12 Physical or sexual violence in the past 12 months by any husband/partner

Percentage of ever-married women who have experienced physical or sexual violence by any husband/partner in the past 12 months, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women who have experienced physical or sexual violence in the past 12 months from any husband/partner	Number of ever-married women
Age		
15-19	24.3	289
20-24	23.1	669
25-29	20.3	982
30-39	18.2	1,642
40-49	18.2	887
Religion		
Orthodox	19.2	1,900
Catholic	*	33
Protestant	18.0	1,014
Muslim	21.2	1,448
Traditional	(29.4)	38
Other	(40.3)	37
Ethnic group		
Affar	4.5	37
Amhara	18.4	1,344
Guragie	14.5	90
Hadiya	15.4	90
Oromo	24.6	1,582
Sidama	21.8	196
Somali	5.2	124
Tigray	12.8	319
Welaita	19.6	101
Others	18.8	587
Residence		
Urban	11.9	809
Rural	21.5	3,660
Region		
Tigray	14.4	316
Affar	6.6	43
Amhara	18.9	1,085
Oromiya	25.3	1,746
Somali	5.8	132
Benishangul-Gumuz	18.3	44
SNNPR	16.0	913
Gambela	22.9	13
Harari	24.3	10
Addis Ababa	12.7	146
Dire Dawa	14.5	23
Marital status		
Married or living together	20.0	3,897
Divorced/separated/widowed	18.4	573
Number of living children		
0	19.5	454
1-2	20.1	1,376
3-4	18.7	1,232
5+	20.5	1,408
Employment		
Employed for cash	17.0	1,076
Employed not for cash	20.6	1,262
Not employed	20.7	2,131
Education		
No education	21.0	2,725
Primary	20.7	1,236
Secondary	12.3	312
More than secondary	9.8	196
Wealth quintile		
Lowest	23.0	842
Second	22.6	857
Middle	23.3	933
Fourth	19.9	848
Highest	11.3	990
Woman afraid of husband/partner		
Most of the time afraid	37.7	950
Sometimes afraid	19.6	1,825
Never afraid	10.0	1,694
Total 15-49	19.8	4,469

Note: Any husband/partner includes all current, most recent and former husbands/partners. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 15.13 Experience of spousal violence by duration of marriage

Among currently married women age 15-49 who have been married only once, percentage who first experienced physical or sexual violence committed by their current husband/partner by specific exact years since marriage according to marital duration, Ethiopia DHS 2016

Duration of marriage	Percentage who first experienced spousal physical or sexual violence by exact marital duration:				Percentage who have not experienced spousal sexual or physical violence	Number of currently married women who have been married only once
	Before marriage	2 years	5 years	10 years		
Years since marriage						
<2	0.0	na	na	na	80.1	217
2-4	2.7	16.9	na	na	76.8	451
5-9	0.2	9.8	20.3	na	75.5	597
10+	0.5	7.5	15.6	19.4	75.3	1,976
Total	0.7	9.4	17.5	20.8	75.9	3,241

na = Not applicable

Table 15.14 Injuries to women due to spousal violence

Among ever-married women age 15-49 who have experienced violence committed by their current or most recent husband/partner, the percentage who have been injured as a result of the violence, by types of injuries, according to the type of violence, Ethiopia DHS 2016

Type of violence	Cuts, bruises, or aches	Eye injuries, sprains, dislocations, or burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	Number of ever-married women who have ever experienced physical or sexual violence
Physical violence[1]					
Ever[2]	20.4	7.8	10.7	23.9	1,051
In the past 12 months	20.7	7.7	10.7	24.1	755
Sexual violence					
Ever[2]	22.4	9.5	13.0	27.9	451
In the past 12 months	20.2	6.8	10.8	24.6	370
Physical or sexual violence[1]					
Ever[2]	18.7	7.1	9.6	21.8	1,175
In the past 12 months	18.7	6.8	9.2	21.6	883

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women.
[1] Excludes women who reported violence only in response to a direct question on violence during pregnancy
[2] Includes in the past 12 months

Table 15.15 Violence by women against their husband by women's background characteristics

Percentage of ever-married women who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting her, ever and in the past 12 months according to women's own experience of spousal violence and background characteristics, Ethiopia DHS 2016

Background Characteristic	Percentage who committed physical violence against their husband/partner: Ever[1]	In the past 12 months	Number of ever-married women
Woman's experience of spousal physical violence			
Ever[1]	13.4	11.7	1,051
In the past 12 months	15.9	14.9	755
Never	0.7	0.5	3,418
Age			
15-19	5.1	5.1	289
20-24	3.9	3.5	669
25-29	2.7	2.7	982
30-39	3.9	3.2	1,642
40-49	3.6	2.6	887
Religion			
Orthodox	2.8	2.2	1,900
Catholic	*	*	33
Protestant	2.3	1.6	1,014
Muslim	6.0	5.6	1,448
Traditional	(0.3)	(0.3)	38
Other	(0.0)	(0.0)	37
Ethnic group			
Affar	1.0	0.9	37
Amhara	2.7	2.0	1,344
Guragie	2.8	1.4	90
Hadiya	8.7	8.7	90
Oromo	6.0	5.6	1,582
Sidama	2.1	0.0	196
Somali	0.8	0.6	124
Tigray	1.9	1.1	319
Welaita	3.1	3.1	101
Others	1.4	1.4	587
Residence			
Urban	3.9	2.7	809
Rural	3.6	3.2	3,660
Region			
Tigray	1.9	1.1	316
Affar	1.5	1.1	43
Amhara	2.2	1.5	1,085
Oromiya	6.2	5.9	1,746
Somali	1.0	0.9	132
Benishangul-Gumuz	1.7	0.8	44
SNNPR	1.6	1.0	913
Gambela	1.7	1.4	13
Harari	1.5	1.5	10
Addis Ababa	5.7	4.1	146
Dire Dawa	2.6	0.9	23
Marital status			
Married or living together	3.7	3.2	3,897
Divorced/separated/widowed	3.5	2.4	573
Employment			
Employed for cash	3.9	3.1	1,076
Employed not for cash	4.0	3.3	1,262
Not employed	3.3	3.1	2,131
Number of living children			
0	4.7	4.1	454
1-2	4.0	3.7	1,376
3-4	3.0	2.3	1,232
5+	3.7	3.0	1,408
Wealth quintile			
Lowest	3.4	3.0	842
Second	5.3	5.1	857
Middle	3.0	2.5	933
Fourth	3.2	2.6	848
Highest	3.5	2.6	990
Total	3.7	3.1	4,469

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes in the past 12 months

Table 15.16 Violence by women against their husband by husband's characteristics and empowerment indicators

Percentage of ever-married women who have committed physical violence against their current or most recent husband/partner when he was not already beating or physically hurting her, ever and in the past 12 months according to their husband's characteristics and women's empowerment indicators, Ethiopia DHS 2016

Background characteristic	Percentage who committed physical violence against their husband/partner		Number of ever-married women
	Ever[1]	In the past 12 months	
Husband's/partner's education[2]			
No education	4.2	3.7	1,807
Primary	3.5	2.9	1,397
Secondary	3.1	2.8	361
More than secondary	2.9	2.8	299
Husband's/partner's alcohol consumption			
Does not drink alcohol	3.2	2.9	3,058
Drinks alcohol but is never drunk	2.5	1.1	446
Is sometimes drunk	4.4	3.2	769
Is often drunk	11.5	11.5	197
Spousal education difference[2]			
Husband has more education	3.5	2.9	1,506
Wife has more education	5.7	5.0	600
Both have equal education	1.7	1.7	216
Neither has any education	3.5	3.2	1,541
DK/missing	3.3	2.2	607
Spousal age difference[2]			
Wife older	2.8	1.7	121
Wife is same age	12.3	12.3	83
Wife's 1-4 years younger	2.8	2.7	1,108
Wife's 5-9 years younger	3.6	3.2	1,515
Wife's 10+ years younger	4.2	3.3	1,070
Number of marital control behaviours displayed by husband/partner[3]			
0	2.2	1.9	1,935
1-2	3.9	3.5	1,803
3-4	7.3	6.0	566
5	6.6	3.2	165
Number of decisions in which women participate[4]			
0	2.3	2.3	378
1-2	3.3	2.3	825
3	4.0	3.7	2,694
Number of reasons for which wife-beating is justified[5]			
0	2.5	2.0	1,489
1-2	4.0	3.3	903
3-4	6.0	5.4	1,001
5	2.8	2.5	1,076
Woman's father beat her mother			
Yes	5.0	4.4	1,226
No	2.9	2.5	2,982
DK/Missing	6.0	3.9	261
Woman afraid of husband/ partner			
Most of the time afraid	7.6	7.2	950
Sometimes afraid	3.8	3.1	1,825
Never afraid	1.4	0.9	1,694
Total	3.7	3.1	4,469

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated, or widowed women. Total includes 32 ever-married women with missing information on husband's/partner's education.

[1] Includes in the past 12 months

[2] Includes only currently married women

[3] According to the wife's report. See Table 15.8 for list of behaviours.

[4] According to the wife's report. Includes only currently married women. See Table 14.12.1 for list of decisions.

[5] According to the wife's report. See Table 14.13.1 for list of reasons.

Table 15.17 Help seeking to stop violence

Percent distribution of women age 15-49 who have ever experienced physical or sexual violence by their help-seeking behaviour according to type of violence and background characteristics, Ethiopia DHS 2016

Background characteristic	Sought help to stop violence	Never sought help but told someone	Never sought help, never told anyone	Total	Number of women who have ever experienced any physical or sexual violence
Type of violence experienced					
Physical only	23.4	10.7	66.0	100.0	951
Sexual only	7.0	13.9	79.1	100.0	176
Physical and sexual	27.0	11.6	61.5	100.0	414
Age					
15-19	24.6	15.4	60.0	100.0	168
20-24	11.4	11.5	77.1	100.0	237
25-29	16.7	13.9	69.4	100.0	312
30-39	30.4	9.7	59.9	100.0	535
40-49	21.8	8.7	69.5	100.0	287
Religion					
Orthodox	24.5	13.8	61.6	100.0	740
Catholic	*	*	*	100.0	6
Protestant	23.2	7.9	68.9	100.0	333
Muslim	19.6	9.8	70.6	100.0	425
Traditional	*	*	*	100.0	19
Other	*	*	*	100.0	18
Ethnic group					
Affar	(12.0)	(4.8)	(83.3)	100.0	5
Amhara	21.6	14.5	63.9	100.0	501
Guragie	34.2	10.5	55.4	100.0	37
Hadiya	*	*	*	100.0	29
Oromo	22.9	10.4	66.8	100.0	587
Sidama	(25.3)	(6.2)	(68.4)	100.0	69
Somali	(25.0)	(6.7)	(68.3)	100.0	9
Tigray	26.4	14.1	59.4	100.0	116
Welaita	*	*	*	100.0	30
Others	15.9	9.3	74.8	100.0	156
Residence					
Urban	35.8	18.1	46.2	100.0	295
Rural	19.3	9.7	71.0	100.0	1,245
Region					
Tigray	24.1	13.8	62.0	100.0	117
Affar	9.6	7.9	82.4	100.0	9
Amhara	21.4	14.2	64.4	100.0	388
Oromiya	20.1	9.8	70.1	100.0	662
Somali	(27.5)	(6.1)	(66.4)	100.0	10
Benishangul-Gumuz	8.5	20.3	71.2	100.0	12
SNNPR	24.2	5.8	70.0	100.0	240
Gambela	10.8	25.5	63.6	100.0	5
Harari	15.5	15.6	68.9	100.0	3
Addis Ababa	41.1	20.0	38.8	100.0	88
Dire Dawa	21.8	13.1	65.1	100.0	9
Marital status					
Never married	33.9	24.6	41.5	100.0	120
Married or living together	20.2	10.1	69.7	100.0	1,180
Divorced/separated/widowed	27.8	10.3	61.9	100.0	240
Number of living children					
0	23.4	15.0	61.7	100.0	245
1-2	21.1	13.0	65.9	100.0	499
3-4	23.2	9.0	67.8	100.0	356
5+	22.9	9.1	68.0	100.0	439
Employment					
Employed for cash	29.2	13.9	56.9	100.0	409
Employed not for cash	21.4	9.2	69.3	100.0	446
Not employed	19.1	11.0	69.9	100.0	686
Education					
No education	22.0	9.4	68.6	100.0	901
Primary	19.3	11.7	69.0	100.0	460
Secondary	34.2	20.2	45.7	100.0	120
More than secondary	29.8	19.2	51.0	100.0	60
Wealth quintile					
Lowest	17.6	7.5	74.9	100.0	273
Second	19.2	11.0	69.8	100.0	283
Middle	18.2	7.2	74.7	100.0	348
Fourth	22.7	13.0	64.2	100.0	288
Highest	33.0	17.1	49.9	100.0	347
Total	22.5	11.3	66.3	100.0	1,540

Note: Women can report more than one source from which they sought help. 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 15.18 Sources for help to stop the violence

Percentage of women age 15-49 who have experienced physical or sexual violence and sought help, by sources from which they sought help, according to the type of violence that women reported, Ethiopia DHS 2016

	Type of violence experienced			
Source	Physical only	Sexual only	Physical and sexual	Physical or sexual
Own family	30.3	*	31.3	30.6
Husband/partner's family	6.8	*	26.6	13.5
Husband/partner	0.2	*	0.0	0.1
Friend	7.8	*	15.5	10.2
Neighbour	41.5	*	22.3	34.4
Religious leader	3.2	*	10.8	5.5
Doctor/medical personnel	1.0	*	2.6	1.5
Police	9.8	*	4.1	8.1
Lawyer	1.1	*	5.1	2.8
Social work organization	2.4	*	1.0	1.8
Other	3.3	*	2.4	3.0
Number of women who have sought help	222	12	112	346

Note: Women can report more than one source from which they sought help. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

FEMALE GENITAL MUTILATION/CUTTING 16

Key Findings

- ***Prevalence among women:*** Sixty-five percent of women age 15-49 are circumcised. The prevalence of female circumcision is highest in Somali (99%) and lowest in Tigray (23%).
- ***Types of procedures:*** Seventy-three percent of circumcised women reported that some flesh was removed, and 7% reported being infibulated.
- ***Age at circumcision:*** Forty-nine percent of circumcised women age 15-49 were circumcised before age 5, and 24% were circumcised at age 10 or older.
- ***Prevalence among girls:*** According to their mothers, 16% of girls age 0-14 are circumcised. Girls are five times more likely to be circumcised if their mothers is circumcised, compared with girls of uncircumcised women.
- ***Opinions of the practice:*** Among women who have heard of female circumcision, 24% believe that the practice is required by their religion, and 18% believe that the practice should be continued.

This chapter explores female genital mutilation or cutting (FGM/C), also known as female circumcision. FGM/C involves removing some of the clitoris or the labia for nontherapeutic reasons, usually as part of a rite of passage into adolescence. The practice is widely acknowledged as a violation of human rights, and serious medical complications can result.

The government of Ethiopia is committed to eliminating the practice of FGM/C by strategic and programmatic measures. These include putting in place a national Harmful Traditional Practices (HTPs) strategy founded on the three-pillar approach: prevention, provision, and protection. This targeted approach guides the national effort and helps to galvanize the support of stakeholders to end the practice as well as mitigate the impact of FGM/C. Additionally, Ethiopia has criminalized the practice and now penalizes practitioners in the national Criminal Code, revised in 2005. To this end, a mix of prevention, protection, and provisional interventions are under implementation at different levels by government and nongovernmental actors.

Moreover, the government of Ethiopia refreshed its commitment to end FGM/C and child marriage by 2025 at the London Global Girls' Summit held in July 2014. The commitment, which employs an integrated and comprehensive strategy, puts girls at the centre and targets girls themselves, families and communities, service providers, and policy makers. As part of the commitment, the following key areas have been identified: improving availability of data; strengthening coordination; putting in place accountability to enhance enforcement of the existing law; and increasing the budget for the effort to end the practice altogether or decrease it by 10%.

Accordingly, the National Alliance to end child marriage and FGM/C strengthened the effort at a higher level. Since 2015, the national girls' summit has tracked progress and kept the national momentum going. A roadmap development initiative, which includes a national and sub-national plan with a monitoring and evaluation framework, is underway. With the existence of a legal and policy framework, and with a high level of political support to end FGM/C, the practice has declined, particularly among younger people, but still continues. In addition, the community-based and faith-based organizations play a key role in mobilizing communities against HTPs, including FGM/C.

16.1 KNOWLEDGE

Knowledge

Female and male respondents were asked if they had ever heard of female genital mutilation/cutting.

Sample: Women age 15-49 and men age 15-59

Overall, 93% of women age 15-49 and 94% of men age 15-49 have heard about FGM/C (**Table 16.1**).

Trends: Awareness of FGM/C among women age 15-49 has remained about the same over the past decade (92% in 2005 to 93% in 2016).

Patterns by background characteristics

- Ninety-seven percent of women residing in urban areas have heard about FGM/C, compared with 91% of women in rural areas.
- Knowledge of FGM/C is higher in Affar (100%), Somali (100%), Harari (99%), Addis Ababa (99%), and Dire Dawa (97%), and lower in Gambela (71%).
- Women's knowledge of FGM/C increases steadily with increasing education, from 90% among women with no education to 100% among those with more than secondary education.

16.2 PREVALENCE OF AND AGE AT CIRCUMCISION AMONG WOMEN

To assess FGM/C prevalence, women age 15-49 were asked if they had ever been circumcised. Circumcised women were further asked about the type of circumcision, their age at the time they were circumcised, and the person who performed the circumcision.

16.2.1 Prevalence and Type of Procedure

Prevalence of FGM/C

Female respondents were asked whether they had ever been circumcised.

Sample: Women age 15-49

Type of and age at circumcision

Women who were circumcised were asked about

- Type of circumcision (cut, no flesh removed; cut, flesh removed; sewn closed [infibulation])
- Age at circumcision

Sample: Women age 15-49 who reported having been circumcised

Two in three women age 15-49 (65%) in Ethiopia are circumcised (**Table 16.2**). The most common type of circumcision involved cutting and removal of flesh, with 73% of circumcised women reporting this type of circumcision. Seven percent of circumcised women reported that their genital area had been sewn closed (infibulated) (**Figure 16.1**). Infibulation is the type of FGM/C that is of greatest concern because of the possible harm to health (Yoder 2013).

Trends: The prevalence of FGM/C in Ethiopia has decreased over the past 16 years, dropping from 80% in the 2000 EDHS, to 74% in the 2005 EDHS, and to 65% in the 2016 EDHS (**Figure 16.2**). The decline is particularly notable among younger women: FGM/C prevalence among women age 15-19 decreased by 24% between 2005 and 2016. The notable decline observed among younger women may be in part a reporting issue. FGM/C was criminalized in 2005, which may lead to under reporting of the practice to avoid legal consequences.

Patterns by background characteristics

- The prevalence of FGM/C increases with age, from 47% among women age 15-19 to 75%-76% among women age 30-49 (**Figure 16.3**).
- Women in rural areas are more likely to be circumcised than women in urban areas (68% and 54%, respectively).
- FGM/C is highest in Somali at 99%, followed by Affar (91%). Tigray has the lowest prevalence (24%), followed by Gambela (33%) (**Figure 16.4**).
- Infibulation is more common in Somali and Affar (73% and 64%, respectively), and lowest in Addis Ababa and Oromiya (1% and 2%, respectively).

Figure 16.1 **Type of female circumcision**

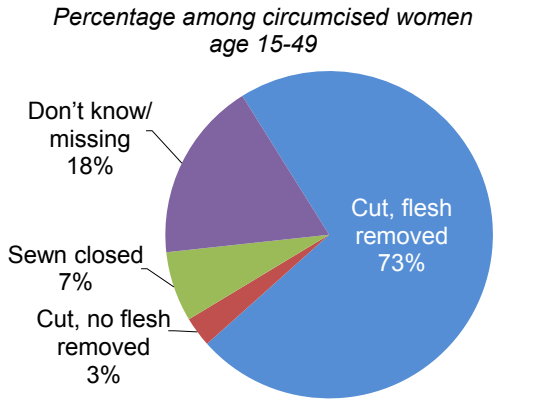


Figure 16.2 **Trends in circumcision**

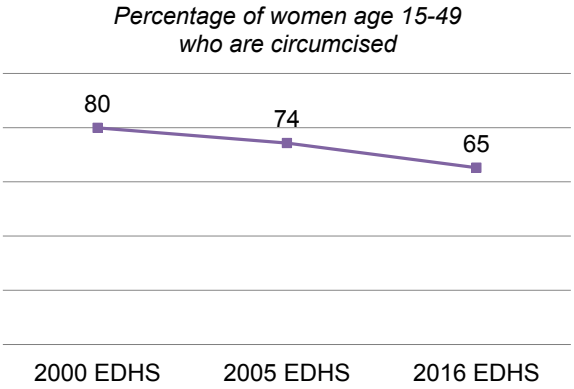


Figure 16.3 **Circumcision by age**

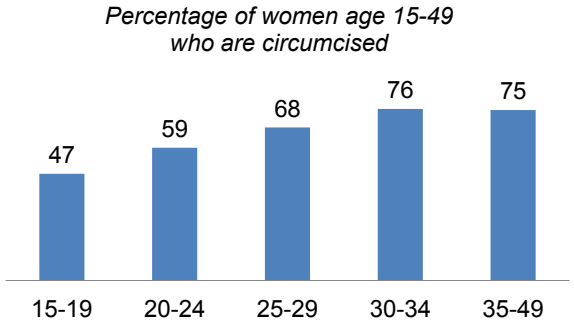
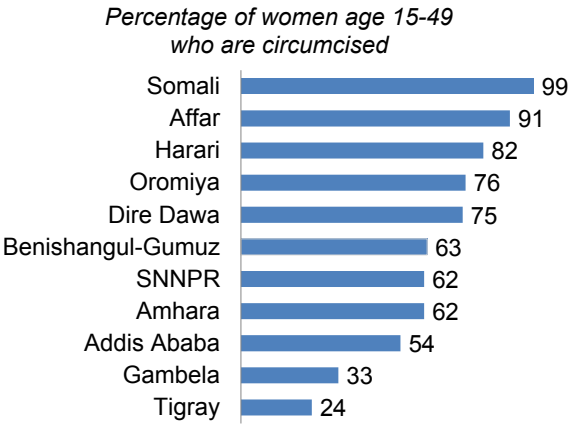


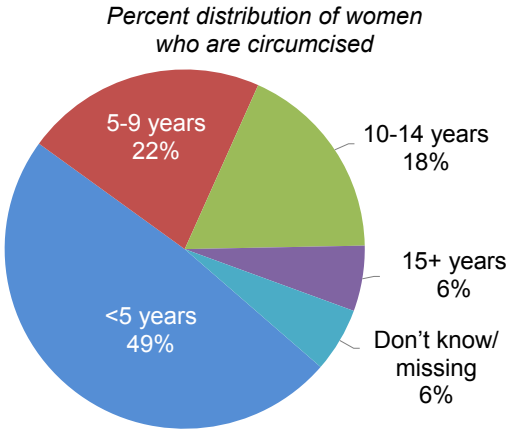
Figure 16.4 **Circumcision by region**



16.2.2 Age at Circumcision

In Ethiopia, FGM/C is performed throughout childhood. Thus, nearly half of women (49%) reported that they were circumcised when they were younger than age 5, 22% between ages 5-9, 18% between ages 10-14, and 6% at age 15 or older (**Table 16.3** and **Figure 16.5**).

Figure 16.5 Age at circumcision



Patterns by background characteristics

- Among circumcised women, those in urban areas are more likely to be circumcised before age 5 than rural women (59% versus 46%, respectively).
- The percentage of women who were circumcised before age 5 is highest in Tigray (93%), followed by Amhara (92%), and lowest in Somali and Harari (13%).

16.3 Prevalence of and Age at Circumcision for Girls Age 0-14

Information on the circumcision status of women age 15-49 reflects the outcomes of circumcision practices over a nearly 50-year period before the survey. To obtain insights into the extent to which young girls are continuing to be circumcised, women who had daughters were asked in the 2016 EDHS if any of their daughters born in 1992 or later had been circumcised.

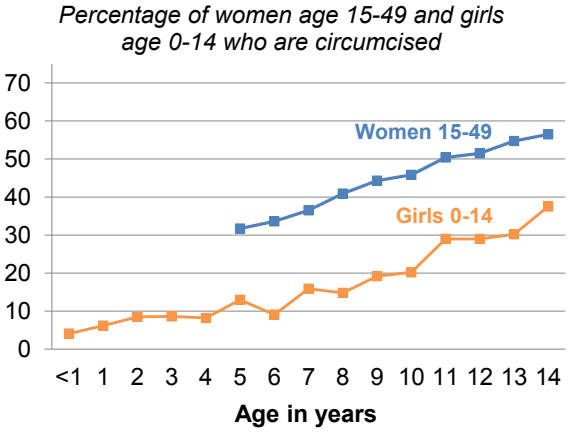
Prevalence of FGM/C among girls age 0-14

Women were asked about the circumcision status of their living daughters age 0-14.

Sample: Girls age 0-14

According to mothers' reports, the prevalence of FGM/C among girls age 0-14 is 16% (**Table 16.4**). The low prevalence rate among young girls should be interpreted with caution since it represents the current rather than the final FGM/C status for this age group. As mentioned above, 21% of women age 15-19 were circumcised between age 10-14, so it is still possible that a number of girls age 0-14 may yet be circumcised. To control for the incomplete exposure to the risk of circumcision among young girls, **Figure 16.6** shows retrospective information for women on age at circumcision and current status information on girls to provide comparable information on the cumulative percentage of women and girls circumcised by exact year of age. According to these data, the prevalence of circumcision is lower among girls age 0-14 than among women age 15-49—57% of women age 15-49 were circumcised by age 14; by contrast, 38% of girls currently age 14 have been circumcised. This trend should be interpreted with caution as some women also may have been reluctant to report that their daughters were circumcised because the practice is outlawed.

Figure 16.6 Age at circumcision among women and girls



Additionally, the decline among girls may also be partly explained by increased government commitment to end FGM/C and a mix of prevention, protection, and provisional interventions by government and non-government actors. For additional information on FGM/C among girls, see tables 16.5-6.7.

16.4 Opinions about the Practice

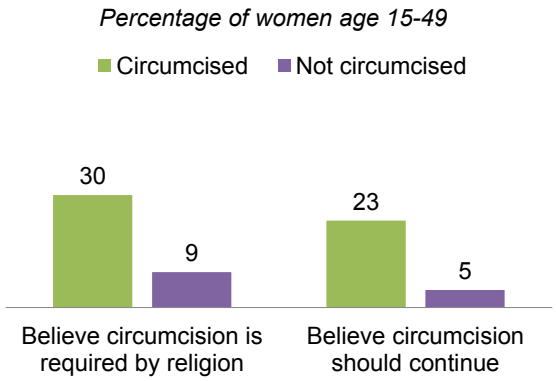
Women age 15-49 and men age 15-59 who heard about female genital mutilation and cutting were asked their opinion on whether or not their religion requires female circumcision and whether the practice should be continued. More than 7 in 10 women (72%) and 77% of men believe that FGM/C is not required by their religion (**Table 16.8**). Seventy-nine percent of women and 87% of men believe that the practice should not be continued (**Table 16.9**).

Trends: Overall, the percentage of women who believe that female circumcision should be continued has decreased from 31% in the 2005 EDHS to 18% in the 2016 EDHS.

Patterns by background characteristics

- Women who are circumcised are more likely to believe that FGM/C is required by their religion (30%) than uncircumcised women (9%). The same pattern is observed with regard to women's opinion about continuation of the practice; 23% of circumcised women think FGM/C should be continued, compared with 5% of uncircumcised women (**Figure 16.7**).

***Figure 16.7* Attitudes about FGC by circumcision status**



- By religion, Muslim women are more likely to believe that FGM/C is required by their religion and that FGM/C should continue (41% and 28%, respectively).
- Women in rural areas are more than twice as likely to believe that FGM/C is required by their religion (28%) compared to women in urban areas (10%). The same pattern is observed with regard to women's opinion about continuation of the practice; 21% of rural women think FGM/C should be continued compared with 7% of urban women.
- The percentages of women who believe that FGM/C is required by their religion and who want to the practice to continue are highest among those with no education (31% and 25%, respectively) and those in the lowest wealth quintile (39% and 34%, respectively).

List of Tables

For more information on FGM/C, see the following tables:

- **Table 16.1 Knowledge of female circumcision**
- **Table 16.2 Prevalence of female circumcision**
- **Table 16.3 Age at circumcision**
- **Table 16.4 Prevalence of circumcision and age at circumcision: Girls 0-14**
- **Table 16.5 Circumcision of girls age 0-14 by mother's background characteristics**
- **Table 16.6 Infibulation among circumcised girls age 0-14**
- **Table 16.7 Aspects of circumcision among circumcised girls age 0-14 and women age 15-49**
- **Table 16.8 Opinions of women and men about whether circumcision is required by religion**
- **Table 16.9 Opinions of women and men about whether the practice of circumcision should continue**

Table 16.1 Knowledge of female circumcision

Percentage of women age 15-49 and men age 15-59 who have heard of female circumcision, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Women		Men	
	Have heard of female circumcision	Number of women	Have heard of female circumcision	Number of men
Age				
15-19	91.1	1,670	87.9	2,572
20-24	92.5	1,290	93.7	1,883
25-29	92.0	1,474	95.4	1,977
30-34	93.0	2,218	95.6	3,020
35-49	95.1	1,170	96.3	2,154
Religion				
Orthodox	92.2	3,424	92.2	5,160
Catholic	(79.0)	66	85.0	78
Protestant	89.9	1,862	93.1	2,561
Muslim	96.8	2,362	96.8	3,649
Traditional	(88.5)	62	(65.7)	31
Other	(47.7)	46	90.3	128
Ethnic group				
Affar	100.0	55	99.5	63
Amhara	94.7	2,328	93.8	3,497
Guragie	98.1	205	97.6	311
Hadiya	98.7	184	97.5	217
Oromo	95.9	2,693	97.2	4,175
Sidama	99.4	321	97.6	490
Somali	99.9	220	99.1	299
Tigray	86.7	565	84.7	778
Welaita	97.4	234	94.5	321
Others	75.3	1,018	84.0	1,455
Residence				
Urban	97.1	1,714	98.0	2,303
Rural	91.4	6,108	92.6	9,302
Region				
Tigray	85.6	540	83.1	708
Affar	100.0	67	98.8	82
Amhara	93.2	1,826	92.6	2,914
Oromiya	95.4	2,881	97.7	4,409
Somali	99.9	229	99.2	301
Benishangul-Gumuz	91.1	75	87.9	118
SNNPR	86.7	1,653	88.8	2,371
Gambela	71.3	22	78.5	35
Harari	99.2	18	99.5	29
Addis Ababa	98.9	466	99.4	573
Dire Dawa	97.3	47	97.8	66
Education				
No education	89.9	3,787	90.9	3,203
Primary	93.5	2,679	92.8	5,608
Secondary	98.0	907	98.1	1,785
More than secondary	99.8	449	99.6	1,010
Wealth quintile				
Lowest	86.3	1,306	90.3	1,839
Second	90.5	1,419	92.9	2,118
Middle	92.6	1,521	92.4	2,246
Fourth	94.5	1,529	93.6	2,466
Highest	96.9	2,048	97.5	2,935
Total 15-49	92.7	7,822	93.7	11,606
50-59	na	na	96.4	1,082
Total 15-59	na	na	93.9	12,688

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Table 16.2 Prevalence of female circumcision

Percentage of women age 15-49 circumcised, and percent distribution of circumcised women by type of circumcision, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision				Total	Number of circumcised women
			Cut, no flesh removed	Cut, flesh removed	Sewn closed	Don't know/ missing		
Age								
15-19	47.1	1,670	2.8	65.1	7.4	24.7	100.0	786
20-24	58.6	1,290	2.8	73.3	6.8	17.1	100.0	756
25-29	67.6	1,474	2.2	75.1	5.7	17.1	100.0	996
30-34	75.8	2,218	2.4	76.0	5.7	15.9	100.0	1,682
35-49	75.3	1,170	2.9	71.5	8.1	17.4	100.0	881
Religion								
Orthodox	54.2	3,424	3.4	62.9	2.3	31.5	100.0	1,856
Catholic	(58.2)	66	*	*	*	*	100.0	39
Protestant	65.8	1,862	2.1	90.0	2.5	5.4	100.0	1,226
Muslim	82.2	2,362	2.2	71.5	13.4	13.0	100.0	1,942
Ethnic group								
Affar	98.4	55	3.1	16.3	71.0	9.6	100.0	54
Amhara	60.5	2,328	3.0	58.5	2.7	35.8	100.0	1,409
Guragie	78.3	205	6.9	75.6	2.7	14.9	100.0	160
Hadiya	92.3	184	1.2	80.3	12.6	6.0	100.0	170
Oromo	77.1	2,693	1.8	82.8	1.9	13.5	100.0	2,076
Sidama	87.6	321	1.3	95.0	2.1	1.6	100.0	281
Somali	98.5	220	1.5	22.4	75.6	0.5	100.0	217
Tigray	23.0	565	8.9	46.0	5.3	39.9	100.0	130
Welaita	92.3	234	5.9	93.5	0.0	0.6	100.0	216
Others	38.1	1,018	1.3	86.0	4.1	8.6	100.0	388
Residence								
Urban	53.9	1,714	4.5	64.3	8.4	22.8	100.0	924
Rural	68.4	6,108	2.1	74.9	6.1	16.9	100.0	4,177
Region								
Tigray	24.2	540	9.9	43.3	7.1	39.7	100.0	131
Affar	91.2	67	7.2	24.1	63.6	5.0	100.0	61
Amhara	61.7	1,826	1.8	55.1	2.8	40.2	100.0	1,127
Oromiya	75.6	2,881	2.0	83.8	1.6	12.6	100.0	2,178
Somali	98.5	229	1.7	24.7	73.1	0.5	100.0	225
Benishangul-Gumuz	62.9	75	5.9	66.2	3.2	24.7	100.0	47
SNNPR	62.0	1,653	2.8	88.7	4.3	4.1	100.0	1,024
Gambela	33.0	22	6.6	43.7	4.8	44.9	100.0	7
Harari	81.7	18	0.6	92.2	4.5	2.7	100.0	15
Addis Ababa	54.0	466	5.1	65.4	1.4	28.0	100.0	251
Dire Dawa	75.3	47	3.3	78.1	10.1	8.5	100.0	35
Total	65.2	7,822	2.6	73.0	6.5	17.9	100.0	5,101

Note: Total includes 34 weighted cases of traditional religion, and 5 weighted cases with information missing 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.

Table 16.3 Age at circumcision

Percent distribution of circumcised women age 15-49 by age at circumcision, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Age at circumcision					Total	Number of circumcised women
	<5[1]	5-9	10-14	15+	Don't know/ Missing		
Age							
15-19	51.6	22.5	19.3	1.9	4.7	100.0	786
20-24	44.0	22.1	17.8	10.7	5.4	100.0	756
25-29	44.7	24.1	20.0	5.9	5.4	100.0	996
30-34	48.5	21.2	17.1	6.3	6.9	100.0	1,682
35-49	54.4	19.1	16.5	4.6	5.4	100.0	881
Religion							
Orthodox	75.1	11.3	6.5	1.0	6.0	100.0	1,856
Catholic	43.5	21.6	5.7	5.4	23.8	100.0	39
Protestant	30.4	28.4	27.3	9.7	4.2	100.0	1,226
Muslim	35.1	27.6	23.7	7.8	5.9	100.0	1,942
Traditional	33.8	6.8	1.0	29.2	29.2	100.0	34
Other	2.8	82.6	12.1	0.0	2.4	100.0	5
Ethnic group							
Affar	91.5	3.5	2.6	0.2	2.2	100.0	54
Amhara	85.9	5.5	2.4	0.4	5.8	100.0	1,409
Guragie	49.1	29.3	17.3	1.1	3.2	100.0	160
Hadiya	25.6	35.9	25.1	6.7	6.6	100.0	170
Oromo	32.4	27.8	23.3	8.6	7.9	100.0	2,076
Sidama	29.1	14.5	32.9	23.5	0.0	100.0	281
Somali	11.4	61.8	24.5	0.4	1.8	100.0	217
Tigray	92.1	1.9	0.1	0.5	5.5	100.0	130
Welaita	23.6	34.9	35.4	3.7	2.5	100.0	216
Others	37.7	23.9	27.1	7.0	4.2	100.0	388
Residence							
Urban	59.2	20.2	10.8	2.2	7.6	100.0	924
Rural	46.2	22.1	19.6	6.7	5.4	100.0	4,177
Region							
Tigray	93.0	1.1	0.0	0.5	5.4	100.0	131
Affar	89.5	4.6	3.2	0.2	2.5	100.0	61
Amhara	92.0	3.6	0.9	0.6	3.0	100.0	1,127
Oromiya	31.8	27.4	23.4	8.5	9.0	100.0	2,178
Somali	12.8	61.3	23.8	0.4	1.7	100.0	225
Benishangul-Gumuz	76.5	10.4	5.6	3.0	4.5	100.0	47
SNNPR	30.6	25.9	30.6	10.2	2.7	100.0	1,024
Gambela	63.4	17.6	6.8	2.3	9.9	100.0	7
Harari	13.0	51.4	28.0	1.1	6.6	100.0	15
Addis Ababa	69.3	16.8	5.4	0.4	8.2	100.0	251
Dire Dawa	39.5	22.5	28.8	4.0	5.2	100.0	35
Total	48.6	21.7	18.0	5.9	5.8	100.0	5,101

[1] Includes women who reported they were circumcised during infancy but did not provide a specific age.

Table 16.4 Prevalence of circumcision and age at circumcision: Girls 0-14

Percent distribution of girls age 0-14 by age at circumcision, and percentage of girls circumcised according to current age, Ethiopia DHS 2016

Background characteristic	Age at circumcision						Total	Number of girls	Percentage circumcised
	<1	1-4	5-9	10-14	Don't know/ Missing	Percentage not circumcised			
Current age of girls									
0-4	5.1	1.5	na	na	0.1	93.1	100.0	2,604	6.9
5-9	7.2	3.6	2.7	na	0.3	85.8	100.0	2,590	14.2
10-14	9.8	5.3	9.4	3.1	0.7	71.6	100.0	2,112	28.4
Total 0-14	7.2	3.4	3.7	1.0	0.3	84.3	100.0	7,306	15.7

Note: The circumcision status of girls is reported by their mothers.
na = Not applicable due to censoring

Table 16.5 Circumcision of girls age 0-14 by mother's background characteristics

Percentage of girls age 0-14 who are circumcised, according to age and mother's background characteristics, Ethiopia DHS 2016

Background characteristic	Current age of girls			Total 0-14
	0-4	5-9	10-14	
Religion				
Orthodox	12.6	22.7	34.3	22.9
Catholic	*	*	*	(17.6)
Protestant	2.8	9.4	20.8	10.8
Muslim	4.8	10.3	28.8	12.8
Ethnic group				
Affar	71.3	82.4	92.2	80.1
Amhara	16.6	28.8	39.0	28.2
Guragie	0.2	5.5	(38.5)	11.5
Hadiya	(0.0)	(7.6)	(45.7)	16.5
Oromo	2.4	8.5	19.8	9.1
Sidama	(0.0)	4.6	23.6	10.7
Somali	2.4	18.4	68.1	24.9
Tigray	6.2	14.8	13.4	11.1
Welaita	(13.9)	(21.1)	(58.6)	29.1
Others	5.2	5.4	14.3	7.8
Residence				
Urban	0.9	7.8	11.9	6.6
Rural	7.6	14.8	30.5	16.7
Region				
Tigray	6.3	15.2	13.7	11.3
Affar	73.3	75.9	86.4	77.8
Amhara	22.5	34.8	47.7	34.8
Oromiya	1.9	6.8	16.9	7.6
Somali	2.9	19.4	69.8	25.7
Benishangul-Gumuz	11.9	21.1	26.5	19.1
SNNPR	2.1	7.3	26.6	11.6
Gambela	1.9	0.4	9.6	3.4
Harari	0.0	2.9	23.5	6.7
Addis Ababa	0.2	1.6	4.6	1.8
Dire Dawa	1.3	7.2	23.3	9.6
Mother's education				
No education	8.0	15.1	29.1	17.2
Primary	6.2	13.4	28.6	13.9
Secondary	0.3	2.2	12.0	2.7
More than secondary	0.0	(0.0)	(1.3)	0.3
Mother's circumcision status				
Circumcised	9.0	17.8	36.2	20.2
Not circumcised	2.6	5.0	5.0	4.1
Wealth quintile				
Lowest	6.3	16.0	32.0	16.1
Second	5.7	14.1	30.3	15.7
Middle	10.2	12.3	27.6	16.0
Fourth	9.0	15.4	32.5	18.6
Highest	2.5	11.9	17.1	10.2
Total	6.9	14.2	28.4	15.7

Note: The circumcision status of girls is reported by their mothers. 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 16.6 Infibulation among circumcised girls age 0-14

Percent distribution of girls age 0-14 who are circumcised by whether or not they are infibulated, according to mother's background characteristics, Ethiopia DHS 2016

Background characteristic	Infibulation status: Sewn closed	Not sewn closed	Don't know/ missing	Total	Number
Religion					
Orthodox	3.1	95.8	1.1	100.0	596
Catholic	*	*	*	100.0	11
Protestant	2.7	97.3	0.0	100.0	192
Muslim	22.2	77.5	0.3	100.0	348
Ethnic group					
Affar	69.9	29.1	1.0	100.0	45
Amhara	3.7	95.8	0.4	100.0	491
Guragie	*	*	*	100.0	13
Hadiya	*	*	*	100.0	35
Oromo	5.7	92.6	1.7	100.0	259
Sidama	*	*	*	100.0	34
Somali	34.7	65.3	0.0	100.0	76
Tigray	1.3	98.7	0.0	100.0	48
Welaita	(0.0)	(100.0)	(0.0)	100.0	62
Others	6.5	92.9	0.5	100.0	84
Residence					
Urban	24.2	75.3	0.5	100.0	50
Rural	8.6	90.8	0.6	100.0	1,097
Region					
Tigray	1.3	98.7	0.0	100.0	49
Affar	68.2	30.8	1.0	100.0	47
Amhara	3.4	96.1	0.4	100.0	520
Oromiya	7.0	91.9	1.1	100.0	234
Somali	32.6	67.4	0.0	100.0	81
Benishangul-Gumuz	10.2	86.8	3.1	100.0	14
SNNPR	5.5	93.6	0.9	100.0	194
Gambela	*	*	*	100.0	1
Harari	(3.6)	(96.4)	(0.0)	100.0	1
Addis Ababa	*	*	*	100.0	2
Dire Dawa	(16.7)	(83.3)	(0.0)	100.0	3
Mother's education					
No education	9.9	89.3	0.8	100.0	912
Primary	6.3	93.7	0.0	100.0	228
Secondary	*	*	*	100.0	7
Mother's circumcision status					
Infibulated	55.4	44.4	0.2	100.0	133
Circumcised, not infibulated	2.9	96.3	0.7	100.0	961
Not circumcised	(8.2)	(91.8)	(0.0)	100.0	53
Wealth quintile					
Lowest	24.2	75.7	0.1	100.0	258
Second	2.5	96.7	0.7	100.0	245
Middle	7.0	91.8	1.1	100.0	246
Fourth	3.3	95.8	0.8	100.0	291
Highest	9.8	90.1	0.1	100.0	107
Total	9.3	90.1	0.6	100.0	1,147

Note: The circumcision status of girls is reported by their mothers. 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 16.7 Aspects of circumcision among circumcised girls age 0-14 and women age 15-49

Percent distribution of circumcised girls age 0-14 by current age and women age 15-49, according to person performing the circumcision and type of circumcision, Ethiopia DHS 2016

Background characteristic	Age of girls			Girls age 0-14	Women age 15-49
	0-4	5-9	10-14		
Person who performed the circumcision					
Traditional agent	99.1	98.4	96.6	97.6	90.1
Traditional circumciser	95.6	96.8	94.4	95.3	87.3
Traditional birth attendant	3.5	1.6	2.2	2.2	2.6
Other traditional agent	0.0	0.0	0.0	0.0	0.2
Medical professional	**0.9**	**1.6**	**2.4**	**1.9**	**1.0**
Doctor	0.0	0.0	0.0	0.0	0.1
Nurse/midwife	0.9	1.6	2.1	1.8	0.6
Other health professional	0.0	0.0	0.3	0.2	0.4
Don't know/missing	**0.0**	**0.0**	**0.9**	**0.5**	**8.9**
Total	100.0	100.0	100.0	100.0	100.0
Type of circumcision					
Sewn closed	7.6	11.4	8.5	9.3	6.5
Not sewn closed	92.3	88.0	90.8	90.1	86.8
Don't know/missing	0.1	0.7	0.8	0.6	6.6
Total	100.0	100.0	100.0	100.0	100.0
Number	180	367	599	1,147	5,101

Note: The circumcision status of girls is reported by their mothers.

Table 16.8 Opinions of women and men about whether circumcision is required by religion

Percent distribution of women age 15-49 and men age 15-59 who have heard of female circumcision by opinion on whether their religion requires female circumcision, according to background characteristics, Ethiopia DHS 2016

	Women						Men					
Background characteristic	Required	Not required	No religion	Don't know	Total	Number of women who have heard of female circum-cision	Required	Not required	No religion	Don't know	Total	Number of men who have heard of female circum-cision
Female circumcision status												
Circumcised	29.6	66.9	0.3	3.2	100.0	5,101	na	na	na	na	na	na
Not circumcised	9.3	84.5	0.5	5.7	100.0	2,147	na	na	na	na	na	na
Age												
15-19	19.0	78.5	0.1	2.4	100.0	1,523	16.0	76.3	0.3	7.5	100.0	2,261
20-24	20.1	75.7	0.3	3.9	100.0	1,194	13.7	78.4	0.2	7.7	100.0	1,764
25-29	23.1	72.8	0.6	3.6	100.0	1,356	17.1	78.4	0.2	4.3	100.0	1,887
30-34	25.5	69.2	0.7	4.5	100.0	1,124	14.9	79.5	0.3	5.3	100.0	1,566
35-39	25.9	70.4	0.1	3.6	100.0	939	18.3	77.5	0.3	4.0	100.0	1,322
40-44	27.2	65.9	0.4	6.5	100.0	610	19.7	74.8	0.4	5.2	100.0	1,160
45-49	34.0	59.2	0.6	6.2	100.0	502	21.4	74.4	0.0	4.1	100.0	913
Religion												
Orthodox	17.0	76.1	0.6	6.3	100.0	3,157	16.9	76.8	0.2	6.1	100.0	4,755
Catholic	(19.6)	(76.5)	(0.0)	(3.8)	100.0	52	5.4	90.6	0.0	4.0	100.0	66
Protestant	12.6	85.3	0.0	2.2	100.0	1,674	4.6	91.9	0.1	3.5	100.0	2,383
Muslim	40.9	56.9	0.1	2.1	100.0	2,288	24.9	68.3	0.0	6.7	100.0	3,533
Traditional	*	*	*	*	100.0	55	*	*	*	*	100.0	20
Other	*	*	*	*	100.0	22	22.8	61.3	11.5	4.4	100.0	115
Ethnic group												
Affar	74.6	23.1	0.0	2.3	100.0	55	51.1	46.3	0.6	2.0	100.0	63
Amhara	19.7	73.7	0.7	5.9	100.0	2,204	21.2	72.2	0.1	6.5	100.0	3,278
Guragie	23.2	73.8	0.9	2.1	100.0	201	12.2	83.5	0.0	4.3	100.0	304
Hadiya	24.0	74.8	0.0	1.1	100.0	182	7.9	86.1	0.0	6.0	100.0	212
Oromo	28.0	69.7	0.1	2.2	100.0	2,584	16.2	77.9	0.1	5.7	100.0	4,058
Sidama	23.2	74.6	0.0	2.2	100.0	319	6.6	90.2	0.5	2.7	100.0	478
Somali	56.1	42.5	0.1	1.3	100.0	220	40.8	50.2	0.2	8.9	100.0	296
Tigray	18.0	71.5	0.4	10.1	100.0	490	17.6	73.7	0.2	8.5	100.0	659
Welaita	19.3	80.5	0.0	0.2	100.0	228	4.5	93.1	0.1	2.3	100.0	303
Others	11.9	83.2	0.6	4.3	100.0	767	8.3	87.0	0.9	3.7	100.0	1,222
Residence												
Urban	10.3	86.2	0.6	2.9	100.0	1,665	11.5	81.6	0.1	6.8	100.0	2,257
Rural	27.6	67.9	0.3	4.2	100.0	5,583	18.2	76.2	0.3	5.4	100.0	8,616
Region												
Tigray	20.1	68.8	0.5	10.7	100.0	462	18.3	72.5	0.2	9.0	100.0	589
Affar	61.7	35.4	0.0	2.9	100.0	67	40.4	56.4	1.4	1.9	100.0	81
Amhara	22.0	70.8	0.6	6.6	100.0	1,702	24.3	68.7	0.0	7.0	100.0	2,699
Oromiya	27.2	70.0	0.2	2.6	100.0	2,748	15.2	78.9	0.2	5.7	100.0	4,307
Somali	57.0	41.5	0.1	1.4	100.0	228	41.7	49.4	0.1	8.8	100.0	298
Benishangul-Gumuz	14.9	82.3	1.2	1.6	100.0	68	23.2	71.2	0.2	5.5	100.0	104
SNNPR	18.1	79.5	0.4	2.0	100.0	1,433	6.8	90.0	0.7	2.5	100.0	2,106
Gambela	14.7	82.9	0.4	2.1	100.0	16	7.1	88.0	0.7	4.3	100.0	27
Harari	31.1	66.0	0.1	2.8	100.0	18	36.2	60.1	0.0	3.6	100.0	28
Addis Ababa	6.2	89.6	0.5	3.7	100.0	461	8.3	85.0	0.0	6.7	100.0	570
Dire Dawa	36.4	61.6	0.0	2.0	100.0	45	31.2	58.6	0.3	9.9	100.0	65
Education												
No education	31.2	63.3	0.5	5.1	100.0	3,406	24.0	69.0	0.2	6.8	100.0	2,911
Primary	21.9	74.4	0.4	3.3	100.0	2,505	15.7	78.7	0.2	5.4	100.0	5,205
Secondary	8.2	89.3	0.1	2.4	100.0	889	12.7	81.9	0.5	4.9	100.0	1,751
More than secondary	6.1	91.6	0.2	2.1	100.0	448	8.7	85.7	0.2	5.4	100.0	1,006
Wealth quintile												
Lowest	39.3	55.4	0.4	4.9	100.0	1,127	23.2	69.0	0.3	7.4	100.0	1,660
Second	28.3	67.5	0.2	4.0	100.0	1,284	21.1	73.1	0.1	5.7	100.0	1,968
Middle	24.8	71.3	0.0	3.9	100.0	1,408	17.6	77.5	0.1	4.7	100.0	2,076
Fourth	22.4	72.1	0.7	4.8	100.0	1,445	14.6	80.4	0.4	4.7	100.0	2,308
Highest	11.7	85.1	0.5	2.8	100.0	1,984	11.2	82.4	0.2	6.1	100.0	2,861
Total 15-49	23.6	72.1	0.4	3.9	100.0	7,248	16.8	77.3	0.2	5.7	100.0	10,873
50-59	na	na	na	na	na	na	21.5	75.3	0.4	2.7	100.0	1,044
Total 15-59	na	na	na	na	na	na	17.2	77.1	0.3	5.4	100.0	11,917

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.
na = Not applicable

Table 16.9 Opinions of women and men about whether the practice of circumcision should continue

Percent distribution of women age 15-49 and men age 15-59 who have heard of female circumcision by their opinion on whether the practice of circumcision should be continued, according to background characteristics, Ethiopia DHS 2016

	Women					Men				
Background characteristic	Continued	Not continued	Don't know/ depends	Total	Number of women who have heard of female circum-cision	Continued	Not continued	Don't know/ depends	Total	Number of men who have heard of female circum-cision
Female circumcision status										
Circumcised	22.9	74.2	2.9	100.0	5,101	na	na	na	na	na
Not circumcised	4.6	91.5	4.0	100.0	2,147	na	na	na	na	na
Age										
15-19	13.6	85.1	1.3	100.0	1,523	10.4	86.8	2.8	100.0	2,261
20-24	14.8	83.1	2.1	100.0	1,194	9.8	86.7	3.5	100.0	1,764
25-29	19.1	76.9	4.0	100.0	1,356	11.2	87.3	1.5	100.0	1,887
30-34	18.9	77.0	4.1	100.0	1,124	10.8	87.3	1.9	100.0	1,566
35-39	21.4	75.0	3.5	100.0	939	12.1	85.6	2.3	100.0	1,322
40-44	16.5	80.3	3.3	100.0	610	9.8	88.4	1.8	100.0	1,160
45-49	21.7	71.2	7.1	100.0	502	15.5	82.8	1.8	100.0	913
Religion										
Orthodox	12.4	83.0	4.6	100.0	3,157	12.0	85.7	2.4	100.0	4,755
Catholic	(21.2)	(75.0)	(3.8)	100.0	52	0.3	97.1	2.6	100.0	66
Protestant	13.0	85.3	1.6	100.0	1,674	4.7	93.7	1.6	100.0	2,383
Muslim	27.5	69.9	2.6	100.0	2,288	14.5	82.9	2.6	100.0	3,533
Traditional	*	*	*	100.0	55	*	*	*	100.0	20
Other	*	*	*	100.0	22	8.2	87.7	4.1	100.0	115
Ethnic group										
Affar	68.3	30.5	1.2	100.0	55	43.3	54.9	1.7	100.0	63
Amhara	14.8	80.1	5.1	100.0	2,204	15.8	81.7	2.5	100.0	3,278
Guragie	14.6	84.2	1.2	100.0	201	5.0	93.9	1.2	100.0	304
Hadiya	13.5	85.3	1.2	100.0	182	6.6	91.7	1.7	100.0	212
Oromo	19.4	78.1	2.4	100.0	2,584	8.3	89.6	2.1	100.0	4,058
Sidama	27.8	72.2	0.0	100.0	319	7.2	90.6	2.2	100.0	478
Somali	51.4	48.1	0.5	100.0	220	33.4	65.8	0.8	100.0	296
Tigray	7.3	89.3	3.4	100.0	490	12.3	83.0	4.8	100.0	659
Welaita	21.7	77.6	0.7	100.0	228	2.5	96.4	1.0	100.0	303
Others	7.6	87.8	4.5	100.0	767	5.7	92.2	2.1	100.0	1,222
Residence										
Urban	7.3	91.4	1.3	100.0	1,665	6.0	92.8	1.1	100.0	2,257
Rural	20.5	75.7	3.8	100.0	5,583	12.4	85.0	2.6	100.0	8,616
Region										
Tigray	7.9	88.5	3.5	100.0	462	13.0	81.7	5.3	100.0	589
Affar	54.8	44.0	1.2	100.0	67	36.0	62.3	1.7	100.0	81
Amhara	16.7	77.4	5.9	100.0	1,702	18.8	78.1	3.1	100.0	2,699
Oromiya	19.2	77.7	3.1	100.0	2,748	7.7	90.1	2.2	100.0	4,307
Somali	52.2	47.3	0.5	100.0	228	34.2	65.1	0.7	100.0	298
Benishangul-Gumuz	9.7	89.2	1.0	100.0	68	12.1	86.7	1.2	100.0	104
SNNPR	15.6	82.8	1.6	100.0	1,433	5.0	93.7	1.3	100.0	2,106
Gambela	7.6	89.8	2.6	100.0	16	5.5	92.1	2.4	100.0	27
Harari	15.9	81.3	2.8	100.0	18	22.0	75.0	3.0	100.0	28
Addis Ababa	3.7	95.4	0.8	100.0	461	3.1	96.0	0.9	100.0	570
Dire Dawa	24.2	72.5	3.3	100.0	45	17.6	78.6	3.8	100.0	65
Education										
No education	24.9	69.6	5.5	100.0	3,406	18.8	77.9	3.3	100.0	2,911
Primary	14.6	83.7	1.7	100.0	2,505	10.3	87.2	2.5	100.0	5,205
Secondary	5.3	94.3	0.4	100.0	889	4.9	94.4	0.6	100.0	1,751
More than secondary	1.2	98.5	0.3	100.0	448	3.3	95.6	1.1	100.0	1,006
Wealth quintile										
Lowest	33.6	62.2	4.2	100.0	1,127	18.8	77.9	3.3	100.0	1,660
Second	21.7	73.7	4.6	100.0	1,284	14.2	83.4	2.4	100.0	1,968
Middle	17.8	79.2	3.0	100.0	1,408	12.8	84.4	2.8	100.0	2,076
Fourth	14.4	82.1	3.5	100.0	1,445	8.6	89.3	2.2	100.0	2,308
Highest	7.5	90.7	1.8	100.0	1,984	5.2	93.4	1.4	100.0	2,861
Total 15-49	17.5	79.3	3.2	100.0	7,248	11.1	86.7	2.3	100.0	10,873
50-59	na	na	na	na	na	14.1	83.3	2.6	100.0	1,044
Total 15-59	na	na	na	na	na	11.3	86.4	2.3	100.0	11,917

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.
na = Not applicable

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SAMPLE DESIGN

Appendix A

A.1 INTRODUCTION

The 2016 Ethiopia Demographic and Health Survey (2016 EDHS) is the fourth in a series of Demographic and Health Surveys conducted in Ethiopia in 2000, 2005, and 2011. The main objective of the 2016 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; domestic violence; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STI); and prevalence of HIV among the adult population. All women age 15-49 and men age 15-59 who are the usual members of the selected households and those who spent the night before the survey in the selected households are eligible to be interviewed in the survey. All women and men who are eligible for the survey and all children under age 5 are eligible for height and weight measurements. All women and men who are eligible for the survey and all children age 6-59 months are eligible for anaemia testing. All women and men who are eligible for the survey are eligible for HIV testing. In half of the selected households, women were eligible for the interviews on domestic violence (DV) and female genital mutilation. In this subsample, one woman per each household was randomly selected for the DV module, while all women were interviewed with the female genital mutilation module. The sample for the 2016 EDHS is designed to provide estimates of population and health indicators that include fertility and mortality rates for the country as a whole, the urban and rural areas separately, and each of the 11 regions in Ethiopia.

A.2 SAMPLING FRAME

The sampling frame used for the 2016 EDHS is the frame of the Population and Housing Census (PHC) conducted in Ethiopia in 2007 and provided by the Central Statistical Agency (CSA). The census frame is a complete list of all census *enumeration areas* (EA) created for the 2007 PHC. An EA is a geographic area that covers an average of 181 households. The sampling frame contains information about the EA location, type of residence (urban or rural), and the estimated number of residential households. Except for the Somali Region, a sketch map that delineates the EA geographic boundaries is available for each EA. In Somali, a cartographic frame was used in three of the region's nine zones, where a sketch map that delineates the EA geographic boundaries is available for each EA. In the other six zones, the satellite frame was used, where a satellite map is available for each EA.

Administratively, Ethiopia is divided into 11 geographical regions. Each region is sub-divided into zones, each zone into woredas, each woreda into towns, and each town into kebeles. The sample is designed to provide estimates in 11 regions for most health and demographic indicators. **Table A.1** indicates the percentage distribution of households by region and type of residence. The table indicates that about 82% of the Ethiopia's households are concentrated in three regions: Amhara, Oromiya and SNNP, while about 4% of households are in the five smallest regions: Affar, Benishangul-Gumuz, Gambela, Harari, and Dire Dawa. The region size varies from 0.30% (Harari, the smallest) to 36.23% (Oromiya, the largest). In Ethiopia, 19.77% of the households are in urban areas. Other than Addis Ababa, which is predominantly urban, the percentage of urban areas varies greatly from 11.84% in the SNNP Region to 71.02% in Dire Dawa.

Table A.1 Distribution of residential households

Distribution of residential households in the sampling frame by region and type of residence; the percentage that each region contributes to the total number of households, and percentage of each district that is urban, Ethiopia DHS 2016

Region	Number of residential households			Percentage district contributes to the total number of households	Percentage of district that is urban
	Urban	Rural	Total		
Tigray	241,947	749,342	991,289	6.43%	24.41%
Affar	46,455	187,745	234,200	1.52%	19.84%
Amhara	626,998	3,348,277	3,975,275	25.79%	15.77%
Oromiya	884,518	4,699,858	5,584,376	36.23%	15.84%
Somali	93,518	425,270	518,788	3.37%	18.03%
Benishangul-Gumuz	28,676	144,363	173,039	1.12%	16.57%
SNNP	366,571	2,729,671	3,096,242	20.09%	11.84%
Gambela	19,811	39,074	58,885	0.38%	33.64%
Harari	28,552	18,191	46,743	0.30%	61.08%
Addis Ababa	655,977		655,977	4.26%	100.00%
Dire Dawa	54,505	22,240	76,745	0.50%	71.02%
Ethiopia	3,047,528	12,364,031	15,411,559	100.00%	19.77%

Source: The 2007 Population and Housing Census (PHC) Sampling frame provided by the Central Statistical Agency (CSA).

Table A.2 indicates the distribution of EAs and their average size in number of households by region and type of residence. There are a total of 84,915 EAs; among them, 17,185 are in urban areas and 67,730 in rural areas. The sampling frame excluded some special EAs with disputed boundaries. These EAs represent only 0.1% of the total population. The average EA size is 181 households; the urban EAs have a smaller size, with an average of 177 households per EA, while the rural EAs have an average of 183 households per EA. The EA size is an adequate size for the primary sampling unit (PSU) with a sample take of 28 households per EA.

Table A.2 Enumeration areas and households

Distribution of enumeration areas (EAs) and average number of households in a EA by region, according to residence, Ethiopia DHS 2016

Region	Number of EAs			Average EA size		
	Urban	Rural	Total	Urban	Rural	Total
Tigray	1,484	4,098	5,582	163	183	178
Affar	245	774	1,019	190	243	230
Amhara	3,300	17,827	21,127	190	188	188
Oromiya	4,909	25,274	30,183	180	186	185
Somali	689	4,170	4,859	136	102	107
Benishangul-Gumuz	171	781	952	168	185	182
SNNP	2,058	14,310	16,368	178	191	189
Gambela	127	273	400	156	143	147
Harari	167	95	262	171	191	178
Addis Ababa	3,722	0	3,722	176		176
Dire Dawa	313	128	441	174	174	174
Ethiopia	**17,185**	**67,730**	**84,915**	**177**	**183**	**181**

Source: The 2007 Population and Housing Census (PHC) Sampling frame provided by the Central Statistical Agency (CSA).

A.3 SAMPLE DESIGN AND SELECTION

The 2016 EDHS sample is stratified and was selected in two stages. Each region was stratified into urban and rural areas, which yielded 21 sampling strata. Samples of EAs were selected independently in each stratum in two stages. Implicit stratification and proportional allocation were achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before sample selection, according to administrative units in different levels, and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 645 EAs were selected with probability proportional to the EA size and with independent selection in each sampling stratum with the sample allocation given in **Table A.3**. The EA size is the number of residential households in the EA as determined in the 2007 PHC. A household listing operation was implemented in the selected EAs, and the resulting lists of households served as the sampling frame for the selection of households in the second stage. Some of the selected EAs were large. To minimize the task of household listing, the selected large EAs with more than 200 households were segmented. Only one segment was selected for the survey with probability proportional to the segment size. Household listing was conducted only in the selected segment. Thus, a 2016 EDHS cluster is either an EA or a segment of an EA.

In the second stage of selection, a fixed number of 28 households per cluster were selected with an equal probability systematic selection from the newly created household listing. The survey interviewer interviewed only the pre-selected households. No replacements or changes of the pre-selected households were allowed in the implementing stages to prevent bias. All women aged 15-49 who are usual members of the selected households or who spent the night before the survey in the selected households were eligible for the female survey. All men aged 15-59 who were usual members of the households or who spent the night before the survey in the households were eligible for the male survey.

Table A.3 shows the allocation of selected households according to regions and urban-rural areas. **Table A.4** shows the expected number of completed women and men interviews according to region and urban-rural areas. To ensure that the survey precision is comparable across regions, the sample allocation figures a power allocation between regions and between different types of residence within each region. Based on a fixed sample take of 28 households per cluster, the survey selected 645 EAs, 202 in urban areas and 443 in rural areas. The survey was conducted in 16,650 residential households, 5,232 in urban areas and 11,418 in rural areas. The sample was expected to generate an estimated 16,663 completed interviews with women age 15-49, 5,514 in urban areas and 11,149 in rural areas, and 14,195 completed interviews with men age 15-59, with 4,472 in urban areas and 9,723 in rural areas.

Table A.3 Sample allocation of clusters and households

Sample allocation of clusters and households by region, according to residence, Ethiopia DHS 2016

	Number of clusters allocated			Number of households allocated		
Region	Urban	Rural	Total	Urban	Rural	Total
Tigray	15	48	63	420	1,344	1,764
Affar	9	44	53	252	1,232	1,484
Amhara	11	60	71	308	1,680	1,988
Oromiya	10	64	74	280	1,792	2,072
Somali	13	56	69	364	1,568	1,932
Benishangul-Gumuz	7	43	50	196	1,204	1,400
SNNP	8	63	71	224	1,764	1,988
Gambela	15	35	50	420	980	1,400
Harari	26	18	44	728	504	1,232
Addis Ababa	56		56	1,568		1,568
Dire Dawa	32	12	44	896	336	1,232
Ethiopia	**202**	**443**	**645**	**5,656**	**12,404**	**18,060**

Table A.4 Sample allocation of expected number of completed interviews with women and men

Sample allocation of expected number of completed interviews with women age 15-49 and men 15-54 by region, according to residence, Ethiopia DHS 2016

	Expected number of interviews with women age 15-49			Expected number of interviews with men age 15-59		
Region	Urban	Rural	Total	Urban	Rural	Total
Tigray	434	1,268	1,702	361	1,092	1,453
Affar	242	1,081	1,323	201	930	1,131
Amhara	313	1,560	1,873	266	1,370	1,636
Oromiya	289	1,692	1,981	251	1,522	1,773
Somali	328	1,291	1,619	261	1,062	1,323
Benishangul-Gumuz	191	1,076	1,267	164	957	1,121
SNNP	224	1,612	1,836	195	1,450	1,645
Gambela	381	812	1,193	321	709	1,030
Harari	721	457	1,178	582	381	963
Addis Ababa	1,519		1,519	1,167		1,167
Dire Dawa	872	300	1,172	703	250	953
Ethiopia	**5,514**	**11,149**	**16,663**	**4,472**	**9,723**	**14,195**

The sample allocations were derived with information obtained from the 2011 EDHS; the average number of women age 15-49 per household is 1.10 in urban areas and 1.01 in rural areas, and the average number of men age 15-59 per household is 0.99 in urban areas and 0.93 in rural areas. **Tables A.5** and **A.6** indicate the regional-level household response rates, as well as individual response rates for women and men.

Table A.5 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Ethiopia DHS 2016

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul-Gumuz	SNNPR	Gambela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	92.5	92.5	98.2	82.2	95.6	95.9	83.4	91.4	95.4	91.4	92.1	94.8	94.2	92.5
Household present but no competent respondent at home (HP)	2.0	1.2	0.3	2.7	0.9	0.3	2.0	2.3	0.9	2.0	2.5	1.2	2.6	1.5
Postponed (P)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0
Refused (R)	0.8	0.4	0.3	0.2	0.0	0.9	0.7	1.3	0.2	0.1	0.6	1.0	0.4	0.5
Dwelling not found (DNF)	0.3	0.3	0.0	0.0	0.0	0.4	2.1	0.0	0.1	0.2	0.2	0.1	0.1	0.3
Household absent (HA)	1.1	2.6	0.4	6.7	0.7	1.0	6.4	1.8	2.3	1.9	1.5	0.4	0.6	2.2
Dwelling vacant/address not a dwelling (DV)	2.3	1.3	0.6	1.6	2.0	0.8	2.3	2.3	0.8	2.1	2.4	2.0	1.3	1.6
Dwelling destroyed (DD)	0.5	1.2	0.1	4.9	0.3	0.4	2.7	0.7	0.4	1.1	0.2	0.3	0.4	1.0
Other (O)	0.4	0.4	0.1	1.6	0.6	0.1	0.5	0.1	0.1	1.0	0.6	0.3	0.2	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	5,659	12,349	1,765	1,484	1,989	2,072	1,876	1,400	1,988	1,400	1,232	1,570	1,232	18,008
Household response rate (HRR)[1]	96.7	98.0	99.4	96.6	99.1	98.2	94.6	96.2	98.9	97.4	96.6	97.7	96.8	97.6
Eligible women														
Completed (EWC)	93.5	95.1	96.6	94.9	98.0	95.7	93.5	95.7	96.3	89.6	90.1	92.2	94.5	94.6
Not at home (EWNH)	3.8	3.3	1.4	4.1	0.9	2.1	4.3	1.9	2.9	8.6	7.9	4.2	3.9	3.5
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	2.1	0.7	1.2	0.3	0.1	1.4	1.2	1.2	0.6	1.1	1.5	2.8	1.3	1.2
Incapacitated (EWI)	0.3	0.7	0.7	0.5	0.7	0.6	0.7	0.8	0.2	0.5	0.5	0.5	0.2	0.5
Other (EWO)	0.2	0.2	0.1	0.2	0.3	0.1	0.3	0.4	0.0	0.2	0.0	0.3	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,720	10,863	1,741	1,189	1,754	1,978	1,488	1,177	1,921	1,155	1,005	1,978	1,197	16,583
Eligible women response rate (EWRR)[2]	93.5	95.1	96.6	94.9	98.0	95.7	93.5	95.7	96.3	89.6	90.1	92.2	94.5	94.6
Overall women response rate (ORR)[3]	90.4	93.2	96.0	91.6	97.1	94.0	88.4	92.0	95.1	87.3	87.1	90.1	91.4	92.3

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible 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 DHS 2016

	Residence		Region											
Result	Urban	Rural	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul-Gumuz	SNNPR	Gambela	Harari	Addis Ababa	Dire Dawa	Total
Selected households														
Completed (C)	92.3	92.8	98.3	83.0	95.5	95.9	84.0	91.9	95.1	91.6	92.0	95.8	94.3	92.7
Household present but no competent respondent at home (HP)	2.3	1.1	0.3	2.7	0.8	0.5	1.7	2.6	1.1	2.1	2.4	1.0	2.6	1.5
Postponed (P)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0
Refused (R)	0.8	0.4	0.1	0.0	0.0	1.0	1.0	1.0	0.4	0.0	0.8	0.6	0.6	0.5
Dwelling not found (DNF)	0.2	0.2	0.0	0.0	0.0	0.5	1.5	0.0	0.0	0.0	0.2	0.0	0.0	0.2
Household absent (HA)	1.2	2.6	0.6	6.3	0.9	0.7	6.3	1.9	2.3	2.3	1.6	0.1	0.6	2.2
Dwelling vacant/address not a dwelling (DV)	2.3	1.2	0.7	1.8	1.7	1.0	2.3	1.9	0.6	1.7	2.6	2.0	1.0	1.5
Dwelling destroyed (DD)	0.5	1.3	0.0	4.7	0.5	0.4	2.8	0.6	0.4	1.1	0.0	0.3	0.6	1.0
Other (O)	0.3	0.4	0.0	1.5	0.6	0.0	0.4	0.1	0.1	1.1	0.3	0.1	0.0	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	2,829	6,174	882	742	994	1,036	938	700	994	700	616	785	616	9,003
Household response rate (HRR)[1]	96.5	98.2	99.5	96.9	99.2	97.9	95.3	96.1	98.4	97.7	96.4	98.3	96.5	97.6
Eligible men														
Completed (EMC)	80.2	88.0	90.2	76.1	96.1	88.4	81.4	88.8	89.3	80.2	72.0	81.1	83.9	85.4
Not at home (EMNH)	14.6	9.6	5.7	21.9	2.9	7.2	16.0	8.9	8.7	16.6	23.1	12.9	12.2	11.2
Postponed (EMP)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Refused (EMR)	3.6	1.5	2.4	1.4	0.2	3.6	1.8	2.0	1.1	1.7	1.9	4.6	3.3	2.2
Partly completed (EMPC)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Incapacitated (EMI)	1.1	0.7	1.4	0.2	0.7	0.7	0.0	0.4	0.9	0.9	2.7	0.9	0.5	0.8
Other (EMO)	0.4	0.1	0.3	0.4	0.0	0.1	0.8	0.0	0.0	0.0	0.2	0.5	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,433	4,999	702	485	866	936	608	560	888	536	485	782	584	7,432
Eligible men response rate (EMRR)[2]	80.2	88.0	90.2	76.1	96.1	88.4	81.4	88.8	89.3	80.2	72.0	81.1	83.9	85.4
Overall men response rate (ORR)[3]	77.4	86.3	89.8	73.7	95.3	86.5	77.6	85.3	87.9	78.4	69.4	79.7	81.0	83.4

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC).

[3] The overall men response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

A.4 SAMPLING WEIGHTS

Due to the non-proportional allocation of the sample to different regions and their urban and rural areas and the possible differences in response rates, a sampling weight must be used in all analyses using the 2016 EDHS data to ensure the actual representative of the survey results at both the national and domain levels. Since the 2016 EDHS sample is a two-stage stratified cluster sample, sampling weights are based on sampling probabilities separately for each sampling stage and 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 (households)

Let a_h be the number of EAs selected in stratum h, M_{hi} the number of households according to the sampling frame in the i^{th} EA, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the i^{th} EA in the 2016 EDHS sample is calculated as:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected cluster compared to the total number of households in 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:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

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:

$$W_{hi} = 1 / P_{hi}$$

A spreadsheet with all sampling parameters and selection probabilities was prepared to facilitate the calculation of the design weight. The design weight was adjusted for household non-response and as well as individual non-response to obtain the sampling weights for households, and for the women and men surveys respectively. The differences of the household sampling weight and the individual sampling weights are introduced by individual non-response. The final sampling weights were normalized to give the total number of unweighted cases equal to the total number of weighted cases at the national level, for

both household weight and individual weight, respectively. The normalized weights are relative weights that are valid for estimating means, proportions, and ratios, but not valid for estimating the population totals and for pooled data.

ESTIMATES OF SAMPLING ERRORS — Appendix B

The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling 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 the questions by either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2016 Ethiopia DHS (EDHS) to minimise this type of error, non-sampling errors are impossible to avoid and are difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2016 EDHS is only one of many samples that could have been selected from the same population, by using the same design and the expected size. Each of those samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the standard error for a particular statistic (such as mean or percentage), 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% 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 2016 EDHS sample is the result of a multi-stage stratified design and, consequently, it was necessary to use more complex formulae. Sampling errors are computed in either ISSA or SAS, with programs developed by ICF International. These programs use the Taylor linearisation method of variance estimation for survey estimates that are means, proportions, or ratios. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearisation method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed with the formula below, with the standard error being the square root of the variance:

$$SE^2(r) = \text{var}(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,

m_h is the total number of clusters selected in the 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 is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates with simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2016 EDHS, there were 643 non-empty clusters. Hence, 643 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = \text{var}(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1) r_{(i)}$$

where r is the estimate computed from the full sample of 643 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 642 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated. The design effect is defined as the ratio between the standard error with 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 that the increase in the sampling error is due to the use of a more complex, less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the 2016 EDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, urban and rural areas, and 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 through B.15 present the value of the statistic (R), its standard error (SE), the number of un-weighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95% confidence limits (R±2SE), for each selected variable. The DEFT is considered undefined when the standard error of a simple random sample is zero (when the estimate is close to 0 or 1).

The confidence interval (as calculated for *the number of children ever born for women 40-49 years*) can be interpreted as: the overall average from the national sample is 6.359 and its standard error is 0.088. Therefore, to obtain the 95% confidence limits, one adds and subtracts twice the standard error to the sample estimate, which is 6.359 ± 2×0.088. There is a high probability (95%) that the true proportion of women age 40-49 with children ever born is between 6.183 and 6.535.

For the total sample, the value of the DEFT, averaged over all variables, is 1.99. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.99 beyond that in an equivalent simple random sample.

Table B.1 Sampling errors: Total sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.222	0.009	15,683	15,683	2.735	0.041	0.203	0.240
Literacy	0.420	0.010	15,683	15,683	2.658	0.025	0.399	0.441
No education	0.478	0.011	15,683	15,683	2.658	0.022	0.457	0.499
Secondary or higher education	0.172	0.008	15,683	15,683	2.630	0.046	0.156	0.188
Never married (never in union)	0.257	0.007	15,683	15,683	2.091	0.028	0.243	0.272
Currently married (in union)	0.652	0.007	15,683	15,683	1.936	0.011	0.637	0.667
Married before age 20	0.687	0.008	12,185	12,302	2.006	0.012	0.670	0.704
Had sexual intercourse before age 18	0.580	0.010	12,185	12,302	2.268	0.017	0.560	0.601
Currently pregnant	0.072	0.004	15,683	15,683	1.749	0.050	0.065	0.080
Children ever born	2.844	0.048	15,683	15,683	2.058	0.017	2.748	2.939
Children surviving	2.511	0.042	15,683	15,683	2.055	0.017	2.428	2.594
Children ever born to women age 40-49	6.359	0.088	2,279	2,306	1.522	0.014	6.183	6.535
Currently using any method	0.359	0.013	9,824	10,223	2.617	0.035	0.334	0.384
Currently using a modern method	0.353	0.013	9,824	10,223	2.613	0.036	0.327	0.378
Currently using pill	0.018	0.002	9,824	10,223	1.537	0.113	0.014	0.023
Currently using IUD	0.020	0.003	9,824	10,223	2.033	0.142	0.015	0.026
Currently using condoms	0.001	0.000	9,824	10,223	0.644	0.277	0.000	0.001
Currently using injectables	0.228	0.010	9,824	10,223	2.411	0.045	0.207	0.248
Currently using implants	0.079	0.006	9,824	10,223	2.045	0.070	0.068	0.090
Currently using female sterilisation	0.004	0.001	9,824	10,223	1.365	0.212	0.002	0.006
Using public sector source	0.838	0.012	3,203	3,884	1.849	0.014	0.814	0.862
Want no more children	0.367	0.010	9,824	10,223	1.970	0.026	0.348	0.387
Want to delay next birth at least 2 years	0.357	0.009	9,824	10,223	1.901	0.026	0.339	0.376
Ideal number of children	4.452	0.062	13,941	14,005	2.661	0.014	4.328	4.577
Mothers received antenatal care for last birth	0.624	0.015	7,193	7,590	2.637	0.024	0.594	0.653
Mothers protected against tetanus for last birth	0.490	0.014	7,193	7,590	2.424	0.029	0.462	0.519
Births with skilled attendant at delivery	0.277	0.015	10,641	11,023	3.023	0.053	0.247	0.307
Had diarrhoea in the last 2 weeks	0.118	0.006	10,006	10,417	1.876	0.054	0.105	0.130
Treated with ORS	0.295	0.019	1,090	1,227	1.400	0.065	0.257	0.334
Sought medical treatment for diarrhoea	0.444	0.024	1,090	1,227	1.617	0.054	0.396	0.492
Vaccination card seen	0.341	0.021	1,929	2,004	1.957	0.063	0.299	0.384
Received BCG vaccination	0.692	0.019	1,929	2,004	1.764	0.027	0.654	0.729
Received DPT vaccination (3 doses)	0.532	0.022	1,929	2,004	1.900	0.041	0.488	0.575
Received polio vaccination (3 doses)	0.564	0.021	1,929	2,004	1.804	0.036	0.523	0.605
Received pneumococcal vaccination (3 doses)	0.491	0.021	1,929	2,004	1.793	0.042	0.450	0.532
Received rotavirus vaccination (2 doses)	0.560	0.020	1,929	2,004	1.778	0.036	0.519	0.600
Received measles vaccination	0.543	0.021	1,929	2,004	1.838	0.039	0.501	0.585
Received all vaccinations	0.385	0.021	1,929	2,004	1.895	0.055	0.343	0.428
Height-for-age (-2SD)	0.384	0.010	9,471	10,376	1.919	0.025	0.364	0.403
Weight-for-height (-2SD)	0.099	0.005	9,444	10,356	1.560	0.048	0.090	0.109
Weight-for-age (-2SD)	0.236	0.008	9,657	10,552	1.753	0.033	0.220	0.251
Prevalence of anaemia (children 6-59 months)	0.569	0.013	8,439	9,267	2.383	0.022	0.544	0.595
Prevalence of anaemia (women 15-49)	0.236	0.008	14,489	14,923	2.420	0.036	0.220	0.253
Body Mass Index (BMI) <18.5	0.224	0.005	13,434	13,644	1.525	0.024	0.214	0.235
Body Mass Index (BMI) ≥25	0.076	0.005	13,434	13,644	2.252	0.067	0.065	0.086
Had an HIV test and received results in past 12 months	0.197	0.007	15,683	15,683	2.272	0.037	0.182	0.211
Abstinence among never-married youth (never had sex)	0.934	0.007	3,622	3,500	1.672	0.007	0.920	0.948
Ever experienced any physical violence since age 15	0.233	0.010	5,860	5,860	1.747	0.041	0.214	0.252
Ever experienced any sexual violence	0.101	0.007	5,860	5,860	1.730	0.068	0.087	0.114
Ever experienced any physical/sexual violence by husband/partner	0.263	0.011	4,720	4,469	1.693	0.041	0.241	0.285
Physical/sexual violence in the last 12 months by husband/partner	0.198	0.010	4,720	4,469	1.760	0.052	0.177	0.218
Total fertility rate (last 3 years)	4.562	0.155	43,567	43,705	2.504	0.034	4.253	4.872
Neonatal mortality (last 0-4 years)	29.466	2.986	10,644	11,041	1.735	0.101	23.494	35.437
Post-neonatal mortality (last 0-4 years)	18.620	2.283	10,671	11,045	1.675	0.123	14.054	23.187
Infant mortality (last 0-4 years)	48.086	3.385	10,661	11,061	1.581	0.070	41.316	54.857
Child mortality (last 0-4 years)	19.898	2.602	10,494	10,870	1.808	0.131	14.694	25.102
Under-5 mortality (last 0-4 years)	67.027	4.436	10,767	11,147	1.760	0.066	58.156	75.898
	MEN							
Urban residence	0.198	0.009	11,578	11,606	2.512	0.047	0.180	0.217
Literacy	0.688	0.011	11,578	11,606	2.662	0.017	0.665	0.711
No education	0.276	0.011	11,578	11,606	2.754	0.041	0.253	0.299
Secondary or higher education	0.241	0.009	11,578	11,606	2.371	0.039	0.222	0.260
Never married (in union)	0.421	0.008	11,578	11,606	1.796	0.020	0.404	0.437
Currently married (in union)	0.555	0.008	11,578	11,606	1.801	0.015	0.538	0.572
Had first sexual intercourse before age 18	0.170	0.010	7,076	7,151	2.150	0.056	0.151	0.189
Want no more children	0.268	0.011	6,177	6,441	1.978	0.042	0.246	0.290
Want to delay birth at least 2 years	0.442	0.012	6,177	6,441	1.927	0.028	0.417	0.466
Ideal number of children	4.629	0.075	10,684	10,981	2.379	0.016	4.479	4.779
Abstinence among never married youth (never had sex)	0.855	0.010	3,947	3,889	1.821	0.012	0.835	0.875
Had HIV test and received results in past 12 months	0.190	0.008	11,578	11,606	2.306	0.044	0.173	0.207
Prevalence of anaemia (men 15-49)	0.145	0.008	10,378	10,730	2.204	0.052	0.130	0.161
Prevalence of anaemia (men 50-59)	0.193	0.017	1,028	1,038	1.395	0.088	0.159	0.227
Body Mass Index (BMI) <18.5 (men 15-49)	0.328	0.009	10,657	10,942	1.902	0.026	0.311	0.345
Body Mass Index (BMI) <18.5 (men 50-59)	0.268	0.020	1,044	1,044	1.458	0.074	0.229	0.308
Body Mass Index (BMI) ≥25 (men 15-49)	0.031	0.002	10,657	10,942	1.326	0.071	0.027	0.036
Body Mass Index (BMI) ≥25 (men 50-59)	0.071	0.013	1,044	1,044	1.668	0.185	0.045	0.097

Table B.2 Sampling errors: Urban sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	1.000	0.000	5,348	3,476	na	0.000	1.000	1.000
Literacy	0.779	0.016	5,348	3,476	2.766	0.020	0.747	0.810
No education	0.164	0.013	5,348	3,476	2.568	0.079	0.138	0.190
Secondary or higher education	0.505	0.020	5,348	3,476	2.919	0.040	0.465	0.545
Never married (never in union)	0.395	0.016	5,348	3,476	2.374	0.040	0.363	0.427
Currently married (in union)	0.477	0.013	5,348	3,476	1.895	0.027	0.451	0.503
Married before age 20	0.470	0.018	4,102	2,671	2.311	0.038	0.434	0.506
Had sexual intercourse before age 18	0.400	0.022	4,102	2,671	2.824	0.054	0.357	0.443
Currently pregnant	0.046	0.006	5,348	3,476	2.103	0.131	0.034	0.058
Children ever born	1.489	0.078	5,348	3,476	2.739	0.052	1.333	1.644
Children surviving	1.356	0.065	5,348	3,476	2.564	0.048	1.226	1.486
Children ever born to women age 40-49	4.294	0.226	674	403	2.156	0.053	3.841	4.747
Currently using any method	0.520	0.021	2,491	1,658	2.082	0.040	0.478	0.562
Currently using a modern method	0.498	0.021	2,491	1,658	2.110	0.042	0.456	0.540
Currently using pill	0.065	0.009	2,491	1,658	1.824	0.139	0.047	0.083
Currently using IUD	0.046	0.010	2,491	1,658	2.266	0.206	0.027	0.065
Currently using condoms	0.003	0.001	2,491	1,658	0.821	0.282	0.001	0.005
Currently using injectables	0.264	0.021	2,491	1,658	2.368	0.079	0.223	0.306
Currently using implants	0.110	0.010	2,491	1,658	1.606	0.091	0.090	0.131
Currently using female sterilisation	0.004	0.002	2,491	1,658	1.509	0.472	0.000	0.008
Using public sector source	0.662	0.028	1,257	942	2.069	0.042	0.607	0.718
Want no more children	0.297	0.021	2,491	1,658	2.245	0.069	0.255	0.338
Want to delay next birth at least 2 years	0.342	0.022	2,491	1,658	2.353	0.065	0.297	0.387
Ideal number of children	3.835	0.075	5,012	3,278	2.437	0.020	3.685	3.986
Mothers received antenatal care for last birth	0.901	0.020	1,512	969	2.575	0.022	0.861	0.941
Mothers protected against tetanus for last birth	0.724	0.032	1,512	969	2.776	0.044	0.660	0.789
Births with skilled attendant at delivery	0.801	0.039	1,974	1,216	3.591	0.048	0.723	0.878
Had diarrhoea in the last 2 weeks	0.108	0.018	1,907	1,163	2.351	0.163	0.073	0.144
Treated with ORS	0.405	0.058	186	126	1.621	0.144	0.289	0.522
Sought medical treatment for diarrhoea	0.603	0.069	186	126	1.955	0.114	0.466	0.740
Vaccination card seen	0.673	0.050	409	232	1.980	0.074	0.573	0.773
Received BCG vaccination	0.888	0.040	409	232	2.365	0.045	0.809	0.967
Received DPT vaccination (3 doses)	0.795	0.056	409	232	2.623	0.071	0.682	0.908
Received polio vaccination (3 doses)	0.795	0.049	409	232	2.257	0.061	0.697	0.892
Received pneumococcal vaccination (3 doses)	0.729	0.059	409	232	2.412	0.081	0.611	0.847
Received rotavirus vaccination (2 doses)	0.791	0.063	409	232	2.786	0.080	0.664	0.918
Received measles vaccination	0.760	0.063	409	232	2.641	0.082	0.635	0.885
Received all vaccinations	0.646	0.066	409	232	2.518	0.102	0.515	0.778
Height-for-age (-2SD)	0.254	0.026	1,739	1,131	2.323	0.101	0.203	0.305
Weight-for-height (-2SD)	0.087	0.011	1,727	1,128	1.686	0.131	0.064	0.110
Weight-for-age (-2SD)	0.134	0.015	1,768	1,140	1.807	0.115	0.104	0.165
Prevalence of anaemia (children 6-59 months)	0.493	0.030	1,423	937	2.244	0.060	0.434	0.552
Prevalence of anaemia (women 15-49)	0.170	0.014	4,709	3,169	2.639	0.084	0.142	0.198
Body Mass Index (BMI) <18.5	0.148	0.009	4,667	3,100	1.761	0.061	0.130	0.166
Body Mass Index (BMI) ≥25	0.214	0.018	4,667	3,100	2.948	0.082	0.179	0.249
Had an HIV test and received results in past 12 months	0.361	0.014	5,348	3,476	2.162	0.039	0.333	0.389
Abstinence among never-married youth (never had sex)	0.891	0.014	1,677	1,087	1.881	0.016	0.862	0.919
Ever experienced any physical violence since age 15	0.209	0.019	1,784	1,266	1.936	0.089	0.172	0.247
Ever experienced any sexual violence	0.073	0.009	1,784	1,266	1.441	0.122	0.055	0.091
Ever experienced any physical/sexual violence by husband/partner	0.196	0.020	1,211	809	1.789	0.104	0.155	0.236
Physical/sexual violence in the last 12 months by husband/partner	0.119	0.017	1,211	809	1.871	0.146	0.085	0.154
Total fertility rate (last 3 years)	2.285	0.134	14,963	9,723	1.909	0.059	2.017	2.552
Neonatal mortality (last 0-9 years)	40.582	10.298	3,727	2,326	2.735	0.254	19.986	61.179
Post-neonatal mortality (last 0-9 years)	13.315	3.505	3,741	2,328	1.613	0.263	6.306	20.325
Infant mortality (last 0-9 years)	53.898	10.019	3,730	2,326	2.484	0.186	33.859	73.936
Child mortality (last 0-9 years)	13.306	3.286	3,645	2,314	1.580	0.247	6.734	19.878
Under-5 mortality (last 0-9 years)	66.487	10.222	3,753	2,344	2.318	0.154	46.043	86.930
	MEN							
Urban residence	1.000	0.000	3,559	2,303	na	0.000	1.000	1.000
Literacy	0.925	0.008	3,559	2,303	1.829	0.009	0.909	0.942
No education	0.079	0.010	3,559	2,303	2.149	0.123	0.060	0.099
Secondary or higher education	0.644	0.022	3,559	2,303	2.731	0.034	0.600	0.688
Never married (in union)	0.535	0.013	3,559	2,303	1.596	0.025	0.508	0.562
Currently married (in union)	0.439	0.013	3,559	2,303	1.606	0.030	0.412	0.466
Had first sexual intercourse before age 18	0.171	0.019	2,194	1,436	2.326	0.109	0.134	0.208
Want no more children	0.196	0.017	1,467	1,011	1.651	0.088	0.161	0.230
Want to delay birth at least 2 years	0.384	0.024	1,467	1,011	1.894	0.063	0.336	0.432
Ideal number of children	3.768	0.104	3,297	2,198	2.184	0.028	3.560	3.975
Abstinence among never married youth (never had sex)	0.765	0.023	1,285	820	1.982	0.031	0.718	0.812
Had HIV test and received results in past 12 months	0.332	0.014	3,559	2,303	1.793	0.043	0.304	0.360
Prevalence of anaemia (men 15-49)	0.072	0.011	2,966	1,963	2.377	0.155	0.050	0.095
Prevalence of anaemia (men 50-59)	0.099	0.030	265	176	1.668	0.306	0.038	0.159
Body Mass Index (BMI) <18.5 (men 15-49)	0.258	0.017	3,137	2,082	2.173	0.065	0.225	0.292
Body Mass Index (BMI) <18.5 (men 50-59)	0.083	0.025	275	177	1.476	0.297	0.034	0.132
Body Mass Index (BMI) ≥25 (men 15-49)	0.124	0.010	3,137	2,082	1.719	0.081	0.104	0.144
Body Mass Index (BMI) ≥25 (men 50-59)	0.297	0.040	275	177	1.446	0.134	0.217	0.377

Table B.3 Sampling errors: Rural sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.000	0.000	10,335	12,207	na	na	0.000	0.000
Literacy	0.318	0.011	10,335	12,207	2.500	0.036	0.295	0.341
No education	0.568	0.012	10,335	12,207	2.499	0.021	0.543	0.592
Secondary or higher education	0.077	0.006	10,335	12,207	2.283	0.078	0.065	0.089
Never married (never in union)	0.218	0.008	10,335	12,207	1.998	0.037	0.202	0.234
Currently married (in union)	0.702	0.009	10,335	12,207	1.897	0.012	0.685	0.719
Married before age 20	0.748	0.009	8,083	9,631	1.908	0.012	0.729	0.766
Had sexual intercourse before age 18	0.630	0.011	8,083	9,631	2.088	0.018	0.608	0.653
Currently pregnant	0.080	0.004	10,335	12,207	1.593	0.053	0.071	0.088
Children ever born	3.229	0.056	10,335	12,207	1.897	0.017	3.118	3.341
Children surviving	2.840	0.049	10,335	12,207	1.902	0.017	2.742	2.937
Children ever born to women age 40-49	6.797	0.095	1,605	1,903	1.474	0.014	6.607	6.986
Currently using any method	0.328	0.014	7,333	8,565	2.592	0.043	0.299	0.356
Currently using a modern method	0.324	0.014	7,333	8,565	2.584	0.044	0.296	0.353
Currently using pill	0.009	0.002	7,333	8,565	1.559	0.186	0.006	0.013
Currently using IUD	0.015	0.003	7,333	8,565	2.026	0.190	0.010	0.021
Currently using condoms	0.000	0.000	7,333	8,565	na	na	0.000	0.000
Currently using injectables	0.221	0.011	7,333	8,565	2.356	0.052	0.198	0.243
Currently using implants	0.073	0.006	7,333	8,565	2.074	0.086	0.060	0.085
Currently using female sterilisation	0.004	0.001	7,333	8,565	1.315	0.236	0.002	0.006
Using public sector source	0.894	0.012	1,946	2,942	1.783	0.014	0.870	0.919
Want no more children	0.381	0.011	7,333	8,565	1.898	0.028	0.360	0.403
Want to delay next birth at least 2 years	0.360	0.010	7,333	8,565	1.796	0.028	0.340	0.381
Ideal number of children	4.641	0.078	8,929	10,728	2.536	0.017	4.485	4.796
Mothers received antenatal care for last birth	0.583	0.017	5,681	6,621	2.524	0.028	0.550	0.616
Mothers protected against tetanus for last birth	0.456	0.015	5,681	6,621	2.333	0.034	0.425	0.487
Births with skilled attendant at delivery	0.212	0.015	8,667	9,807	2.930	0.069	0.183	0.241
Had diarrhoea in the last 2 weeks	0.119	0.007	8,099	9,254	1.765	0.057	0.105	0.133
Treated with ORS	0.283	0.021	904	1,101	1.352	0.073	0.242	0.324
Sought medical treatment for diarrhoea	0.425	0.025	904	1,101	1.509	0.059	0.375	0.476
Vaccination card seen	0.298	0.023	1,520	1,772	1.911	0.076	0.253	0.343
Received BCG vaccination	0.666	0.020	1,520	1,772	1.651	0.030	0.625	0.706
Received DPT vaccination (3 doses)	0.497	0.023	1,520	1,772	1.763	0.046	0.451	0.543
Received polio vaccination (3 doses)	0.534	0.022	1,520	1,772	1.699	0.041	0.490	0.578
Received pneumococcal vaccination (3 doses)	0.460	0.022	1,520	1,772	1.669	0.047	0.417	0.503
Received rotavirus vaccination (2 doses)	0.529	0.021	1,520	1,772	1.655	0.040	0.487	0.572
Received measles vaccination	0.515	0.022	1,520	1,772	1.723	0.043	0.470	0.560
Received all vaccinations	0.351	0.022	1,520	1,772	1.761	0.062	0.308	0.395
Height-for-age (-2SD)	0.399	0.010	7,732	9,245	1.788	0.026	0.379	0.420
Weight-for-height (-2SD)	0.101	0.005	7,717	9,228	1.465	0.051	0.090	0.111
Weight-for-age (-2SD)	0.248	0.008	7,889	9,412	1.632	0.033	0.232	0.265
Prevalence of anaemia (children 6-59 months)	0.578	0.014	7,016	8,330	2.255	0.024	0.551	0.605
Prevalence of anaemia (women 15-49)	0.254	0.010	9,780	11,754	2.247	0.039	0.235	0.274
Body Mass Index (BMI) <18.5	0.247	0.006	8,767	10,544	1.401	0.026	0.234	0.260
Body Mass Index (BMI) ≥25	0.035	0.003	8,767	10,544	1.696	0.095	0.028	0.041
Had an HIV test and received results in past 12 months	0.150	0.008	10,335	12,207	2.260	0.053	0.134	0.166
Abstinence among never-married youth (never had sex)	0.954	0.008	1,945	2,413	1.584	0.008	0.939	0.969
Ever experienced any physical violence since age 15	0.239	0.011	4,076	4,594	1.663	0.046	0.217	0.262
Ever experienced any sexual violence	0.108	0.008	4,076	4,594	1.717	0.077	0.092	0.125
Ever experienced any physical/sexual violence by husband/partner	0.278	0.012	3,509	3,660	1.617	0.044	0.253	0.302
Physical/sexual violence in the last 12 months by husband/partner	0.215	0.012	3,509	3,660	1.676	0.054	0.192	0.239
Total fertility rate (last 3 years)	5.197	0.167	28,604	33,982	2.392	0.032	4.864	5.531
Neonatal mortality (last 0-9 years)	37.743	2.546	17,829	20,457	1.569	0.067	32.651	42.834
Post-neonatal mortality (last 0-9 years)	24.146	2.169	17,880	20,487	1.729	0.090	19.809	28.484
Infant mortality (last 0-9 years)	61.889	3.386	17,854	20,488	1.630	0.055	55.116	68.662
Child mortality (last 0-9 years)	22.700	2.198	17,929	20,570	1.757	0.097	18.303	27.097
Under-5 mortality (last 0-9 years)	83.184	4.095	17,958	20,593	1.723	0.049	74.993	91.375
	MEN							
Urban residence	0.000	0.000	8,019	9,302	na	na	0.000	0.000
Literacy	0.629	0.014	8,019	9,302	2.540	0.022	0.601	0.656
No education	0.325	0.014	8,019	9,302	2.649	0.043	0.297	0.352
Secondary or higher education	0.141	0.009	8,019	9,302	2.433	0.067	0.122	0.160
Never married (in union)	0.392	0.010	8,019	9,302	1.767	0.025	0.373	0.412
Currently married (in union)	0.584	0.010	8,019	9,302	1.778	0.017	0.564	0.603
Had first sexual intercourse before age 18	0.170	0.011	4,882	5,715	2.057	0.065	0.148	0.192
Want no more children	0.281	0.013	4,710	5,430	1.950	0.045	0.256	0.307
Want to delay birth at least 2 years	0.452	0.014	4,710	5,430	1.882	0.030	0.425	0.480
Ideal number of children	4.845	0.089	7,387	8,783	2.292	0.018	4.667	5.023
Abstinence among never married youth (never had sex)	0.879	0.011	2,662	3,069	1.795	0.013	0.856	0.902
Had HIV test and received results in past 12 months	0.154	0.010	8,019	9,302	2.360	0.062	0.135	0.174
Prevalence of anaemia (men 15-49)	0.162	0.009	7,412	8,767	2.074	0.054	0.144	0.179
Prevalence of anaemia (men 50-59)	0.212	0.019	763	862	1.279	0.088	0.175	0.250
Body Mass Index (BMI) <18.5 (men 15-49)	0.344	0.010	7,520	8,860	1.815	0.029	0.324	0.364
Body Mass Index (BMI) <18.5 (men 50-59)	0.306	0.022	769	866	1.329	0.071	0.263	0.350
Body Mass Index (BMI) ≥25 (men 15-49)	0.009	0.001	7,520	8,860	1.321	0.155	0.007	0.012
Body Mass Index (BMI) ≥25 (men 50-59)	0.024	0.008	769	866	1.405	0.317	0.009	0.040

Table B.4 Sampling errors: Tigray sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.247	0.022	1,682	1,129	2.050	0.087	0.204	0.290
Literacy	0.510	0.025	1,682	1,129	2.068	0.049	0.460	0.561
No education	0.430	0.025	1,682	1,129	2.084	0.059	0.379	0.480
Secondary or higher education	0.248	0.023	1,682	1,129	2.144	0.091	0.202	0.293
Never married (never in union)	0.250	0.017	1,682	1,129	1.643	0.069	0.215	0.285
Currently married (in union)	0.583	0.014	1,682	1,129	1.150	0.024	0.555	0.610
Married before age 20	0.746	0.021	1,259	853	1.677	0.028	0.705	0.787
Had sexual intercourse before age 18	0.628	0.023	1,259	853	1.699	0.037	0.582	0.675
Currently pregnant	0.050	0.007	1,682	1,129	1.284	0.137	0.036	0.063
Children ever born	2.631	0.073	1,682	1,129	1.086	0.028	2.485	2.777
Children surviving	2.376	0.062	1,682	1,129	1.034	0.026	2.253	2.500
Children ever born to women age 40-49	6.136	0.175	280	181	1.232	0.029	5.786	6.486
Currently using any method	0.363	0.022	957	658	1.403	0.060	0.319	0.407
Currently using a modern method	0.352	0.021	957	658	1.389	0.061	0.309	0.395
Currently using pill	0.036	0.009	957	658	1.488	0.248	0.018	0.054
Currently using IUD	0.010	0.003	957	658	1.066	0.345	0.003	0.017
Currently using condoms	0.001	0.001	957	658	1.014	1.002	0.000	0.003
Currently using injectables	0.193	0.017	957	658	1.341	0.089	0.159	0.228
Currently using implants	0.107	0.012	957	658	1.220	0.114	0.082	0.131
Currently using female sterilisation	0.002	0.002	957	658	1.037	0.705	0.000	0.005
Using public sector source	0.921	0.017	393	276	1.273	0.019	0.886	0.956
Want no more children	0.276	0.017	957	658	1.144	0.060	0.242	0.309
Want to delay next birth at least 2 years	0.466	0.020	957	658	1.222	0.042	0.426	0.505
Ideal number of children	4.751	0.069	1,436	967	1.285	0.015	4.612	4.889
Mothers received antenatal care for last birth	0.900	0.017	772	537	1.604	0.019	0.866	0.934
Mothers protected against tetanus for last birth	0.621	0.031	772	537	1.792	0.050	0.559	0.683
Births with skilled attendant at delivery	0.593	0.038	1,033	716	2.225	0.063	0.517	0.668
Had diarrhoea in the last 2 weeks	0.130	0.011	992	686	1.029	0.086	0.108	0.152
Treated with ORS	0.430	0.052	125	89	1.177	0.121	0.326	0.534
Sought medical treatment for diarrhoea	0.507	0.052	125	89	1.164	0.103	0.403	0.611
Vaccination card seen	0.583	0.055	216	152	1.651	0.095	0.472	0.694
Received BCG vaccination	0.881	0.030	216	152	1.355	0.034	0.822	0.940
Received DPT vaccination (3 doses)	0.814	0.042	216	152	1.595	0.051	0.730	0.897
Received polio vaccination (3 doses)	0.793	0.042	216	152	1.540	0.053	0.709	0.877
Received pneumococcal vaccination (3 doses)	0.777	0.041	216	152	1.473	0.053	0.694	0.860
Received rotavirus vaccination (2 doses)	0.798	0.039	216	152	1.424	0.048	0.721	0.875
Received measles vaccination	0.801	0.039	216	152	1.451	0.049	0.723	0.879
Received all vaccinations	0.673	0.046	216	152	1.467	0.069	0.580	0.766
Height-for-age (-2SD)	0.393	0.018	980	691	1.126	0.046	0.357	0.429
Weight-for-height (-2SD)	0.111	0.011	978	690	1.099	0.096	0.090	0.132
Weight-for-age (-2SD)	0.230	0.015	993	699	1.081	0.064	0.201	0.259
Prevalence of anaemia (children 6-59 months)	0.536	0.023	872	612	1.416	0.044	0.489	0.583
Prevalence of anaemia (women 15-49)	0.197	0.016	1,599	1,073	1.589	0.080	0.166	0.229
Body Mass Index (BMI) <18.5	0.340	0.020	1,500	1,005	1.618	0.058	0.300	0.379
Body Mass Index (BMI) ≥25	0.056	0.009	1,500	1,005	1.473	0.157	0.038	0.073
Had an HIV test and received results in past 12 months	0.321	0.020	1,682	1,129	1.726	0.061	0.282	0.361
Abstinence among never-married youth (never had sex)	0.942	0.012	401	257	1.015	0.013	0.918	0.965
Ever experienced any physical violence since age 15	0.250	0.024	612	405	1.355	0.095	0.203	0.298
Ever experienced any sexual violence	0.120	0.015	612	405	1.125	0.123	0.091	0.150
Ever experienced any physical/sexual violence by husband/partner	0.247	0.024	493	316	1.250	0.099	0.198	0.295
Physical/sexual violence in the last 12 months by husband/partner	0.144	0.023	493	316	1.473	0.162	0.097	0.190
Total fertility rate (last 3 years)	4.687	0.224	4,655	3,141	1.345	0.048	4.240	5.135
Neonatal mortality (last 0-9 years)	34.402	4.892	2,073	1,420	1.120	0.142	24.618	44.185
Post-neonatal mortality (last 0-9 years)	8.253	2.179	2,070	1,416	1.102	0.264	3.896	12.610
Infant mortality (last 0-9 years)	42.655	5.330	2,074	1,420	1.103	0.125	31.994	53.316
Child mortality (last 0-9 years)	16.688	2.760	2,045	1,394	0.935	0.165	11.168	22.208
Under-5 mortality (last 0-9 years)	58.631	5.812	2,081	1,425	1.057	0.099	47.007	70.256
	MEN							
Urban residence	0.204	0.018	1,130	708	1.470	0.087	0.168	0.239
Literacy	0.799	0.018	1,130	708	1.541	0.023	0.762	0.835
No education	0.232	0.022	1,130	708	1.748	0.095	0.188	0.276
Secondary or higher education	0.260	0.025	1,130	708	1.945	0.098	0.209	0.311
Never married (in union)	0.471	0.022	1,130	708	1.474	0.047	0.427	0.514
Currently married (in union)	0.497	0.020	1,130	708	1.337	0.040	0.458	0.537
Had first sexual intercourse before age 18	0.077	0.019	626	398	1.778	0.247	0.039	0.115
Want no more children	0.226	0.021	554	352	1.182	0.093	0.184	0.269
Want to delay birth at least 2 years	0.537	0.028	554	352	1.312	0.052	0.481	0.592
Ideal number of children	4.605	0.122	1,087	681	1.803	0.026	4.362	4.848
Abstinence among never married youth (never had sex)	0.857	0.019	463	287	1.196	0.023	0.818	0.896
Had HIV test and received results in past 12 months	0.246	0.015	1,130	708	1.191	0.062	0.215	0.276
Prevalence of anaemia (men 15-49)	0.169	0.017	1,064	671	1.471	0.100	0.135	0.203
Prevalence of anaemia (men 50-59)	0.263	0.041	137	84	1.098	0.158	0.180	0.346
Body Mass Index (BMI) <18.5 (men 15-49)	0.443	0.016	1,079	680	1.086	0.037	0.410	0.476
Body Mass Index (BMI) <18.5 (men 50-59)	0.345	0.049	140	85	1.210	0.142	0.248	0.443
Body Mass Index (BMI) ≥25 (men 15-49)	0.026	0.007	1,079	680	1.395	0.258	0.013	0.040
Body Mass Index (BMI) ≥25 (men 50-59)	0.067	0.021	140	85	0.967	0.305	0.026	0.108

Table B.5 Sampling errors: Affar sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.273	0.034	1,128	128	2.550	0.124	0.205	0.341
Literacy	0.237	0.020	1,128	128	1.589	0.085	0.197	0.277
No education	0.687	0.019	1,128	128	1.351	0.027	0.650	0.724
Secondary or higher education	0.070	0.012	1,128	128	1.616	0.176	0.045	0.094
Never married (never in union)	0.155	0.015	1,128	128	1.392	0.097	0.125	0.185
Currently married (in union)	0.746	0.017	1,128	128	1.298	0.023	0.713	0.780
Married before age 20	0.827	0.015	862	99	1.168	0.018	0.797	0.857
Had sexual intercourse before age 18	0.693	0.024	862	99	1.541	0.035	0.644	0.741
Currently pregnant	0.095	0.010	1,128	128	1.163	0.107	0.075	0.115
Children ever born	3.028	0.119	1,128	128	1.312	0.039	2.790	3.265
Children surviving	2.567	0.095	1,128	128	1.239	0.037	2.378	2.757
Children ever born to women age 40-49	6.473	0.393	146	16	1.412	0.061	5.687	7.259
Currently using any method	0.116	0.019	866	96	1.772	0.166	0.078	0.155
Currently using a modern method	0.116	0.019	866	96	1.772	0.166	0.078	0.155
Currently using pill	0.004	0.003	866	96	1.119	0.572	0.000	0.009
Currently using IUD	0.002	0.002	866	96	1.238	1.013	0.000	0.005
Currently using condoms	0.001	0.001	866	96	1.087	1.017	0.000	0.004
Currently using injectables	0.095	0.016	866	96	1.628	0.171	0.062	0.127
Currently using implants	0.014	0.006	866	96	1.450	0.416	0.002	0.025
Currently using female sterilisation	0.000	0.000	866	96	na	na	0.000	0.000
Using public sector source	0.666	0.068	81	13	1.280	0.102	0.530	0.801
Want no more children	0.124	0.013	866	96	1.150	0.104	0.098	0.150
Want to delay next birth at least 2 years	0.240	0.026	866	96	1.819	0.110	0.187	0.292
Ideal number of children	5.644	0.229	888	102	1.487	0.041	5.185	6.103
Mothers received antenatal care for last birth	0.513	0.044	647	71	2.205	0.086	0.425	0.601
Mothers protected against tetanus for last birth	0.302	0.037	647	71	2.009	0.122	0.229	0.376
Births with skilled attendant at delivery	0.164	0.022	1,062	114	1.690	0.135	0.120	0.208
Had diarrhoea in the last 2 weeks	0.115	0.013	972	105	1.152	0.109	0.090	0.140
Treated with ORS	0.329	0.047	104	12	1.003	0.142	0.236	0.422
Sought medical treatment for diarrhoea	0.530	0.057	104	12	1.190	0.108	0.415	0.645
Vaccination card seen	0.167	0.053	171	20	1.884	0.316	0.062	0.273
Received BCG vaccination	0.435	0.053	171	20	1.416	0.122	0.329	0.542
Received DPT vaccination (3 doses)	0.201	0.054	171	20	1.802	0.271	0.092	0.309
Received polio vaccination (3 doses)	0.364	0.051	171	20	1.393	0.140	0.262	0.466
Received pneumococcal vaccination (3 doses)	0.175	0.051	171	20	1.774	0.290	0.073	0.276
Received rotavirus vaccination (2 doses)	0.233	0.057	171	20	1.782	0.243	0.120	0.347
Received measles vaccination	0.301	0.053	171	20	1.547	0.178	0.194	0.408
Received all vaccinations	0.152	0.048	171	20	1.769	0.315	0.056	0.247
Height-for-age (-2SD)	0.411	0.025	878	98	1.390	0.060	0.362	0.460
Weight-for-height (-2SD)	0.179	0.020	881	98	1.414	0.110	0.139	0.218
Weight-for-age (-2SD)	0.362	0.028	905	100	1.607	0.078	0.306	0.419
Prevalence of anaemia (children 6-59 months)	0.748	0.021	813	91	1.333	0.028	0.706	0.789
Prevalence of anaemia (women 15-49)	0.447	0.025	1,039	119	1.602	0.055	0.398	0.496
Body Mass Index (BMI) <18.5	0.391	0.021	920	107	1.322	0.054	0.349	0.433
Body Mass Index (BMI) ≥25	0.083	0.014	920	107	1.554	0.169	0.055	0.110
Had an HIV test and received results in past 12 months	0.235	0.020	1,128	128	1.563	0.084	0.196	0.275
Abstinence among never-married youth (never had sex)	0.931	0.019	153	18	0.936	0.021	0.893	0.969
Ever experienced any physical violence since age 15	0.155	0.022	425	50	1.264	0.144	0.110	0.199
Ever experienced any sexual violence	0.045	0.014	425	50	1.343	0.301	0.018	0.072
Ever experienced any physical/sexual violence by husband/partner	0.123	0.023	387	43	1.364	0.186	0.077	0.169
Physical/sexual violence in the last 12 months by husband/partner	0.066	0.013	387	43	1.009	0.194	0.040	0.091
Total fertility rate (last 3 years)	5.496	0.398	3,084	352	1.436	0.072	4.699	6.293
Neonatal mortality (last 0-9 years)	38.390	7.502	2,026	220	1.307	0.195	23.386	53.395
Post-neonatal mortality (last 0-9 years)	42.155	5.515	2,031	220	1.141	0.131	31.125	53.185
Infant mortality (last 0-9 years)	80.545	10.374	2,030	220	1.379	0.129	59.798	101.293
Child mortality (last 0-9 years)	48.332	6.856	2,002	218	1.257	0.142	34.621	62.044
Under-5 mortality (last 0-9 years)	124.985	12.102	2,042	221	1.285	0.097	100.781	149.189
	MEN							
Urban residence	0.325	0.043	665	82	2.338	0.131	0.240	0.410
Literacy	0.508	0.033	665	82	1.679	0.064	0.442	0.573
No education	0.455	0.036	665	82	1.847	0.079	0.383	0.526
Secondary or higher education	0.212	0.026	665	82	1.646	0.123	0.160	0.265
Never married (in union)	0.371	0.026	665	82	1.379	0.070	0.319	0.423
Currently married (in union)	0.585	0.024	665	82	1.271	0.042	0.536	0.633
Had first sexual intercourse before age 18	0.288	0.046	413	53	2.051	0.160	0.196	0.380
Want no more children	0.103	0.022	392	48	1.453	0.218	0.058	0.147
Want to delay birth at least 2 years	0.452	0.048	392	48	1.897	0.106	0.356	0.548
Ideal number of children	8.126	0.466	642	79	1.646	0.057	7.195	9.057
Abstinence among never married youth (never had sex)	0.532	0.068	199	23	1.909	0.128	0.395	0.668
Had HIV test and received results in past 12 months	0.291	0.030	665	82	1.703	0.103	0.231	0.351
Prevalence of anaemia (men 15-49)	0.237	0.032	613	76	1.858	0.135	0.173	0.301
Prevalence of anaemia (men 50-59)	0.439	0.082	60	7	1.228	0.186	0.276	0.602
Body Mass Index (BMI) <18.5 (men 15-49)	0.502	0.035	620	76	1.739	0.070	0.432	0.572
Body Mass Index (BMI) <18.5 (men 50-59)	0.366	0.059	58	7	0.921	0.162	0.247	0.485
Body Mass Index (BMI) ≥25 (men 15-49)	0.047	0.012	620	76	1.449	0.263	0.022	0.072
Body Mass Index (BMI) ≥25 (men 50-59)	0.025	0.023	58	7	1.125	0.952	0.000	0.072

Table B.6 Sampling errors: Amhara sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.193	0.014	1,719	3,714	1.427	0.070	0.166	0.220
Literacy	0.449	0.021	1,719	3,714	1.731	0.046	0.408	0.491
No education	0.541	0.018	1,719	3,714	1.535	0.034	0.505	0.578
Secondary or higher education	0.179	0.013	1,719	3,714	1.413	0.073	0.153	0.205
Never married (never in union)	0.223	0.014	1,719	3,714	1.391	0.063	0.195	0.250
Currently married (in union)	0.650	0.014	1,719	3,714	1.226	0.022	0.622	0.678
Married before age 20	0.773	0.014	1,364	2,947	1.194	0.018	0.746	0.800
Had sexual intercourse before age 18	0.710	0.017	1,364	2,947	1.347	0.023	0.677	0.743
Currently pregnant	0.059	0.007	1,719	3,714	1.236	0.119	0.045	0.073
Children ever born	2.621	0.088	1,719	3,714	1.314	0.033	2.446	2.796
Children surviving	2.267	0.074	1,719	3,714	1.307	0.032	2.119	2.414
Children ever born to women age 40-49	6.231	0.184	291	612	1.228	0.029	5.864	6.598
Currently using any method	0.473	0.021	1,128	2,414	1.400	0.044	0.431	0.515
Currently using a modern method	0.469	0.021	1,128	2,414	1.397	0.044	0.428	0.511
Currently using pill	0.020	0.005	1,128	2,414	1.157	0.243	0.010	0.029
Currently using IUD	0.030	0.007	1,128	2,414	1.305	0.221	0.017	0.043
Currently using condoms	0.000	0.000	1,128	2,414	na	na	0.000	0.000
Currently using injectables	0.293	0.020	1,128	2,414	1.450	0.067	0.253	0.332
Currently using implants	0.121	0.015	1,128	2,414	1.565	0.126	0.091	0.152
Currently using female sterilisation	0.005	0.002	1,128	2,414	0.915	0.376	0.001	0.009
Using public sector source	0.836	0.022	588	1,252	1.466	0.027	0.792	0.881
Want no more children	0.369	0.017	1,128	2,414	1.193	0.046	0.335	0.403
Want to delay next birth at least 2 years	0.350	0.016	1,128	2,414	1.121	0.046	0.318	0.381
Ideal number of children	4.010	0.092	1,511	3,278	1.718	0.023	3.825	4.194
Mothers received antenatal care for last birth	0.671	0.027	764	1,632	1.573	0.040	0.618	0.725
Mothers protected against tetanus for last birth	0.448	0.024	764	1,632	1.362	0.055	0.399	0.496
Births with skilled attendant at delivery	0.277	0.022	977	2,072	1.434	0.080	0.233	0.322
Had diarrhoea in the last 2 weeks	0.137	0.015	928	1,967	1.313	0.113	0.106	0.168
Treated with ORS	0.284	0.042	123	270	1.030	0.148	0.200	0.368
Sought medical treatment for diarrhoea	0.400	0.053	123	270	1.169	0.132	0.295	0.506
Vaccination card seen	0.445	0.058	178	364	1.476	0.130	0.329	0.560
Received BCG vaccination	0.752	0.037	178	364	1.087	0.049	0.679	0.825
Received DPT vaccination (3 doses)	0.638	0.050	178	364	1.304	0.078	0.538	0.738
Received polio vaccination (3 doses)	0.661	0.044	178	364	1.159	0.066	0.574	0.749
Received pneumococcal vaccination (3 doses)	0.605	0.046	178	364	1.174	0.076	0.513	0.696
Received rotavirus vaccination (2 doses)	0.591	0.044	178	364	1.158	0.075	0.502	0.679
Received measles vaccination	0.619	0.048	178	364	1.243	0.078	0.523	0.716
Received all vaccinations	0.458	0.049	178	364	1.264	0.108	0.360	0.557
Height-for-age (-2SD)	0.463	0.019	954	2,087	1.152	0.042	0.424	0.502
Weight-for-height (-2SD)	0.098	0.010	950	2,079	0.978	0.099	0.078	0.117
Weight-for-age (-2SD)	0.284	0.017	964	2,107	1.087	0.060	0.250	0.318
Prevalence of anaemia (children 6-59 months)	0.422	0.022	851	1,861	1.246	0.052	0.378	0.466
Prevalence of anaemia (women 15-49)	0.172	0.012	1,688	3,645	1.318	0.070	0.148	0.196
Body Mass Index (BMI) <18.5	0.229	0.012	1,564	3,385	1.120	0.052	0.205	0.253
Body Mass Index (BMI) ≥25	0.034	0.005	1,564	3,385	1.038	0.140	0.025	0.044
Had an HIV test and received results in past 12 months	0.208	0.011	1,719	3,714	1.139	0.054	0.186	0.231
Abstinence among never-married youth (never had sex)	0.918	0.016	335	738	1.035	0.017	0.887	0.949
Ever experienced any physical violence since age 15	0.242	0.021	684	1,393	1.252	0.085	0.201	0.284
Ever experienced any sexual violence	0.105	0.014	684	1,393	1.218	0.136	0.076	0.133
Ever experienced any physical/sexual violence by husband/partner	0.256	0.023	572	1,085	1.237	0.088	0.211	0.301
Physical/sexual violence in the last 12 months by husband/partner	0.189	0.018	572	1,085	1.110	0.096	0.153	0.225
Total fertility rate (last 3 years)	3.726	0.227	4,805	10,393	1.383	0.061	3.272	4.180
Neonatal mortality (last 0-9 years)	47.106	6.267	2,078	4,357	1.174	0.133	34.571	59.640
Post-neonatal mortality (last 0-9 years)	20.000	2.871	2,090	4,376	0.930	0.144	14.258	25.741
Infant mortality (last 0-9 years)	67.105	6.670	2,080	4,359	1.079	0.099	53.766	80.445
Child mortality (last 0-9 years)	19.349	3.494	2,106	4,399	1.078	0.181	12.360	26.338
Under-5 mortality (last 0-9 years)	85.156	7.780	2,095	4,395	1.122	0.091	69.596	100.716
	MEN							
Urban residence	0.180	0.015	1,514	2,914	1.467	0.080	0.151	0.209
Literacy	0.657	0.022	1,514	2,914	1.818	0.034	0.613	0.701
No education	0.412	0.021	1,514	2,914	1.648	0.051	0.371	0.454
Secondary or higher education	0.200	0.019	1,514	2,914	1.841	0.095	0.162	0.238
Never married (in union)	0.391	0.013	1,514	2,914	1.040	0.033	0.365	0.417
Currently married (in union)	0.560	0.014	1,514	2,914	1.063	0.024	0.533	0.587
Had first sexual intercourse before age 18	0.151	0.014	926	1,784	1.200	0.094	0.123	0.179
Want no more children	0.277	0.020	854	1,633	1.312	0.073	0.237	0.317
Want to delay birth at least 2 years	0.415	0.027	854	1,633	1.579	0.064	0.362	0.469
Ideal number of children	4.261	0.091	1,445	2,792	1.517	0.021	4.078	4.444
Abstinence among never married youth (never had sex)	0.894	0.018	500	963	1.280	0.020	0.858	0.929
Had HIV test and received results in past 12 months	0.234	0.015	1,514	2,914	1.385	0.065	0.203	0.264
Prevalence of anaemia (men 15-49)	0.135	0.012	1,465	2,808	1.330	0.088	0.111	0.159
Prevalence of anaemia (men 50-59)	0.213	0.034	169	315	1.068	0.158	0.146	0.281
Body Mass Index (BMI) <18.5 (men 15-49)	0.337	0.015	1,474	2,833	1.227	0.045	0.307	0.367
Body Mass Index (BMI) <18.5 (men 50-59)	0.259	0.035	169	315	1.043	0.136	0.189	0.330
Body Mass Index (BMI) ≥25 (men 15-49)	0.014	0.004	1,474	2,833	1.414	0.311	0.005	0.022
Body Mass Index (BMI) ≥25 (men 50-59)	0.038	0.015	169	315	0.983	0.380	0.009	0.067

Table B.7 Sampling errors: Oromiya sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.152	0.021	1,892	5,701	2.544	0.138	0.110	0.194
Literacy	0.373	0.021	1,892	5,701	1.898	0.057	0.331	0.415
No education	0.511	0.021	1,892	5,701	1.859	0.042	0.468	0.554
Secondary or higher education	0.121	0.018	1,892	5,701	2.336	0.145	0.086	0.156
Never married (never in union)	0.222	0.014	1,892	5,701	1.476	0.063	0.194	0.251
Currently married (in union)	0.699	0.015	1,892	5,701	1.384	0.021	0.670	0.729
Married before age 20	0.710	0.017	1,477	4,466	1.401	0.023	0.677	0.743
Had sexual intercourse before age 18	0.601	0.021	1,477	4,466	1.664	0.035	0.559	0.643
Currently pregnant	0.083	0.007	1,892	5,701	1.178	0.090	0.068	0.098
Children ever born	3.188	0.097	1,892	5,701	1.407	0.030	2.994	3.381
Children surviving	2.846	0.087	1,892	5,701	1.435	0.031	2.672	3.020
Children ever born to women age 40-49	6.654	0.179	268	784	1.057	0.027	6.297	7.012
Currently using any method	0.286	0.025	1,317	3,987	2.009	0.088	0.236	0.336
Currently using a modern method	0.281	0.025	1,317	3,987	2.005	0.088	0.232	0.331
Currently using pill	0.012	0.003	1,317	3,987	1.094	0.271	0.006	0.019
Currently using IUD	0.017	0.006	1,317	3,987	1.583	0.331	0.006	0.028
Currently using condoms	0.000	0.000	1,317	3,987	na	na	0.000	0.000
Currently using injectables	0.196	0.018	1,317	3,987	1.689	0.094	0.159	0.233
Currently using implants	0.051	0.008	1,317	3,987	1.353	0.161	0.035	0.068
Currently using female sterilisation	0.002	0.001	1,317	3,987	0.959	0.603	0.000	0.004
Using public sector source	0.805	0.026	395	1,186	1.322	0.033	0.752	0.858
Want no more children	0.403	0.017	1,317	3,987	1.290	0.043	0.368	0.438
Want to delay next birth at least 2 years	0.336	0.018	1,317	3,987	1.390	0.054	0.300	0.373
Ideal number of children	4.090	0.135	1,684	5,055	1.899	0.033	3.819	4.360
Mothers received antenatal care for last birth	0.507	0.028	1,031	3,129	1.811	0.056	0.451	0.563
Mothers protected against tetanus for last birth	0.469	0.027	1,031	3,129	1.739	0.058	0.415	0.523
Births with skilled attendant at delivery	0.197	0.026	1,581	4,851	2.358	0.132	0.145	0.248
Had diarrhoea in the last 2 weeks	0.107	0.011	1,494	4,571	1.283	0.101	0.085	0.128
Treated with ORS	0.225	0.032	169	487	0.917	0.141	0.162	0.289
Sought medical treatment for diarrhoea	0.419	0.042	169	487	1.057	0.100	0.335	0.502
Vaccination card seen	0.259	0.034	287	881	1.319	0.131	0.191	0.327
Received BCG vaccination	0.597	0.033	287	881	1.155	0.056	0.530	0.664
Received DPT vaccination (3 doses)	0.399	0.036	287	881	1.242	0.090	0.327	0.471
Received polio vaccination (3 doses)	0.434	0.035	287	881	1.203	0.081	0.363	0.504
Received pneumococcal vaccination (3 doses)	0.383	0.033	287	881	1.158	0.087	0.317	0.450
Received rotavirus vaccination (2 doses)	0.502	0.036	287	881	1.226	0.072	0.430	0.574
Received measles vaccination	0.432	0.037	287	881	1.249	0.085	0.359	0.505
Received all vaccinations	0.247	0.033	287	881	1.291	0.132	0.181	0.312
Height-for-age (-2SD)	0.365	0.017	1,463	4,491	1.298	0.047	0.331	0.399
Weight-for-height (-2SD)	0.105	0.008	1,461	4,494	1.038	0.080	0.088	0.122
Weight-for-age (-2SD)	0.225	0.013	1,486	4,573	1.141	0.057	0.200	0.251
Prevalence of anaemia (children 6-59 months)	0.655	0.022	1,305	4,008	1.632	0.033	0.611	0.699
Prevalence of anaemia (women 15-49)	0.273	0.019	1,802	5,422	1.781	0.069	0.235	0.310
Body Mass Index (BMI) <18.5	0.247	0.010	1,614	4,826	0.956	0.042	0.227	0.268
Body Mass Index (BMI) ≥25	0.074	0.013	1,614	4,826	1.934	0.172	0.048	0.099
Had an HIV test and received results in past 12 months	0.154	0.015	1,892	5,701	1.851	0.100	0.123	0.184
Abstinence among never-married youth (never had sex)	0.944	0.014	393	1,161	1.173	0.014	0.917	0.972
Ever experienced any physical violence since age 15	0.277	0.019	755	2,152	1.191	0.070	0.238	0.315
Ever experienced any sexual violence	0.132	0.015	755	2,152	1.180	0.110	0.103	0.161
Ever experienced any physical/sexual violence by husband/partner	0.326	0.021	649	1,746	1.145	0.065	0.284	0.368
Physical/sexual violence in the last 12 months by husband/partner	0.253	0.021	649	1,746	1.215	0.082	0.212	0.295
Total fertility rate (last 3 years)	5.377	0.345	5,263	15,898	1.889	0.064	4.688	6.066
Neonatal mortality (last 0-9 years)	36.793	4.542	3,255	9,919	1.265	0.123	27.709	45.877
Post-neonatal mortality (last 0-9 years)	22.716	3.608	3,256	9,909	1.304	0.159	15.500	29.932
Infant mortality (last 0-9 years)	59.509	5.853	3,260	9,940	1.252	0.098	47.803	71.215
Child mortality (last 0-9 years)	20.366	3.517	3,255	9,903	1.310	0.173	13.332	27.399
Under-5 mortality (last 0-9 years)	78.663	6.266	3,276	9,982	1.207	0.080	66.131	91.194
	MEN							
Urban residence	0.139	0.020	1,595	4,409	2.255	0.141	0.100	0.178
Literacy	0.685	0.023	1,595	4,409	1.958	0.033	0.639	0.731
No education	0.267	0.024	1,595	4,409	2.165	0.090	0.219	0.315
Secondary or higher education	0.211	0.017	1,595	4,409	1.705	0.083	0.176	0.246
Never married (in union)	0.407	0.017	1,595	4,409	1.379	0.042	0.373	0.441
Currently married (in union)	0.580	0.017	1,595	4,409	1.388	0.030	0.546	0.615
Had first sexual intercourse before age 18	0.219	0.021	992	2,751	1.600	0.096	0.177	0.261
Want no more children	0.279	0.022	920	2,558	1.514	0.080	0.235	0.324
Want to delay birth at least 2 years	0.453	0.022	920	2,558	1.353	0.049	0.408	0.497
Ideal number of children	4.666	0.165	1,503	4,175	1.964	0.035	4.336	4.996
Abstinence among never married youth (never had sex)	0.845	0.022	522	1,419	1.394	0.026	0.801	0.889
Had HIV test and received results in past 12 months	0.148	0.018	1,595	4,409	2.018	0.121	0.112	0.184
Prevalence of anaemia (men 15-49)	0.158	0.016	1,458	4,020	1.666	0.101	0.126	0.190
Prevalence of anaemia (men 50-59)	0.161	0.035	117	333	1.033	0.219	0.091	0.232
Body Mass Index (BMI) <18.5 (men 15-49)	0.330	0.018	1,485	4,098	1.443	0.053	0.295	0.365
Body Mass Index (BMI) <18.5 (men 50-59)	0.271	0.044	117	333	1.056	0.161	0.184	0.358
Body Mass Index (BMI) ≥25 (men 15-49)	0.029	0.004	1,485	4,098	0.895	0.134	0.021	0.037
Body Mass Index (BMI) ≥25 (men 50-59)	0.056	0.034	117	333	1.606	0.616	0.000	0.125

Table B.8 Sampling errors: Somali sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.189	0.028	1,391	459	2.708	0.151	0.132	0.246
Literacy	0.124	0.019	1,391	459	2.177	0.156	0.085	0.162
No education	0.753	0.027	1,391	459	2.313	0.036	0.699	0.806
Secondary or higher education	0.066	0.013	1,391	459	1.896	0.192	0.040	0.091
Never married (never in union)	0.221	0.019	1,391	459	1.709	0.086	0.183	0.259
Currently married (in union)	0.704	0.021	1,391	459	1.735	0.030	0.662	0.747
Married before age 20	0.689	0.018	1,072	355	1.282	0.026	0.652	0.725
Had sexual intercourse before age 18	0.503	0.020	1,072	355	1.297	0.039	0.464	0.543
Currently pregnant	0.129	0.012	1,391	459	1.385	0.096	0.104	0.154
Children ever born	3.713	0.093	1,391	459	1.036	0.025	3.527	3.898
Children surviving	3.294	0.091	1,391	459	1.149	0.028	3.112	3.476
Children ever born to women age 40-49	7.449	0.197	220	74	1.075	0.026	7.054	7.843
Currently using any method	0.015	0.006	978	324	1.410	0.363	0.004	0.026
Currently using a modern method	0.014	0.004	978	324	1.199	0.327	0.005	0.022
Currently using pill	0.004	0.002	978	324	1.017	0.518	0.000	0.008
Currently using IUD	0.001	0.001	978	324	0.853	1.007	0.000	0.002
Currently using condoms	0.000	0.000	978	324	na	na	0.000	0.000
Currently using injectables	0.006	0.003	978	324	1.027	0.411	0.001	0.012
Currently using implants	0.001	0.001	978	324	0.715	0.687	0.000	0.003
Currently using female sterilisation	0.000	0.000	978	324	na	na	0.000	0.000
Using public sector source	0.445	0.171	14	4	1.215	0.383	0.104	0.787
Want no more children	0.079	0.011	978	324	1.261	0.138	0.057	0.100
Want to delay next birth at least 2 years	0.237	0.018	978	324	1.336	0.077	0.201	0.273
Ideal number of children	10.588	0.263	1,093	350	1.920	0.025	10.062	11.114
Mothers received antenatal care for last birth	0.436	0.041	806	269	2.370	0.095	0.354	0.519
Mothers protected against tetanus for last birth	0.384	0.038	806	269	2.204	0.098	0.309	0.459
Births with skilled attendant at delivery	0.200	0.029	1,505	508	2.185	0.145	0.142	0.258
Had diarrhoea in the last 2 weeks	0.060	0.009	1,402	476	1.331	0.144	0.043	0.078
Treated with ORS	0.442	0.083	88	29	1.525	0.188	0.276	0.608
Sought medical treatment for diarrhoea	0.447	0.077	88	29	1.369	0.171	0.294	0.600
Vaccination card seen	0.210	0.039	223	76	1.412	0.184	0.133	0.287
Received BCG vaccination	0.559	0.039	223	76	1.177	0.069	0.481	0.636
Received DPT vaccination (3 doses)	0.363	0.053	223	76	1.664	0.147	0.256	0.469
Received polio vaccination (3 doses)	0.438	0.062	223	76	1.878	0.141	0.315	0.562
Received pneumococcal vaccination (3 doses)	0.349	0.055	223	76	1.729	0.157	0.239	0.458
Received rotavirus vaccination (2 doses)	0.413	0.055	223	76	1.674	0.132	0.304	0.522
Received measles vaccination	0.481	0.061	223	76	1.850	0.127	0.359	0.604
Received all vaccinations	0.218	0.048	223	76	1.767	0.221	0.122	0.315
Height-for-age (-2SD)	0.274	0.017	1,247	417	1.290	0.063	0.240	0.309
Weight-for-height (-2SD)	0.229	0.025	1,239	415	2.000	0.111	0.178	0.280
Weight-for-age (-2SD)	0.287	0.021	1,276	427	1.567	0.072	0.245	0.329
Prevalence of anaemia (children 6-59 months)	0.829	0.016	1,116	371	1.366	0.019	0.798	0.861
Prevalence of anaemia (women 15-49)	0.595	0.022	1,262	417	1.565	0.036	0.552	0.639
Body Mass Index (BMI) <18.5	0.312	0.023	1,091	358	1.628	0.073	0.266	0.358
Body Mass Index (BMI) ≥25	0.151	0.018	1,091	358	1.659	0.119	0.115	0.187
Had an HIV test and received results in past 12 months	0.085	0.014	1,391	459	1.840	0.162	0.058	0.113
Abstinence among never-married youth (never had sex)	1.000	0.000	280	94	na	0.000	1.000	1.000
Ever experienced any physical violence since age 15	0.059	0.012	543	170	1.202	0.207	0.034	0.083
Ever experienced any sexual violence	0.003	0.002	543	170	0.884	0.720	0.000	0.007
Ever experienced any physical/sexual violence by husband/partner	0.068	0.015	464	132	1.235	0.212	0.039	0.097
Physical/sexual violence in the last 12 months by husband/partner	0.058	0.014	464	132	1.310	0.246	0.029	0.086
Total fertility rate (last 3 years)	7.207	0.300	3,793	1,255	1.451	0.042	6.607	7.808
Neonatal mortality (last 0-9 years)	40.687	5.557	2,943	998	1.376	0.137	29.574	51.801
Post-neonatal mortality (last 0-9 years)	26.465	4.023	2,969	1,005	1.246	0.152	18.419	34.512
Infant mortality (last 0-9 years)	67.153	6.040	2,946	998	1.173	0.090	55.072	79.233
Child mortality (last 0-9 years)	28.889	3.654	2,922	989	1.048	0.126	21.582	36.196
Under-5 mortality (last 0-9 years)	94.102	6.975	2,971	1,005	1.114	0.074	80.151	108.053
	MEN							
Urban residence	0.238	0.035	927	301	2.462	0.145	0.169	0.307
Literacy	0.567	0.035	927	301	2.121	0.061	0.498	0.636
No education	0.448	0.037	927	301	2.231	0.082	0.375	0.521
Secondary or higher education	0.226	0.028	927	301	2.054	0.125	0.169	0.282
Never married (in union)	0.402	0.027	927	301	1.648	0.066	0.349	0.455
Currently married (in union)	0.577	0.026	927	301	1.585	0.045	0.526	0.629
Had first sexual intercourse before age 18	0.117	0.021	549	176	1.543	0.182	0.074	0.159
Want no more children	0.033	0.012	535	174	1.526	0.358	0.009	0.057
Want to delay birth at least 2 years	0.110	0.024	535	174	1.792	0.221	0.061	0.158
Ideal number of children	10.794	0.612	658	199	1.833	0.057	9.570	12.018
Abstinence among never married youth (never had sex)	0.975	0.010	330	109	1.183	0.011	0.954	0.995
Had HIV test and received results in past 12 months	0.076	0.013	927	301	1.473	0.169	0.051	0.102
Prevalence of anaemia (men 15-49)	0.213	0.022	797	249	1.479	0.103	0.169	0.257
Prevalence of anaemia (men 50-59)	0.206	0.051	77	26	1.115	0.250	0.103	0.308
Body Mass Index (BMI) <18.5 (men 15-49)	0.546	0.024	836	260	1.389	0.045	0.498	0.595
Body Mass Index (BMI) <18.5 (men 50-59)	0.279	0.055	80	26	1.093	0.198	0.168	0.389
Body Mass Index (BMI) ≥25 (men 15-49)	0.031	0.008	836	260	1.355	0.269	0.014	0.047
Body Mass Index (BMI) ≥25 (men 50-59)	0.081	0.042	80	26	1.348	0.515	0.000	0.164

Table B.9 Sampling errors: Benishangul-Gumuz sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.166	0.027	1,126	160	2.426	0.162	0.112	0.220
Literacy	0.387	0.032	1,126	160	2.210	0.083	0.322	0.451
No education	0.467	0.027	1,126	160	1.781	0.057	0.414	0.520
Secondary or higher education	0.158	0.019	1,126	160	1.733	0.119	0.120	0.196
Never married (never in union)	0.220	0.019	1,126	160	1.557	0.088	0.181	0.258
Currently married (in union)	0.710	0.023	1,126	160	1.693	0.032	0.664	0.756
Married before age 20	0.749	0.020	889	126	1.348	0.026	0.710	0.788
Had sexual intercourse before age 18	0.615	0.022	889	126	1.346	0.036	0.571	0.659
Currently pregnant	0.073	0.009	1,126	160	1.146	0.122	0.055	0.090
Children ever born	3.048	0.131	1,126	160	1.486	0.043	2.786	3.311
Children surviving	2.615	0.114	1,126	160	1.543	0.043	2.387	2.842
Children ever born to women age 40-49	6.698	0.293	158	21	1.404	0.044	6.112	7.285
Currently using any method	0.285	0.030	806	114	1.889	0.106	0.225	0.346
Currently using a modern method	0.284	0.030	806	114	1.893	0.106	0.224	0.344
Currently using pill	0.010	0.004	806	114	1.097	0.395	0.002	0.017
Currently using IUD	0.015	0.005	806	114	1.256	0.364	0.004	0.025
Currently using condoms	0.000	0.000	806	114	na	na	0.000	0.000
Currently using injectables	0.195	0.023	806	114	1.671	0.120	0.148	0.241
Currently using implants	0.063	0.013	806	114	1.479	0.201	0.038	0.089
Currently using female sterilisation	0.002	0.001	806	114	0.949	0.760	0.000	0.005
Using public sector source	0.821	0.040	246	35	1.614	0.048	0.742	0.900
Want no more children	0.351	0.021	806	114	1.261	0.060	0.309	0.394
Want to delay next birth at least 2 years	0.385	0.029	806	114	1.662	0.074	0.328	0.442
Ideal number of children	5.012	0.135	1,012	145	1.716	0.027	4.742	5.281
Mothers received antenatal care for last birth	0.687	0.039	576	81	1.994	0.056	0.610	0.765
Mothers protected against tetanus for last birth	0.534	0.035	576	81	1.655	0.065	0.465	0.603
Births with skilled attendant at delivery	0.286	0.036	879	122	2.021	0.125	0.214	0.357
Had diarrhoea in the last 2 weeks	0.090	0.013	815	113	1.302	0.148	0.063	0.117
Treated with ORS	0.553	0.066	75	10	1.149	0.119	0.421	0.685
Sought medical treatment for diarrhoea	0.613	0.075	75	10	1.283	0.123	0.462	0.763
Vaccination card seen	0.414	0.068	156	21	1.653	0.164	0.279	0.550
Received BCG vaccination	0.768	0.046	156	21	1.337	0.060	0.676	0.861
Received DPT vaccination (3 doses)	0.762	0.055	156	21	1.566	0.072	0.651	0.872
Received polio vaccination (3 doses)	0.705	0.051	156	21	1.363	0.073	0.602	0.807
Received pneumococcal vaccination (3 doses)	0.710	0.066	156	21	1.764	0.094	0.577	0.842
Received rotavirus vaccination (2 doses)	0.766	0.045	156	21	1.292	0.058	0.677	0.856
Received measles vaccination	0.708	0.047	156	21	1.259	0.066	0.614	0.802
Received all vaccinations	0.574	0.052	156	21	1.293	0.091	0.470	0.679
Height-for-age (-2SD)	0.427	0.022	759	106	1.133	0.052	0.383	0.471
Weight-for-height (-2SD)	0.113	0.018	757	105	1.561	0.159	0.077	0.149
Weight-for-age (-2SD)	0.343	0.030	775	108	1.686	0.088	0.283	0.403
Prevalence of anaemia (children 6-59 months)	0.425	0.026	691	96	1.315	0.060	0.374	0.477
Prevalence of anaemia (women 15-49)	0.192	0.017	1,038	146	1.364	0.087	0.159	0.226
Body Mass Index (BMI) <18.5	0.201	0.014	937	132	1.096	0.072	0.172	0.229
Body Mass Index (BMI) ≥25	0.069	0.009	937	132	1.085	0.132	0.051	0.087
Had an HIV test and received results in past 12 months	0.235	0.023	1,126	160	1.845	0.099	0.188	0.282
Abstinence among never-married youth (never had sex)	0.936	0.016	224	33	0.962	0.017	0.905	0.968
Ever experienced any physical violence since age 15	0.177	0.020	450	55	1.093	0.111	0.138	0.216
Ever experienced any sexual violence	0.068	0.013	450	55	1.124	0.196	0.041	0.095
Ever experienced any physical/sexual violence by husband/partner	0.230	0.025	383	44	1.154	0.108	0.181	0.280
Physical/sexual violence in the last 12 months by husband/partner	0.183	0.023	383	44	1.167	0.126	0.137	0.229
Total fertility rate (last 3 years)	4.367	0.343	3,153	449	1.797	0.079	3.681	5.054
Neonatal mortality (last 0-9 years)	35.479	4.772	1,818	248	0.940	0.135	25.934	45.024
Post-neonatal mortality (last 0-9 years)	26.499	5.153	1,826	249	1.147	0.194	16.192	36.805
Infant mortality (last 0-9 years)	61.978	6.156	1,819	248	0.873	0.099	49.666	74.290
Child mortality (last 0-9 years)	38.118	7.112	1,869	255	1.084	0.187	23.893	52.343
Under-5 mortality (last 0-9 years)	97.733	10.262	1,836	251	1.015	0.105	77.209	118.257
	MEN							
Urban residence	0.170	0.034	902	118	2.670	0.197	0.103	0.237
Literacy	0.697	0.024	902	118	1.544	0.034	0.650	0.744
No education	0.212	0.021	902	118	1.556	0.100	0.170	0.255
Secondary or higher education	0.288	0.027	902	118	1.776	0.093	0.234	0.342
Never married (in union)	0.372	0.024	902	118	1.475	0.064	0.324	0.419
Currently married (in union)	0.612	0.023	902	118	1.391	0.037	0.567	0.657
Had first sexual intercourse before age 18	0.315	0.036	575	76	1.870	0.115	0.242	0.387
Want no more children	0.231	0.020	558	72	1.095	0.085	0.192	0.270
Want to delay birth at least 2 years	0.454	0.028	558	72	1.306	0.061	0.399	0.510
Ideal number of children	5.635	0.345	839	110	2.082	0.061	4.945	6.324
Abstinence among never married youth (never had sex)	0.719	0.033	269	35	1.209	0.046	0.653	0.786
Had HIV test and received results in past 12 months	0.234	0.027	902	118	1.895	0.114	0.181	0.288
Prevalence of anaemia (men 15-49)	0.111	0.011	789	102	1.011	0.103	0.088	0.133
Prevalence of anaemia (men 50-59)	0.187	0.043	72	9	0.927	0.230	0.101	0.273
Body Mass Index (BMI) <18.5 (men 15-49)	0.309	0.023	797	103	1.380	0.074	0.263	0.354
Body Mass Index (BMI) <18.5 (men 50-59)	0.390	0.070	72	9	1.199	0.179	0.250	0.529
Body Mass Index (BMI) ≥25 (men 15-49)	0.028	0.005	797	103	0.884	0.185	0.018	0.039
Body Mass Index (BMI) ≥25 (men 50-59)	0.054	0.038	72	9	1.414	0.713	0.000	0.130

Table B.10 Sampling errors: SNNPR sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.129	0.017	1,849	3,288	2.238	0.135	0.094	0.164
Literacy	0.353	0.022	1,849	3,288	1.987	0.063	0.309	0.397
No education	0.439	0.024	1,849	3,288	2.102	0.055	0.390	0.487
Secondary or higher education	0.134	0.015	1,849	3,288	1.917	0.114	0.103	0.164
Never married (never in union)	0.297	0.017	1,849	3,288	1.563	0.056	0.264	0.331
Currently married (in union)	0.661	0.017	1,849	3,288	1.549	0.026	0.627	0.695
Married before age 20	0.637	0.021	1,458	2,607	1.645	0.033	0.595	0.678
Had sexual intercourse before age 18	0.474	0.022	1,458	2,607	1.673	0.046	0.430	0.517
Currently pregnant	0.080	0.007	1,849	3,288	1.164	0.092	0.066	0.095
Children ever born	3.008	0.115	1,849	3,288	1.648	0.038	2.777	3.238
Children surviving	2.627	0.095	1,849	3,288	1.561	0.036	2.437	2.816
Children ever born to women age 40-49	6.909	0.169	273	482	1.089	0.024	6.572	7.247
Currently using any method	0.399	0.026	1,217	2,173	1.849	0.065	0.347	0.451
Currently using a modern method	0.396	0.026	1,217	2,173	1.857	0.066	0.344	0.448
Currently using pill	0.016	0.004	1,217	2,173	1.197	0.273	0.007	0.024
Currently using IUD	0.013	0.004	1,217	2,173	1.154	0.293	0.005	0.020
Currently using condoms	0.000	0.000	1,217	2,173	na	na	0.000	0.000
Currently using injectables	0.277	0.024	1,217	2,173	1.880	0.087	0.228	0.325
Currently using implants	0.080	0.012	1,217	2,173	1.513	0.148	0.056	0.103
Currently using female sterilisation	0.009	0.003	1,217	2,173	1.049	0.319	0.003	0.014
Using public sector source	0.923	0.020	491	868	1.625	0.021	0.884	0.962
Want no more children	0.400	0.024	1,217	2,173	1.692	0.060	0.352	0.447
Want to delay next birth at least 2 years	0.401	0.020	1,217	2,173	1.415	0.050	0.361	0.441
Ideal number of children	4.907	0.102	1,712	3,040	1.932	0.021	4.703	5.112
Mothers received antenatal care for last birth	0.693	0.026	893	1,601	1.681	0.037	0.641	0.745
Mothers protected against tetanus for last birth	0.509	0.029	893	1,601	1.748	0.057	0.451	0.568
Births with skilled attendant at delivery	0.286	0.025	1,277	2,296	1.734	0.086	0.237	0.335
Had diarrhoea in the last 2 weeks	0.139	0.012	1,206	2,169	1.205	0.090	0.114	0.164
Treated with ORS	0.333	0.040	170	301	1.062	0.121	0.253	0.414
Sought medical treatment for diarrhoea	0.478	0.047	170	301	1.177	0.098	0.384	0.572
Vaccination card seen	0.288	0.041	231	419	1.370	0.143	0.206	0.371
Received BCG vaccination	0.762	0.040	231	419	1.438	0.053	0.681	0.843
Received DPT vaccination (3 doses)	0.590	0.041	231	419	1.280	0.070	0.507	0.673
Received polio vaccination (3 doses)	0.636	0.039	231	419	1.229	0.061	0.558	0.714
Received pneumococcal vaccination (3 doses)	0.486	0.045	231	419	1.364	0.092	0.397	0.576
Received rotavirus vaccination (2 doses)	0.547	0.041	231	419	1.246	0.075	0.465	0.629
Received measles vaccination	0.576	0.041	231	419	1.255	0.071	0.495	0.658
Received all vaccinations	0.469	0.044	231	419	1.326	0.093	0.382	0.556
Height-for-age (-2SD)	0.386	0.020	1,208	2,188	1.362	0.051	0.347	0.426
Weight-for-height (-2SD)	0.061	0.007	1,204	2,177	1.042	0.120	0.046	0.075
Weight-for-age (-2SD)	0.211	0.017	1,235	2,234	1.409	0.083	0.176	0.246
Prevalence of anaemia (children 6-59 months)	0.500	0.025	1,102	1,992	1.644	0.050	0.449	0.550
Prevalence of anaemia (women 15-49)	0.225	0.017	1,760	3,124	1.677	0.074	0.192	0.259
Body Mass Index (BMI) <18.5	0.149	0.011	1,608	2,847	1.202	0.072	0.128	0.171
Body Mass Index (BMI) ≥25	0.056	0.008	1,608	2,847	1.379	0.142	0.040	0.072
Had an HIV test and received results in past 12 months	0.176	0.013	1,849	3,288	1.522	0.077	0.149	0.203
Abstinence among never-married youth (never had sex)	0.961	0.015	471	824	1.627	0.015	0.932	0.990
Ever experienced any physical violence since age 15	0.170	0.018	714	1,243	1.305	0.108	0.133	0.207
Ever experienced any sexual violence	0.061	0.010	714	1,243	1.138	0.168	0.040	0.081
Ever experienced any physical/sexual violence by husband/partner	0.202	0.020	564	913	1.188	0.099	0.162	0.243
Physical/sexual violence in the last 12 months by husband/partner	0.160	0.020	564	913	1.310	0.127	0.119	0.200
Total fertility rate (last 3 years)	4.424	0.194	5,125	9,133	1.314	0.044	4.037	4.812
Neonatal mortality (last 0-9 years)	34.985	4.017	2,760	4,991	1.045	0.115	26.951	43.019
Post-neonatal mortality (last 0-9 years)	29.767	4.867	2,772	5,011	1.350	0.164	20.033	39.500
Infant mortality (last 0-9 years)	64.752	6.467	2,764	4,998	1.235	0.100	51.817	77.686
Child mortality (last 0-9 years)	25.186	4.863	2,820	5,118	1.387	0.193	15.459	34.913
Under-5 mortality (last 0-9 years)	88.307	9.743	2,779	5,027	1.562	0.110	68.821	107.793
	MEN							
Urban residence	0.106	0.021	1,465	2,371	2.600	0.198	0.064	0.148
Literacy	0.646	0.023	1,465	2,371	1.842	0.036	0.599	0.692
No education	0.180	0.018	1,465	2,371	1.799	0.100	0.144	0.216
Secondary or higher education	0.214	0.021	1,465	2,371	1.924	0.096	0.173	0.255
Never married (in union)	0.431	0.017	1,465	2,371	1.327	0.040	0.397	0.465
Currently married (in union)	0.558	0.017	1,465	2,371	1.322	0.031	0.524	0.592
Had first sexual intercourse before age 18	0.132	0.017	896	1,455	1.461	0.126	0.099	0.165
Want no more children	0.304	0.020	811	1,323	1.214	0.064	0.265	0.344
Want to delay birth at least 2 years	0.477	0.022	811	1,323	1.249	0.046	0.433	0.521
Ideal number of children	4.595	0.137	1,415	2,287	1.802	0.030	4.321	4.869
Abstinence among never married youth (never had sex)	0.881	0.018	510	822	1.234	0.020	0.846	0.916
Had HIV test and received results in past 12 months	0.147	0.014	1,465	2,371	1.555	0.098	0.118	0.176
Prevalence of anaemia (men 15-49)	0.141	0.015	1,372	2,221	1.582	0.106	0.111	0.170
Prevalence of anaemia (men 50-59)	0.196	0.028	136	214	0.822	0.144	0.139	0.252
Body Mass Index (BMI) <18.5 (men 15-49)	0.283	0.017	1,404	2,273	1.421	0.060	0.249	0.317
Body Mass Index (BMI) <18.5 (men 50-59)	0.284	0.039	136	215	1.015	0.139	0.205	0.363
Body Mass Index (BMI) ≥25 (men 15-49)	0.019	0.004	1,404	2,273	1.051	0.203	0.011	0.026
Body Mass Index (BMI) ≥25 (men 50-59)	0.076	0.026	136	215	1.130	0.340	0.024	0.128

Table B.11 Sampling errors: Gambela sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.465	0.036	1,035	44	2.291	0.077	0.394	0.537
Literacy	0.500	0.031	1,035	44	2.008	0.063	0.438	0.563
No education	0.267	0.027	1,035	44	1.924	0.099	0.214	0.320
Secondary or higher education	0.345	0.034	1,035	44	2.288	0.098	0.278	0.413
Never married (never in union)	0.217	0.018	1,035	44	1.434	0.085	0.180	0.254
Currently married (in union)	0.672	0.024	1,035	44	1.623	0.035	0.625	0.720
Married before age 20	0.733	0.026	823	34	1.684	0.036	0.681	0.785
Had sexual intercourse before age 18	0.626	0.031	823	34	1.821	0.049	0.565	0.688
Currently pregnant	0.059	0.008	1,035	44	1.110	0.138	0.043	0.075
Children ever born	2.285	0.097	1,035	44	1.381	0.042	2.091	2.479
Children surviving	2.024	0.086	1,035	44	1.382	0.042	1.853	2.196
Children ever born to women age 40-49	4.904	0.276	136	6	1.368	0.056	4.352	5.456
Currently using any method	0.349	0.040	712	29	2.227	0.114	0.269	0.429
Currently using a modern method	0.349	0.040	712	29	2.227	0.114	0.269	0.429
Currently using pill	0.029	0.008	712	29	1.207	0.261	0.014	0.044
Currently using IUD	0.005	0.003	712	29	1.054	0.567	0.000	0.010
Currently using condoms	0.005	0.003	712	29	1.026	0.561	0.000	0.010
Currently using injectables	0.289	0.041	712	29	2.428	0.143	0.206	0.372
Currently using implants	0.019	0.007	712	29	1.369	0.373	0.005	0.033
Currently using female sterilisation	0.000	0.000	712	29	na	na	0.000	0.000
Using public sector source	0.428	0.051	221	12	1.536	0.120	0.325	0.531
Want no more children	0.307	0.027	712	29	1.580	0.089	0.252	0.362
Want to delay next birth at least 2 years	0.410	0.027	712	29	1.480	0.067	0.355	0.465
Ideal number of children	4.546	0.163	974	41	2.116	0.036	4.219	4.872
Mothers received antenatal care for last birth	0.723	0.028	534	21	1.410	0.039	0.667	0.779
Mothers protected against tetanus for last birth	0.554	0.034	534	21	1.556	0.062	0.485	0.623
Births with skilled attendant at delivery	0.469	0.039	714	27	1.825	0.084	0.391	0.548
Had diarrhoea in the last 2 weeks	0.145	0.017	670	25	1.194	0.120	0.110	0.180
Treated with ORS	0.397	0.059	85	4	1.161	0.150	0.278	0.516
Sought medical treatment for diarrhoea	0.587	0.069	85	4	1.296	0.117	0.449	0.725
Vaccination card seen	0.414	0.055	138	5	1.259	0.133	0.303	0.524
Received BCG vaccination	0.699	0.060	138	5	1.464	0.085	0.580	0.819
Received DPT vaccination (3 doses)	0.548	0.065	138	5	1.481	0.118	0.419	0.678
Received polio vaccination (3 doses)	0.576	0.061	138	5	1.400	0.106	0.454	0.697
Received pneumococcal vaccination (3 doses)	0.461	0.058	138	5	1.326	0.126	0.345	0.577
Received rotavirus vaccination (2 doses)	0.605	0.063	138	5	1.440	0.104	0.480	0.730
Received measles vaccination	0.621	0.057	138	5	1.312	0.091	0.508	0.735
Received all vaccinations	0.411	0.059	138	5	1.355	0.142	0.294	0.529
Height-for-age (-2SD)	0.235	0.018	611	23	1.032	0.078	0.199	0.272
Weight-for-height (-2SD)	0.144	0.020	603	23	1.320	0.136	0.105	0.183
Weight-for-age (-2SD)	0.194	0.020	614	23	1.158	0.102	0.154	0.233
Prevalence of anaemia (children 6-59 months)	0.562	0.042	573	21	1.864	0.075	0.478	0.646
Prevalence of anaemia (women 15-49)	0.261	0.026	985	42	1.851	0.099	0.209	0.313
Body Mass Index (BMI) <18.5	0.318	0.028	905	39	1.826	0.088	0.262	0.374
Body Mass Index (BMI) ≥25	0.085	0.013	905	39	1.394	0.151	0.059	0.110
Had an HIV test and received results in past 12 months	0.335	0.025	1,035	44	1.693	0.074	0.285	0.384
Abstinence among never-married youth (never had sex)	0.734	0.045	192	9	1.416	0.062	0.644	0.825
Ever experienced any physical violence since age 15	0.253	0.029	386	15	1.301	0.114	0.195	0.311
Ever experienced any sexual violence	0.104	0.023	386	15	1.484	0.223	0.058	0.150
Ever experienced any physical/sexual violence by husband/partner	0.276	0.042	343	13	1.725	0.151	0.193	0.360
Physical/sexual violence in the last 12 months by husband/partner	0.229	0.037	343	13	1.639	0.163	0.155	0.304
Total fertility rate (last 3 years)	3.467	0.321	2,894	122	1.899	0.093	2.825	4.110
Neonatal mortality (last 0-9 years)	35.912	6.213	1,462	55	1.119	0.173	23.486	48.337
Post-neonatal mortality (last 0-9 years)	20.550	4.295	1,467	55	1.059	0.209	11.960	29.140
Infant mortality (last 0-9 years)	56.462	7.542	1,465	55	1.105	0.134	41.378	71.546
Child mortality (last 0-9 years)	33.451	5.991	1,472	54	1.062	0.179	21.469	45.432
Under-5 mortality (last 0-9 years)	88.024	9.711	1,473	55	1.103	0.110	68.601	107.446
	MEN							
Urban residence	0.464	0.047	810	35	2.657	0.101	0.371	0.558
Literacy	0.815	0.021	810	35	1.555	0.026	0.772	0.857
No education	0.103	0.015	810	35	1.422	0.148	0.073	0.134
Secondary or higher education	0.436	0.040	810	35	2.294	0.092	0.356	0.517
Never married (in union)	0.465	0.025	810	35	1.409	0.053	0.416	0.515
Currently married (in union)	0.490	0.023	810	35	1.307	0.047	0.444	0.536
Had first sexual intercourse before age 18	0.289	0.032	472	20	1.516	0.110	0.226	0.352
Want no more children	0.206	0.028	411	17	1.425	0.138	0.149	0.263
Want to delay birth at least 2 years	0.472	0.025	411	17	1.024	0.053	0.422	0.523
Ideal number of children	4.647	0.265	780	34	2.114	0.057	4.116	5.178
Abstinence among never married youth (never had sex)	0.536	0.047	302	13	1.631	0.088	0.442	0.630
Had HIV test and received results in past 12 months	0.366	0.023	810	35	1.335	0.062	0.321	0.412
Prevalence of anaemia (men 15-49)	0.100	0.013	743	32	1.176	0.129	0.074	0.126
Prevalence of anaemia (men 50-59)	0.145	0.047	56	2	0.993	0.323	0.051	0.239
Body Mass Index (BMI) <18.5 (men 15-49)	0.340	0.029	757	33	1.708	0.086	0.281	0.398
Body Mass Index (BMI) <18.5 (men 50-59)	0.215	0.055	56	2	0.992	0.254	0.106	0.324
Body Mass Index (BMI) ≥25 (men 15-49)	0.042	0.011	757	33	1.578	0.271	0.019	0.065
Body Mass Index (BMI) ≥25 (men 50-59)	0.147	0.074	56	2	1.539	0.502	0.000	0.295

Table B.12 Sampling errors: Harari sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.574	0.019	906	38	1.143	0.033	0.536	0.611
Literacy	0.546	0.029	906	38	1.765	0.054	0.488	0.605
No education	0.361	0.029	906	38	1.823	0.081	0.303	0.419
Secondary or higher education	0.293	0.025	906	38	1.620	0.084	0.244	0.343
Never married (never in union)	0.247	0.015	906	38	1.067	0.062	0.216	0.277
Currently married (in union)	0.640	0.017	906	38	1.087	0.027	0.605	0.675
Married before age 20	0.624	0.025	723	31	1.364	0.039	0.575	0.673
Had sexual intercourse before age 18	0.492	0.024	723	31	1.310	0.050	0.443	0.540
Currently pregnant	0.092	0.011	906	38	1.114	0.117	0.070	0.113
Children ever born	2.303	0.116	906	38	1.418	0.051	2.070	2.536
Children surviving	2.085	0.103	906	38	1.401	0.049	1.878	2.291
Children ever born to women age 40-49	4.337	0.343	126	5	1.266	0.079	3.651	5.023
Currently using any method	0.295	0.026	576	25	1.367	0.088	0.243	0.347
Currently using a modern method	0.293	0.026	576	25	1.344	0.087	0.242	0.344
Currently using pill	0.050	0.008	576	25	0.933	0.169	0.033	0.067
Currently using IUD	0.025	0.007	576	25	1.116	0.289	0.011	0.040
Currently using condoms	0.006	0.003	576	25	1.024	0.561	0.000	0.012
Currently using injectables	0.126	0.020	576	25	1.456	0.160	0.086	0.166
Currently using implants	0.075	0.013	576	25	1.165	0.171	0.049	0.101
Currently using female sterilisation	0.000	0.000	576	25	na	na	0.000	0.000
Using public sector source	0.680	0.039	180	8	1.111	0.057	0.602	0.757
Want no more children	0.299	0.025	576	25	1.326	0.085	0.249	0.350
Want to delay next birth at least 2 years	0.361	0.024	576	25	1.200	0.067	0.313	0.409
Ideal number of children	4.153	0.150	816	35	1.672	0.036	3.854	4.452
Mothers received antenatal care for last birth	0.759	0.037	411	17	1.722	0.048	0.686	0.832
Mothers protected against tetanus for last birth	0.701	0.039	411	17	1.703	0.055	0.624	0.778
Births with skilled attendant at delivery	0.512	0.047	605	26	1.900	0.093	0.417	0.607
Had diarrhoea in the last 2 weeks	0.108	0.015	564	24	1.086	0.140	0.078	0.139
Treated with ORS	0.391	0.071	60	3	1.072	0.182	0.249	0.533
Sought medical treatment for diarrhoea	0.545	0.067	60	3	1.050	0.124	0.410	0.679
Vaccination card seen	0.449	0.056	117	5	1.197	0.125	0.337	0.561
Received BCG vaccination	0.770	0.043	117	5	1.098	0.056	0.684	0.856
Received DPT vaccination (3 doses)	0.587	0.058	117	5	1.262	0.099	0.470	0.703
Received polio vaccination (3 doses)	0.793	0.043	117	5	1.133	0.054	0.708	0.879
Received pneumococcal vaccination (3 doses)	0.586	0.058	117	5	1.253	0.099	0.470	0.701
Received rotavirus vaccination (2 doses)	0.613	0.060	117	5	1.313	0.098	0.493	0.732
Received measles vaccination	0.536	0.051	117	5	1.088	0.095	0.434	0.638
Received all vaccinations	0.422	0.060	117	5	1.281	0.141	0.302	0.541
Height-for-age (-2SD)	0.320	0.025	484	20	1.161	0.079	0.269	0.370
Weight-for-height (-2SD)	0.108	0.018	480	20	1.182	0.163	0.073	0.144
Weight-for-age (-2SD)	0.200	0.021	496	20	1.104	0.103	0.159	0.241
Prevalence of anaemia (children 6-59 months)	0.679	0.024	395	16	0.986	0.035	0.632	0.726
Prevalence of anaemia (women 15-49)	0.277	0.021	750	32	1.308	0.077	0.234	0.320
Body Mass Index (BMI) <18.5	0.210	0.018	706	30	1.204	0.088	0.173	0.247
Body Mass Index (BMI) ≥25	0.198	0.017	706	30	1.110	0.084	0.165	0.231
Had an HIV test and received results in past 12 months	0.293	0.021	906	38	1.416	0.073	0.250	0.336
Abstinence among never-married youth (never had sex)	0.927	0.021	193	8	1.118	0.023	0.885	0.969
Ever experienced any physical violence since age 15	0.245	0.040	341	13	1.717	0.164	0.165	0.326
Ever experienced any sexual violence	0.042	0.015	341	13	1.426	0.371	0.011	0.073
Ever experienced any physical/sexual violence by husband/partner	0.284	0.044	281	10	1.611	0.153	0.197	0.371
Physical/sexual violence in the last 12 months by husband/partner	0.243	0.038	281	10	1.467	0.155	0.168	0.318
Total fertility rate (last 3 years)	4.054	0.386	2,523	107	1.296	0.095	3.281	4.826
Neonatal mortality (last 0-9 years)	34.138	5.428	1,191	51	0.854	0.159	23.282	44.994
Post-neonatal mortality (last 0-9 years)	23.299	6.065	1,190	51	1.242	0.260	11.169	35.429
Infant mortality (last 0-9 years)	57.437	7.575	1,191	51	0.918	0.132	42.287	72.587
Child mortality (last 0-9 years)	15.860	6.349	1,155	50	1.592	0.400	3.163	28.558
Under-5 mortality (last 0-9 years)	72.386	10.084	1,194	51	1.091	0.139	52.218	92.554
	MEN							
Urban residence	0.556	0.027	620	29	1.357	0.049	0.502	0.610
Literacy	0.810	0.029	620	29	1.818	0.035	0.752	0.867
No education	0.175	0.026	620	29	1.719	0.150	0.123	0.228
Secondary or higher education	0.484	0.036	620	29	1.788	0.074	0.412	0.556
Never married (in union)	0.415	0.027	620	29	1.379	0.066	0.360	0.469
Currently married (in union)	0.549	0.028	620	29	1.418	0.052	0.493	0.606
Had first sexual intercourse before age 18	0.147	0.021	404	19	1.194	0.143	0.105	0.189
Want no more children	0.167	0.024	347	16	1.192	0.143	0.120	0.215
Want to delay birth at least 2 years	0.260	0.022	347	16	0.937	0.085	0.216	0.305
Ideal number of children	4.706	0.336	545	25	1.594	0.071	4.034	5.377
Abstinence among never married youth (never had sex)	0.918	0.021	181	8	1.023	0.023	0.876	0.960
Had HIV test and received results in past 12 months	0.137	0.016	620	29	1.127	0.114	0.105	0.168
Prevalence of anaemia (men 15-49)	0.140	0.021	479	22	1.356	0.154	0.097	0.183
Prevalence of anaemia (men 50-59)	0.166	0.059	53	3	1.140	0.353	0.049	0.283
Body Mass Index (BMI) <18.5 (men 15-49)	0.299	0.023	507	23	1.119	0.076	0.254	0.345
Body Mass Index (BMI) <18.5 (men 50-59)	0.174	0.054	54	3	1.035	0.308	0.067	0.282
Body Mass Index (BMI) ≥25 (men 15-49)	0.090	0.017	507	23	1.333	0.189	0.056	0.124
Body Mass Index (BMI) ≥25 (men 50-59)	0.114	0.045	54	3	1.035	0.394	0.024	0.204

Table B.13 Sampling errors: Addis Ababa sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	1.000	0.000	1,824	930	na	0.000	1.000	1.000
Literacy	0.878	0.013	1,824	930	1.637	0.014	0.853	0.903
No education	0.086	0.011	1,824	930	1.719	0.131	0.063	0.108
Secondary or higher education	0.543	0.020	1,824	930	1.712	0.037	0.503	0.583
Never married (never in union)	0.515	0.018	1,824	930	1.572	0.036	0.478	0.552
Currently married (in union)	0.381	0.018	1,824	930	1.620	0.048	0.344	0.418
Married before age 20	0.284	0.015	1,392	713	1.219	0.052	0.254	0.313
Had sexual intercourse before age 18	0.273	0.016	1,392	713	1.310	0.057	0.242	0.305
Currently pregnant	0.026	0.004	1,824	930	1.177	0.168	0.017	0.035
Children ever born	0.933	0.031	1,824	930	0.937	0.033	0.871	0.994
Children surviving	0.882	0.029	1,824	930	0.936	0.033	0.824	0.940
Children ever born to women age 40-49	2.563	0.134	227	114	1.061	0.052	2.295	2.832
Currently using any method	0.559	0.018	677	355	0.951	0.032	0.523	0.596
Currently using a modern method	0.501	0.018	677	355	0.947	0.036	0.464	0.537
Currently using pill	0.078	0.013	677	355	1.257	0.166	0.052	0.104
Currently using IUD	0.085	0.016	677	355	1.462	0.185	0.053	0.116
Currently using condoms	0.012	0.004	677	355	0.937	0.331	0.004	0.019
Currently using injectables	0.174	0.020	677	355	1.372	0.115	0.134	0.214
Currently using implants	0.141	0.012	677	355	0.931	0.088	0.116	0.166
Currently using female sterilisation	0.005	0.003	677	355	0.941	0.493	0.000	0.011
Using public sector source	0.634	0.031	398	215	1.290	0.049	0.572	0.696
Want no more children	0.280	0.020	677	355	1.178	0.073	0.239	0.320
Want to delay next birth at least 2 years	0.314	0.019	677	355	1.053	0.060	0.276	0.352
Ideal number of children	3.561	0.069	1,786	910	1.571	0.019	3.422	3.699
Mothers received antenatal care for last birth	0.968	0.009	375	198	1.032	0.010	0.949	0.986
Mothers protected against tetanus for last birth	0.815	0.024	375	198	1.216	0.030	0.766	0.863
Births with skilled attendant at delivery	0.968	0.009	461	244	1.048	0.009	0.951	0.985
Had diarrhoea in the last 2 weeks	0.074	0.016	447	236	1.182	0.209	0.043	0.105
Treated with ORS	0.558	0.074	33	18	0.818	0.133	0.410	0.706
Sought medical treatment for diarrhoea	0.608	0.093	33	18	1.148	0.153	0.423	0.794
Vaccination card seen	0.903	0.029	102	52	0.962	0.032	0.846	0.960
Received BCG vaccination	0.946	0.024	102	52	1.057	0.025	0.898	0.994
Received DPT vaccination (3 doses)	0.957	0.021	102	52	1.059	0.022	0.914	1.000
Received polio vaccination (3 doses)	0.968	0.019	102	52	1.087	0.020	0.930	1.006
Received pneumococcal vaccination (3 doses)	0.914	0.033	102	52	1.167	0.036	0.849	0.979
Received rotavirus vaccination (2 doses)	0.917	0.032	102	52	1.150	0.035	0.854	0.981
Received measles vaccination	0.931	0.025	102	52	0.983	0.027	0.881	0.981
Received all vaccinations	0.892	0.029	102	52	0.939	0.033	0.834	0.951
Height-for-age (-2SD)	0.146	0.019	423	216	1.093	0.132	0.107	0.184
Weight-for-height (-2SD)	0.035	0.008	422	215	0.946	0.239	0.018	0.051
Weight-for-age (-2SD)	0.050	0.015	429	218	1.485	0.306	0.019	0.080
Prevalence of anaemia (children 6-59 months)	0.492	0.030	325	165	1.046	0.060	0.433	0.551
Prevalence of anaemia (women 15-49)	0.160	0.013	1,613	825	1.475	0.084	0.133	0.187
Body Mass Index (BMI) <18.5	0.134	0.010	1,650	840	1.171	0.073	0.114	0.154
Body Mass Index (BMI) ≥25	0.294	0.011	1,650	840	1.018	0.039	0.271	0.317
Had an HIV test and received results in past 12 months	0.348	0.016	1,824	930	1.401	0.045	0.317	0.379
Abstinence among never-married youth (never had sex)	0.854	0.018	668	335	1.338	0.021	0.817	0.890
Ever experienced any physical violence since age 15	0.234	0.023	548	330	1.282	0.099	0.188	0.281
Ever experienced any sexual violence	0.077	0.012	548	330	1.034	0.153	0.053	0.100
Ever experienced any physical/sexual violence by husband/partner	0.204	0.030	288	146	1.259	0.147	0.144	0.264
Physical/sexual violence in the last 12 months by husband/partner	0.127	0.023	288	146	1.166	0.180	0.081	0.173
Total fertility rate (last 3 years)	1.820	0.122	5,108	2,602	1.286	0.067	1.576	2.064
Neonatal mortality (last 0-9 years)	18.036	4.858	821	427	0.993	0.269	8.320	27.753
Post-neonatal mortality (last 0-9 years)	9.607	3.465	819	426	1.003	0.361	2.678	16.536
Infant mortality (last 0-9 years)	27.643	5.141	821	427	0.876	0.186	17.362	37.925
Child mortality (last 0-9 years)	11.235	4.630	782	406	0.984	0.412	1.974	20.495
Under-5 mortality (last 0-9 years)	38.567	7.074	823	428	0.934	0.183	24.420	52.715
	MEN							
Urban residence	1.000	0.000	1,132	573	na	0.000	1.000	1.000
Literacy	0.957	0.009	1,132	573	1.520	0.010	0.938	0.975
No education	0.037	0.007	1,132	573	1.265	0.193	0.023	0.051
Secondary or higher education	0.716	0.025	1,132	573	1.858	0.035	0.666	0.766
Never married (in union)	0.592	0.021	1,132	573	1.458	0.036	0.549	0.634
Currently married (in union)	0.378	0.021	1,132	573	1.440	0.055	0.337	0.420
Had first sexual intercourse before age 18	0.127	0.013	741	378	1.071	0.103	0.101	0.153
Want no more children	0.181	0.022	419	217	1.186	0.123	0.136	0.226
Want to delay birth at least 2 years	0.419	0.033	419	217	1.384	0.080	0.352	0.485
Ideal number of children	3.345	0.063	1,063	540	1.114	0.019	3.218	3.472
Abstinence among never married youth (never had sex)	0.639	0.028	372	186	1.138	0.044	0.582	0.696
Had HIV test and received results in past 12 months	0.404	0.018	1,132	573	1.214	0.044	0.368	0.439
Prevalence of anaemia (men 15-49)	0.048	0.011	943	475	1.507	0.218	0.027	0.069
Prevalence of anaemia (men 50-59)	0.089	0.029	85	41	0.947	0.328	0.031	0.147
Body Mass Index (BMI) <18.5 (men 15-49)	0.176	0.013	1,006	507	1.058	0.072	0.150	0.201
Body Mass Index (BMI) <18.5 (men 50-59)	0.060	0.022	91	43	0.890	0.372	0.015	0.104
Body Mass Index (BMI) ≥25 (men 15-49)	0.196	0.015	1,006	507	1.227	0.078	0.166	0.227
Body Mass Index (BMI) ≥25 (men 50-59)	0.380	0.051	91	43	0.992	0.134	0.278	0.482

Table B.14 Sampling errors: Dire Dawa sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative Error (SE/R)	Confidence limits: Lower (R-2SE)	Confidence limits: Upper (R+2SE)
	WOMEN							
Urban residence	0.714	0.027	1,131	90	1.968	0.037	0.660	0.767
Literacy	0.545	0.031	1,131	90	2.062	0.056	0.484	0.607
No education	0.333	0.028	1,131	90	2.017	0.085	0.276	0.390
Secondary or higher education	0.285	0.024	1,131	90	1.791	0.085	0.237	0.333
Never married (never in union)	0.305	0.018	1,131	90	1.331	0.060	0.268	0.341
Currently married (in union)	0.558	0.023	1,131	90	1.589	0.042	0.511	0.605
Married before age 20	0.600	0.020	866	70	1.223	0.034	0.559	0.641
Had sexual intercourse before age 18	0.489	0.021	866	70	1.251	0.044	0.446	0.531
Currently pregnant	0.055	0.008	1,131	90	1.212	0.149	0.039	0.071
Children ever born	2.093	0.125	1,131	90	1.631	0.060	1.843	2.344
Children surviving	1.807	0.105	1,131	90	1.617	0.058	1.597	2.018
Children ever born to women age 40-49	5.159	0.340	154	12	1.345	0.066	4.480	5.839
Currently using any method	0.303	0.034	590	50	1.777	0.111	0.236	0.371
Currently using a modern method	0.291	0.034	590	50	1.803	0.116	0.224	0.359
Currently using pill	0.034	0.009	590	50	1.218	0.267	0.016	0.052
Currently using IUD	0.012	0.004	590	50	0.839	0.319	0.004	0.019
Currently using condoms	0.007	0.004	590	50	1.197	0.585	0.000	0.015
Currently using injectables	0.110	0.018	590	50	1.418	0.166	0.073	0.146
Currently using implants	0.120	0.023	590	50	1.721	0.192	0.074	0.166
Currently using female sterilisation	0.000	0.000	590	50	na	na	0.000	0.000
Using public sector source	0.814	0.035	196	17	1.262	0.043	0.744	0.885
Want no more children	0.308	0.022	590	50	1.139	0.070	0.264	0.351
Want to delay next birth at least 2 years	0.305	0.021	590	50	1.118	0.070	0.262	0.347
Ideal number of children	5.408	0.199	1,029	82	2.060	0.037	5.009	5.806
Mothers received antenatal care for last birth	0.874	0.021	384	33	1.285	0.024	0.831	0.917
Mothers protected against tetanus for last birth	0.715	0.027	384	33	1.181	0.037	0.662	0.769
Births with skilled attendant at delivery	0.567	0.050	547	47	1.986	0.088	0.466	0.667
Had diarrhoea in the last 2 weeks	0.121	0.022	516	44	1.482	0.177	0.078	0.164
Treated with ORS	0.511	0.083	58	5	1.318	0.162	0.346	0.677
Sought medical treatment for diarrhoea	0.682	0.077	58	5	1.340	0.113	0.527	0.837
Vaccination card seen	0.537	0.066	110	9	1.415	0.123	0.405	0.670
Received BCG vaccination	0.968	0.015	110	9	0.932	0.016	0.937	0.999
Received DPT vaccination (3 doses)	0.849	0.040	110	9	1.189	0.047	0.769	0.929
Received polio vaccination (3 doses)	0.821	0.045	110	9	1.253	0.055	0.730	0.911
Received pneumococcal vaccination (3 doses)	0.753	0.056	110	9	1.382	0.074	0.641	0.865
Received rotavirus vaccination (2 doses)	0.853	0.037	110	9	1.111	0.043	0.779	0.927
Received measles vaccination	0.869	0.029	110	9	0.908	0.033	0.811	0.926
Received all vaccinations	0.759	0.052	110	9	1.302	0.069	0.654	0.863
Height-for-age (-2SD)	0.402	0.029	464	40	1.269	0.072	0.344	0.460
Weight-for-height (-2SD)	0.098	0.017	469	41	1.286	0.175	0.064	0.132
Weight-for-age (-2SD)	0.262	0.025	484	42	1.188	0.094	0.213	0.311
Prevalence of anaemia (children 6-59 months)	0.715	0.027	396	35	1.223	0.038	0.661	0.769
Prevalence of anaemia (women 15-49)	0.301	0.023	953	77	1.569	0.077	0.255	0.347
Body Mass Index (BMI) <18.5	0.221	0.014	939	75	1.061	0.065	0.192	0.250
Body Mass Index (BMI) ≥25	0.216	0.014	939	75	1.075	0.067	0.187	0.245
Had an HIV test and received results in past 12 months	0.390	0.021	1,131	90	1.461	0.054	0.348	0.432
Abstinence among never-married youth (never had sex)	0.903	0.022	312	23	1.300	0.024	0.860	0.947
Ever experienced any physical violence since age 15	0.203	0.027	402	35	1.336	0.132	0.149	0.257
Ever experienced any sexual violence	0.070	0.015	402	35	1.152	0.210	0.041	0.099
Ever experienced any physical/sexual violence by husband/partner	0.242	0.025	296	23	1.010	0.104	0.192	0.292
Physical/sexual violence in the last 12 months by husband/partner	0.145	0.023	296	23	1.144	0.162	0.098	0.192
Total fertility rate (last 3 years)	3.097	0.327	3,166	253	1.560	0.106	2.443	3.751
Neonatal mortality (last 0-9 years)	35.886	7.733	1,129	97	1.154	0.215	20.420	51.352
Post-neonatal mortality (last 0-9 years)	30.617	7.005	1,131	97	1.267	0.229	16.606	44.627
Infant mortality (last 0-9 years)	66.503	13.013	1,134	97	1.543	0.196	40.476	92.530
Child mortality (last 0-9 years)	28.044	4.932	1,146	98	0.928	0.176	18.181	37.908
Under-5 mortality (last 0-9 years)	92.682	15.233	1,141	98	1.528	0.164	62.216	123.149
	MEN							
Urban residence	0.703	0.032	818	66	1.976	0.045	0.639	0.766
Literacy	0.824	0.022	818	66	1.673	0.027	0.779	0.868
No education	0.132	0.017	818	66	1.444	0.130	0.098	0.166
Secondary or higher education	0.483	0.034	818	66	1.966	0.071	0.414	0.552
Never married (in union)	0.478	0.027	818	66	1.529	0.056	0.424	0.531
Currently married (in union)	0.490	0.027	818	66	1.529	0.055	0.436	0.543
Had first sexual intercourse before age 18	0.137	0.018	482	39	1.172	0.134	0.100	0.173
Want no more children	0.126	0.018	376	32	1.039	0.141	0.090	0.162
Want to delay birth at least 2 years	0.399	0.029	376	32	1.132	0.072	0.342	0.456
Ideal number of children	5.352	0.349	707	58	1.843	0.065	4.655	6.050
Abstinence among never married youth (never had sex)	0.753	0.022	299	23	0.884	0.029	0.709	0.797
Had HIV test and received results in past 12 months	0.358	0.025	818	66	1.503	0.071	0.307	0.408
Prevalence of anaemia (men 15-49)	0.163	0.021	655	54	1.454	0.128	0.121	0.205
Prevalence of anaemia (men 50-59)	0.233	0.054	66	5	1.040	0.230	0.126	0.341
Body Mass Index (BMI) <18.5 (men 15-49)	0.278	0.023	692	56	1.335	0.082	0.233	0.323
Body Mass Index (BMI) <18.5 (men 50-59)	0.188	0.042	71	6	0.912	0.224	0.104	0.272
Body Mass Index (BMI) ≥25 (men 15-49)	0.088	0.018	692	56	1.670	0.203	0.052	0.124
Body Mass Index (BMI) ≥25 (men 50-59)	0.232	0.061	71	6	1.228	0.265	0.109	0.355

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 DHS 2016

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	1,210	3.1	1,132	3.1	36	346	0.9	280	0.8
1	1,072	2.8	947	2.6	37	297	0.8	249	0.7
2	964	2.5	1,161	3.1	38	431	1.1	373	1.0
3	1,007	2.6	1,200	3.2	39	229	0.6	169	0.5
4	1,163	3.0	1,255	3.4	40	556	1.4	632	1.7
5	927	2.4	1,033	2.8	41	198	0.5	187	0.5
6	1,321	3.4	1,288	3.5	42	261	0.7	286	0.8
7	1,413	3.7	1,377	3.7	43	187	0.5	197	0.5
8	1,366	3.5	1,548	4.2	44	125	0.3	133	0.4
9	1,107	2.9	1,248	3.4	45	358	0.9	445	1.2
10	1,347	3.5	1,503	4.1	46	194	0.5	195	0.5
11	830	2.2	999	2.7	47	160	0.4	128	0.3
12	1,309	3.4	1,349	3.6	48	224	0.6	226	0.6
13	1,210	3.1	1,288	3.5	49	85	0.2	91	0.2
14	925	2.4	1,175	3.2	50	265	0.7	311	0.8
15	745	1.9	620	1.7	51	371	1.0	94	0.3
16	754	2.0	727	2.0	52	438	1.1	110	0.3
17	686	1.8	642	1.7	53	275	0.7	97	0.3
18	973	2.5	838	2.3	54	252	0.7	102	0.3
19	465	1.2	378	1.0	55	417	1.1	234	0.6
20	867	2.3	648	1.8	56	240	0.6	111	0.3
21	450	1.2	342	0.9	57	171	0.4	94	0.3
22	630	1.6	514	1.4	58	162	0.4	95	0.3
23	487	1.3	314	0.8	59	68	0.2	45	0.1
24	520	1.3	431	1.2	60	449	1.2	317	0.9
25	1,014	2.6	732	2.0	61	79	0.2	192	0.5
26	486	1.3	426	1.2	62	95	0.2	301	0.8
27	521	1.4	420	1.1	63	93	0.2	200	0.5
28	745	1.9	579	1.6	64	51	0.1	107	0.3
29	346	0.9	277	0.7	65	223	0.6	309	0.8
30	917	2.4	828	2.2	66	43	0.1	118	0.3
31	419	1.1	302	0.8	67	86	0.2	145	0.4
32	428	1.1	416	1.1	68	77	0.2	109	0.3
33	352	0.9	230	0.6	69	22	0.1	44	0.1
34	290	0.8	247	0.7	70+	970	2.5	1,195	3.2
35	745	1.9	682	1.8	Don't know/missing	14	0.0	11	0.0
					Total	38,523	100.0	37,028	100.0

Note: The de facto population includes all residents and non-residents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by 5-year age groups, Ethiopia DHS 2016

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	5,621	na	na	na
15-19	3,623	3,438	21.7	94.9
20-24	2,954	2,830	17.9	95.8
25-29	3,113	3,005	19.0	96.5
30-34	2,406	2,321	14.6	96.5
35-39	2,049	1,976	12.5	96.4
40-44	1,327	1,273	8.0	95.9
45-49	1,021	1,007	6.4	98.7
50-54	1,601	na	na	na
15-49	16,492	15,850	100.0	96.1

Note: The de facto population includes all residents and non-residents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household questionnaire.
na = Not applicable.

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64, interviewed men age 15-59 and percent of eligible men who were interviewed (weighted), by 5-year age groups, Ethiopia DHS 2016

Age group	Household population of men age 10-59	Interviewed men age 15-54		Percentage of eligible men interviewed
		Number	Percentage	
10-14	3,254	na	na	na
15-19	1,564	1,357	20.0	86.7
20-24	1,078	958	14.1	88.8
25-29	1,173	1,056	15.5	90.0
30-34	1,027	922	13.6	89.8
35-39	842	751	11.0	89.2
40-44	752	686	10.1	91.2
45-49	537	498	7.3	92.7
50-54	348	313	4.6	89.9
55-59	274	261	3.8	95.0
60-64	591	na	na	na
15-59	7,596	6,802	100.0	89.5

Note: The de facto population includes all residents and non-residents 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 DHS 2016

Subject	Percentage with information missing	Number of cases
Month Only (births in the 15 years before the survey)	2.41	32,558
Month and Year (births in the 15 years before the survey)	0.07	32,558
Age at Death (deceased children born in the 15 years before the survey)	0.00	2,877
Age/date at first union[1] (ever married women age 15-49)	1.10	11,647
Age/date at first union (ever married men age 15-49(64))	0.83	3,825
Respondent's education (all women age 15-49)	0.00	15,683
Respondent's education (all men age 15-49(64))	0.00	6,189
Diarrhoea in last 2 weeks (living children 0-59 months)	0.77	10,417
Height (living children age 0-59 months from the Household Questionnaire)	4.94	11,147
Weight (living children age 0-59 months from the Household Questionnaire)	4.67	11,147
Height or weight (living children age 0-59 months from the Household Questionnaire)	5.00	11,147
Height (women age 15-49 from the Household Questionnaire)	7.08	16,492
Weight (women age 15-49 from the Household Questionnaire)	7.03	16,492
Height or weight (women age 15-49 from the Household Questionnaire)	7.09	16,492
Height (men age 15-49 from the Household Questionnaire)	14.63	14,183
Weight (men age 15-49 from the Household Questionnaire)	14.54	14,183
Height or weight (men age 15-49 from the Household Questionnaire)	14.63	14,183
Anaemia (living children age 6-59 months from the Household Questionnaire)	7.16	9,982
Anaemia (all women from the Household Questionnaire)	8.38	16,492
Anaemia (all men from the Household Questionnaire)	15.82	15,477

[1] Both year and age missing.

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Ethiopia DHS 2016

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	L	D	T	L	D	T	L	D	T	L	D	T
2016	1,340	26	1,366	1.7	15.1	1.9	97.1	1,088.1	100.3	na	na	na
2015	2,176	125	2,301	2.6	5.7	2.7	90.2	216.3	94.5	na	na	na
2014	1,923	112	2,036	4.7	16.5	5.3	98.5	149.0	100.7	91.4	81.7	90.8
2013	2,035	149	2,184	2.5	9.0	3.0	118.7	170.5	121.6	100.0	114.4	100.8
2012	2,147	149	2,296	4.4	7.5	4.6	126.4	140.5	127.2	104.9	103.8	104.8
2011	2,058	138	2,196	4.2	9.2	4.5	107.0	165.5	109.9	94.6	68.5	92.4
2010	2,206	253	2,459	6.1	9.9	6.5	99.0	149.2	103.2	105.8	153.1	109.3
2009	2,111	193	2,304	4.7	4.4	4.7	97.2	185.7	102.5	91.0	75.5	89.4
2008	2,435	258	2,693	5.1	8.5	5.5	105.5	145.8	108.8	119.4	131.4	120.5
2007	1,966	200	2,166	6.1	6.9	6.2	110.3	131.8	112.1	86.0	70.9	84.4
2012-2016	9,621	562	10,183	3.2	9.7	3.6	105.9	175.4	108.8	na	na	na
2007-2011	10,776	1,042	11,818	5.2	7.9	5.5	103.6	152.7	107.1	na	na	na
2002-2006	8,820	1,189	10,009	6.2	10.7	6.8	109.1	140.4	112.4	na	na	na
1997-2001	5,238	994	6,233	7.2	13.6	8.2	97.7	115.3	100.3	na	na	na
<1997	4,924	1,430	6,354	9.3	13.3	10.2	104.9	131.0	110.3	na	na	na
All	39,378	5,217	44,596	5.7	11.3	6.4	104.7	138.0	108.1	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 1 month by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for 5-year periods of birth before the survey (weighted), Ethiopia DHS 2016

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	122	209	161	123	615
1	66	93	98	65	322
2	10	23	25	8	66
3	19	36	31	33	119
4	9	17	10	5	41
5	4	22	13	4	43
6	5	2	6	3	16
7	15	33	27	21	96
8	5	12	8	0	25
9	0	2	9	0	11
10	14	8	4	3	29
11	0	0	0	3	3
12	0	9	5	0	14
13	0	4	1	0	5
14	11	1	21	8	42
15	8	21	29	21	79
16	0	2	3	2	8
17	0	3	3	0	5
18	0	0	0	4	4
19	0	5	0	0	6
20	2	5	2	6	15
21	15	12	6	2	35
22	0	1	0	3	5
23	0	0	0	0	1
24	0	0	0	3	3
25	0	3	4	0	8
26	0	0	1	0	1
27	1	4	2	0	7
28	2	2	5	2	12
29	0	0	2	2	3
30	7	4	10	3	24
31+	0	2	0	2	4
Total 0-30	318	534	486	326	1,664
Percentage early neonatal[1]	74.3	75.4	70.5	73.8	73.4

[1] 0-6 days / 0-30 days.

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at age under 1 month, for 5-year periods of birth before the survey, Ethiopia DHS 2016

Age at death (months)	Number of years before the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1	318	534	486	326	1,664
1	46	58	69	41	213
2	25	51	36	28	139
3	11	28	19	35	93
4	17	35	40	16	108
5	10	22	17	19	68
6	15	40	30	29	113
7	10	17	15	11	54
8	13	10	14	15	53
9	14	25	15	22	77
10	7	6	9	3	24
11	5	16	7	23	51
12	34	33	47	34	149
13	6	5	11	8	29
14	0	6	11	12	29
15	2	1	6	4	14
16	2	2	3	0	8
17	0	2	7	0	9
18	8	13	5	8	34
19	3	1	6	0	9
20	0	2	1	3	5
21	0	0	7	0	7
22	0	0	2	1	3
23	5	1	7	9	22
24+	0	0	2	0	2
Total 0-11	491	842	759	568	2,660
Percentage neonatal[1]	64.6	63.5	64.1	57.4	62.6

[a] Includes deaths under 1 month reported in days.
[1] Under 1 month / under 1 year.

Table C.7 Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population, Ethiopia DHS 2016

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percent-age below -3 SD	Percent-age below -2 SD[2]	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[2]	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD[2]	Percent-age above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	0.8	5.9	0.0	0.9	5.2	6.7	0.0	0.3	4.6	5.6	0.1	1,030
6-8	3.4	12.4	(0.4)	1.7	10.2	3.8	(0.5)	2.2	11.6	1.7	(0.8)	567
9-11	5.5	17.1	(0.7)	1.5	10.1	3.1	(0.6)	5.1	25.6	1.4	(1.1)	491
12-17	12.0	33.6	(1.3)	1.7	14.7	1.5	(0.9)	9.4	33.7	0.9	(1.5)	1,114
18-23	15.4	45.3	(1.7)	2.1	14.1	1.8	(0.8)	9.9	34.7	0.3	(1.5)	882
24-35	15.4	34.9	(1.5)	1.9	8.9	0.6	(0.7)	8.2	35.4	0.2	(1.5)	1,933
36-47	18.8	40.3	(1.6)	1.3	6.4	1.2	(0.6)	6.2	29.6	0.8	(1.4)	2,000
48-59	20.0	40.5	(1.6)	1.0	5.9	0.5	(0.7)	5.1	33.2	0.3	(1.5)	2,217
Sex												
Male	14.8	35.1	(1.4)	1.4	8.5	1.8	(0.7)	6.3	29.9	1.0	(1.3)	5,265
Female	13.3	30.6	(1.2)	1.6	8.6	1.8	(0.6)	5.9	27.4	1.2	(1.2)	4,968
Birth interval in months[3]												
First birth[4]	11.8	30.2	(1.2)	1.1	7.2	2.2	(0.5)	4.4	26.0	1.3	(1.2)	1,747
<24	20.0	41.4	(1.6)	1.5	9.5	2.3	(0.7)	7.7	35.5	0.5	(1.5)	1,493
24-47	14.5	33.0	(1.3)	1.9	9.5	1.5	(0.7)	7.1	29.9	1.2	(1.3)	4,212
48+	10.0	29.6	(1.2)	1.2	7.9	1.8	(0.6)	5.1	25.3	0.9	(1.2)	2,105
Size at birth[3]												
Very small	18.2	39.9	(1.6)	1.8	9.8	0.9	(0.8)	11.6	39.2	0.9	(1.6)	1,500
Small	16.6	36.4	(1.5)	1.5	11.9	2.5	(0.8)	9.4	34.5	0.1	(1.5)	974
Average or larger	12.6	31.1	(1.2)	1.5	8.1	1.9	(0.6)	4.7	26.1	1.2	(1.2)	7,022
Missing	16.5	28.7	(1.3)	0.0	5.0	0.0	(0.8)	9.5	27.0	0.0	(1.4)	61
Mother's interview status												
Interviewed	13.9	33.0	(1.3)	1.5	8.7	1.8	(0.6)	6.3	29.0	1.0	(1.3)	9,557
Not interviewed but in household	18.7	31.5	(1.1)	0.1	6.9	2.9	(0.5)	5.0	27.5	3.8	(1.1)	224
Not interviewed and not in the household[5]	15.7	31.3	(1.3)	0.6	5.8	1.4	(0.4)	3.3	21.3	0.9	(1.2)	452
Mother's nutritional status[6]												
Thin (BMI<18.5)	15.1	36.4	(1.4)	3.0	13.0	0.5	(0.9)	8.6	38.2	0.4	(1.6)	1,714
Normal (BMI 18.5-24.9)	13.9	33.9	(1.3)	1.0	7.8	1.9	(0.6)	5.6	28.1	0.8	(1.3)	5,976
Overweight/ obese (BMI ≥25)	6.6	14.7	(0.6)	0.2	4.5	2.7	(0.2)	1.7	10.0	2.7	(0.5)	473
Residence												
Urban	7.8	21.6	(0.9)	1.2	7.7	2.3	(0.4)	3.6	18.3	2.4	(0.8)	1,126
Rural	14.8	34.3	(1.3)	1.5	8.7	1.8	(0.6)	6.4	29.9	0.9	(1.3)	9,107
Region												
Tigray	8.2	33.1	(1.4)	1.5	10.6	1.2	(0.8)	4.4	30.0	0.3	(1.4)	687
Affar	18.5	38.3	(1.4)	1.5	16.5	0.5	(1.0)	11.3	42.0	0.7	(1.7)	97
Amhara	14.4	40.2	(1.6)	1.0	7.6	1.0	(0.7)	8.1	34.2	0.6	(1.5)	2,068
Oromiya	14.0	30.6	(1.2)	2.0	9.1	2.4	(0.6)	5.6	27.4	1.3	(1.2)	4,417
Somali	9.0	23.9	(0.7)	2.4	22.0	0.6	(1.2)	9.5	32.7	1.5	(1.4)	411
Benishangul-Gumuz	18.0	36.1	(1.6)	1.7	9.0	0.7	(0.8)	11.2	38.2	0.8	(1.6)	104
SNNPR	17.7	34.4	(1.3)	0.8	5.5	1.7	(0.4)	5.3	25.6	1.3	(1.1)	2,152
Gambela	5.4	19.5	(0.8)	1.7	12.2	0.7	(0.9)	4.7	24.3	0.7	(1.2)	23
Harari	10.0	27.2	(1.1)	1.4	9.3	1.4	(0.7)	4.9	26.0	1.0	(1.2)	20
Addis Ababa	2.4	9.9	(0.4)	0.3	1.9	5.3	(0.1)	0.0	7.4	3.5	(0.4)	214
Dire Dawa	14.0	35.3	(1.2)	1.9	8.4	0.6	(0.8)	6.3	35.8	0.8	(1.4)	40
Mother's education												
No education	16.5	36.4	(1.4)	1.8	9.2	1.7	(0.7)	7.7	32.7	0.9	(1.4)	6,439
Primary	10.6	29.3	(1.2)	0.7	7.9	1.9	(0.6)	3.8	24.1	1.3	(1.2)	2,651
Secondary	2.9	18.0	(0.6)	1.0	8.2	4.0	(0.3)	2.6	13.9	3.6	(0.6)	466
More than secondary	3.7	10.3	(0.7)	3.5	6.5	0.1	(0.4)	3.8	13.8	0.0	(0.7)	130
Wealth quintile												
Lowest	19.0	39.4	(1.5)	1.9	11.9	2.1	(0.8)	9.5	36.4	0.8	(1.5)	2,357
Second	16.4	36.0	(1.4)	1.6	8.0	1.5	(0.7)	7.4	33.0	1.2	(1.4)	2,389
Middle	13.4	33.2	(1.3)	1.5	8.9	1.4	(0.7)	5.6	27.6	0.6	(1.3)	2,114
Fourth	10.9	30.0	(1.2)	1.0	6.5	1.6	(0.5)	3.5	22.6	0.9	(1.1)	1,898
Highest	7.4	20.9	(0.9)	1.1	6.3	2.8	(0.4)	2.8	18.6	2.4	(0.8)	1,475
Total	14.1	32.9	(1.3)	1.5	8.6	1.8	(0.6)	6.1	28.7	1.1	(1.3)	10,233

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85cm; standing height is measured for all other children to be consistent with Table 11.1.1.

[2] Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

[3] Excludes children whose mothers were not interviewed.

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

[5] Includes children whose mothers are deceased.

[6] Excludes children whose mothers were not interviewed, children whose mothers were not weighed and measured, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.1.

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

Table C.8 Sibling size and sex ratio of siblings

Mean sibling size and sex ratio of siblings at birth, Ethiopia DHS 2016

Age of respondents	Mean sibling size[1]	Sex ratio of siblings at birth[2]
15-19	6.4	112.1
20-24	6.7	114.5
25-29	6.5	114.0
30-34	6.6	109.7
35-39	6.5	114.6
40-44	6.5	111.0
45-49	6.6	106.3
Total	6.5	112.3

[1] Includes the respondent.
[2] Excludes the respondent.

PERSONS INVOLVED IN THE 2016 ETHIOPIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix **D**

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Mr. Amare Legese	Statistical Surveys and Censuses Deputy Director General
Mr. Sahelu Tilahun	Population Statistics Directorate Director and EDHS 2016 Survey Director

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Dr. Amir Aman	State Minister, FMoH
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Dr. Amha Kebede	Former Director General, EPHI
Dr. Tsegereda Kifle	Deputy Director General, EPHI
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Mrs. Saro Abdella	HIV Reference Laboratory and Research Team Leader, EPHI
Mr. Minilik Demissie	DHS Survey Coordinator, EPHI
Mr. Tesfaye Tilahun	Laboratory Mentor, EPHI
Mr. Abebe H/Selassie	Laboratory Mentor, EPHI
Mr. Nigussie Gezahegn	Laboratory Technologist, EPHI
Ms. Mulu Girma	Laboratory Technologist, EPHI
Ms. Meron Sileshi	Laboratory Technologist, EPHI
Mr. Gebremedhin Gebremicael	Laboratory Technologist, EPHI
Mr. Yohanes Belay	Laboratory Technologist, EPHI
Mr. Getenet Mesfin	Laboratory Technologist, EPHI

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Mrs. Martha Kibur	UNICEF	Dr. Frehiwot Nigatu	FMoH
Mr. Abebaw Woldekiros	NPC		

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Mr. Dejene Getahun	CORHA	Mrs. Sehin Merawi	CSA
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Mrs. Luwam Zenebe	UN Women	Mr. Abate Sidelel	CSA
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Asnakech Habtamu	CSA
Assefa Negera	CSA
Hailu Alemeselassie	CSA
Kassahun Mengistu	CSA
Sihen Merawi	CSA
Tiruzer Tenagne	CSA
Mesfin Tefera	CSA
Shibabaw Zeleke	CSA
Demis Wolde Yohannes	CSA
Asres Abayneh	CSA
Wondwossen Assefa	CSA
Limat Mulu	CSA
Nurse Muluwork Asres	Family Guidance Association of Bishoftu (Guest Trainer)
Netsanet Belete	FMoH (Guest Trainer)
Tibebu Moges	EPHI (Guest Trainer)
Nigussie Gezahegn	EPHI (Guest Trainer)
Abebe H/Selassie	EPHI (Guest Trainer)
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Yohannes Tilahun Tsegaye	Harar Statistics Branch
Sheko Goru Foni	Adama Statistics Branch
Fenta Tarekeghn Dereje	Dessie Statistics Branch
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Hagos H/Selassie T/Haymanot	Gambella Statistics Branch
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Atsede G/Kidan
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Getachew Weldu
Hilari Alemayehu
Haimanot Checkol
Kassahun Mekuria
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Demessew Dogale
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Geressu Genfemichel
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Messay Mengistu
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Yehenew Milion
Yeshiwork Abebaw

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Aychelihume Manaye
Aynalem Mamo
Firesenbet Besufikad
Getahun Alemu
Getaneh Sewnet
Haile Alemu
Merga Gudissa
Neway Kifle
Nigussie Tilahun
Shewaye Abate
Sisay Lire
Temesgen Ayenew
Tsegabu Halefom

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Alembirhan T/Giorgise
Berhanu Goytom
Tium Gebre

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Seid Hussen
Hiwot Hailemariam
Kassa Yemamu

AMHARA
Tseganew Alemnew
Senthyehu Wassihun
Tewachew Abe
Derege Mekcha
G/Medhen Negusse
Bahrew Abeje
Molla Tesfaye

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Abera Muleta
Teshome Wondemu
Meteku Antonious
Tessema Gezahegn
Birkneh Mesfin
Takele Zewdu

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Tblets Hagos Araya	Interviewer
Helen Abadi	Interviewer
Sindu Abadi	Biomarker
Tekleweyni Gebregergis	Biomarker

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Ferewyni Tsigab	Interviewer
Selamawit Helefom	Interviewer
Alias Addis	Interviewer
Rahel Gebrehiwot	Biomarker
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Hiwet Tewele	Interviewer
Haile Habtu	Interviewer
Fireweyeni Hagos	Biomarker
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Ahmed Alemu	Interviewer
Bertukan Hailie	Interviewer
Fekrewerk Melese	Interviewer
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Hamelmal Hailu	Editor
Tenaye Gemeda	Interviewer
Yemisrach Tesfaye	Interviewer
Fasil Asrat	Interviewer
Eze Gedefaw	Interviewer
Etsegenet Shanka	Biomarker
Ermias Cherennet	Biomarker

TEAM 22	
Asrat Wada	Supervisor
Asnakech Adema	Editor
Berele Dawit	Interviewer
Delbo Sumoro	Interviewer
Dereje Dingamo	Interviewer
Rishan Goytom	Interviewer
Saba Desta	Biomarker
Feleke Chama	Biomarker

TEAM 23	
Teramed Tadesse	Supervisor
Etagu Zegeye	Editor
Yisihak Markos	Interviewer
Tesfanesh Hegano	Interviewer
Tihitina Melese	Interviewer
Elsabet Hibebo	Interviewer
Maze Gosalo	Biomarker
Yemenushal Taga	Biomarker

GAMBELA

TEAM 24	
Belay Shiferaw	Supervisor
Selamawit Wolde	Editor
Lidet Dinku	Interviewer
Behailu Basazinew	Interviewer
Askual G/Michael	Interviewer
Manetegbosh Abebe	Interviewer
Gelila Kassaye	Biomarker
Bizuayehu Zewude	Biomarker

TEAM 25	
Wakweya Bekele	Supervisor
Meskerem Worku	Editor
Asnakech Muheye	Interviewer
Shewaye Fisseha	Interviewer
Tigist Shimekit	Interviewer
Akililu Tsegaye	Interviewer
Bontu Chale	Biomarker
Zemdagegnhu Wendimu	Biomarker

TEAM 26	
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Yesemenwork Adane	Editor
Kokobe Tesema	Interviewer
Sebawit Tamru	Interviewer
Addis Alem Anedearegew	Interviewer
Desta Admasu	Interviewer
Rediat Gulilat	Biomarker
Habetamu Tamirat	Biomarker

HARARI

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Meskerem Genetu	Editor
Tsehay Aweke	Interviewer
Almaz Aycheluhem	Interviewer
Tsion Getachew	Interviewer
Tyele Tesfaye	Interviewer
Wubayehu Balcha	Biomarker
Abayneh Alemayehu	Biomarker

TEAM 28	
Muhajir Muhammed	Supervisor
Tsion Girma	Editor
Eden Tamrat	Interviewer
Dereje Kedo	Interviewer
Genet Demissie	Interviewer
Azeb Ametataw	Interviewer
Meseret Densamo	Biomarker
Mahlet Kassahun	Biomarker

ADDIS ABABA

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Kidist Mulugeta	Editor
Sofanit Tesfaye	Interviewer
Wudase Zerihun	Interviewer
Liya Berihun	Interviewer
Tewodros Mesfin	Interviewer
Habtamu Ayele	Biomarker
Muluwerk Ejigu	Biomarker

TEAM 30	
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Yamlakirk Takele	Editor
Tariku Adugna	Interviewer
Tsegie Melese	Interviewer
Tiguaded Malelign	Interviewer
Wubnesh Aychualem	Interviewer
Mekuriya Seyoum	Biomarker
Beshatu Dhuguma	Biomarker

TEAM 31	
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Yewubnesh Tesfaye	Editor
Azebeb Wubante	Interviewer
Atsede Gedamneh	Interviewer
Seble Eshetu	Interviewer
Endale Bekele	Interviewer
Sinkensh Woldetensay	Biomarker
Tadesse Belachew	Biomarker

DIRE DAWA

TEAM 32		**TEAM 33**	
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Sifen Tadesse	Editor	Koket Gizachew	Editor
Ibrahim Kiyar	Interviewer	Urji Derese	Interviewer
Momina Mustefa	Interviewer	Dagim Teserra	Interviewer
Meseret Tsega	Interviewer	Mohammed Ousmael	Interviewer
Hawa Shemsedin	Interviewer	Melat Getachew	Interviewer
Beza Gulelat	Biomarker	Beza Damtew	Biomarker
Jemal Musa	Biomarker	Habtamu Birhanu	Biomarker

ICF

Yodit Bekele	Survey Manager
Lady Ortiz Parra	Data Processing Specialist
Dean Garrett	Biomarker Specialist
Mahmoud Elkasabi	Sampling Specialist
Bernard Barrere	Deputy Director
Alemtsehay Beru	Consultant
Girum Haile	Consultant
Bernard Ghaleb	Consultant
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Harouna Koche	Data Processing Consultant
Michel Toukam	Biomarker Consultant
Bakunda Kamaranzi	Biomarker Consultant
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Ann Way	Technical Reviewer
Sunita Kishor	Technical Reviewer
Jose Miguel Guzman	Technical Reviewer
Anjushree Pradhan	Technical Reviewer
Joy Fishel	Technical Reviewer
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Erica Nybro	Senior Advisor for Communication

QUESTIONNAIRES

Appendix **E**

DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

Ethiopia
Central Statistical Agency (CSA)

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER | | | |

HOUSEHOLD NUMBER | | | |

HOUSEHOLD SELECTED FOR FEMALE GENITAL MUTILATION AND DOMESTIC VIOLENCE? (1=YES, 2=NO) |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NO.
RESULT*				RESULT*
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

LANGUAGE OF QUESTIONNAIRE** 0 1 | LANGUAGE OF INTERVIEW** | | NATIVE LANGUAGE OF RESPONDENT** | | TRANSLATOR USED (YES = 1, NO = 2) |

LANGUAGE OF QUESTIONNAIRE** **ENGLISH**

**LANGUAGE CODES:

01 ENGLISH	03 TIGRIGNA	05 LANGUAGE 5
02 AMHARIC	04 OROMIFFA	06 LANGUAGE 6

SUPERVISOR		FIELD EDITOR		OFFICE EDITOR	KEYED BY
NAME	NUMBER	NAME	NUMBER	NUMBER	NUMBER

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INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with Central Statistical Agency (CSA). We are conducting a survey about health and other topics all over Ethiopia. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time. In case you need more information about the survey, you may contact the person listed on this card.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

100	RECORD THE TIME.	HOURS . . . . . MINUTES . . . . .

HOUSEHOLD SCHEDULE

						IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female? M F 1 2	Does (NAME) usually live here? Y N 1 2	Did (NAME) stay here last night? Y N 1 2	H IF 95 OR MORE, RECORD '95'. IN YEARS	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
01			1 2	1 2	1 2			01	01	01
02			1 2	1 2	1 2			02	02	02
03			1 2	1 2	1 2			03	03	03
04			1 2	1 2	1 2			04	04	04
05			1 2	1 2	1 2			05	05	05
06			1 2	1 2	1 2			06	06	06
07			1 2	1 2	1 2			07	07	07
08			1 2	1 2	1 2			08	08	08
09			1 2	1 2	1 2			09	09	09
10			1 2	1 2	1 2			10	10	10

2A) Just to make sure that I have a complete listing: are there any other people such as small children or infants that we have not listed?	YES ☐ → ADD TO TABLE	NO ☐
2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here?	YES ☐ → ADD TO TABLE	NO ☐
2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed?	YES ☐ → ADD TO TABLE	NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/ STEPCHILD
11 = NOT RELATED
98 = DON'T KNOW

HOUSEHOLD SCHEDULE

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGISTRATION
	12	13	14	15	16	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? 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 [2015-2016] school year?	During [this/that] school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
01	Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8 GO TO 16		Y N 1 2 NEXT LINE	LEVEL GRADE	Y N 1 2 NEXT LINE	LEVEL GRADE	
02	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
03	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
04	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
05	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
06	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
07	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
08	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
09	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
10	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL
0 = PRESCHOOL
1 = PRIMARY
2 = SECONDARY
3 = TECHNICAL/VOACATIONAL
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

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-20 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	H IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/ STEPCHILD
11 = NOT RELATED
98 = DON'T KNOW

HOUSEHOLD SCHEDULE

	IF AGE 0-17 YEARS				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGISTRATION
	12	13	14	15	16	17	18	19	20
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? 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 [2015-2016] school year?	During [this/that] school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the woreda or kebele? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
11	Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8 GO TO 16		Y N 1 2 NEXT LINE	LEVEL GRADE	Y N 1 2 NEXT LINE	LEVEL GRADE	
12	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
13	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
14	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
15	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
16	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
17	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
18	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
19	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		
20	1 2 8 GO TO 14		1 2 8 GO TO 16		1 2 NEXT LINE		1 2 NEXT LINE		

CODES FOR Qs. 17 AND 19: EDUCATION

LEVEL
0 = PRESCHOOL
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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PIPED TO NEIGHBOR . . . . . 13 PUBLIC TAP/STANDPIPE . . . . . 14 TUBE WELL OR BOREHOLE . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK (BOTI) . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	→ 106 → 103 → 103
102	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 PIPED TO NEIGHBOR . . . . . 13 PUBLIC TAP/STANDPIPE . . . . . 14 TUBE WELL OR BOREHOLE . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK (BOTI) . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 OTHER _____ 96 (SPECIFY)	→ 106
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 ususally 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 _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
105	CHECK 101 AND 102: CODE '14' OR '21' CIRCLED? YES ☐ ↓ NO ☐ → 107		
106	In the past two weeks, was the water from this source not available for at least one full day?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
107	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 → 109 DON'T KNOW 8	
108	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
109	What kind of toilet facility do members of your household usually use? IF NOT POSSIBLE TO DETERMINE, ASK PERMISSION TO OBSERVE THE FACILITY.	**FLUSH OR POUR FLUSH TOILET** FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 **PIT LATRINE** VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 → 113 OTHER _____ 96 (SPECIFY)	
110	Do you share this toilet facility with other households?	YES . . . . . 1 NO . . . . . 2 → 112	
111	Including your own household, how many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . 0 ☐☐ 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	Where is this toilet facility located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	
113	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)	→ 116
114	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)	→ 116
115	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
116	How many rooms in this household are used for sleeping?	ROOMS	
117	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 119
118	How many of the following animals does this household own? IF NONE, RECORD '00'. IF 95 OR MORE, RECORD '95'. IF UNKNOWN, RECORD '98'. a) Milk cows, oxen or bulls? b) Other cattle? c) Horses, donkeys, or mules? d) Camels e) Goats? f) Sheep? g) Chickens or other poultry? h) Beehives?	a) COWS/BULLS . . . . . b) OTHER CATTLE . . . . . c) HORSES/DONKEYS/MULES . . . . . d) CAMELS . . . . . . e) GOATS . . . . . . f) SHEEP . . . . . . g) CHICKENS/POULTRY . . . . . . h) BEEHIVES	
119	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 121
120	How many hectares of agricultural land do members of this household own? IF 95 OR MORE, CIRCLE '950'.	HECTARES . . . . 95 OR MORE HECTARES . . . . . 950 DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
121	Does your household have:	YES NO	
	a) Electricity?	a) ELECTRICITY 1 2	
	b) A radio?	b) RADIO 1 2	
	c) A television?	c) TELEVISION 1 2	
	d) A non-mobile telephone?	d) NON-MOBILE TELEPHONE . . 1 2	
	e) A computer?	e) COMPUTER 1 2	
	f) A refrigerator?	f) REFRIGERATOR 1 2	
	g) A table?	g) TABLE 1 2	
	h) A chair?	h) CHAIR 1 2	
	i) A bed with cotton/sponge/spring mattress?	i) BED WITH COTTON/SPONS/ SPRING MATTRESS 1 2	
	j) An electric mitad?	j) ELECTRIC MITAD 1 2	
	k) A kerosene lamp/pressure lamp?	k) KEROSENE LAMP/PRESSURE LAMP 1 2	
122	Does any member of this household own:	YES NO	
	a) A watch?	a) WATCH 1 2	
	b) A mobile phone?	b) MOBILE PHONE 1 2	
	c) A bicycle?	c) BICYCLE 1 2	
	d) A motorcycle or motor scooter?	d) MOTORCYCLE/SCOOTER 1 2	
	e) An animal-drawn cart?	e) ANIMAL-DRAWN CART 1 2	
	f) A car or truck?	f) CAR/TRUCK 1 2	
	g) A boat with a motor?	g) BOAT WITH MOTOR 1 2	
	h) A bagag?	h) BAGAG 1 2	
123	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
124	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less often than once a month, or never?	DAILY . . . . . 1 WEEKLY . . . . . 2 MONTHLY . . . . . 3 LESS OFTEN THAN ONCE A MONTH . . . . . 4 NEVER 5	

ADDITIONAL HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
139	We would like to learn about the places that households use to wash their hands. Can you please show me where members of your household most often wash their hands?	OBSERVED, FIXED PLACE . . . . . 1 OBSERVED, MOBILE . . . . . 2 NOT OBSERVED, NOT IN DWELLING/YARD/PLOT . . . . . 3 NOT OBSERVED, NO PERMISSION TO SEE . . . . . 4 NOT OBSERVED, OTHER REASON 5	→ 142
140	OBSERVE PRESENCE OF WATER AT THE PLACE FOR HANDWASHING. RECORD OBSERVATION.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2	
141	OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT AT THE PLACE FOR HANDWASHING. RECORD OBSERVATION.	SOAP OR DETERGENT (BAR, LIQUID, POWDER, PASTE) . . . . . A ASH, MUD, SAND . . . . . B NONE C	
142	OBSERVE MAIN MATERIAL OF THE FLOOR OF THE DWELLING. 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/PLASTIC TILE . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
143	OBSERVE MAIN MATERIAL OF THE ROOF OF THE DWELLING. RECORD OBSERVATION.	**NATURAL ROOFING** NO ROOF . . . . . 11 THATCH/MUD . . . . . 12 SOD . . . . . 13 **RUDIMENTARY ROOFING** RUSTIC MAT/ PLASTIC SHEET . . . . . 21 REED/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 **FINISHED ROOFING** METAL/CORRUGATED IRON . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER/ASBEST . . . . . 33 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	

ADDITIONAL HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
144	OBSERVE MAIN MATERIAL OF THE EXTERIOR WALLS OF THE DWELLING. RECORD OBSERVATION.	**NATURAL WALLS** NO WALLS . . . . . 11 CANE/PALM/TRUNKS/BAMBOO/REE . . . . . 12 DIRT . . . . . 13 **RUDIMENTARY WALLS** BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 UNCOVERED ADOBE . . . . . 23 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 REUSED WOOD . . . . . 26 **FINISHED WALLS** CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
145	I would like to check whether the salt used in your household is iodized. May I have a sample of the salt used to cook meals in your household? TEST SALT FOR IODINE.	IODINE PRESENT . . . . . 1 NO IODINE . . . . . 2 NO SALT IN HOUSEHOLD . . . . . 3 SALT NOT TESTED _____ 6 (SPECIFY REASON)	

INJURIES/ACCIDENTS

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	
146	In the last 12 months, was any child or adult OF YOUR HOUSEHOLD killed or injured in any incident with injuries severe enough that for at least one day they could not carry out their normal activities?		YES . . . . . 1 NO 2	→ NXT SECT
147	What is the name of the person(s) injured or killed? ENTER THE NAME OF EACH PERSON INJURED OR KILLED IN Q148. IF THERE ARE MORE THAN TWO PEOPLE, USE AN ADDITIONAL QUESTIONNAIRE.			
148	NAME INJURED/KILLED	NAME _____	NAME _____	
149	Could you tell me in what type of accident (NAME) was injured or killed?	ROAD TRAFFIC ACCIDENT . . . 01 VIOLENCE/ASSAULT . . . . . 02 FIRE/BURNING . . . . . 03 ANIMAL BITE . . . . . 04 ACCIDENTAL FALL . . . . . 05 DROWNING . . . . . 06 POISONING . . . . . 07 KICKED BY CATTLE . . . . . 08 FALL FROM TREE/BUILDING /ANIMAL BACK . . . . . 09 OTHER _____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (GO TO 151)	ROAD TRAFFIC ACCIDENT . . . 01 VIOLENCE/ASSAULT . . . . . 02 FIRE/BURNING . . . . . 03 ANIMAL BITE . . . . . 04 ACCIDENTAL FALL . . . . . 05 DROWNING . . . . . 06 POISONING . . . . . 07 KICKED BY CATTLE . . . . . 08 FALL FROM TREE/BUILDING /ANIMAL BACK . . . . . 09 OTHER _____ 96 (SPECIFY) DON'T KNOW . . . . . 98 (GO TO 151)	
150	Can you tell me the type of road accident (NAME) was injured or killed?	ROAD ACCIDENT DRIVER . . . . . 1 ROAD ACCIDENT OCCUPANT . 2 PEDESTRIAN . . . . . 3 ROAD ACCIDENT BICYCLE . . . . . 4 MOTORIZED TWO WHEELER . . . 5 OTHER _____ 96	ROAD ACCIDENT DRIVER . . . . . 1 ROAD ACCIDENT OCCUPANT . 2 PEDESTRIAN . . . . . 3 ROAD ACCIDENT BICYCLE . . . . . 4 MOTORIZED TWO WHEELER . . . 5 OTHER _____ 96	
151	Is (NAME) still alive?	YES . . . . . 1 NO . . . . . 2 (GO TO 154)	YES . . . . . 1 NO . . . . . 2 (GO TO 154)	
152	For how long did (NAME)'s injury prevent her/him from carrying out her/his normal daily activities?	LESS THAN 7 DAYS . . . . . 1 BETWEEN 8 TO 30 DAYS . . . . . 2 BETWEEN 2 TO 6 MONTHS . . . . . 3 LONGER THAN 6 MONTHS . . . . . 4 DON'T KNOW 8	LESS THAN 7 DAYS . . . . . 1 BETWEEN 8 TO 30 DAYS . . . . . 2 BETWEEN 2 TO 6 MONTHS . . . . . 3 LONGER THAN 6 MONTHS . . . . . 4 DON'T KNOW 8	
153	IF ALIVE: RECORD LINE NUMBER FROM COLUMN (1). RECORD '00' IF PERSON NOT LISTED IN HOUSEHOLD.	LINE NUMBER . . . . . □□ (GO TO NEXT COLUMN, IF NO MORE GO TO NEXT SECTION)	LINE NUMBER . . . . . □□ (GO TO NEXT COLUMN, IF NO MORE GO TO NEXT SECTION)	
154	Was (NAME)'s death due to the accident?	YES . . . . . 1 NO . . . . . 2 (GO TO NEXT COLUMN, IF NO MORE GO TO NEXT	YES . . . . . 1 NO . . . . . 2 (GO TO NEXT COLUMN, IF NO MORE GO TO NEXT	
155	Was (NAME) male or female?	MALE . . . . . 1 FEMALE 2	MALE . . . . . 1 FEMALE 2	
156	How old was (NAME) when he/she died?	NUMBERS IN YEARS □□ GO TO NEXT COLUMN, IF NO MORE GO TO NEXT SECTION	NUMBERS IN YEARS □□ GO TO NEXT COLUMN, IF NO MORE GO TO NEXT SECTION	

TABLE FOR SELECTION OF WOMEN FOR THE DOMESTIC VIOLENCE QUESTIONS
(TO BE ADDED TO THE HOUSEHOLD QUESTIONNIARE)

CHECK COVER PAGE OF QUESTIONNAIRE: HOUSEHOLD SELECTED FOR FEMALE GENITAL MUTILATION MODULE (FGM) AND DOMESTIC VIOLENCE

YES

NO → 157

LOOK AT THE LAST DIGIT OF THE HOUSEHOLD QUESTIONNAIRE SERIAL NUMBER ON THE COVER PAGE. THIS IS THE ROW NUMBER YOU SHOULD GO TO. CHECK THE TOTAL NUMBER OF ELIGIBLE WOMEN (COLUMN 9) IN THE HOUSEHOLD SCHEDULE. THIS IS THE COLUMN NUMBER YOU SHOULD GO TO. FOLLOW THE SELECTED ROW AND COLUMN TO THE CELL WHERE THEY MEET AND CIRCLE THE NUMBER IN THE CELL. THIS IS THE NUMBER OF THE WOMAN SELECTED FOR THE DOMESTIC VIOLENCE QUESTIONS FROM THE LIST OF ELIGIBLE WOMEN IN COLUMN 9 OF THE HOUSEHOLD SCHEDULE. WRITE THE NAME AND LINE NUMBER OF THE SELECTED WOMAN IN THE SPACE BELOW THE TABLE.

EXAMPLE: THE HOUSEHOLD QUESTIONNAIRE SERIAL NUMBER IS '716' AND THE HOUSEHOLD SCHEDULE COLUMN 9 SHOWS THAT THERE ARE THREE ELIGIBLE WOMEN AGE 15-49 IN THE HOUSEHOLD (LINE NUMBERS 02, 04, AND 05). SINCE THE LAST DIGIT OF THE HOUSEHOLD SERIAL NUMBER IS '6' GO TO ROW '6' AND SINCE THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO COLUMN '3'. FOLLOW THE ROW AND COLUMN AND FIND THE NUMBER IN THE CELL WHERE THEY MEET ('2') AND CIRCLE THE NUMBER. NOW GO TO THE HOUSEHOLD SCHEDULE AND FIND THE SECOND WOMAN WHO IS ELIGIBLE FOR THE WOMAN'S INTERVIEW (LINE NUMBER '04' IN THIS EXAMPLE). WRITE HER NAME AND LINE NUMBER IN THE SPACE BELOW THE TABLE.

LAST DIGIT OF THE HOUSEHOLD QUESTIONNAIRE SERIAL NUMBER	TOTAL NUMBER OF ELIGIBLE WOMEN AGE 15-49 IN HOUSEHOLD SCHEDULE COLUMN 9							
	1	2	3	4	5	6	7	8
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

NAME OF SELECTED WOMAN _____

HH LINE NUMBER OF SELECTED WOMAN . . . . . | | |

157	RECORD THE TIME.	HOURS . . . . . MINUTES . . . . .

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

DEMOGRAPHIC AND HEALTH SURVEY
WOMAN'S QUESTIONNAIRE

ETHIOPIA
CENTRAL STATISTICAL AGENCY (CSA)

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER | | | |

HOUSEHOLD NUMBER | | | |

NAME AND LINE NUMBER OF WOMAN . . . . . | | |

HOUSEHOLD SELECTED FOR FEMALE GENITAL MUTILATION AND DV? (1=YES, 2=NO) . . . . . | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NO.
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** **0 1** LANGUAGE OF INTERVIEW** | | NATIVE LANGUAGE OF RESPONDENT** | | TRANSLATOR USED (YES = 1, NO = 2) |

LANGUAGE OF QUESTIONNAIRE** **ENGLISH**

**LANGUAGE CODES:
01 ENGLISH; 02 AMHARIC; 03 TIGRIGNA; 04 OROMIFFA; 05 LANGUAGE 5; 06 LANGUAGE 6

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ NUMBER	NAME _____ NUMBER	NUMBER	NUMBER

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with Central Statistical Agency (CSA). We are conducting a survey about health and other topics all over Ethiopia. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOURS . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	How long have you been living continuously in (NAME OF CURRENT CITY, TOWN OR VILLAGE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . ☐☐ ALWAYS . . . . . 95 VISITOR 96	→ 105
103	Just before you moved here, did you live in an urban or in a rural area?	URBAN AREA . . . . . 1 RURAL AREA 2	
104	Before you moved here, which region and zone did you live in?	REGION CODE ☐☐ ZONE CODE ☐☐ OUTSIDE OF ETHIOPIA 96	
105	In what month and year were you born?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . . . ☐☐	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
108	What is the highest level of school you attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL . . . . . 3 HIGHER 4	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
109	What is the highest [GRADE/YEARS] you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	[GRADE/YEARS] . . . . . ☐☐	
110	CHECK 108: PRIMARY, SECONDARY OR TECHNICAL/VOCATIONAL ☐	HIGHER ☐	→ 113
111	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 PART OF THE SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . . . 3 NO CARD WITH REQUIRED LANGUAGE _____ (SPECIFY LANGUAGE) 4 BLIND/VISUALLY IMPAIRED 5	
112	CHECK 111: CODE '2', '3' OR '4' CIRCLED ☐	CODE '1' OR '5' CIRCLED ☐	→ 114
113	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	
114	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	
115	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	
116	Do you own a mobile telephone?	YES . . . . . 1 NO 2	→ 118
117	Do you use your mobile phone for any financial transactions?	YES . . . . . 1 NO 2	
118	Do you have an account in a bank or other financial institution that you yourself use?	YES . . . . . 1 NO 2	
119	Have you ever used the internet?	YES . . . . . 1 NO 2	→ 122
120	In the last 13 months, have you used the internet? IF NECESSARY, PROBE FOR USE FROM ANY LOCATION, WITH ANY DEVICE.	YES . . . . . 1 NO 2	→ 122
121	During the last one month, how often did you use the internet: almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	What is your religion?	ORTHODOX . . . . . 1 CATHOLIC . . . . . 2 PROTESTANT . . . . . 3 MUSLIM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 96	
123	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP	ETHNICITY	

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	a) How many sons live with you? b) And how many daughters live with you? IF NONE, RECORD '00'.	a) SONS AT HOME . . . . . [ ][ ] b) 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	a) How many sons are alive but do not live with you? b) And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	a) SONS ELSEWHERE . . . . . [ ][ ] b) 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, who made any movement, sound, or effort to breathe, or who showed any other signs of life even if for a very short time?	YES . . . . . 1 NO 2	→ 208
207	a) How many boys have died? b) And how many girls have died? IF NONE, RECORD '00'.	a) BOYS DEAD . . . . . [ ][ ] b) GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL BIRTHS . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ☐ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ NO BIRTHS ☐ →		→ 226

SECTION 2. REPRODUCTION

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 10 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW.

212 What name was given to your (first/ next) baby? RECORD NAME. BIRTH HISTORY NUMBER.	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 On what day, month, and year was (NAME) born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at (NAME)'s last birthday? RECORD AGE IN COMP-LETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD. RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD.	220 IF DEAD: How old was (NAME) when (he/she) died? IF '13 months' OR '1 YR', ASK: Did (NAME) have (his/her) first birthday? THEN ASK: Exactly how many months old was (NAME) when (he/she) died? 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (NEXT BIRTH)	DAYS 1 ☐☐ MONTHS 2 ☐☐ YEARS 3 ☐☐	
02	BOY 1 GIRL 2	SING 1 MULT 2	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP TO 221)	DAYS 1 ☐☐ MONTHS 2 ☐☐ YEARS 3 ☐☐	YES 1 (ADD BIRTH) ← NO 2 (NEXT BIRTH) ←

212 What name was given to your (first/ next) baby? RECORD NAME. BIRTH HISTORY NUMBER.	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 On what day, month, and year was (NAME) born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at (NAME)'s last birthday? RECORD AGE IN COMP-LETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD. RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD.	220 IF DEAD: How old was (NAME) when (he/she) died? IF '13 months' OR '1 YR', ASK: Did (NAME) have (his/her) first birthday? THEN ASK: Exactly how many months old was (NAME) when (he/she) died? 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?
06	BOY 1 GIRL 2	SING 1 MULT 2	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP TO 221)	DAYS 1 ☐☐ MONTHS 2 ☐☐ YEARS 3 ☐☐	YES 1 (ADD BIRTH) ← NO 2 (NEXT BIRTH) ←
08	BOY 1 GIRL 2	SING 1 MULT 2	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP 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	DAY ☐☐ MONTH ☐☐ ☐☐☐☐ YEAR	YES 1 NO 2 → (SKIP TO 220)	AGE IN YEARS ☐☐	YES 1 NO 2	HOUSEHOLD LINE NUMBER ☐☐ → (SKIP TO 221)	DAYS 1 ☐☐ MONTHS 2 ☐☐ YEARS 3 ☐☐	YES 1 (ADD BIRTH) ← NO 2 (NEXT BIRTH) ←

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES . . . . . 1 (RECORD BIRTH(S) IN TABLE) NO 2	
223	COMPARE 208 WITH NUMBER OF BIRTHS IN BIRTH HISTORY NUMBERS ARE SAME ☐ NUMBERS ARE DIFFERENT ☐ (PROBE AND RECONCILE)		
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2003-2008	NUMBER OF BIRTHS . . . . . ☐ NONE 0	→ 226
225	**C** FOR EACH BIRTH IN 2003-2008, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF COMPLETED 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	CHECK 208: TOTAL NUMBER OF BIRTHS ONE OR MORE ☐ a) Did you want to have a baby later on or did you not want any more children? NONE ☐ b) Did you want to have a baby later on or did you not want any children?	LATER . . . . . 1 NO MORE/NONE 2	
230	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 239
231	When did the last such pregnancy end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
232	CHECK 231: LAST PREGNANCY ENDED IN 2003-2008 ☐ → 234 LAST PREGNANCY ENDED IN 2002 OR EARLIER ☐ → 239		

LINE NO.	233 In what month and year did the preceding such pregnancy end?	234 How many months pregnant were you when that pregnancy ended?	235 Since January 2003, have you had any other pregnancies that did not result in a live birth?	
01		☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
02	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
03	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ NEXT LINE → 236
04	☐☐ MONTH ☐☐☐☐ YEAR	☐☐ NUMBER OF MONTHS	YES . . . . . 1 NO 2	→ 236

236	**C** FOR EACH PREGNANCY THAT DID NOT END IN A LIVE BIRTH IN 2003-2008 OR LATER, ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS OF PREGNANCY. IF THERE ARE MORE THAN FOUR PREGNANCIES THAT DID NOT END IN A LIVE BIRTH, USE AN ADDITIONAL QUESTIONNAIRE STARTING ON THE SECOND LINE.	
237	Did you have any miscarriages, abortions or stillbirths that ended before 2003?	YES . . . . . 1 NO . . . . . 2 → 239
238	When did the last such pregnancy that terminated before 2003 end?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
239	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	
240	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 242
241	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 _____ (SPECIFY) 6 DON'T KNOW 8	
242	After the birth of a child, can a woman become pregnant before her menstrual period has returned?	YES . . . . . 1 NO . . . . . 2 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 which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
04	Injectables. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2
05	Implants. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
06	Pill. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2
07	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	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
10	Standard Days Method. PROBE: A woman uses a string of colored beads to know the days she can get pregnant. On the days she can get pregnant, she uses a condom or does not have sexual intercourse.	YES . . . . . 1 NO 2
11	Lactational Amenorrhea Method (LAM). PROBE: Up to six months after childbirth, before the menstrual period has returned, women use a method requiring frequent breastfeeding day and night.	YES . . . . . 1 NO 2
12	Rhythm Method. PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2
13	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES, MODERN METHOD _____ 1 (SPECIFY) YES, TRADITIONAL METHOD _____ 2 (SPECIFY) NO 3

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
302	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐ → 312		
303	Are you or your partner currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO . . . . . 2 → 312	
304	Which method are you using? RECORD ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A → 307 MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D → 309 IMPLANTS . . . . . E PILL . . . . . F MALE CONDOM . . . . . G → 306 FEMALE CONDOM . . . . . H EMERGENCY CONTRACEPTION . . . . . I STANDARD DAYS METHOD . . . . . J LACTATIONAL AMENORRHEA METHOD . . . . . K → 309 RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	CHOICE . . . . . 01 IPLAN . . . . . 02 STYLE . . . . . 03 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 309
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	SENSATION . . . . . 01 HIWOT TRUST . . . . . 02 MEMBERS ONLY . . . . . 03 GOLD 04 GEANS 05 DUREX 06 MOODS 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 309

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH STATION/CENTER . . 12 GOVERNMENT HEALTH POST . . . . . 13 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY 21 OTHER NGO HEALTH FACILITY _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
308	In what month and year was the sterilization performed?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	→ 310
309	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 . . . . . ☐☐☐☐	
310	CHECK 308 AND 309, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308 OR 309 NO ☐ ↓ YES ☐ → GO BACK TO 308 OR 309, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY		

SECTION 3. CONTRACEPTION (CAPI OPTION)

311 CHECK 308 AND 309:

YEAR IS 2003-2008

C ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING.

THEN CONTINUE

YEAR IS 2002 OR EARLIER

C ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2003 .

THEN

(SKIP TO 324)

312 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.

C USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2003. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.

		COLUMN 1	COLUMN 2	COLUMN 3
312A	MONTH AND YEAR OF START OF INTERVAL OF USE OR NON-USE.	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐
312B	Between (EVENT) in (MONTH/YEAR) and (EVENT) in (MONTH/YEAR), did you or your partner use any method of contraception?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312I)
312C	Which method was that?	METHOD CODE . . ☐☐	METHOD CODE . . ☐☐	METHOD CODE . . ☐☐
312D	How many months after (EVENT) in (MONTH/YEAR) did you start to use (METHOD)? CIRCLE '95' IF RESPONDENT GIVES THE DATE OF STARTING TO USE THE METHOD.	IMMEDIATELY . . . . . 00 MONTHS . . ☐☐ (SKIP TO 312F) DATE GIVEN 95	IMMEDIATELY . . . . . 00 MONTHS . . ☐☐ (SKIP TO 312F) DATE GIVEN 95	IMMEDIATELY . . . . . 00 MONTHS . . ☐☐ (SKIP TO 312F) DATE GIVEN 95
312E	RECORD MONTH AND YEAR RESPONDENT STARTED USING METHOD.	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐
312F	For how many months did you use (METHOD)? CIRCLE '95' IF RESPONDENT GIVES THE DATE OF TERMINATION OF USE.	MONTHS . . ☐☐ (SKIP TO 312H) DATE GIVEN 95	MONTHS . . ☐☐ (SKIP TO 312H) DATE GIVEN 95	MONTHS . . ☐☐ (SKIP TO 312H) DATE GIVEN 95
312G	RECORD MONTH AND YEAR RESPONDENT STOPPED USING METHOD.	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐	MONTH ☐☐ YEAR ☐☐☐☐
312H	Why did you stop using (METHOD)?	REASON STOPPED . . . . . ☐☐	REASON STOPPED . . . . . ☐☐	REASON STOPPED . . . . . ☐☐
312I		GO BACK TO 312A IN NEXT COLUMN; OR, IF NO MORE GAPS, GO TO 313.	GO BACK TO 312A IN NEXT COLUMN; OR, IF NO MORE GAPS, GO TO 313.	GO BACK TO 312A IN NEW QUESTIONNAIRE; OR, IF NO MORE GAPS, GO TO 313.

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ↓ ANY METHOD USED ☐		→ 315
314	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 326
315	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 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMENORRHEA METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 326 → 319 → 327 → 323
316	You first started using (CURRENT METHOD) in (DATE FROM 308 OR 309). Where did you get it at that 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** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH STATION/CENTER . . 12 GOVERNMENT HEALTH POST . . . . . 13 PUBLIC PHARMACY . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY 21 OTHER NGO HEALTH FACILITY _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PRIVATE PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 41 FRIEND/RELATIVE . . . . . 42 OTHER _____ 96 (SPECIFY)	
317	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 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 323 → 322 → 323

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
318	At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 321 → 320
319	When you got sterilized, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 321
320	Were you ever told by a health worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 322
321	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
322	CHECK 318 AND 319: ANY 'YES' → a) At that time, were you told about other methods of family planning that you could use? OTHER → b) When you obtained (CURRENT METHOD FROM 315) from (SOURCE OF METHOD FROM 307 OR 316), were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 324
323	Were you ever told by a health worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
324	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 EMERGENCY CONTRACEPTION . . . . . 09 STANDARD DAYS METHOD . . . . . 10 LACTATIONAL AMENORRHEA METHOD . . . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD . . . . . 95 OTHER TRADITIONAL METHOD 96	→ 327 → 327 → 327

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
325	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** GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH STATION/CENTER . . 12 GOVERNMENT HEALTH POST . . . . . 13 PUBLIC PHARMACY . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO HEALTH FACILITY _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PRIVATE PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 41 FRIEND/RELATI . . . . . 42 OTHER _____ 96 (SPECIFY)	→ 327
326	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	
327	In the last 13 months, were you visited by a health worker?	YES . . . . . 1 NO 2	→ 329
328	Did the health worker talk to you about family planning?	YES . . . . . 1 NO 2	
329	CHECK 202: LIVING CHILDREN YES → a) In the last 13 months, have you visited a health facility for care for yourself or your children? NO → b) In the last 13 months, have you visited a health facility for care for yourself?	YES . . . . . 1 NO 2	→ 401
330	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2003-2008 ☐ ↓ NO BIRTHS IN 2003-2008 ☐ → 472		
402	CHECK 215. RECORD THE BIRTH HISTORY NUMBER IN 403 AND THE NAME AND SURVIVAL STATUS IN 404 FOR EACH BIRTH IN 2003-2008. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRE(S). 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 . . . . . ☐☐
404	FROM 212 AND 216:	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 426) NO 2
406	CHECK 208: ONLY ONE BIRTH ☐ ↓ → a) Did you want to have a baby later on, or did you not want any children? MORE THAN ONE BIRTH ☐ ↓ → b) Did you want to have a baby later on, or did you not want any more children?	LATER . . . . . 1 NO MORE/NONE . . . . . 2 → (SKIP TO 408)	LATER . . . . . 1 NO MORE/NONE . . . . . 2 → (SKIP TO 426)
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
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 414)	
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE . . . . . B MIDWIFE . . . . . C HEALTH OFFICER . . . . . D HEALTH EXTENSION WORKEI E **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . F OTHER _____ X (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . A OTHER HOME . . . . . B **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . C GOVERNMENT HEALTH CENTER/STATION . . . . . D GOVERNMENT HEALTH POST . . . . . E OTHER PUBLIC SECTOR _____ F (SPECIFY) **NGO** HEALTH FACILITY . . . . . G OTHER NGO HEALTH FACILITY . . . . . H **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL I PRIVATE CLI . . . . . J OTHER PRIVATE MEDICAL SECTOR _____ 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	
412A	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications or danger sign of pregnancy?	YES . . . . . 1 NO . . . . . 2 → 412C	
412B	Which signs of pregnancy complications were you told about?	VAGINAL BLEEDING . . . . . A VAGINAL GUSH OF FLUID . . . . . B SEVERE HEADACHE . . . . . C BLURRED VISION . . . . . D FEVER . . . . . E ABDOMINAL PAIN . . . . . F CONVULSION . . . . . G OTHER _____ X (SPECIFY)	
412C	During any of your anenatal visit were you told about birth prepardness plan?	YES . . . . . 1 NO . . . . . 2 → 413	
412D	Which plans were you told about?	PLACE OF BIRTH A SUPPLOIES NEEDED FOR BIRTH B EMERGENCY TRANSPORATION C MONEY/EMERGENCY FUND D PEOPLE TO SUPPORT DURING AFTER BIRTH E POTENTIAL BLOOD DONORS F OTHERS _____ X SPECIFY	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
413	As part of your antenatal care during this pregnancy, were any of the following done at least once: a) Was your blood pressure measured? b) Did you give a urine sample? c) Did you give a blood sample? d) Did any health worker give you Nutritional Counseling?	YES NO a) BP . . . . . 1 2 b) URINE . . . . . 1 2 c) BLOOD . . . . . 1 2 d) Nutritional Couseling 1 2	
414	During this pregnancy, were you given an injection in the arm or shoulder to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417) DON'T KNOW 8	
414A	Did you ever receive a TT vaccination card?	YES, TT CARD SEEN 1 YES, TT CARD NOT SEEN . . . . . 2 NEVER HAD A CARD 3	
415	During this pregnancy, how many times did you get a tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8	
416	CHECK 415:	2 OR MORE TIMES ☐ (SKIP TO 420) OTHER ☐	
417	At any time before this pregnancy, did you receive any tetanus injections?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 420) DON'T KNOW 8	
418	Before this pregnancy, how many times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . [ ] DON'T KNOW 8	
419	CHECK 418: ONLY ONE ☐ → a) How many years ago did you receive that tetanus injection? MORE THAN ONE TIME ☐ → b) How many years ago did you receive the last tetanus injection prior to this pregnancy?	YEARS AGO . . . . . [ ][ ]	
420	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLETS/SYRUP.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 422) DON'T KNOW 8	
421	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . . . . . [ ][ ][ ] DON'T KNOW 998	
422	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
426	When (NAME) was born, was (NAME) 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
427	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 429) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 429) DON'T KNOW 8
428	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐. ☐☐☐ KG FROM RECALL 2 ☐. ☐☐☐ DON'T KNOW 99998	KG FROM CARD 1 ☐. ☐☐☐ KG FROM RECALL 2 ☐. ☐☐☐ DON'T KNOW 99998
429	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 . . . . . B MIDWIFE . . . . . C HEALTH OFFICER . . . . . D HEALTH EXTENSION WORKER E **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . F OTHER _____ X (SPECIFY) NO ONE ASSISTED . . . . . Y	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE . . . . . B MIDWIFE . . . . . C HEALTH OFFICER . . . . . D HEALTH EXTENSION WORKER E **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . F OTHER _____ X (SPECIFY) NO ONE ASSISTED . . . . . Y
430	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 → (SKIP TO 434) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) NGO HEALTH FACILITY . . 31 OTHER NGO HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . 41 PRIVATE CLINIC 42 OTHER PRIVATE MEDICAL SECTOR _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 434)	**HOME** HER HOME . . . . . 11 → (SKIP TO 434) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) NGO HEALTH FACILITY . . 31 OTHER NGO HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . 41 PRIVATE CLINIC 42 OTHER PRIVATE MEDICAL SECTOR _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 434)

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
431	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 DAYS . . . . . 2 WEEKS . . . . . 3 DON'T KNOW 998	
432	Was (NAME) delivered by caesarean, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 434)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 434)
433	When was the decision made to have the caesarean section? Was it before or after your labor pains started?	BEFORE . . . . . 1 AFTER 2	BEFORE . . . . . 1 AFTER 2
433A	Immediatley after birth was (NAME) given Vitamin K injection?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
433B	Immediately after birth was TTC EYE ointment applied to (NAME)s eye?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
434	Immediately after the birth, was (NAME) put directly on the bare skin of your chest?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
434A	Was anything applied on the umbilical cord after(NAME)s delivery?	YES . . . . . 1 NO . . . . . 2 → 434C DON'T KNOW . . . . . 8 → 434C	YES . . . . . 1 NO . . . . . 2 → 434C DON'T KNOW . . . . . 8 → 434C
434B	What was applied?	ANY TYPE OF OIL. . . . . A DUNG . . . . . B ASH . . . . . C OINTMENT . . . . . D OTHER _____ (SPECIFY) X	ANY TYPE OF OIL. . . . . A DUNG . . . . . B ASH . . . . . C OINTMENT . . . . . D OTHER _____ (SPECIFY) X
434C	CHECK 430: PLACE OF DELIVERY	CODE 11, 12, OR 96 CIRCLED → (SKIP TO 449) OTHER	CODE 11, 12, OR 96 CIRCLED → (SKIP TO 459) OTHER

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
435	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health while you were still in the facility?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)	
436	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	
437	Who checked on your health at that time? PROBE FOR MOST QUALIFIED	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 HEALTH OFFICER . . . . . 14 HEALTH EXTENSION WORKEI 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	
437A	Before discharge from the health facility were you told of danger signs of maternal health after delivery?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)	
437B	Which danger signs of maternal health were you told about?	HEAVY VAGINAL BLEEDING . . A FEVER . . . . . B SMELLY VAGINAL BLEEDING . . C DEPRESSION . . . . . D OTHER _____ X (SPECIFY)	
438	Now I would like to talk to you about checks on (NAME)'s health after delivery – for example, someone examining (NAME), checking the cord, or seeing if (NAME) is OK. Did anyone check on (NAME)'s health while you were still in the facility?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441) 8 DON'T KNOW	
439	How long after delivery was (NAME)'s health first checked? IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 ☐☐ DAYS . . . . . 2 ☐☐ WEEKS . . . . . 3 ☐☐ DON'T KNOW 998	
440	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 HEALTH OFFICER . . . . . 14 HEALTH EXTENSION WORKEI 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
440A	Before discharge from the health facility were you told danger signs of newborn health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 440C) ←	
440B	Which danger signs of newborn health were you told about?	FEEDING LESS . . . . . A TOO COLD OR TOO HOT . . . . B TOO SLEEPY . . . . . C CONVULSION . . . . . D FAST BREATHING . . . . . E UMBILICUS RED/PU . . . . . F PUS IN EYE . . . . . G FEVER . . . . . H OTHER _____ X (SPECIFY)	
440C	Were you informed when to return to the health facility?	YES . . . . . 1 NO 2	
441	Now I want to talk to you about what happened after you left the facility. Did anyone check on your health after you left the facility?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 445) ←	
442	How long after delivery did that 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	
443	Who checked on your health at that time? PROBE FOR MOST QUALIFIED	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 HEALTH OFFICER . . . . . 14 HEALTH EXTENSION WORKEI 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
444	Where did the check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH STATION/ . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **NGO** HEALTH FACILITY . . 31 OTHER NGO MEDICAL HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL 41 PRIVATE CLINIC 42 OTHER PRIVATE MEDICAL SECTOR _____ 43 (SPECIFY) OTHER _____ 96 (SPECIFY)	
445	I would like to talk to you about checks on (NAME)'s health after you left (FACILITY IN 430). Did any health care provider or a traditional birth attendant check on (NAME)'s health in the two months after you left (FACILITY IN 430)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 457) ← DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
446	How many hours, days or weeks after the birth of (NAME) did that 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	
447	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 HEALTH OFFICER 14 HEALTH EXTENSION WORKEF 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	
448	Where did this check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 31 OTHER NGO HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 41 PRIVATE CLINIC . . . . . 42 OTHER PRIVATE MEDICAL SECTOR _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 457)	
449	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health after you gave birth to (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
450	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	
451	Who checked on your health at that time? PROBE FOR MOST QUALIFIED	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE . . . . . 12 MIDWIFE . . . . . 13 HEALTH OFFICER 14 HEALTH EXTENSION WORKEI 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 OTHER _____ 96 (SPECIFY)	
452	Where did this first check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL . . 21 GOVERNMENT HEALTH CENTER . . . . . 22 GOVERNMENT HEALTH POST . . . . . 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **NGO** HEALTH FACILITY . . 31 OTHER NGO HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL 41 PRIVATE CLINIC 42 OTHER PRIVATE MEDICAL SECTOR _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY)	
453	I would like to talk to you about checks on (NAME)'s health after delivery – for example, someone examining (NAME), checking the cord, or seeing if (NAME) is OK. In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on (NAME)'s health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 457) ← DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
454	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 AFTER BIRTH ..... 1 [ ][ ] DAYS AFTER BIRTH ..... 2 [ ][ ] WEEKS AFTER BIRTH ..... 3 [ ][ ] DON'T KNOW 998	
455	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED	**HEALTH PERSONNEL** DOCTOR ..... 11 NURSE ..... 12 MIDWIFE ..... 13 HEALTH OFFICER 14 HEALTH EXTENSION WORKEF 15 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT ..... 21 OTHER _____ 96 (SPECIFY)	
456	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** HER HOME ..... 11 OTHER HOME ..... 12 **PUBLIC SECTOR** GOVERNMENT HOSPITAL .. 21 GOVERNMENT HEALTH STATION/ ..... 22 GOVERNMENT HEALTH POST ..... 23 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) **NGO** HEALTH FACILITY .. 31 OTHER NGO HEALTH FACILITY _____ 36 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL 41 PRIVATE CLINIC 42 OTHER PRIVATE MEDICAL SECTOR _____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY)	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
457	During the first two days after (NAME)'s birth, did any health care provider do the following: a) Examine the cord? b) Measure (NAME)'s temperature? c) Counsel you on danger signs for newborns? d) Counsel you on breastfeeding? e) Observe (NAME) breastfeeding?	YES NO DK a) CORD . . . . . 1 2 8 b) TEMP. . . . . 1 2 8 c) SIGNS . . . . . 1 2 8 d) COUNSEL BREAST-FEED 1 2 8 e) OBSERVE BREAST-FEED 1 2 8	
458	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 → (SKIP TO 460) NO . . . . . 2 → (SKIP TO 461)	
459	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 → (SKIP TO 463)
460	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
461	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREGNANT ↓ PREGNANT OR UNSURE → (SKIP TO 463)	
462	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 464)	
463	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
464	Did you ever breastfeed (NAME)?	YES . . . . . 1 → (SKIP TO 466) NO 2	YES . . . . . 1 NO 2
465	CHECK 404: IS CHILD LIVING?	LIVING → (SKIP TO 470) DEAD → (GO TO 471)	
466	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 ☐☐	
467	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
468	CHECK 404: IS CHILD LIVING?	LIVING ☐ DEAD ☐ (GO TO 471)	LIVING ☐ DEAD ☐ (GO TO 471)
469	Are you still breastfeeding (NAME)?	YES . . . . . 1 NO 2	
470	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
471		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 472.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 472.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
472	Sometimes a woman can have a problem of constant (use continuous) leakage of urine and/or stool from her vagina during the day and night, in sitting and stading position. This problem usually occurs after a prolonged and difficult childbirth, but may also occur after a sexual assault, after pelvic surgery, or after other trauma. Have you ever experienced a constant (a continuous) leakage of urine and/or stool from your vagina during the day and night?	YES . . . . . 1 NO 2	→ 474
473	Have you ever heard of this problem?	YES . . . . . 1 NO 2	→ 501
474	Did this problem start after you delivered a baby or had a stillbirth?	AFTER DELIVERED BABY . . . . . 1 AFTER HAD STILLBIRT . . . . . 2 NEITHER 3	→ 476
475	Did this problem start after a normal labor and delivery, or you had a prolonged and difficult labor to deliver your baby or had stillbirth?	NORMAL LABOR/DELIVERY . . . . . 1 PROLONGED AND VERY DIFFICULT LABOR/DELIVERY 2	→ 477
476	What do you think caused this problem?	SEXUAL ASSAULT . . . . . 1 PELVIC SURGERY . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	→ 478
477	How many days after [CAUSE OF PROBLEM FROM 474 OR 476] did the leakage start?	NUMBER OF DAYS AFTER DELIVERY/OTHER EVENT ☐☐ (ENTER 90 IF 90 DAYS OR MORE)	
478	Have you sought treatment for this condition?	YES . . . . . 1 NO 2	→ 480
479	Why have you not sought treatment? RECORD ALL MENTIONED.	DO NOT KNOW CAN BE FIXED . . . . . A DO NOT KNOW WHERE TO G . . . . . B TOO EXPENSIVE . . . . . C TOO FAR . . . . . D POOR QUALITY OF CARE . . . . . E COULD NOT GET PERMISSION . . . . F EMBARRASSMENT . . . . . G PROBLEM DISAPPEARED . . . . . H OTHER _____ X (SPECIFY)	→ 501
480	From whom (WHERE) did you last seek treatment? PROBE AND RECORD ALL MENTIONED.	HEALTH FACILITY . . . . . 1 RELIGION/TRADITIO . . . . . 2 OTHER _____ 96 (SPECIFY)	
481	Did you have an operation to fix the problem?	YES . . . . . 1 NO 2	→ 483
482	Did the treatment stop the leakage completely? IF NO: Did the treatment reduce the leakage?	YES, STOPPED COMPLETELY . . . . . 1 NOT STOPPED BUT REDUCED . . . . . 2 NOT STOPPED AT ALL . . . . . 3 DID NOT RECEIVE TREATMEN 4	
483	Were you suppported by your husband/partner while you expereinced a constant leakage of urine or stool from you vagina.	YES . . . . . 1 NO 2	

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501A	CHECK 215 IN THE BIRTH HISTORY: ANY BIRTHS IN 2005-2008? ONE OR MORE BIRTHS IN 2005-2008 ☐ NO BIRTHS IN 2005-2008 ☐		→ 601
502A	RECORD THE NAME AND BIRTH HISTORY NUMBER FROM 212 OF THE LAST CHILD BORN IN 2005-2008. NAME OF LAST BIRTH _____ BIRTH HISTORY NUMBER . . . . . ☐☐		
503A	CHECK 216 FOR CHILD: LIVING ☐ DEAD ☐		→ 501B
504A	Do you have a card or other document where (NAME)'s vaccinations are written down?	YES, HAS ONLY A CARD . . . . . 1 YES, HAS ONLY AN OTHER DOCUMENT . . . . . 2 YES, HAS CARD AND OTHER DOCUMENT . . . . . 3 NO, NO CARD AND NO OTHER DOCUMENT . . 4	→ 507A → 507A
505A	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 NO 2	
506A	CHECK 504A: CODE '2' CIRCLED ☐ CODE '4' CIRCLED ☐		→ 511A
507A	May I see the card or other document where (NAME)'s vaccinations are written down?	YES, ONLY CARD SEEN . . . . . 1 YES, ONLY OTHER DOCUMENT SEEN . . . . . 2 YES, CARD AND OTHER DOCUMENT SEEN . . 3 NO CARD AND NO OTHER DOCUMENT SEEN . . 4	 → 511A

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF LAST BIRTH _____	BIRTH HISTORY NUMBER	
508A	COPY DATES FROM THE CARD. WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.		

	DAY		MONTH		YEAR			
BCG								
ORAL POLIO VACCINE (OPV) 0 (BIRTH DOSE)								
ORAL POLIO VACCINE (OPV) 1								
ORAL POLIO VACCINE (OPV) 2								
ORAL POLIO VACCINE (OPV) 3								
DPT-HEP.B-HIB (PENTAVALENT) 1								
DPT-HEP.B-HIB (PENTAVALENT) 2								
DPT-HEP.B-HIB (PENTAVALENT) 3								
PNEUMOCOCCAL 1								
PNEUMOCOCCAL 2								
PNEUMOCOCCAL 3								
ROTAVIRUS 1								
ROTAVIRUS 2								
MEASLES								
VITAMIN A (MOST RECENT)								

509A	CHECK 508A: 'BCG' TO '[MEASLES CONTAINING VACCINE] 2' ALL RECORDED? NO ☐ YES ☐ → 525A		
510A	In addition to what is recorded on (this document/these documents), did (NAME) receive any other vaccinations, including vaccinations received in campaigns or immunization days or child health days? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 508A THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 508A) (THEN SKIP TO 525A) NO . . . . . 2 DON'T KNOW 8	→ 525A

SECTION 5A. CHILD IMMUNIZATION (LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . ☐☐	
511A	Did (NAME) ever receive any vaccinations to prevent (NAME) from getting diseases, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 525A
512A	Has (NAME) ever received a BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
514A	Has (NAME) ever received oral polio vaccine, that is, two drops in the mouth to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 517A
515A	Did (NAME) receive the first oral polio vaccine in the first two weeks after birth or later?	FIRST TWO WEEKS . . . . . 1 LATER 2	
516A	How many times did (NAME) receive the oral polio vaccine?	NUMBER OF TIMES . . . . . ☐	
517A	Has (NAME) ever received a pentavalent vaccination, that is, an injection usually given on the left upper thigh sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 519A
518A	How many times did (NAME) receive the pentavalent vaccine?	NUMBER OF TIMES . . . . . ☐	
519A	Has (NAME) ever received a pneumococcal vaccination, that is, an injection usually given on the right upper thigh to prevent pneumonia?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 521A
520A	How many times did (NAME) receive the pneumococcal vaccine?	NUMBER OF TIMES . . . . . ☐	
521A	Has (NAME) ever received a rotavirus vaccination, that is, liquid in the mouth to prevent diarrhea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 523A
522A	How many times did (NAME) receive the rotavirus vaccine?	NUMBER OF TIMES . . . . . ☐	
523A	Has (NAME) ever received a measles vaccination, that is, an injection in the arm to prevent measles given at 9 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
525A	In the last 7 days was (NAME) given: a) PLUMPY'NUT? b) PLUMPY'DOZ?	YES NO DK a) PLUMPY'NUT . . . . . 1 2 8 b) PLUMPY'DOZ 1 2 8	
526A	CONTINUE WITH 501B.		

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501B	CHECK 215 IN THE BIRTH HISTORY: ANY MORE BIRTHS IN 2005-2008? MORE BIRTHS IN 2005-2008 ☐ ↓ NO MORE BIRTHS IN 2005-2008 ☐		→ 601
502B	RECORD THE NAME AND BIRTH HISTORY NUMBER FROM 212 OF THE NEXT-TO-LAST CHILD BORN IN 2005-2008. NAME OF NEXT-TO-LAST BIRTH _____ BIRTH HISTORY NUMBER . . . . . ☐☐		
503B	CHECK 216 FOR CHILD: LIVING ☐ ↓ DEAD ☐		→ 526B
504B	Do you have a card or other document where (NAME)'s vaccinations are written down?	YES, HAS ONLY A CARD . . . . . 1 YES, HAS ONLY AN OTHER DOCUMENT . . . . . 2 YES, HAS CARD AND OTHER DOCUMENT . . . . . 3 NO, NO CARD AND NO OTHER DOCUMENT . . 4	→ 507B → 507B
505B	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 NO 2	
506B	CHECK 504B: CODE '2' CIRCLED ☐ ↓ CODE '4' CIRCLED ☐		→ 511B
507B	May I see the card or other document where (NAME)'s vaccinations are written down?	YES, ONLY CARD SEEN . . . . . 1 YES, ONLY OTHER DOCUMENT SEEN . . . . . 2 YES, CARD AND OTHER DOCUMENT SEEN . . 3 NO CARD AND NO OTHER DOCUMENT SEEN . . 4	 → 511B

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF NEXT-TO-LAST BIRTH _____	BIRTH HISTORY NUMBER	
508B	COPY DATES FROM THE CARD. WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.		

	DAY		MONTH		YEAR			
BCG								
ORAL POLIO VACCINE (OPV) 0 (BIRTH DOSE)								
ORAL POLIO VACCINE (OPV) 1								
ORAL POLIO VACCINE (OPV) 2								
ORAL POLIO VACCINE (OPV) 3								
DPT-HEP.B-HIB (PENTAVALENT) 1								
DPT-HEP.B-HIB (PENTAVALENT) 2								
DPT-HEP.B-HIB (PENTAVALENT) 3								
PNEUMOCOCCAL 1								
PNEUMOCOCCAL 2								
PNEUMOCOCCAL 3								
ROTAVIRUS 1								
ROTAVIRUS 2								
MEASLES								
VITAMIN A (MOST RECENT)								

509B	CHECK 508B: 'BCG' TO '[MEASLES CONTAINING VACCINE] 2' ALL RECORDED? NO ☐ YES ☐ → 525B		
510B	In addition to what is recorded on (this document/these documents), did (NAME) receive any other vaccinations, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 508B) (THEN SKIP TO 525B)	
	RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 508B THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	NO . . . . . 2 DON'T KNOW 8	→ 525B

SECTION 5B. CHILD IMMUNIZATION (NEXT-TO-LAST BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	NAME OF NEXT-TO-LAST BIRTH _____	BIRTH HISTORY NUMBER . . . . . ☐☐	
511B	Did (NAME) ever receive any vaccinations to prevent (NAME) from getting diseases, including vaccinations received in campaigns or immunization days or child health days?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 525B
512B	Has (NAME) ever received a BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
514B	Has (NAME) ever received oral polio vaccine, that is, two drops in the mouth to prevent polio?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 517B
515B	Did (NAME) receive the first oral polio vaccine in the first two weeks after birth or later?	FIRST TWO WEEKS . . . . . 1 LATER 2	
516B	How many times did (NAME) receive the oral polio vaccine?	NUMBER OF TIMES . . . . . ☐	
517B	Has (NAME) ever received a pentavalent vaccination, that is, an injection usually given on the left upper thigh sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 519B
518B	How many times did (NAME) receive the pentavalent vaccine?	NUMBER OF TIMES . . . . . ☐	
519B	Has (NAME) ever received a pneumococcal vaccination, that is, an injection usually given on the right upper thigh to prevent pneumonia?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 521B
520B	How many times did (NAME) receive the pneumococcal vaccine?	NUMBER OF TIMES . . . . . ☐	
521B	Has (NAME) ever received a rotavirus vaccination, that is, liquid in the mouth to prevent diarrhea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 523B
522B	How many times did (NAME) receive the rotavirus vaccine?	NUMBER OF TIMES . . . . . ☐	
523B	Has (NAME) ever received a measles vaccination, that is, an injection in the arm to prevent measles given at nine months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
525B	In the last 7 days was (NAME) given: a) PLUMPY'NUT? b) PLUMPY'DOZ?	YES NO DK a) PLUMPY'NUT . . . . . 1 2 8 b) PLUMPY'DOZ 1 2 8	
526B	CHECK 215 IN BIRTH HISTORY: ANY MORE BIRTHS IN 2005-2008? MORE BIRTHS IN 2005-2008 ☐ → (GO TO 502B IN AN ADDITIONAL QUESTIONNAIRE) NO MORE BIRTHS IN 2005-2008 ☐ → 601		

SECTION 6. CHILD HEALTH AND NUTRITION

601	CHECK 224: ONE OR MORE BIRTHS IN 2003-2008 ☐ ↓ NO BIRTHS IN 2003-2008 ☐ → 648		
602	CHECK 215: RECORD THE BIRTH HISTORY NUMBER IN 603 AND THE NAME AND SURVIVAL STATUS IN 604 FOR EACH BIRTH IN 2003-2008. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN OF ADDITIONAL QUESTIONNAIRE(S). Now I would like to ask some questions about your children born in the last five years. (We will talk about each separately.)		
603	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY.	LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER . . . . . ☐☐
604	FROM 212 AND 216:	NAME _____ LIVING ↓ DEAD ☐ → (SKIP TO 646)	NAME _____ LIVING ↓ DEAD ☐ → (SKIP TO 646)
605	In the last six months, was (NAME) given a vitamin A dose like [this/any of these]? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
606	In the last seven days, was (NAME) given iron pills, sprinkles with iron, or iron syrup like [this/any of these]? SHOW COMMON TYPES OF PILLS/SPRINKLES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
607	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
608	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
609	CHECK 464: EVER BREASTFED? YES ↓ a) Now I would like to know how much (NAME) was given to drink during the diarrhea including breastmilk. Was (NAME) given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was (NAME) given much less than usual to drink or somewhat less? NO ↓ b) Now I would like to know how much (NAME) was given to drink during the diarrhea. Was (NAME) given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was (NAME) 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
610	When (NAME) had diarrhea, was (NAME) given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was (NAME) 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
611	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 615)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 615)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
612	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . . . . E OTHER NGO HEALTH FACILITY _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) **OTHER SOURCE** SHOP/DRUG VENDOR . . . . . J TRADITIONAL PRACTITIONER . . . . . K MARKET . . . . . L OTHER _____ X (SPECIFY)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . . . . E OTHER NGO HEALTH FACILITY _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) **OTHER SOURCE** SHOP/DRUG VENDOR . . . . . J TRADITIONAL PRACTITIONER . . . . . K MARKET . . . . . L OTHER _____ X (SPECIFY)
613	CHECK 612:	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 615)	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 615)
614	Where did you first seek advice or treatment? USE LETTER CODE FROM 612.	FIRST PLACE . . . . . ☐	FIRST PLACE . . . . . ☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
615	Was (NAME) given any of the following at any time since (NAME) started having the diarrhea: a) A fluid made from a special packet called LEMLEM? b) A government-recommended homemade fluid? c) Zinc tablets or syrup?	YES NO DK a) FLUID FROM ORS PACKET . . 1 2 8 b) HOMEMADE FLUID . . . . . 1 2 8 c) ZINC 1 2 8	YES NO DK a) FLUID FROM ORS PACKET . . 1 2 8 b) HOMEMADE FLUID . . . . . 1 2 8 c) ZINC 1 2 8
616	CHECK 615: ANY 'YES' → a) Was anything else given to treat the diarrhea? ALL 'NO' OR 'DK' → b) Was anything given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 618) DON'T KNOW 8
617	CHECK 615: ANY 'YES' → a) What else was given to treat the diarrhea? Anything else? ALL 'NO' OR 'DK' → b) What was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	**PILL OR SYRUP** ANTIBIOTIC . . . . . A ANTIMOTILITY . . . . . B OTHER (NOT ANTIBIOTIC OR ANTIMOTILITY) . . . . . C UNKNOWN PILL OR SYRUP . . . . . D **INJECTION** ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . . . . . F UNKNOWN INJECTION . . . . . G (IV) INTRAVENOUS . . . . . H HOME REMEDY/ HERBAL MEDICINE . . . . . I OTHER _____ (SPECIFY) X	**PILL OR SYRUP** ANTIBIOTIC . . . . . A ANTIMOTILITY . . . . . B OTHER (NOT ANTIBIOTIC OR ANTIMOTILITY) . . . . . C UNKNOWN PILL OR SYRUP . . . . . D **INJECTION** ANTIBIOTIC . . . . . E NON-ANTIBIOTIC . . . . . F UNKNOWN INJECTION . . . . . G (IV) INTRAVENOUS . . . . . H HOME REMEDY/ HERBAL MEDICINE . . . . . I OTHER _____ (SPECIFY) X
618	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
620	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
621	Has (NAME) had fast, short, rapid breaths or difficulty breathing at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 623) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 623) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
622	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 624)	CHEST ONLY . . . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 624)
623	CHECK 618: HAD FEVER?	YES / NO OR DK (SKIP TO 646)	YES / NO OR DK (SKIP TO 646)
624	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 629)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 629)
625	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . E OTHER NGO HEALTH FACILITY _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL G PRIVATE CLINIC H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) **OTHER SOURCE** SHOP/DRUG VENDOR . . . . . J TRADITIONAL PRACTITIONER . . . . . K MARKET . . . . . L OTHER _____ X (SPECIFY)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . E OTHER NGO HEALTH FACILITY _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL G PRIVATE CLINIC H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) **OTHER SOURCE** SHOP/DRUG VENDOR . . . . . J TRADITIONAL PRACTITIONER . . . . . K MARKET . . . . . L OTHER _____ X (SPECIFY)
626	CHECK 625:	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 628)	TWO OR MORE CODES CIRCLED / ONLY ONE CODE CIRCLED (SKIP TO 628)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
627	Where did you first seek advice or treatment? USE LETTER CODE FROM 625.	FIRST PLACE . . . . . [ ]	FIRST PLACE . . . . . [ ]
628	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY RECORD '00'.	DAYS . . . . . [ ][ ]	DAYS . . . . . [ ][ ]
629	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 646) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 646) DON'T KNOW 8
630	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	**ANTIMALARIAL DRUGS** ARTEMISININ COMBINATION THERAPY (ACT) . . . . . A SP/FANSIDAR . . . . . B CHLOROQUINE . . . . . C AMODIAQUINE . . . . . D QUININE PILLS . . . . . E INJECTION/IV . . . . . F ARTESUNATE RECTAL . . . . . G INJECTION/IV . . . . . H OTHER ANTIMALARIAL _____ I (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . . . J INJECTION/IV . . . . . K **OTHER DRUGS** ASPIRIN . . . . . L ACETAMINOPHEN . . . . . M IBUPROFEN . . . . . N OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** ARTEMISININ COMBINATION THERAPY (ACT) . . . . . A SP/FANSIDAR . . . . . B CHLOROQUINE . . . . . C AMODIAQUINE . . . . . D QUININE PILLS . . . . . E INJECTION/IV . . . . . F ARTESUNATE RECTAL . . . . . G INJECTION/IV . . . . . H OTHER ANTIMALARIAL _____ I (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . . . J INJECTION/IV . . . . . K **OTHER DRUGS** ASPIRIN . . . . . L ACETAMINOPHEN . . . . . M IBUPROFEN . . . . . N OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
646		GO BACK TO 604 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 647.	GO TO 604 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 647.

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
647	CHECK 615(a), ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET ☐ →		649
648	Have you ever heard of a special product called LEMLEM OR PRE-PACKAGED ORS LIQUID] you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
649	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2006-2008 LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ →		701
	(NAME OF YOUNGEST CHILD LIVING WITH HER) ↓		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
650	Now I would like to ask you about liquids or foods that (NAME FROM 649) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods. Did (NAME FROM 649) drink or eat:	YES NO DK	
	a) Plain water?	a) 1 2 8	
	b) Juice or juice drinks?	b) 1 2 8	
	c) Clear broth?	c) 1 2 8	
	d) Milk such as tinned, powdered, or fresh animal milk? IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	d) . . . . . 1 2 8 NUMBER OF TIMES DRANK ☐	
	e) Infant formula such as Plan, S-26? IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	e) . . . . . 1 2 8 NUMBER OF TIMES DRANK ☐	
	f) Any other liquids?	f) 1 2 8	
	g) Yogurt? IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	g) . . . . . 1 2 8 NUMBER OF TIMES ATE ☐	
	h) Any commercially fortified baby food like Fafa, Hilina, Cerilak, Cerifam, Mother Choice?	h) 1 2 8	
	i) Injera, bread, rice, noodles, porridge, or other foods made from grains such as tef, oats, maize, barley,	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,	l) 1 2 8	
	m) Ripe mangoes, 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	
651	CHECK 650 (CATEGORIES 'g' THROUGH 'u'): NOT A SINGLE 'YES' ☐ ↓ AT LEAST ONE 'YES' ☐ →		653

SECTION 6. CHILD HEALTH AND NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
652	Did (NAME FROM 649) 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 650 TO RECORD FOOD EATEN YESTERDAY) (THEN CONTINUE TO 653) NO 2	→ 654
653	How many times did (NAME FROM 649) eat solid, semi-solid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	
654	The last time (NAME FROM 649) 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)	

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	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	→ 704
702	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	→ 712
703	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 709
704	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
705	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.	
706	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	→ 709
707	Including yourself, in total, how many wives or live-in partners does he have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . DON'T KNOW 98	
708	Are you the first, second, … wife?	RANK	
709	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
710	CHECK 709: MARRIED/ LIVED WITH A MAN ONLY ONCE → a) In what month and year did you start living with your (husband/partner)? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → b) Now I would like to ask about your first (husband/partner). In what month and year did you start living with him?	MONTH . . . . . DON'T KNOW MONTH . . . . . 98 YEAR . . . . . DON'T KNOW YEAR 9998	→ 711A
711	How old were you when you first started living with him?	AGE	
711A	The first time you got married who decide on your marriage?	MYSELF . . . . . 1 PARENTS . . . . . 2 OTHER FAMILY/RELATIVES . . . . . 3 OTHER _____ 6 (SPECIFY)	
711B	Were you attending school before your marriage?	YES . . . . . 1 NO 2	→ 712

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711C	Did you continue to attend school after your marriage?	YES . . . . . 1 NO 2	→ 712
711D	Why did you stop attending school after your marriage?	GRADUATED FROM SCHOOL . . . . . 1 TOO BUSY WITH FAMILY LIFE . . . . . 2 HUSBAND DID NOT WANT ME TO G(. . . . . 3 OTHER _____ 6 (SPECIFY)	
712	**CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
713	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. 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. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS	→ 731
714	I would like to ask you about your recent sexual activity. When was the last time you had sexual intercourse? IF LESS THAN 13 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 13 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	→ 716 → 727

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
715	When was the last time you had sexual intercourse with this person?		DAYS AGO . . 1 [ ][ ] WEEKS AGO . . 2 [ ][ ] MONTHS AGO . . 3 [ ][ ]	DAYS AGO . . 1 [ ][ ] WEEKS AGO . . 2 [ ][ ] MONTHS AGO . . 3 [ ][ ]
716	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 718)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 718)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 718)
717	Was a condom used every time you had sexual intercourse with this person in the last 13 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
718	What was your relationship to this person with whom you had sexual intercourse? IF BOYFRIEND: Were you living together as if married? IF YES, RECORD '2'. IF NO, RECORD '3'.	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	HUSBAND . . . . . 1 LIVE-IN PARTNER . . . . . 2 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)
719	How long ago did you first have sexual intercourse with this 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 [ ][ ]
720	How many times during the last 13 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, RECORD '95'.	NUMBER OF TIMES . . . . . [ ][ ]	NUMBER OF TIMES . . . . . [ ][ ]	NUMBER OF TIMES . . . . . [ ][ ]
721	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
722	Apart from this person, have you had sexual intercourse with any other person in the last 13 months?	YES . . . . . 1 → (GO BACK TO 715 IN NEXT COLUMN) NO . . . . . 2 → (SKIP TO 724)	YES . . . . . 1 → (GO BACK TO 715 IN NEXT COLUMN) NO . . . . . 2 → (SKIP TO 724)	
723	In total, with how many different people have you had sexual intercourse in the last 13 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . [ ][ ] DON'T KNOW 98

SECTION 7. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	CHECK 106: AGE 15-24 ☐ (↓) AGE 25-49 ☐ → 727		
725	CHECK 701: NOT IN A UNION ☐ (↓) CURRENTLY MARRIED/ LIVING WITH A MAN ☐ → 727		
726	In the past 13 months have you had sex or been sexually involved with anyone because he gave you or told you he would give you gifts, cash, or anything else?	YES . . . . . 1 NO 2	
727	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, RECORD '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
728	CHECK 716, MOST RECENT PARTNER (FIRST COLUMN): YES, CONDOM USED ☐ (↓) NO, CONDOM NOT USED ☐ → 731 NOT ASKED ☐ → 731		
729	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.	SENSATION . . . . . 01 HIWOT TRUST . . . . . 02 MEMBERS ONLY . . . . . 03 GOLD . . . . . 04 GEANS . . . . . 05 DUREX . . . . . 06 MOODS . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
730	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 GOV .HEALTH CENTER . . . . . 12 GOV. HEALTH POST. . . . . 13 PUBLIC PHARMACY . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO MEDICAL SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PRIVATE PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL SECTOR . . . . . 36 _____ (SPECIFY) **OTHER SOURCE** SHOP . . . . . 41 BAR/HOTEL/GROCERY . . . . . 42 FRIEND/RELATIVE . . . . . 43 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
731	PRESENCE OF OTHERS DURING THIS SECTION.	YES NO CHILDREN <10 . . . . . 1 2 MALE ADULTS . . . . . 1 2 FEMALE ADULTS 1 2	

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 304: NEITHER STERILIZED ☐↓	HE OR SHE STERILIZED ☐ →	→ 813
802	CHECK 226: PREGNANT ☐↓	NOT PREGNANT OR UNSURE ☐ →	→ 804
803	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 805 → 812
804	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	→ 807 → 813 → 811
805	CHECK 226: NOT PREGNANT OR UNSURE ☐↓ a) How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐↓ b) 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	→ 811 → 813 → 811
806	CHECK 226: NOT PREGNANT OR UNSURE ☐↓	PREGNANT ☐ →	→ 812
807	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐↓	CURRENTLY USING ☐ →	→ 813
808	CHECK 805: '24' OR MORE MONTHS OR '02' OR MORE YEARS ☐↓ NOT ASKED ☐↓	'00-23' MONTHS OR '00-01' YEAR ☐ →	→ 812
809	CHECK 714: DAYS, WEEKS OR MONTHS AGO ☐↓	YEARS AGO ☐ → NOT ASKED ☐ →	→ 811 → 811

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	CHECK 804: WANTS TO HAVE A/ANOTHER CHILD ☐ ↓ / WANTS NO MORE/ NONE ☐ ↓ a) 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? b) 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	
811	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ ↓ / NO, NOT CURRENTLY USING ☐ ↓ / YES, CURRENTLY USING ☐ →		813
812	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	
813	CHECK 216: HAS LIVING CHILDREN ☐ ↓ / NO LIVING CHILDREN ☐ ↓ a) 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? b) 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 → 815 NUMBER . . . . . ☐☐ OTHER _____ 96 → 815 (SPECIFY)	
814	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER . . ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 8. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
815	In the last few months have you:	YES NO	
	a) Heard about family planning on the radio?	a) RADIO 1 2	
	b) Seen anything about family planning on the television?	b) TELEVISION 1 2	
	c) Read about family planning in a newspaper or magazine?	c) NEWSPAPER OR MAGAZINE 1 2	
	d) Read about family planning in a pamphlet/posters/leaflets?	d) PAMPHLET/POSTERS/LEAFLETS 1 2	
	e) Heard about family planning at community even/conversation?	e) COMMUNITY EVENT/CON\ 1 2	
	f) Received a voice or text message about family planning on a mobile phone?	f) MOBILE PHONE 1 2	
	g) Seen anything about family planning on the internet?	g) INTERNET 1 2	
817	CHECK 701: YES, CURRENTLY MARRIED ☐ ↓ / YES, LIVING WITH A MAN ☐ ↓ / NO, NOT IN A UNION ☐ → 901		
818	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ ↓ / NOT CURRENTLY USING ☐ → 820 / NOT ASKED ☐ → 822		
819	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 → 821 OTHER _____ 6 (SPECIFY)	
820	Would you say that not 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)	
821	CHECK 304: NEITHER ARE STERILIZED ☐ ↓ / HE OR SHE ARE STERILIZED ☐ → 901		
822	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 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK AND DECISION MAKING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		→ 909
902	How old was your (husband/partner) on his last birthday?	AGE IN COMPLETED YEARS . . . . . ☐☐	
903	Did your (husband/partner) ever attend school?	YES . . . . . 1 NO 2	→ 906
904	What was the highest level of school he attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL 3 HIGHER . . . . . 4 DON'T KNOW 8	
905	What was the highest [GRADE/YEARS] he completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	[GRADE/YEARS] . . . . . ☐☐ DON'T KNOW 98	
906	Has your (husband/partner) done any work in the last 7 days?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 908
907	Has your (husband/partner) done any work in the last 13 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 909
908	What is your (husband's/partner's) occupation? That is, what kind of work does he mainly do?	_____ _____ ☐☐ _____	
909	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 913
910	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	→ 913
911	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	→ 913
912	Have you done any work in the last 13 months?	YES . . . . . 1 NO 2	→ 917
913	What is your occupation? That is, what kind of work do you mainly do?	_____ _____ ☐☐ _____	

SECTION 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK AND DECISION MAKING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
914	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	
915	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	
916	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	
917	CHECK 701: CURRENTLY MARRIED/LIVING WITH A MAN ☐ NOT IN UNION ☐		→ 925
918	CHECK 916: CODE '1' OR '2' CIRCLED ☐ OTHER ☐		→ 921
919	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)	
920	Would you say that the money that you earn is more than what your (husband/partner) earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 DON'T KNOW 8	→ 922
921	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)	
922	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	
923	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

SECTION 9. HUSBAND'S BACKGROUND AND WOMAN'S WORK AND DECISION MAKING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
924	Who usually makes decisions about visits to your family or relatives?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
924A	Does your huband help you with household chores like looking after children,cooking,cleaning the house and doing other work around the house?	YES . . . . . 1 NO . . . . . 2 NOT LIVING HUSBAND/PARTNER 3	→ 925
924B	Does he help you almost every day, at least once a week or rarely?	ALMOST EVERY . . . . . 1 ATLEAST ONCE A WEEK . . . . . 2 RARELY 3	
925	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	→ 928
926	Do you have a title deed for any house you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 928
927	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
928	Do you own any agricultural or non-agricultural land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 931
929	Do you have a title deed for any land you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 931
930	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
931	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	
932	In your opinion, is a husband justified in hitting or beating his wife in the following situations: a) If she goes out without telling him? b) If she neglects the children? c) If she argues with him? d) If she refuses to have sex with him? e) If she burns the food?	YES / NO / DK a) GOES OUT . . . . . 1 2 8 b) NEGLECTS CHILDREN . . 1 2 8 c) ARGUES . . . . . 1 2 8 d) REFUSES SEX . . . . . 1 2 8 e) BURNS FOOD 1 2 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to talk about something else. Have you ever heard of HIV or AIDS?	YES . . . . . 1 NO 2	→ 1042
1002	HIV is the virus that can lead to AIDS. Can people reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1003	Can people get HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1005	Can people get HIV by sharing food with a person who has HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1006	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1007	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1008	Can HIV be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . . 1 2 8 b) DURING DELIVERY . . 1 2 8 c) BREASTFEEDING 1 2 8	
1009	CHECK 1008: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐ →		1011
1010	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1011	CHECK 208 AND 215: LAST BIRTH IN 2006-2008 ☐ ↓ NO BIRTHS ☐ → LAST BIRTH IN 2005 OR EARLIER ☐ →		1027 1027
1012	CHECK 408 FOR LAST BIRTH: HAD ANTENATAL CARE ☐ ↓ NO ANTENATAL CARE ☐ →		1020
1013	**CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
1014	During any of the antenatal visits for your last birth were you given any information about: a) Babies getting HIV from their mother? b) Things that you can do to prevent getting HIV? c) Getting tested for HIV?	YES NO DK a) HIV FROM MOTHER . . 1 2 8 b) THINGS TO DO . . . . . 1 2 8 c) TESTED FOR HIV 1 2 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1015	Were you offered a test for HIV as part of your antenatal care?	YES . . . . . 1 NO 2	
1016	I don't want to know the results, but were you tested for HIV as part of your antenatal care?	YES . . . . . 1 NO 2	→ 1020
1017	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 GOV .HEALTH CENTER . . . . . 12 GOV. HEALTH POST. . . . . 13 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO MEDICAL SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL SECTOR . . . . . 36 _____ (SPECIFY) **OTHER SOURCE** WORKPLACE . . . . . 41 CORRECTIONAL FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY)	
1018	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	→ 1020
1019	All women are supposed to receive counseling after being tested. After you were tested, did you receive counseling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1020	CHECK 430 FOR LAST BIRTH: ANY CODE '21-36' CIRCLED ☐ ↓ OTHER ☐		→ 1024
1021	Between the time you went for delivery but before the baby was born, were you offered an HIV test?	YES . . . . . 1 NO 2	
1022	I don't want to know the results, but were you tested for HIV at that time?	YES . . . . . 1 NO 2	→ 1024
1023	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	→ 1025
1024	CHECK 1016: YES ☐ ↓ NO OR NOT ASKED ☐		→ 1027
1025	Have you been tested for HIV since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 1028
1026	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 95	→ 1035

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1027	I don't want to know the results, but have you ever been tested for HIV?	YES . . . . . 1 NO 2	→ 1031
1028	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . [ ][ ] TWO OR MORE YEARS 95	
1029	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
1030	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 GOV .HEALTH CENTER . . . . . 12 GOV. HEALTH POST. . . . . 13 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO MEDICAL SECTOR . . . . . 26 _____ (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL SECTOR . . . . . 36 _____ (SPECIFY) **OTHER SOURCE** HOME . . . . . 41 WORKPLACE . . . . . 42 CORRECTIONAL FACILITY . . . . . 43 OTHER _____ 96 (SPECIFY)	→ 1035
1031	Do you know of a place where people can go to get an HIV test?	YES . . . . . 1 NO 2	→ 1035
1032	Where is that? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOV .HEALTH CENTER . . . . . B GOV. HEALTH POST. . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . . . . E OTHER NGO MEDICAL SECTOR _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) OTHER _____ X (SPECIFY)	
1035	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1036	Do you think children living with HIV should be allowed to attend school with children who do not have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1037	Do you think people hesitate to take an HIV test because they are afraid of how other people will react if the test result is positive for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1038	Do people talk badly about people living with HIV, or who are thought to be living with HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1039	Do people living with HIV, or thought to be living with HIV, lose the respect of other people?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1040	Do you agree or disagree with the following statement: I would be ashamed if someone in my family had HIV.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1041	Do you fear that you could get HIV if you come into contact with the saliva of a person living with HIV?	YES . . . . . 1 NO . . . . . 2 SAYS SHE HAS HIV . . . . . 3 DON'T KNOW/NOT SURE/DEPENDS 8	
1042	CHECK 1001: HEARD ABOUT HIV OR AIDS ☐ → a) Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS ☐ → b) Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
1043	CHECK 713: HAS HAD SEXUAL INTERCOURSE ☐ ↓ NEVER HAD SEXUAL INTERCOURSE ☐ →		1051
1044	CHECK 1042: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		1046

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1045	Now I would like to ask you some questions about your health in the last 13 months. During the last 13 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1046	Sometimes women experience a bad-smelling abnormal genital discharge. During the last 13 months, have you had a bad-smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1047	Sometimes women have a genital sore or ulcer. During the last 13 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1048	CHECK 1045, 1046, AND 1047: HAS HAD AN INFECTION (ANY 'YES') ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW →		1051
1049	The last time you had (PROBLEM FROM 1045/1046/1047), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 1051
1050	Where did you go? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOV .HEALTH CENTER . . . . . B GOV. HEALTH POST. . . . . C PUBLIC PHARMACY . . . . . D OTHER PUBLIC SECTOR _____ E (SPECIFY) **NGO** HEALTH FACILITY . . . . . F OTHER NGO MEDICAL SECTOR . . . . . G _____ (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . H PRIVATE CLINIC . . . . . I PRIVATE PHARMACY . . . . . J OTHER PRIVATE MEDICAL SECTOR _____ . . . . . K (SPECIFY) **OTHER SOURCE** SHOP/MARKET . . . . . L TRADITIONAL PRACTITIONER . . . . . M OTHER _____ X (SPECIFY)	
1051	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	
1052	Is a wife justified in refusing to have sex with her husband when she knows he has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 10. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1053	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ → 1101		
1054	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	
1055	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
1056	Have you had a pre-marital HIV testing as a couple or individual, before you were married or started living with your husband/partner to prevent HIV infection between partners?	YES . . . . . 1 NO 2	
1057	CHECK 217: CHILDREN UNDER 15 YEARS OLD ☐ ↓ NO CHILD UNDER 15 YEARS OLD ☐ → 1101		
1058	How many of your children under 15 years old have been tested for HIV?	NUMBER OF CHILDREN TESTED . . . . . ☐☐ DON'T KNOW 8	

SECTION 11. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	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 13 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	→ 1104
1102	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 1104
1103	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1104	Do you currently smoke cigarettes every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 1106
1105	On average, how many cigarettes do you currently smoke each day?	NUMBER OF CIGARETTES . . . . . [ ][ ]	
1106	Do you currently smoke or use any other type of tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 1107A
1107	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)	
1107A	Have you ever chewed Chat?	YES . . . . . 1 NO 2	→ 1107C
1107B	During the last 30 days how many days did you chew Chat?	NUMBER OF DAYS . . . . . [ ][ ] NONE IN THE LAST 30 DAYS 00	
1107C	Have you ever taken a drink that contains alcohol (Tella/Tegi/Areke/Beer/Wine, etc...)?	YES . . . . . 1 NO 2	→ 1108
1107D	During the last 30 days, how many days did you have a drink that contains alcohol?	NUMBER OF DAYS . . . . . [ ][ ] NONE IN THE LAST 30 DAYS 00	
1107E	During the last 13 months, how often did you take a drink that contains alcohol?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NONE IN THE LAST 13 MONTHS 4	

SECTION 11. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1108	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 a big problem:	BIG PROBLEM / NOT A BIG PROBLEM	
	a) Getting permission to go to the doctor?	a) PERMISSION TO GO 1 2	
	b) Getting money needed for advice or treatment?	b) GETTING MONEY 1 2	
	c) The distance to the health facility?	c) DISTANCE 1 2	
	d) Not wanting to go alone?	d) GO ALONE 1 2	
1109	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 1201
1110	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 12. MATERNAL MORTALITY

NO.		CODING CATEGORIES	SKIP
1201	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	
1202	CHECK 1201: TWO OR MORE BIRTHS ☐ ONLY ONE BIRTH (RESPONDENT ONLY) ☐ →		NEXT 1301
1203	How many births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS	

1204	What was the name given to your (oldest/ next oldest) brother or sister?	(1) _____	(2) _____	(3) _____	(4) _____	(5) _____	(6) _____
1205	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
1206	Is (NAME) still alive?	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (2)	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (3)	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (4)	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (5)	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (6)	YES . . . 1 NO . . . 2 GO TO 1208 DK . . . 8 GO TO (7)
1207	How old is (NAME)?	☐☐ GO TO (2)	☐☐ GO TO (3)	☐☐ GO TO (4)	☐☐ GO TO (5)	☐☐ GO TO (6)	☐☐ GO TO (7)
1208	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1209	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)
1210	Was (NAME) pregnant when she died?	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2
1211	Did (NAME) die during childbirth?	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2	YES . . . 1 GO TO 1213 NO . . . 2
1212	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
1213	How many live born children did (NAME) give birth to during her lifetime?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO NEXT SECTION.

1204	What was the name given to your (oldest/ next oldest) brother or sister?	(7) _____	(8) _____	(9) _____	(10) _____	(11) _____	(12) _____
1205	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
1206	Is (NAME) still alive?	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (8)	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (9)	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (10)	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (11)	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (12)	YES . . . 1 NO . . . 2 → GO TO 1208 DK . . . 8 → GO TO (13)
1207	How old is (NAME)?	☐☐ GO TO (8)	☐☐ GO TO (9)	☐☐ GO TO (10)	☐☐ GO TO (11)	☐☐ GO TO (12)	☐☐ GO TO (13)
1208	How many years ago did (NAME) die?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1209	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)
1210	Was (NAME) pregnant when she died?	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2
1211	Did (NAME) die during childbirth?	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2	YES . . . 1 → GO TO 1213 NO . . . 2
1212	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
1213	How many live born children did (NAME) give birth to during her lifetime?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐

IF NO MORE BROTHERS OR SISTERS, GO TO NEXT SECTION.

SECTION 13. FEMALE GENITAL MUTILATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1300	CHECK COVER PAGE OF QUESTIONNAIRE: HOUSEHOLD SELECTED FOR FEMALE GENITAL MUTILATION MODULE (FGM) AND DOMESTIC VIOLENCE (DV)? YES ☐ ↓ NO ☐ → 1500		
1301	Now I would like to ask some questions about a practice known as female circumcision. Have you ever heard of female circumcision?	YES . . . . . 1 NO 2	→ 1303
1302	In some countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES . . . . . 1 NO 2	→ 1400
1303	Have you yourself ever been circumcised?	YES . . . . . 1 NO 2	→ 1309
1304	Now I would like to ask you what was done to you at that time. Was any flesh removed from the genital area?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1306
1305	Was the genital area just nicked without removing any flesh?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1306	Was your genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1307	How old were you when you were circumcised? IF THE RESPONDENT DOES NOT KNOW THE EXACT AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS ☐☐ AS A BABY/DURING INFANCY . . . . . 95 DON'T KNOW 98	
1308	Who performed the circumcision?	TRADITIONAL TRAD. CIRCUMCISER . . . . . 11 TRAD. BIRTH ATTENDANT . . . . . 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR . . . . . 21 NURSE/MIDWIFE . . . . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
1309	CHECK 213, 215 AND 216: HAS ONE OR MORE LIVING DAUGHTERS BORN IN 1992 OR LATER ☐ ↓ HAS NO LIVING DAUGHTERS BORN IN 1992 OR LATER ☐ → 1317		

	CHECK 213, 215 AND 216: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER AND NAME OF EACH LIVING DAUGHTER BORN IN 1992 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE DAUGHTERS. BEGIN WITH THE YOUNGEST DAUGHTER. (IF THERE ARE MORE THAN 3 DAUGHTERS, USE ADDITIONAL QUESTIONNAIRES).			
1310	Now I would like to ask you some questions about your (daughter/daughters).			
1311	BIRTH HISTORY NUMBER AND NAME OF EACH LIVING DAUGHTER BORN IN 1992 OR LATER	YOUNGEST LIVING DAUGHTER BIRTH HISTORY NUMBER ☐☐ NAME _____	NEXT-TO-YOUNGEST LIVING DAUGHTER BIRTH HISTORY NUMBER ☐☐ NAME _____	SECOND-TO-YOUNGEST LIVING DAUGHTER BIRTH HISTORY NUMBER ☐☐ NAME _____
1312	Is (NAME OF DAUGHTER) circumcised?	YES . . . . . 1 NO . . . . . 2 (GO TO 1311 IN NEXT COLUMN; OR IF NO MORE DAUGHTERS, GO TO 1316)	YES . . . . . 1 NO . . . . . 2 (GO TO 1311 IN NEXT COLUMN; OR IF NO MORE DAUGHTERS, GO TO 1316)	YES . . . . . 1 NO . . . . . 2 (GO TO 1311 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR IF NO MORE DAUGHTERS, GO TO 1316)
1313	How old was (NAME OF DAUGHTER) when she was circumcised? IF THE RESPONDENT DOES NOT KNOW THE AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS . . . ☐☐ DON'T KNOW 98	AGE IN COMPLETED YEARS . . . ☐☐ DON'T KNOW 98	AGE IN COMPLETED YEARS . . . ☐☐ DON'T KNOW 98
1314	Was her genital area sewn closed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
1315	Who performed the circumcision?	TRADITIONAL TRADITIONAL CIRCUMCISER 11 TRAD. BIRTH ATTENDANT 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR . . . . . 21 NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	TRADITIONAL TRADITIONAL CIRCUMCISER 11 TRAD. BIRTH ATTENDANT 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR . . . . . 21 NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	TRADITIONAL TRADITIONAL CIRCUMCISER 11 TRAD. BIRTH ATTENDANT 12 OTHER TRAD. _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR . . . . . 21 NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98
1316		GO BACK TO 1311 IN NEXT COLUMN; OR, IF NO MORE DAUGHTERS, GO TO 1317.	GO BACK TO 1311 IN NEXT COLUMN; OR, IF NO MORE DAUGHTERS, GO TO 1317.	GO TO 1311 IN FIRST COLUMN OF NEW QUESTIONNAIRE; OR IF NO MORE DAUGHTERS, GO TO 1317.
1317	Do you believe that female circumcision is required by your religion?	YES . . . . . 1 NO . . . . . 2 NO RELIGION . . . . . 3 DON'T KNOW 8		
1318	Do you think that female circumcision should be continued, or should it be stopped?	CONTINUED . . . . . 1 STOPPED . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8		

SECTION 14. VIOLENCE AGAINST WOMEN MODULE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1400	CHECK COVER PAGE OF QUESTIONNAIRE: HOUSEHOLD SELECTED FOR FEMALE GENITAL MUTILATION MODULE (FGM) AND DOMESTIC VIOLENCE (DV)? WOMAN SELECTED FOR THIS SECTION ☐ WOMAN NOT SELECTED ☐ → 1500		
1401	CHECK FOR PRESENCE OF OTHERS: DO NOT CONTINUE UNTIL PRIVACY IS ENSURED. PRIVACY OBTAINED . . . . . 1 PRIVACY NOT POSSIBLE . . . . . 2 → 1432		
1401A	READ TO THE RESPONDENT: Now I would like to ask you questions about some other important aspects of a woman's life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of women in Ethiopia. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else in your household will know that you were asked these questions. 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.		
1402	CHECK 701 AND 702: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN (READ IN PAST TENSE AND USE 'LAST' WITH HUSBAND/PARTNER') ☐ NEVER MARRIED/ NEVER LIVED WITH A MAN ☐ → 1416		
1403	First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) (husband/partner)?		
	a) He (is/was) jealous or angry if you (talk/talked) to other men?	JEALOUS . . . . . YES 1 NO 2 DK 8	
	b) He frequently (accuses/accused) you of being unfaithful?	ACCUSES . . . . . YES 1 NO 2 DK 8	
	c) He (does/did) not permit you to meet your female friends?	NOT MEET FRIENDS . . . YES 1 NO 2 DK 8	
	d) He (tries/tried) to limit your contact with your family?	NO FAMILY . . . . . YES 1 NO 2 DK 8	
	e) He (insists/insisted) on knowing where you (are/were) at all times?	WHERE YOU ARE . . . . . YES 1 NO 2 DK 8	
1404	Now I need to ask some more questions about your relationship with your (last) (husband/partner).		
	A. Did your (last) (husband/partner) ever:	B. How often did this happen during the last 13 months: often, only sometimes, or not at all?	
		EVER / OFTEN / SOME-TIMES / NOT IN LAST 13 MONTHS	
	a) say or do something to humiliate you in front of others?	YES 1 → 1 / NO 2	2 / 3
	b) threaten to hurt or harm you or someone you care about?	YES 1 → 1 / NO 2	2 / 3
	c) insult you or make you feel bad about yourself?	YES 1 → 1 / NO 2	2 / 3

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1405	A. Did your (last) (husband/partner) ever do any of the following things to you:	B. How often did this happen during the last 13 months: often, only sometimes, or not at all?	

	EVER		OFTEN	SOME-TIMES	NOT IN LAST 13 MONTHS
a) push you, shake you, or throw something at you?	YES	1 →	1	2	3
	NO	2 ↓			
b) slap you?	YES	1 →	1	2	3
	NO	2 ↓			
c) twist your arm or pull your hair?	YES	1 →	1	2	3
	NO	2 ↓			
d) punch you with his fist or with something that could hurt you?	YES	1 →	1	2	3
	NO	2 ↓			
e) kick you, drag you, or beat you up?	YES	1 →	1	2	3
	NO	2 ↓			
f) try to choke you or burn you on purpose?	YES	1 →	1	2	3
	NO	2 ↓			
g) threaten or attack you with a knife, gun, or other weapon?	YES	1 →	1	2	3
	NO	2 ↓			
h) physically force you to have sexual intercourse with him when you did not want to?	YES	1 →	1	2	3
	NO	2 ↓			
i) physically force you to perform any other sexual acts you did not want to?	YES	1 →	1	2	3
	NO	2 ↓			
j) force you with threats or in any other way to perform sexual acts you did not want to?	YES	1 →	1	2	3
	NO	2 ↓			

1406	CHECK 1405A (a-j): AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		1409
1407	How long after you first (got married/started living together) with your (last) (husband/partner) did (this/any of these things) first happen? IF LESS THAN ONE YEAR, RECORD '00'.	NUMBER OF YEARS . . . . . ☐☐ BEFORE MARRIAGE/BEFORE LIVING TOGETHER 95	
1408	Did the following ever happen as a result of what your (last) (husband/partner) did to you:		
	a) You had cuts, bruises, or aches?	YES . . . . . 1 NO 2	
	b) You had eye injuries, sprains, dislocations, or burns?	YES . . . . . 1 NO 2	
	c) You had deep wounds, broken bones, broken teeth, or any other serious injury?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1409	Have you ever hit, slapped, kicked, or done anything else to physically hurt your (last) (husband/partner) at times when he was not already beating or physically hurting you?	YES . . . . . 1 NO 2	→ 1411
1410	In the last 13 months, how often have you done this to your (last) (husband/partner): often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1411	Does (did) your (last) (husband/partner) drink alcohol?	YES . . . . . 1 NO 2	→ 1413
1412	How often does (did) he get drunk: often, only sometimes, or never?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NEVER 3	
1413	Are (Were) you afraid of your (last) (husband/partner): most of the time, sometimes, or never?	MOST OF THE TIME AFRAID . . . . . 1 SOMETIMES AFRAID . . . . . 2 NEVER AFRAID 3	
1414	CHECK 709: MARRIED MORE THAN ONCE ☐ ↓ MARRIED ONLY ONCE ☐ →		1416
1415	A. So far we have been talking about the behavior of your (current/last) (husband/partner). Now I want to ask you about the behavior of any previous (husband/partner).	B. How long ago did this last happen?	

	EVER		0 - 11 MONTHS AGO	12+ MONTHS AGO	DON'T REMEMBER
a) Did any previous (husband/partner) ever hit, slap, kick, or do anything else to hurt you physically?	YES	1 →	1	2	3
	NO	2 ↓			
b) Did any previous (husband/partner) physically force you to have intercourse or perform any other sexual acts against your will?	YES	1 →	1	2	3
	NO	2			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1416	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ → a) From the time you were 15 years old has anyone other than (your/any) (husband/partner) hit you, slapped you, kicked you, or done anything else to hurt you physically? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ → b) From the time you were 15 years old has anyone hit you, slapped you, kicked you, or done anything else to hurt you physically?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1419
1417	Who has hurt you in this way? Anyone else? RECORD ALL MENTIONED.	MOTHER/STEP-MOTHER . . . . . A FATHER/STEP-FATHER . . . . . B SISTER/BROTHER . . . . . C DAUGHTER/SON . . . . . D OTHER RELATIVE . . . . . E CURRENT BOYFRIEND . . . . . F FORMER BOYFRIEND . . . . . G MOTHER-IN-LAW . . . . . H FATHER-IN-LAW . . . . . I OTHER IN-LAW . . . . . J TEACHER . . . . . K EMPLOYER/SOMEONE AT WOR . . . . . L POLICE/SOLDIER . . . . . M OTHER _____ X (SPECIFY)	
1418	In the last 13 months, how often has (this person/have these persons) physically hurt you: often, only sometimes, or not at all?	OFTEN . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL 3	
1419	CHECK 201, 226, AND 230: EVER BEEN PREGNANT (YES ON 201 OR 226 OR 230) ☐ NEVER BEEN PREGNANT ☐ →		→ 1422
1420	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES . . . . . 1 NO 2	→ 1422
1420B	Did you miscarry as a result of the violence?	YES . . . . . 1 NO 2	
1421	Who has done any of these things to physically hurt you while you were pregnant? Anyone else? RECORD ALL MENTIONED.	CURRENT HUSBAND/PARTNER . . . A MOTHER/STEP-MOTHER . . . . . B FATHER/STEP-FATHER . . . . . C SISTER/BROTHER . . . . . D DAUGHTER/SON . . . . . E OTHER RELATIVE . . . . . F FORMER HUSBAND/PARTNER . . . . . G CURRENT BOYFRIEND . . . . . H FORMER BOYFRIEND . . . . . I MOTHER-IN-LAW . . . . . J FATHER-IN-LAW . . . . . K OTHER IN-LAW . . . . . L TEACHER . . . . . M EMPLOYER/SOMEONE AT WORK . N POLICE/SOLDIER . . . . . O OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1422	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ ↓ NEVER MARRIED/NEVER LIVED WITH A MAN ☐ →		1422B
1422A	Now I want to ask you about things that may have been done to you by someone other than (your/any) (husband/partner). At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1423 → 1424A
1422B	At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts when you did not want to?	YES . . . . . 1 NO . . . . . 2 REFUSED TO ANSWER/ NO ANSWER 3	→ 1426
1423	Who was the person who was forcing you the very first time this happened?	CURRENT HUSBAND/PARTNER . . . 01 FORMER HUSBAND/PARTNER . . . . . 02 CURRENT/FORMER BOYFRIEND . . . 03 FATHER/STEP-FATHER . . . . . 04 BROTHER/STEP-BROTHER . . . . . 05 OTHER RELATIVE . . . . . 06 IN-LAW . . . . . 07 OWN FRIEND/ACQUAINTANCE . . . 08 FAMILY FRIEND . . . . . 09 TEACHER . . . . . 10 EMPLOYER/SOMEONE AT WORK 11 POLICE/SOLDIER . . . . . 12 PRIEST/RELIGIOUS LEADER . . . . . 13 STRANGER . . . . . 14 OTHER _____ 96 (SPECIFY)	
1424	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ ↓ a) In the last 13 months, has anyone other than (your/any) (husband/partner) physically forced you to have sexual intercourse when you did not want to? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ ↓ b) In the last 13 months has anyone physically forced you to have sexual intercourse when you did not want to?	YES . . . . . 1 NO 2	→ 1425
1424A	CHECK 1405A (h-j) and 1415A(b) AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		1426
1425	CHECK 701 AND 702: EVER MARRIED/EVER LIVED WITH A MAN ☐ ↓ a) How old were you the first time you were forced to have sexual intercourse or perform any other sexual acts by anyone, including (your/any) husband/partner? NEVER MARRIED/NEVER LIVED WITH A MAN ☐ ↓ b) How old were you the first first time you were forced to have sexual intercourse or perform any other sexual acts?	AGE IN COMPLETED YEARS ☐☐ DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1426	CHECK 1405A (a-j), 1415A (a,b), 1416, 1420, 1422A, AND 1422B: AT LEAST ONE 'YES' ☐ ↓ NOT A SINGLE 'YES' ☐ →		1430
1427	Thinking about what you yourself have experienced among the different things we have been talking about, have you ever tried to seek help?	YES . . . . . 1 NO 2	→ 1429
1428	From whom have you sought help? Anyone else? RECORD ALL MENTIONED.	OWN FAMILY . . . . . A HUSBAND'S/PARTNER'S FAMILY . . . B CURRENT/FORMER HUSBAND/PARTNER . . . . . C CURRENT/FORMER BOYFRIEND . D FRIEND . . . . . E NEIGHBOR . . . . . F RELIGIOUS LEADER . . . . . G DOCTOR/MEDICAL PERSONNEL . . . H POLICE . . . . . I LAWYER . . . . . J SOCIAL SERVICE ORGANIZATION K COMMUNITY BASED ORGANIZATION L WOMEN AND YOUTH AFFAIR . . . . . M OTHER _____ X (SPECIFY)	→ 1429
1428A	Why didn't you seek help at that time?	EMBARASSED . . . . . A DIDN'T KNOW WHERE TO GO . . . . . B DIDN'T KNOW WHO TO TELL . . . . . C NOT NECESSARY . . . . . D NOT WANTING TO TELL . . . . . E AFRAID THEY MAY NOT BELIEVE ME F THINKING I WILL NOT GET SU. . . . . G OTHER _____ X (SPECIFY)	
1429	Have you ever told anyone about this?	YES . . . . . 1 NO 2	
1430	As far as you know, did your father ever beat your mother?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

THANK THE RESPONDENT FOR HER COOPERATION AND REASSURE HER ABOUT THE CONFIDENTIALITY OF HER ANSWERS. FILL OUT THE QUESTIONS BELOW WITH REFERENCE TO THE DOMESTIC VIOLENCE MODULE ONLY.

1431	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?		YES ONCE	YES, MORE THAN ONCE	NO
		HUSBAND	1	2	3
		OTHER MALE ADULT. . .	1	2	3
		FEMALE ADULT	1	2	3
1432	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE _____ _____ _____				

SECTION 15. INFORMATION ABOUT HEALTH FACILITY WHERE VACCINATION CARDS ARE KEPT

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1500	CHECK 504A, 507A, 504B AND 507B: VACCINATION CARD SEEN? NO CARD AND NO OTHER DOCUMENT SEEN ☐ CARD OR OTHER DOCUMENT SEEN ☐		→ 1515
1501	Did any of your children born between 2005-2008 ever receive any vaccination at a health faciltiy (including governement hospitals, health centers/posts, NGO facilities, or private hospitals/clinics)?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 1515
1502	ASK RESPONDENT FOR CONSENT TO COPY VACCINATION DATES FROM THE CHILDREN'S HEALTH CARDS KEPT IN A HEALTH FACILITY As part of this survey, we would like to visit the health facility in which your children got vaccinated. With your permission, our health facility team will visit the health center and copy the vaccination records from the health cards directly to the same questionnaire I am using right now for our interview. The information will be kept confidential and will not be shared with anyone other than members of our survey team. We hope you will allow access to the health cards because information about your children's vaccinations is very important. The information will complement the information that we obtained from you in this interview. Many dangerous childhood illnesses such as measles or tetanus can be prevented through timely and effective vaccination. The information from the cards will assist the government to develop programs to protect children from vaccine preventable diseases and reduce childhood mortality and morbidity in Ethiopia. Do you have any questions? Will you allow (NAME OF CHILD) to have his/her vaccination records copied from his/her health card kept at the health facility?		

1503	CIRCLE THE CODE AND SIGN YOUR NAME.	(LAST BIRTH) GRANTED 1 (SIGN) REFUSED 2 (THEN SKIP TO 1514)	(NEXT-TO-LAST BIRTH) GRANTED 1 (SIGN) REFUSED 2 (THEN SKIP TO 1514)

RECORD CHILD'S FULL NAME, MOTHER'S FULL NAME, FATHER'S FULL NAME, CHILD'S KEBELE, TOWN, AND REGION, AND NAME OF HEALTH FACILITY WHERE CHILD'S LAST VACCINATION WAS ADMINISTERED. BE SURE TO TAKE ADDRESS AND LOCATION DESCRIPTION OF HEALTH FACILITY.

1504	BIRTH HISTORY NUMBER OF EACH CHILD BORN IN 2005 OR LATER FROM 212 IN BIRTH HISTORY.	BIRTH HISTORY NUMBER	BIRTH HISTORY NUMBER .....
1505	On what day, month, and year was (NAME) born?	DAY ..... MONTH ..... YEAR	DAY ..... MONTH ..... YEAR
1506	How old was (NAME) at (NAME's) last birthday?	AGE	AGE ....
1507	What name was used at the health facility where (NAME) was last vaccinated?		
1508	What is your first and last name?		
1509	What is the first and last name of (NAME's) father?		
1510	What is the name of the health facility where (NAME's) last vaccination was administered?	NAME OF HEALTH FACILITY	NAME OF HEALTH FACILITY

SECTION 15. INFORMATION ABOUT HEALTH FACILITY WHERE VACCINATION CARDS ARE KEPT

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
1511	What is the location (Kebele, Town, Woreda), where (NAME's) last vaccination was administered?	KEBELE _____ TOWN _____ WOREDA _____	KEBELE _____ TOWN _____ WOREDA _____	
1512	Can you describe the location of the health facility? ADD TO THE DESCRIPTION ALL LANDMARKS (SUCH AS A PARK), PUBLIC STRUCTURES (SUCH AS SCHOOL OR CHURCH), AND STREETS OR ROADS.	_____ _____ _____ _____	_____ _____ _____ _____	
1513	What is the name of the Doctor/health officer that vaccinated (NAME) at the health facility?	_____ _____	_____ _____	
1514		GO BACK TO 1504 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO1515.	GO TO 1504 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE CHILD GO TO 1515.	
1515	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]		

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

DEMOGRAPHIC AND HEALTH SURVEY
MAN'S QUESTIONNAIRE

ETHIOPIA
CENTRAL STATISTICAL AGENCY (CSA)

IDENTIFICATION

LOCALITY NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER | | | |

HOUSEHOLD NUMBER | | | |

NAME AND LINE NUMBER OF MAN _____ | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR
INTERVIEWER'S NAME				INT. NO.
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** 0 1 | LANGUAGE OF INTERVIEW** | | NATIVE LANGUAGE OF RESPONDENT** | | TRANSLATOR USED (YES = 1, NO = 2) |

LANGUAGE OF QUESTIONNAIRE** **ENGLISH**

**LANGUAGE CODES:
01 ENGLISH; 02 AMHARIC; 03 TIGRIGNA; 04 OROMIFFA; 05 LANGUAGE 5; 06 LANGUAGE 6

SUPERVISOR		FIELD EDITOR		OFFICE EDITOR	KEYED BY
NAME	NUMBER	NAME	NUMBER	NUMBER	NUMBER

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with the Central Statistical Agency. We are conducting a survey about health and other topics all over Ethiopia. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions?
May I begin the interview now?

SIGNATURE OF INTERVIEWER _____ DATE _____

RESPONDENT AGREES TO BE INTERVIEWED . . 1 ↓

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . 2 → END

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT CITY, TOWN OR VILLAGE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 105
103	Just before you moved here, did you live in an urban or rural area?	URBAN AREA . . . . . 1 RURAL AREA 2	
104	Before you moved here, which Region and Zone did you live in?	REGION CODE . . . . . [ ][ ] ZONE CODE . . . . . [ ][ ] OUTSIDE OF [COUNTRY] 96	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . . . [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	→ 111
108	What is the highest level of school you attended: primary, secondary, technical/vocational or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 TECHNICAL/VOCATIONAL . . . . . 3 HIGHER 4	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
109	What is the highest [GRADE/YEAR] you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	[GRADE/NUMBER OF YEAR] . . . . . ☐☐	
110	CHECK 108: PRIMARY, SECONDARY OR TECHNICAL/VOCATIONAL ☐ ↓ HIGHER ☐ → 113		
111	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 PART OF THE SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE . . . . . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
112	CHECK 111: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ → 114		
113	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	
114	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	
115	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	
116	Do you own a mobile telephone?	YES . . . . . 1 NO . . . . . 2 → 118	
117	Do you use your mobile phone for any financial transactions?	YES . . . . . 1 NO 2	
118	Do you have an account in a bank or other financial institution that you yourself use?	YES . . . . . 1 NO 2	
119	Have you ever used the internet?	YES . . . . . 1 NO . . . . . 2 → 122	
120	In the last 13 monhts, have you used the internet? IF NECESSARY, PROBE FOR USE FROM ANY LOCATION, WITH ANY DEVICE.	YES . . . . . 1 NO . . . . . 2 → 122	
121	During the last one month, how often did you use the internet: almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	What is your religion?	ORTHODOX . . . . . 1 CATHOLIC . . . . . 2 PROTESTANT . . . . . 3 MUSLIM . . . . . 4 TRADITIONAL . . . . . 5 OTHER _____ 8	
123	What is your ethnicity? RECORD THE MAJOR ETHNIC GROUP. CODE FOR ETHNIC GROUP WILL BE FILLED IN BY OFFICE EDITOR.	_____ ☐☐	
124	In the last 13 monhts, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
125	In the last 13 monhts, have you been away from home for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	a) How many sons live with you? b) And how many daughters live with you? IF NONE, RECORD '00'.	a) SONS AT HOME . . . . . [ ][ ] b) 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	a) How many sons are alive but do not live with you? b) And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	a) SONS ELSEWHERE . . . . . [ ][ ] b) 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, who made any movement, sound, or effort to breathe, or who showed any other signs of life even if for a very short time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	a) How many boys have died? b) And how many girls have died? IF NONE, RECORD '00'.	a) BOYS DEAD . . . . . [ ][ ] b) 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 → 211 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	
211	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ a) How old were you when your first child was born? HAS HAD ONLY ONE CHILD ↓ b) How old were you when your child was born?	AGE IN YEARS . . . . . [ ][ ]	
212	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ↓ NO LIVING CHILDREN → 301		

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
213	CHECK 203 AND 205: MORE THAN ONE LIVING CHILD ☐ → a) How old is your youngest child? ONLY ONE LIVING CHILD ☐ → b) How old is your child?	AGE IN YEARS . . . . . ☐☐	
214	CHECK 213: (YOUNGEST) CHILD IS AGE 0-2 YEARS ☐ (YOUNGEST) CHILD IS AGE 3 YEARS OR OLDER ☐		→ 301
215	CHECK 203 AND 205: MORE THAN ONE LIVING CHILD ☐ → a) What is the name of your youngest child? ONLY ONE LIVING CHILD ☐ → b) What is the name of your child?	_____ (NAME OF (YOUNGEST) CHILD)	
216	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	☐ → 218
217	Were you ever present during any of those antenatal check-ups?	PRESENT . . . . . 1 NOT PRESENT 2	
218	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	
219	When a child has diarrhea, how much should he or she be given to drink: more than usual, about the same as usual, less than usual, or nothing to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?	
01	Female Sterilization. PROBE: Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2
02	Male Sterilization. PROBE: Men can have an operation to avoid having any more children.	YES 1 NO 2
03	IUD. PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
04	Injectables. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2
05	Implants. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2
06	Pill. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2
07	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	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
10	Standard Days Method. PROBE: A woman uses a string of colored beads to know the days she can get pregnant. On the days she can get pregnant, she uses a condom or does not have sexual intercourse.	YES . . . . . 1 NO 2
11	Lactational Amenorrhea Method (LAM). PROBE: Up to six months after childbirth, before the menstrual period has returned, women use a method requiring frequent breastfeeding day and night.	YES . . . . . 1 NO 2
12	Rhythm Method. PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES . . . . . 1 NO 2
13	Withdrawal. PROBE: Men can be careful and pull out before climax.	YES . . . . . 1 NO 2
14	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES, MODERN METHOD _____ 1 (SPECIFY) YES, TRADITIONAL METHOD _____ 2 (SPECIFY) NO 3

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
302	In the last few months have you:	YES NO	
	a) Heard about family planning on the radio?	a) RADIO 1 2	
	b) Seen anything about family planning on the television?	b) TELEVISION 1 2	
	c) Read about family planning in a newspaper or magazine?	c) NEWSPAPER OR MAGAZINE . . 1 2	
	d) Read about family planning in a pamphlet/posters/leaflets?	d) PAMPHLET/POSTERS/LEAFLETS 1 2	
	e) Heard about family planning at community even/conversation?	e) COMMUNITY EVENT/CONV. 1 2	
	f) Received a voice or text message about family planning on a mobile phone?	f) MOBILE PHONE 1 2	
	g) Seen anything about family planning on the internet?	g) INTERNET 1 2	
303	In the last few months, have you discussed family planning with a health worker or health professional?	YES . . . . . 1 NO 2	
304	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant when she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 306
305	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDEI . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
306	After the birth of a child, can a woman become pregnant before her menstrual period has returned?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
307	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one.	AGREE / DIS-AGREE / DK	
	a) Contraception is a woman's concern and a man should not have to worry about it.	a) CONTRACEPTION WOMAN'S CONCERN 1 2 8	
	b) Women who use contraception may become promiscuous.	b) WOMEN MAY BECOME PROMISCUOUS 1 2 8	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your (wife/partner) living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have other wives or do you live with other women as if married?	YES (MORE THAN ONE WIFE) . . . . . 1 NO (ONLY ONE WIFE) 2	→ 407
406	Altogether, how many wives or live-in partners do you have?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS	
407	CHECK 405: ONE WIFE/ PARTNER a) Please tell me the name of (your wife/the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER b) Please tell me the name of each of your wives or each woman you are living with as if married. RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME / LINE NUMBER / 408 How old was (NAME) on her last birthday? / AGE	
408	ASK 408 FOR EACH PERSON.		
409	CHECK 407: ONE WIFE/ PARTNER MORE THAN ONE WIFE/ PARTNER		→ 411
410	Have you been married or lived with a woman only once or more than once?	MORE THAN ONCE . . . . . 1 ONLY ONCE 2	
411	CHECK 405 AND 410: BOTH ARE CODE '2' a) In what month and year did you start living with your (wife/partner)? OTHER b) 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	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
413	**CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.**		
414	I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. 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. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS	→ 501
415	Now I would like to ask you about your recent sexual activity. When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	→ 417 → 427

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
416	When was the last time you had sexual intercourse with this person?		DAYS AGO . . 1 [ ][ ] WEEKS AGO . . 2 [ ][ ] MONTHS AGO . . 3 [ ][ ]	DAYS AGO . . 1 [ ][ ] WEEKS AGO . . 2 [ ][ ] MONTHS AGO . . 3 [ ][ ]
417	The last time you had sexual intercourse with this person, was a condom used?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 419)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 419)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 419)
418	Was a condom used every time you had sexual intercourse with this person in the last 13 monhts?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
419	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, RECORD '2'. IF NO, RECORD '3'.	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 3 CASUAL ACQUAINTANCE . . 4 CLIENT/SEX WORKER . . 5 OTHER _____ 6 (SPECIFY)
420	How long ago did you first have sexual intercourse with this 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 [ ][ ]
421	How many times during the last 13 monhts did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, RECORD '95'.	NUMBER OF TIMES . . . . . [ ][ ]	NUMBER OF TIMES . . . . . [ ][ ]	NUMBER OF TIMES . . . . . [ ][ ]
422	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
423	Apart from this person, have you had sexual intercourse with any other person in the last 13 monhts?	YES . . . . . 1 → (GO BACK TO 416 IN NEXT COLUMN) NO . . . . . 2 → (SKIP TO 425)	YES . . . . . 1 → (GO BACK TO 416 IN NEXT COLUMN) NO . . . . . 2 → (SKIP TO 425)	
424	In total, with how many different people have you had sexual intercourse in the last 13 monhts? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS 95 OR MORE, RECORD '95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . [ ][ ] DON'T KNOW 98

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
425	CHECK 419 (ALL COLUMNS): AT LEAST ONE PARTNER IS A SEX WORKER ☐ ↓ NO PARTNERS ARE SEX WORKERS ☐ → 427		
426	CHECK 419 AND 417 (ALL COLUMNS): CONDOM USED WITH EVERY SEX WORKER ☐ → 430 OTHER ☐ → 431		
427	In the last 13 monhts, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 429
428	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	☐ → 431
429	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 431
430	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 13 monhts?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
431	In the past 13 monhts have you given any gifts or other goods in order to have sex or to become sexually involved with anyone?	YES . . . . . 1 NO 2	→ 433
432	Have you ever given any gifts or other goods in order to have sex or to become sexually involved with anyone?	YES . . . . . 1 NO 2	
433	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, RECORD '95'.	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
434	CHECK 417: MOST RECENT PARTNER (FIRST COLUMN) CONDOM USED ☐ ↓ NOT ASKED ☐ → 438 NO CONDOM USED ☐ → 438		
435	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.	SENSATION . . . . . 01 HIWOT TRUST . . . . . 02 MEMBERS ONLY . . . . . 03 GOLD . . . . . 04 GEANS . . . . . 05 DUREX . . . . . 06 MOODS . . . . . 07 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
436	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 GOV .HEALTH CENTER . . . . . 12 GOV. HEALTH POST. . . . . 13 PUBLIC PHARMACY . . . . . 14 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO MEDICAL SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 PRIVATE PHARMACY . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) **OTHER SOURCE** SHOP . . . . . 41 BAR/HOTEL/GROCERY . . . . . 42 FRIEND/RELATIVE . . . . . 43 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
437	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	→ 439 → 440
438	The last time you had sex did you or your partner use any method to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 440
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 MALE CO . . . . . G FEMALE CONDOM . . . . . H EMERGENCY CONTRACEPTION . . . . . I STANDARD DAYS METHOD . . . . . J LACTATIONAL AMENORRHEA METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER MODERN METHOD . . . . . X OTHER TRADITIONAL METHOD . . . . . Y	→ 501
440	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	

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 ☐ →		514
502	CHECK 439: MAN NOT STERILIZED ☐ ↓ MAN STERILIZED ☐ →		514
503	CHECK 407: ONE WIFE/ PARTNER ☐ ↓ MORE THAN ONE WIFE/ PARTNER ☐ →		509
504	Is your (wife/partner) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 507
505	Now I have some questions about the future. After the child you and your (wife/partner) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 514
506	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 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 514
507	CHECK 208: HAS FATHERED CHILDREN ☐ ↓ a) Now I have some questions about the future. Would you like to have another child, or would you prefer not to have any more children? HAS NOT FATHERED CHILDREN ☐ ↓ b) Now I have some questions about the future. Would you like to have a child, or would you prefer not to have any children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS COUPLE CAN'T GET PREGNANT . . . . . 3 WIFE/PARTNER STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 514
508	CHECK 208: HAS FATHERED CHILDREN ☐ ↓ a) How long would you like to wait from now before the birth of another child? HAS NOT FATHERED CHILDREN ☐ ↓ b) How long would you like to wait from now before the birth of a child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS COUPLE CAN'T GET PREGNANT . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 514
509	Are any of your (wives/partners) currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 512

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
510	Now I have some questions about the future. After the (child/children) you and your (wives/partners) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 514
511	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 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 514
512	CHECK 208: HAS FATHERED CHILDREN ☐ → a) Now I have some questions about the future. Would you like to have another child, or would you prefer not to have any more children? HAS NOT FATHERED CHILDREN ☐ → b) Now I have some questions about the future. Would you like to have a child, or would you prefer not to have any 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	→ 514
513	CHECK 208: HAS FATHERED CHILDREN ☐ → a) How long would you like to wait from now before the birth of another child? HAS NOT FATHERED CHILDREN ☐ → b) How long would you like to wait from now before the birth of a child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS COUPLE CAN'T GET PREGNANT . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	
514	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ → a) 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 ☐ → b) 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 → 601 NUMBER . . . . . ☐☐ OTHER _____ 96 → 601 (SPECIFY)	
515	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER . . ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES AND DECISION MAKING

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 13 monhts?	YES . . . . . 1 NO 2	→ 607
604	What is your occupation? That is, what kind of work do you mainly do?	_____ _____ _____ ☐☐	
605	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . . . 2 ONCE IN A WHILE 3	
606	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
607	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A PARTNER ☐ ↓ NOT CURRENTLY MARRIED AND NOT LIVING WITH A PARTNER ☐ →		612
608	CHECK 606: CODE '1' OR '2' CIRCLED ☐ ↓ OTHER ☐ →		610
609	Who usually decides how the money you earn will be used: you, your (wife/partner), or you and your (wife/partner) jointly?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 OTHER _____ 6 (SPECIFY)	
610	Who usually makes decisions about health care for yourself: you, your (wife/partner), you and your (wife/partner) jointly, or someone else?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
611	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 WIFE/PARTNER . . . . . 2 RESPONDENT AND WIFE/PARTNER JOINTLY . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	

SECTION 6. EMPLOYMENT AND GENDER ROLES AND DECISION MAKING

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	→ 615
613	Do you have a title deed for any house you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 615
614	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
615	Do you own any agricultural or non-agricultural land either alone or jointly with someone else?	ALONE ONLY . . . . . 1 JOINTLY ONLY . . . . . 2 BOTH ALONE AND JOINTLY . . . . . 3 DOES NOT OWN 4	→ 618
616	Do you have a title deed for any land you own?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 618
617	Is your name on the title deed?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
618	In your opinion, is a husband justified in hitting or beating his wife in the following situations: a) If she goes out without telling him? b) If she neglects the children? c) If she argues with him? d) If she refuses to have sex with him? e) If she burns the food?	YES NO DK a) GOES OUT . . . . . 1 2 8 b) NEGLECTS CHILDREN . . 1 2 8 c) ARGUES . . . . . 1 2 8 d) REFUSES SEX . . . . . 1 2 8 e) 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 HIV or AIDS?	YES . . . . . 1 NO 2	→ 727
702	HIV is the virus that can lead to AIDS. Can people reduce their chance of getting HIV 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 HIV from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting HIV by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get HIV by sharing food with a person who has HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people get HIV because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Is it possible for a healthy-looking person to have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Can HIV be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . . 1 2 8 b) DURING DELIVERY . . . . . 1 2 8 c) 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 HIV 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 for HIV?	YES . . . . . 1 NO 2	→ 716
713	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 95	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
714	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
715	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 11 GOV .HEALTH CENTER . . . . . 12 GOV. HEALTH POST. . . . . 13 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) **NGO** HEALTH FACILITY . . . . . 21 OTHER NGO MEDICAL SECTOR _____ 26 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . 31 PRIVATE CLINIC . . . . . 32 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) **OTHER SOURCE** WORKPLACE . . . . . 41 CORRECTIONAL FACILITY . . . . . 42 OTHER _____ 96 (SPECIFY)	→ 720
716	Do you know of a place where people can go to get an HIV test?	YES . . . . . 1 NO 2	→ 720
717	Where is that? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOV .HEALTH CENTER . . . . . B GOV. HEALTH POST. . . . . C OTHER PUBLIC SECTOR _____ D (SPECIFY) **NGO** HEALTH FACILITY . . . . . E OTHER NGO MEDICAL SECTOR . . . . . F _____ (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . G PRIVATE CLINIC . . . . . H OTHER PRIVATE MEDICAL SECTOR _____ I (SPECIFY) OTHER _____ X (SPECIFY)	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
720	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
721	Do you think children living with HIV should be allowed to attend school with children who do not have HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
722	Do you think people hesitate to take an HIV test because they are afraid of how other people will react if the test result is positive for HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
723	Do people talk badly about people living with HIV, or who are thought to be living with HIV?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
724	Do people living with HIV, or thought to be living with HIV, lose the respect of other people?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
725	Do you agree or disagree with the following statement: I would be ashamed if someone in my family had HIV.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
726	Do you fear that you could get HIV if you come into contact with the saliva of a person living with HIV?	YES . . . . . 1 NO . . . . . 2 SAYS HE HAS HIV . . . . . 3 DON'T KNOW/NOT SURE/DEPENDS 8	
727	CHECK 701: HEARD ABOUT HIV OR AIDS → a) Apart from HIV, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT HIV OR AIDS → b) Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
728	CHECK 414: HAS HAD SEXUAL INTERCOURSE NEVER HAD SEXUAL INTERCOURSE → 736		
729	CHECK 727: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES NO → 731		
730	Now I would like to ask you some questions about your health in the last 13 monhts. During the last 13 monhts, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
731	Sometimes men experience an abnormal discharge from their penis. During the last 13 monhts, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
732	Sometimes men have a sore or ulcer near their penis. During the last 13 monhts, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
733	CHECK 730, 731 AND 732: HAS HAD AN INFECTION (ANY 'YES') ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW → 736		
734	The last time you had (PROBLEM FROM 730/731/732), did you seek any kind of advice or treatment?	YES . . . . . 1 NO . . . . . 2 → 736	
735	Where did you go? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOV .HEALTH CENTER . . . . . B GOV. HEALTH POST. . . . . C PUBLIC PHARMACY . . . . . D OTHER PUBLIC SECTOR E _____ (SPECIFY) **NGO** HEALTH FACILITY . . . . . F OTHER NGO MEDICAL SECTOR _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL . . . . . H PRIVATE CLINIC . . . . . I PHARMACY. . . . . J OTHER PRIVATE MEDICAL SECTOR _____ K (SPECIFY) **OTHER SOURCE** SHOP/MARKET . . . . . L TRADITIONAL PRACTITIONER . . . . . M OTHER _____ X (SPECIFY)	
736	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	
737	Is a wife justified in refusing to have sex with her husband when she knows he has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Some men are circumcised, that is, the foreskin is completely removed from the penis. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 805
802	How old were you when you got circumcised?	AGE IN COMPLETED YEARS . . . . . [ ][ ] DURING CHILDHOOD (<5 YEARS) . . . . . 95 DON'T KNOW 98	
803	Who did the circumcision?	**TRADITIONAL** TRAD. CIRCUMCISER . . . . . 11 FAMILY / FRIENDS . . . . . 12 OTHER TRAD. _____ 16 (SPECIFY) **HEALTH PROFESSIONAL** DOCTOR . . . . . 21 NURSE . . . . . 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
804	Where was it done?	HEALTH FACILITY . . . . . 1 HOME OF A HEALTH WORKER/PROFESSIONAL 2 CIRCUMCISION DONE AT HOME . . . . . 3 RITUAL SITE . . . . . 4 OTHER HOME/PLACE . . . . . 5 DON'T KNOW 8	
805	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 13 monhts? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 808
806	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 808
807	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
808	Do you currently smoke cigarettes every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 811 → 810
809	In the past, have you smoked cigarettes every day?	YES . . . . . 1 NO 2	→ 812
810	In the past, have you ever smoked cigarettes every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 813

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
811	On average, how many of the following products do you currently smoke each day? Also, let me know if you use the product, but not every day. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY DAY, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'.	NUMBER DAILY a) MANUFACTURED CIGARETTES . . . . . ☐☐☐ b) HAND-ROLLED CIGARETTES . . . . . ☐☐☐ c) PIPES FULL OF TOBACCO . . . . . ☐☐☐ d) CIGARS, CHEROOTS, OR CIGARILLOS . . . . . ☐☐☐ e) NUMBER OF WATER PIPE SESSIONS . . . . . ☐☐☐ f) OTHERS . . . . . ☐☐☐	→ 813
	a) Manufactured cigarettes?		
	b) Hand-rolled cigarettes?		
	c) Pipes full of tobacco?		
	d) Cigars, cheroots, or cigarillos?		
	e) Number of water pipe sessions?		
	f) Any others? _____ (SPECIFY)		
812	On average, how many of the following products do you currently smoke each week? Also, let me know if you use the product, but not every week. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY WEEK, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'.	NUMBER WEEKLY a) MANUFACTURED CIGARETTES . . . . . ☐☐☐ b) HAND-ROLLED CIGARETTES . . . . . ☐☐☐ c) PIPES FULL OF TOBACCO . . . . . ☐☐☐ d) CIGARS, CHEROOTS, OR CIGARILLOS . . . . . ☐☐☐ e) NUMBER OF WATER PIPE SESSIONS . . . . . ☐☐☐ f) OTHERS . . . . . ☐☐☐	
	a) Manufactured cigarettes?		
	b) Hand-rolled cigarettes?		
	c) Pipes full of tobacco?		
	d) Cigars, cheroots, or cigarillos?		
	e) Number of water pipe sessions?		
	f) Any others? _____ (SPECIFY)		
813	Do you currently use smokeless tobacco every day, some days, or not at all?	EVERY DAY . . . . . 1 SOME DAYS . . . . . 2 NOT AT ALL 3	→ 815 → 815A

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	On average, how many times a day do you use the following products? Also, let me know if you use the product, but not every day. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY DAY, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Snuff/Suret, by mouth? b) Snuff/Suret, by nose? c) Chewing tobacco? d) Any others? _____ (SPECIFY)	TIMES DAILY a) SNUFF/SURET, BY MOUTH . . [ ][ ][ ] b) SNUFF/SURET, BY NOSE . . [ ][ ][ ] c) CHEWING TOBACCO . . . . . [ ][ ][ ] d) ANY OTHERS . . . . . [ ][ ][ ]	→ 816
815	On average, how many times a week do you use the following products? Also, let me know if you use the product, but not every week. IF RESPONDENT REPORTS USING THE PRODUCT BUT NOT EVERY WEEK, RECORD '888'. IF THE PRODUCT IS NOT USED AT ALL, RECORD '000'. a) Snuff/Suret, by mouth? b) Snuff/Suret, by nose? c) Chewing tobacco? d) Any others? _____ (SPECIFY)	TIMES WEEKLY a) SNUFF/SURET, BY MOUTH . . [ ][ ][ ] b) SNUFF/SURET, BY NOSE . . [ ][ ][ ] c) CHEWING TOBACCO . . . . . [ ][ ][ ] d) ANY OTHERS . . . . . [ ][ ][ ]	
815A	Have you ever chewed Chat?	YES . . . . . 1 NO 2	→ 815C
815B	During the last 30 days, how many days did you chew Chat?	NUMBER OF DAYS . . . . . [ ][ ] NONE IN THE LAST 30 DAYS 00	
815C	Have you ever taken a drink that contains alcohol (Tella/Tegi/Areke/Beer/Wine,etc…)?	YES . . . . . 1 NO 2	→ 816
815D	During the last 30 days, how many days did you have a drink that contains alcohol?	NUMBER OF DAYS . . . . . [ ][ ] NONE IN THE LAST 30 DAYS 00	
815E	During the past 13 months, how many days did you have a drink that contains alcohol?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEE . . . . . 3 NONE IN THE LAST 13 MONTHS 4	
816	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 901
817	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 _____ (SPECIFY) X	

SECTION 9. FEMALE GENITAL MUTILATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Have you ever heard of female circumcision?	YES . . . . . 1 NO 2	→ 903
902	In some countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES . . . . . 1 NO 2	→ 905
903	Do you believe that female circumcision is required by your religion?	YES . . . . . 1 NO . . . . . 2 NO RELIGION . . . . . 3 DON'T KNOW 8	
904	Do you think that female circumcision should be continued, or should it be stopped?	CONTINUED . . . . . 1 STOPPED . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	
905	RECORD THE TIME.	HOURS . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT INTERVIEW:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

DEMOGRAPHIC AND HEALTH SURVEYS
BIOMARKER QUESTIONNAIRE

ETHIOPIA
CENTRAL STATISTICAL AGENCY (CSA)

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

FIELDWORKER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
FIELDWORKER'S NAME				MONTH YEAR
NEXT VISIT: DATE TIME				TOTAL NUMBER OF VISITS

NOTES:

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

TOTAL ELIGIBLE CHILDREN

LANGUAGE OF QUESTIONNAIRE** 0 1 | LANGUAGE OF INTERVIEW** | | NATIVE LANGUAGE OF RESPONDENT** | | TRANSLATOR (YES = 1, NO = 2) |

LANGUAGE OF QUESTIONNAIRE** **ENGLISH**

**LANGUAGE CODES:

01 ENGLISH	03 TIGRIGNA	05 LANGUAGE 5
02 AMHARIC	04 OROMIFFA	06 LANGUAGE 6

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME / FIELDWORKER NUMBER	NAME / FIELDWORKER NUMBER	NUMBER	NUMBER

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
103	IF MOTHER INTERVIEWED: COPY CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) FROM BIRTH HISTORY. IF MOTHER NOT INTERVIEWED ASK: What is (NAME)'s date of birth and age?	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐
104	CHECK 103: CHILD BORN IN 2003-2008?	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 114)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 114)	YES . . . . . 1 NO . . . . . 2 → (SKIP TO 114)
105	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
106	HEIGHT IN CENTIMETERS.	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 → (SKIP TO 108)	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 → (SKIP TO 108)	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 → (SKIP TO 108)
107	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
108	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER

		CHILD 4	CHILD 5	CHILD 6
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
109	CHECK 103: CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR 5 PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2
110	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)
111	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in 2003 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the anemia test?		
112	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)
113	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996
114	GO BACK TO 103 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE CHILDREN, GO TO 201.			

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
103	IF MOTHER INTERVIEWED: COPY CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) AND AGE FROM BIRTH HISTORY. IF MOTHER NOT INTERVIEWED ASK: What is (NAME)'s date of birth and age?	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐☐	DAY . . . . . ☐☐ MONTH . . . . . ☐☐ YEAR . . . ☐☐☐☐ AGE . . . . . ☐☐
104	CHECK 103: CHILD BORN IN 2003-2008?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 114)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 114)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 114)
105	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
106	HEIGHT IN CENTIMETERS.	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)	CM. . . . ☐☐☐.☐ NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER . . . . . 9996 (SKIP TO 108)
107	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
108	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

101	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 102; IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
102	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 11.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
109	CHECK 103: CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR 5 PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2	0-5 MONTHS . . . . . 1 (SKIP TO 114) OLDER 2
110	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD FROM COLUMN 1 OF HOUSEHOLD SCHEDULE.	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER . . . . . ☐☐ (RECORD '00' IF NOT LISTED)
111	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in 2003 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes or no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the anemia test?		
112	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT/OTHER . 3 (SKIP TO 114)
113	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996	G/DL . . . . . ☐☐.☐ REFUSED . . . . . 995 OTHER 996
114	GO BACK TO 103 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 201.			

201	CHECK COLUMN 9 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER, NAME, AGE, AND MARITAL STATUS FOR ALL ELIGIBLE WOMEN IN 202, 203, AND 204. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
202	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 9. NAME FROM COLUMN 2.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
203	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 7 (AGE):	15-17 YEARS . . . . . 1 18-49 YEARS 2	15-17 YEARS . . . . . 1 18-49 YEARS 2	15-17 YEARS . . . . . 1 18-49 YEARS 2
204	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 8 (MARITAL STATUS):	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2

205	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
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	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER
208	CHECK 203: AGE	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210) ←	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210) ←	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (SKIP TO 210) ←
209	CHECK 204: MARITAL STATUS	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) ← OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) ← OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 216) ← OTHER 2

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

ADULT RESPONDENT CONSENT FOR ANEMIA TEST

ADULT RESPONDENT CONSENT

210	ASK CONSENT FOR ANEMIA TEST.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. 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 we take your blood. 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 or no. It is up to you to decide. Will you take the anemia test?		
211	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN) (IF REFUSED, SKIP TO 212) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 212)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN) (IF REFUSED, SKIP TO 212) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 212)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN) (IF REFUSED, SKIP TO 212) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 212)
211A	CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

ADULT RESPONDENT CONSENT FOR DBS COLLECTION

ADULT RESPONDENT CONSENT

212	ASK CONSENT FOR DBS COLLECTION.	As part of the survey we also are asking people all over the country to give blood for HIV testing. HIV is the virus that can lead to AIDS. The HIV testing is being done to see how many people have HIV. For the HIV testing, 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 we take your blood. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. Do you have any questions? You can say yes or no. It is up to you to decide. Will you give blood for the HIV testing?		
213	CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 229) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN AND ENTER YOUR FIELDWORKER ID NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 229) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 → _____ (SIGN AND ENTER YOUR FIELDWORKER ID NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 229) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

ADULT RESPONDENT CONSENT FOR ADDITIONAL TESTING

ADULT RESPONDENT CONSENT

214	ASK CONSENT FOR ADDITIONAL TESTING.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. 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?		
215	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 229)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 229)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 229)
216	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)

PARENTAL/RESPONSIBLE ADULT CONSENT FOR ANEMIA TEST

PARENT — RESP AD

217	ASK CONSENT FOR ANEMIA TEST FROM PARENT/ADULT.	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 MINOR) 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 or no. It is up to you to decide. Will you allow (NAME OF MINOR) to take the anemia test?

			WOMAN 1	WOMAN 2	WOMAN 3
		NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____
ADULT CONSENT	218	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)

MINOR RESPONDENT CONSENT FOR ANEMIA TEST

MINOR RESPONDENT CONSENT	219	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 we take your blood. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF PARENT/RESPONSIBLE ADULT) 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 or no. It is up to you to decide. Will you take the anemia test?		
	220	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 221) NOT PRESENT/OTHER . . . . 3 (SKIP TO 221)
	220A	CHECK 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

PARENTAL/RESPONSIBLE ADULT CONSENT FOR DBS COLLECTION

PARENT/RESP ADULT CONSENT

221 ASK CONSENT FOR DBS COLLECTION FROM PARENT/ADULT.

As part of the survey we also are asking people all over the country to take an HIV test. HIV is the virus that can lead to AIDS. The HIV test is being done to see how many people have HIV.

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 MINOR)'s test results either. If (NAME OF MINOR) wants to know her HIV status, I can provide a list of [nearby] facilities offering counseling and testing for HIV. I will also give her a voucher for free services that can be used at any of these facilities.

Do you have any questions?
You can say yes or no. It is up to you to decide.
Will you allow (NAME OF MINOR) to give blood for the HIV testing?

222 CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.

WOMAN 1	WOMAN 2	WOMAN 3
GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 →	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 →	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 →
_____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐	_____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐	_____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐
(IF REFUSED, SKIP TO 229)	(IF REFUSED, SKIP TO 229)	(IF REFUSED, SKIP TO 229)
NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)

MINOR RESPONDENT CONSENT FOR DBS COLLECTION

MINOR RESPONDENT CONSENT

223 ASK CONSENT FOR DBS COLLECTION FROM MINOR RESPONDENT.

As part of the survey we also are asking people all over the country to give blood for HIV testing. HIV is the virus that can lead to AIDS. The HIV testing is being done to see how many people have HIV.

For the HIV testing, 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 we take your blood. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.

Do you have any questions?
You can say yes or no. It is up to you to decide.
Will you give blood for the HIV testing?

224 CIRCLE THE CODE AND SIGN YOUR NAME.

WOMAN 1	WOMAN 2	WOMAN 3
GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 →	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 →	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 →
_____ (SIGN)	_____ (SIGN)	_____ (SIGN)
(IF REFUSED, SKIP TO 229)	(IF REFUSED, SKIP TO 229)	(IF REFUSED, SKIP TO 229)
NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)	NOT PRESENT/OTHER . . . . 3 → (SKIP TO 229)

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

PARENT/RESP ADULT CONSENT

PARENTAL/RESPONSIBLE ADULT CONSENT FOR ADDITIONAL TESTING

225	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/ADULT.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. The blood sample will not have any name or other data attached that could identify (NAME OF MINOR). You do not have to agree. If you do not want the blood sample stored for additional testing, (NAME OF MINOR) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
226	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 229)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 229)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 229)

MINOR RESPONDENT CONSENT

MINOR RESPONDENT CONSENT FOR ADDITIONAL TESTING

227	ASK CONSENT FOR ADDITIONAL TESTING FROM MINOR RESPONDENT.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. 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?		
228	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR WOMEN AGE 15-49

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____
229	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
230	ADDITIONAL TESTS.	IF ADULT RESPONDENT, CHECK 215; IF MINOR RESPONDENT, CHECK 226 AND 228. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.	IF ADULT RESPONDENT, CHECK 215; IF MINOR RESPONDENT, CHECK 226 AND 228. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.	IF ADULT RESPONDENT, CHECK 215; IF MINOR RESPONDENT, CHECK 226 AND 228. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.
231	RECORD HEMOGLOBIN 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
232	PLACE 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.
233	GO BACK TO 202 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE WOMEN, GO TO 301.			

301	CHECK COLUMN 11 IN HOUSEHOLD QUESTIONNAIRE. RECORD THE LINE NUMBER, NAME, AGE, AND MARITAL STATUS FOR ALL ELIGIBLE MEN IN 302, 303, AND 304. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		MAN 1	MAN 2	MAN 3
302	CHECK HOUSEHOLD QUESTIONNAIRE: LINE NUMBER FROM COLUMN 10. NAME FROM COLUMN 2.	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
303	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 7 (AGE):	15-17 YEARS . . . . . 1 18-59 YEARS 2	15-17 YEARS . . . . . 1 18-59 YEARS 2	15-17 YEARS . . . . . 1 18-59 YEARS 2
304	CHECK HOUSEHOLD QUESTIONNAIRE COLUMN 8 (MARITAL STATUS):	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2	CODE 4 (NEVER IN UNION) . 1 OTHER 2
305	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
306	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
307	MEASURER: ENTER YOUR FIELDWORKER NUMBER.	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER	☐☐☐☐ FIELDWORKER NUMBER
308	CHECK 303: AGE	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (SKIP TO 310) ←	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (SKIP TO 310) ←	15-17 YEARS . . . . . 1 18-59 YEARS . . . . . 2 (SKIP TO 310) ←
309	CHECK 304: MARITAL STATUS	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 316) ← OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 316) ← OTHER 2	CODE 4 (NEVER IN UNION) . 1 (SKIP TO 316) ← OTHER 2

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

ADULT RESPONDENT CONSENT FOR ANEMIA TEST

ADULT RESPONDENT CONSENT

310	ASK CONSENT FOR ANEMIA TEST.	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. 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 or no. It is up to you to decide. Will you take the anemia test?		
311	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3

ADULT RESPONDENT CONSENT FOR DBS COLLECTION

ADULT RESPONDENT CONSENT

312	ASK CONSENT FOR DBS COLLECTION.	As part of the survey we also are asking people all over the country to give blood for HIV testing. HIV is the virus that can lead to AIDS. The HIV testing is being done to see how many people have HIV. For the HIV testing, 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 we take your blood. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities. Do you have any questions? You can say yes or no. It is up to you to decide. Will you give blood for the HIV testing?		
313	CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 (SKIP TO 329)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 (SKIP TO 329)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 (SKIP TO 329)

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____
ADULT RESPONDENT CONSENT FOR ADDITIONAL TESTING				
ADULT RESPONDENT CONSENT	314 ASK CONSENT FOR ADDITIONAL TESTING.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. 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?		
	315 CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 329)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 329)	GRANTED . . . . . 1 RESPONDENT REFUSED . . . 2 _____ (SIGN AND SKIP TO 329)
	316 RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐ (RECORD '00' IF NOT LISTED)
PARENTAL/RESPONSIBLE ADULT CONSENT FOR ANEMIA TEST				
PARENT — RESP AD	317 ASK CONSENT FOR ANEMIA TEST FROM PARENT/ADULT.	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 MINOR) 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 or no. It is up to you to decide. Will you allow (NAME OF MINOR) to take the anemia test?		

			MAN 1	MAN 2	MAN 3
		NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____
ADULT CONSENT	318	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 321) NOT PRESENT/OTHER . . . . 3 (SKIP TO 321)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 321) NOT PRESENT/OTHER . . . . 3 (SKIP TO 321)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 321) NOT PRESENT/OTHER . . . . 3 (SKIP TO 321)

MINOR RESPONDENT CONSENT FOR ANEMIA TEST

MINOR RESPONDENT CONSENT	319	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 we take your blood. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF PARENT/RESPONSIBLE ADULT) 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 or no. It is up to you to decide. Will you take the anemia test?		
	320	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN) NOT PRESENT/OTHER 3

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

PARENTAL/RESPONSIBLE ADULT CONSENT FOR DBS COLLECTION

PARENT — RESP ADULT CONSENT

321 ASK CONSENT FOR DBS COLLECTION FROM PARENT/ADULT.

As part of the survey we also are asking people all over the country to take an HIV test. HIV is the virus that can lead to AIDS. The HIV test is being done to see how many people have HIV.

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 we take your blood. 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 MINOR)'s test results either. If (NAME OF MINOR) 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.

Do you have any questions?
You can say yes or no. It is up to you to decide.
Will you allow (NAME OF MINOR) to give blood for the HIV testing?

322 CIRCLE THE CODE, SIGN YOUR NAME, AND ENTER YOUR FIELDWORKER NUMBER.

MAN 1	MAN 2	MAN 3
GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 ← _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 ← _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 ← _____ (SIGN AND ENTER YOUR FIELDWORKER NUMBER) ☐☐☐☐ (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)

MINOR RESPONDENT CONSENT FOR DBS COLLECTION

MINOR RESPONDENT CONSENT

323 ASK CONSENT FOR DBS COLLECTION FROM MINOR RESPONDENT.

As part of the survey we also are asking people all over the country to give blood for HIV testing. HIV is the virus that can lead to AIDS. The HIV testing is being done to see how many people have HIV.

For the HIV testing, we need a few (more) drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. No names will be attached so we will not be able to tell you the test results. No one else will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of [nearby] facilities offering counseling and testing for HIV. I will also give you a voucher for free services for you (and for your partner if you want) that you can use at any of these facilities.

Do you have any questions?
You can say yes or no. It is up to you to decide.
Will you give blood for the HIV testing?

324 CIRCLE THE CODE AND SIGN YOUR NAME.

MAN 1	MAN 2	MAN 3
GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 ← _____ (SIGN) (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 ← _____ (SIGN) (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 ← _____ (SIGN) (IF REFUSED, SKIP TO 329) NOT PRESENT/OTHER . . . . 3 → (SKIP TO 329)

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____

PARENTAL/RESPONSIBLE ADULT CONSENT FOR ADDITIONAL TESTING

PARENT — RESP ADULT CONSENT

325	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/ADULT.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. The blood sample will not have any name or other data attached that could identify (NAME OF MINOR). You do not have to agree. If you do not want the blood sample stored for additional testing, (NAME OF MINOR) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?		
326	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 329)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 329)	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 _____ (SIGN) (IF REFUSED, SKIP TO 329)

MINOR RESPONDENT CONSENT FOR ADDITIONAL TESTING

MINOR RESPONDENT CONSENT

327	ASK CONSENT FOR ADDITIONAL TESTING FROM MINOR RESPONDENT.	We ask you to allow CSA and THE Ethiopian Public Health Institute to store part of the blood sample at the laboratory for additional tests such as Hepatitis B or C, Measles and/or Rubella. 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?		
328	CIRCLE THE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)	GRANTED . . . . . 1 MINOR RESPONDENT REFUSED . . . . . 2 _____ (SIGN)

WEIGHT, HEIGHT, HEMOGLOBIN MEASUREMENT AND HIV TESTING FOR MEN AGE 15-59

		MAN 1	MAN 2	MAN 3
	NAME FROM COLUMN 2.	NAME _____	NAME _____	NAME _____
329	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
330	ADDITIONAL TESTS.	IF ADULT RESPONDENT, CHECK 315; IF MINOR RESPONDENT, CHECK 326 AND 328. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.	IF ADULT RESPONDENT, CHECK 315; IF MINOR RESPONDENT, CHECK 326 AND 328. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.	IF ADULT RESPONDENT, CHECK 315; IF MINOR RESPONDENT, CHECK 326 AND 328. IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.
331	RECORD HEMOGLOBIN 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
332	PLACE 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.
333	GO BACK TO 302 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE; IF NO MORE MEN, END INTERVIEW.			

FIELDWORKER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING BIOMARKERS

SUPERVISOR'S OBSERVATIONS

EDITOR'S OBSERVATIONS

DEMOGRAPHIC AND HEALTH SURVEY
HEALTH FACILITY QUESTIONNAIRE

ETHIOPIA
CENTRAL STATISTICAL AGENCY (CSA)

IDENTIFICATION

NAME OF HEALTH FACILITY _____

LOCALITY OF THE HEALTH FACILITY _____

NAME OF CHILD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

LINE NUMBER OF WOMAN . . . . . | | |

BIRTH HISTORY NUMBER OF CHILD . . . . . | | |

CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) . . . . . | | |

MONTH | | |

YEAR | | | | |

HEALTH FACILITY VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY | | MONTH | | YEAR | | | |
INTERVIEWER'S NAME	_____	_____	_____	INT. NO. | | | |
RESULT*	_____	_____	_____	RESULT* |
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS |
TIME	_____	_____		

*RESULT CODES:
1 COMPLETED
2 FACILITY NOT FOUND
3 HEALTH FACILITY PERMANENTLY CLOSED
4 TOO FAR TO BE VISITED
5 HEALTH FACILITY TEMPORARILY CLOSED
6 HEALTH FACILITY PERSONNEL NOT AVAILABLE
7 ACCESS TO RECORDS DENIED
8 RECORD NOT FOUND FOR THIS CHILD
9 OTHER _____ SPECIFY

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with Central Statistical Agency (CSA). We are conducting a survey about health and other topics all over Ethiopia. As part of this survey, we would like to visit health facilities in which children born in January 2005 or later got vaccinated. We have already recieved consent from the parent of the child, and with your your permission, we would like to copy the vaccination records from the health cards to the questionnaire for the following child.

In case you need more information about the survey, you may contact the person listed on the letter that has already been shown to you.

Do you have any questions?
May I have access to the vaccination records of (CHILD'S NAME)?

SIGNATURE OF HEALTH FACILITY INTERVIEWER _____ DATE _____

HEALTH FACILITY GIVES ACCES . . 1 ↓

HEALTH FACILITY PERSONNEL DENIES ACCES . . 2 → END

SECTION 1. HEALTH FACILITY FORM

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOURS . . . . . ☐☐ MINUTES . . . . . ☐☐	
102	Have you located the vaccination records of (NAME OF CHILD'S NAME IN 1505) in the WOMAN'S QUESTIONNAIRE?	YES CHILD'S INFORMATION SEEN ..... 1 → 103 YES VACCINATION RECORDS LOCATED , BUT NO RECORD OF CHILD'S INFORMATION 2 NO, VACCINATION RECORDS NOT FOUND .... 3 → 105 OTHER _____ 96 (SPECIFY)	
	IMMUNIZATION RECORDS FROM HEALTH FACILITY		
103	COPY CHILD'S DATE OF BIRTH (DAY, MONTH, AND YEAR) FROM HEALTH FACILITY RECORD.	DAY ..... ☐☐ MONTH ..... ☐☐ YEAR ..... ☐☐☐☐	
104	COPY DATA ABOUT EACH VACCINE FROM IMMUNIZATION RECORDS WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.		

	DAY	MONTH	YEAR
BCG	☐☐	☐☐	☐☐☐☐
ORAL POLIO VACCINE (OPV) 0 (BIRTH DOSE)	☐☐	☐☐	☐☐☐☐
ORAL POLIO VACCINE (OPV) 1	☐☐	☐☐	☐☐☐☐
ORAL POLIO VACCINE (OPV) 2	☐☐	☐☐	☐☐☐☐
ORAL POLIO VACCINE (OPV) 3	☐☐	☐☐	☐☐☐☐
DPT-HEP.B-HIB (PENTAVALENT) 1	☐☐	☐☐	☐☐☐☐
DPT-HEP.B-HIB (PENTAVALENT) 2	☐☐	☐☐	☐☐☐☐
DPT-HEP.B-HIB (PENTAVALENT) 3	☐☐	☐☐	☐☐☐☐
PNEUMOCOCCAL 1	☐☐	☐☐	☐☐☐☐
PNEUMOCOCCAL 2	☐☐	☐☐	☐☐☐☐
PNEUMOCOCCAL 3	☐☐	☐☐	☐☐☐☐
ROTAVIRUS 1	☐☐	☐☐	☐☐☐☐
ROTAVIRUS 2	☐☐	☐☐	☐☐☐☐
MEASLES	☐☐	☐☐	☐☐☐☐
VITAMIN A (MOST RECENT)	☐☐	☐☐	☐☐☐☐

105	In what type of facility did the visit take place? IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____	PUBLIC SECTOR . . . . . 1 NGO . . . . . 2 PRIVATE SECTOR . . . . . 3 OTHER _____ 96 (SPECIFY)	
106	RECORD THE TIME.	HOURS . . . . . ☐☐ MINUTES . . . . . ☐☐	

ADDITIONAL DHS PROGRAM RESOURCES

The DHS Program Website – Download free DHS reports, standard documentation, key indicator data, and training tools, and view announcements.	DHSprogram.com	
STATcompiler – Build custom tables, graphs, and maps with data from 90 countries and thousands of indicators.	Statcompiler.com	
DHS Program Mobile App – Access key DHS indicators for 90 countries on your mobile device (Apple, Android, or Windows).	Search DHS Program in your iTunes or Google Play store	
DHS Program User Forum – Post questions about DHS data, and search our archive of FAQs.	userforum.DHSprogram.com	
Tutorial Videos – Watch interviews with experts and learn DHS basics, such as sampling and weighting, downloading datasets, and how to read DHS tables.	www.youtube.com/DHSProgram	
Datasets – Download DHS datasets for analysis.	DHSprogram.com/Data	
Spatial Data Repository – Download geographically-linked health and demographic data for mapping in a geographic information system (GIS).	spatialdata.DHSprogram.com	

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Pinterest www.pinterest.com/ DHSprogram		**LinkedIn** www.linkedin.com/ company/dhs-program	
YouTube www.youtube.com/DHSprogram		**Blog** Blog.DHSprogram.com	