

Ethiopia



Demographic and
Health Survey

2016

HIV Prevalence Report



FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIA

Demographic and Health Survey 2016

HIV Report

Central Statistical Agency
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The DHS Program
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ACRONYMS AND ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome
ANC	antenatal care
CAPI	computer-assisted personal interview
CHTTS	CSPro HIV test tracking system
CSA	Central Statistical Agency
CSPro	Census Survey Program
DBS	dried blood spots
EA	enumeration area
EDHS	Ethiopia Demographic and Health Survey
EPHC	Ethiopian Population and Housing Census
EPHI	Ethiopian Public Health Institute
HEW	health extension worker
HF	health facility
HIV	human immunodeficiency virus
IFSS	internet file-streaming system
MOFED	Ministry of Finance and Economic Development
MoH	Ministry of Health
PBS	Promoting Basic Services (PROJECT)
PMTCT	prevention of mother-to-child transmission
SNNPR	Southern Nations, Nationalities, and People's Region
STDs	sexually transmitted diseases
STIs	sexually transmitted Infections
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	voluntary counselling and testing
WHO	World Health Organization

This report presents findings on HIV prevalence from the 2016 Ethiopia Demographic and Health Survey (EDHS). The full EDHS report, disseminated in August 2017, is at: <http://www.dhsprogram.com/pubs/pdf/FR328/FR328.pdf>, or <http://www.csa.gov.et/survey-report/category/355-dhs-2016.html>.

1.1 BACKGROUND

The 2016 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 18 January to 27 June 2016.

The primary objective of the 2016 EDHS was 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. A detailed description of the objectives and methodology of the survey is presented in the 2016 EDHS final report.

The 2016 EDHS is the third EDHS survey to include HIV testing. This report presents information on the participation rates for HIV testing among eligible respondents, the prevalence of HIV infection among those tested, and the factors associated with HIV infection.

1.2 HIV TESTING

Interviewers collected capillary blood from a finger prick in 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. Under this protocol, the HIV testing is anonymous, and the results are not returned to the respondents; however, the HIV testing data can be merged with the anonymized survey data file via a unique identifier to allow analyses of HIV status by sociodemographic characteristics.

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. A unique barcode label was affixed to the filter paper card, a duplicate label was attached to the Biomarker Questionnaire, and 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.

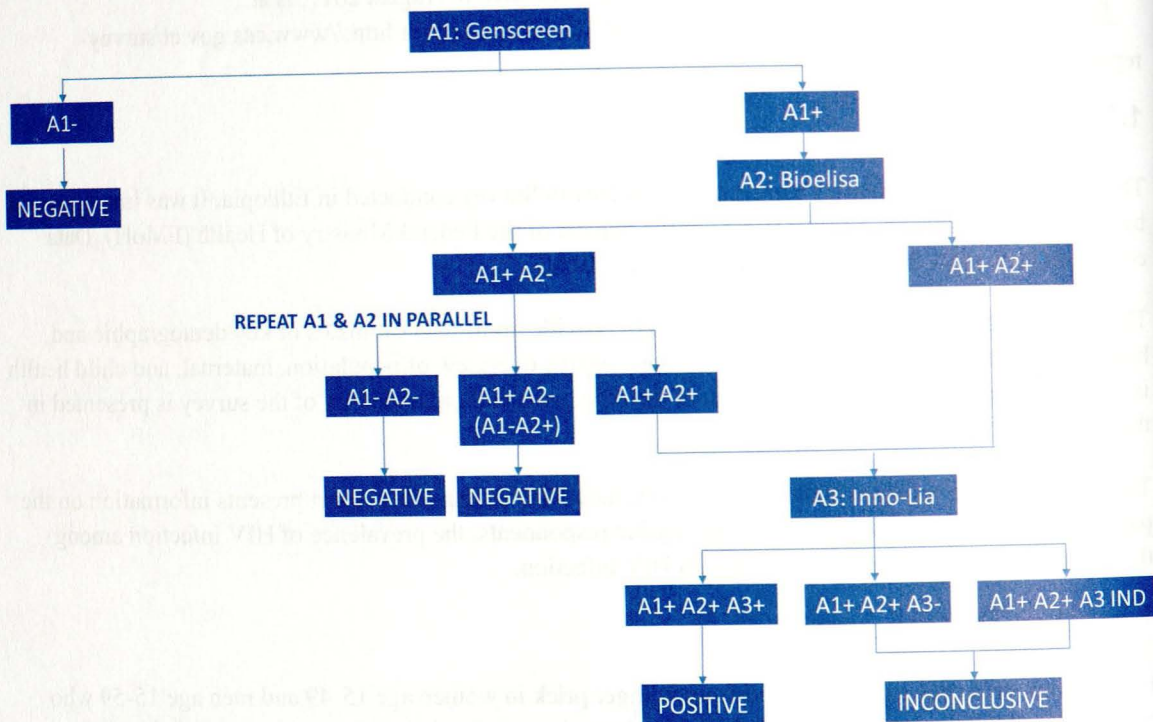
Respondents were also asked whether they would consent to the laboratory store their blood sample for future testing to detect hepatitis B and C, rubella, and measles. If respondents did not consent to additional future testing of their blood sample, their refusal was recorded on the Biomarker Questionnaire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

1.3 ALGORITHM FOR CENTRALIZED TESTING OF HIV

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 HIV testing algorithm used in the 2016 EDHS is based on the low prevalence HIV diagnostic algorithm recommended in the 2015 WHO guidelines (WHO 2015). All samples are first tested with Genscreen ULTRA Ag/Ab (Bio-Rad, Marnes La Coquette, France), a fourth generation, enzyme-linked immunoassay (ELISA I). If this assay is negative, the sample is classified as HIV negative. All samples testing positive on the ELISA I are subjected to a second fourth generation ELISA (ELISA II), Bioelisa HIV 1+2 Ag/Ab combination (Biokit, Barcelona, Spain). For internal quality control (IQC) purposes, 5% of the samples that test negative on ELISA I are also subjected to the ELISA II; however, the results of the IQC testing are not taken into account in the final classification of the samples.

If the first and second assays are both positive, the sample is tested on a line immunoassay, INNO-Lia HIV I/II Score (Fujirebio Europe, Ghent, Belgium). If INNO-Lia is positive, the sample is classified as HIV positive. If INNO-Lia is negative or indeterminate, the sample is classified as “Inconclusive,” and is considered to be HIV negative in the calculation of HIV prevalence. If the results of the ELISA I and ELISA II are discordant, the two tests are repeated in parallel. If the two assays resolve to negative/negative or if the two test results remain discordant, the sample is classified as negative. Concordant positive results on ELISA I and ELISA II are tested on INNO-Lia, and the final classification assigned as described above.

1.4 DATA PROCESSING AND QUALITY CONTROL

Several quality control procedures are employed throughout the testing process. Before testing of the 2016 EDHS survey samples began, EPHI and The DHS Program optimized the HIV testing procedures. First, to ensure that the testing procedures, especially those used to adapt the three assays for use on DBS samples would correctly identify the HIV status of respondents’ DBS samples, a challenge panel of well-classified

samples was obtained from the Centers for Disease Control and Prevention in Atlanta, Georgia, USA. Laboratory technologists tested the challenge panel samples using each of the three HIV assays without knowing the true status of the samples, and the test results were then compared with the known results for the challenge panel. Second, as mentioned previously, a portion of ELISA I negative samples were retested on ELISA II to assess assay agreement. Third, to monitor the performance of the HIV assays to correctly classify the HIV status of respondents' samples, HIV negative, HIV low positive, and HIV high positive dried blood spot control materials provided by the CDC were included on each test plate, and their serological classification was compared with the expected value.

Test results are exported electronically from the ELISA plate reader into a lab data management program developed by The DHS Program, the CPro HIV Test Tracking System (CHTTS). CHTTS tracks the results of each sample on each assay, and laboratory technologists, through the program's user interface, ensure that each sample receives exactly the tests needed to render a final HIV status according to the logic of the testing algorithm. As the results of each ELISA plate are produced by the microplate reader and imported into CHTTS, the technologist must review the results and decide whether to save or cancel the plate. If the technologist cancels the results for a plate of specimens, the specimens must be retested on that assay. The saved results of each plate must also be reviewed and validated by the laboratory supervisor. CHTTS is also programmed to produce error messages if the optical density values of the negative controls do not fall within the range specified by the manufacturer or if the percentage of samples on the plate that are positive exceed a limit set by The DHS Program for that survey.

After the HIV testing was completed, the laboratory results were linked to the survey data file via the anonymous unique bar code. Following the linking of laboratory results to the survey data file, sample weights were calculated and applied. For a complete description of the procedure used to calculate sample weights, see Appendix A in the 2016 Ethiopia DHS final report (CSA and ICF 2016).

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% of women and 43% of 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 age 15-49 are circumcised.

2.1 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,

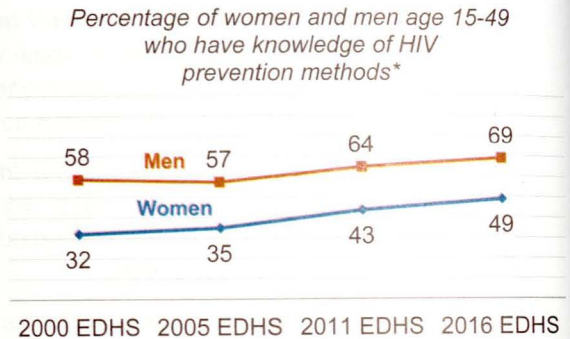
number of sexual partners, condom use, self-reported HIV testing, prevention of mother-to-child transmission (PMTCT), and voluntary medical male circumcision in Ethiopia. The second section presents selected indicators for individuals age 15-24.

2.2 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 2.1).

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 2.1).

Figure 2.1 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 2.2 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.

2.3 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 2.3 and Figure 2.2).

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).

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 2.3).

Figure 2.2 Knowledge of mother-to-child transmission (MTCT)

Percentage of women and men age 15-49

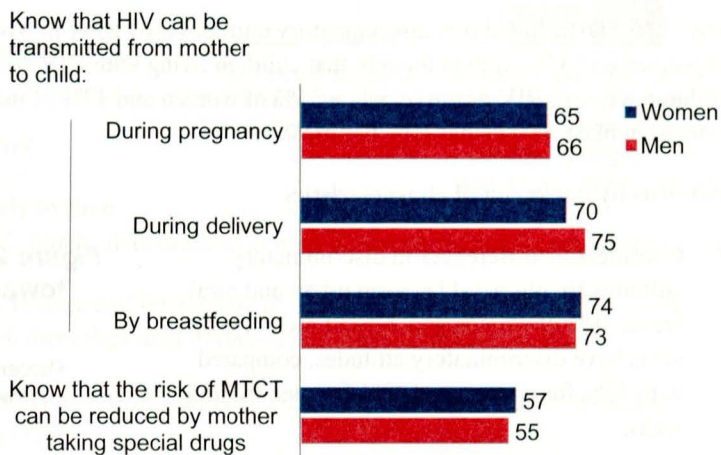
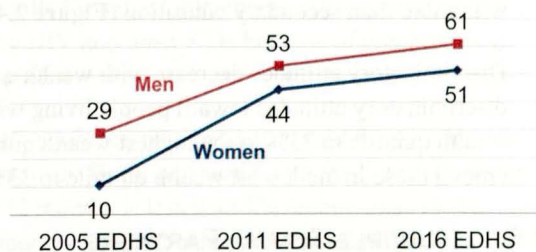


Figure 2.3 Trends in knowledge of mother-to-child transmission (MTCT)

Percentage of women and men age 15-49 who know that the risk of MTCT can be reduced by mother taking special drugs



2.4 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.

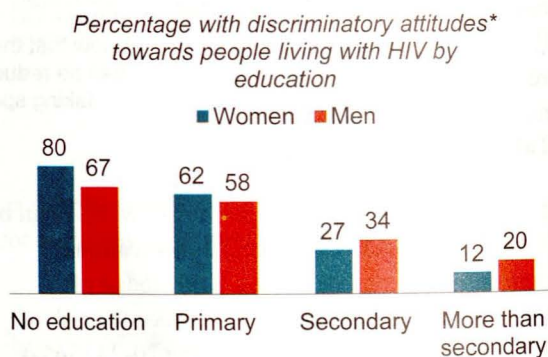
Sample: Women and men age 15-49

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 2.4).

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 2.4).
- 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.

Figure 2.4 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

2.5 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 2.5.1 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 2.5.2). 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 2.5).

The mean number of lifetime sexual partners is 1.6 among women and 2.9 among men.

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).

2.6 PAID SEX

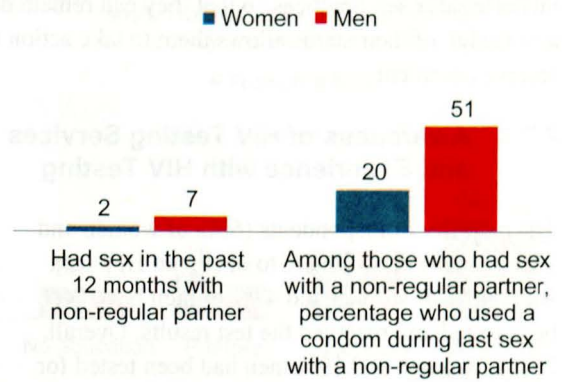
The act of paying for sex introduces an uneven negotiating ground for safer sexual intercourse. Transactional sex is the exchange of money, favours, or gifts for sexual intercourse. This type of sexual intercourse is associated with a greater risk of contracting HIV and other STIs because of compromised 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 2.6).

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.

Figure 2.5 Sex and condom use with non-regular partners

Percentage of women and men age 15-49



2.7 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.

2.7.1 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 2.7.1 and 2.7.2, and Figure 2.6).

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 2.7).

Figure 2.6 HIV testing

Percentage of women and men age 15-49

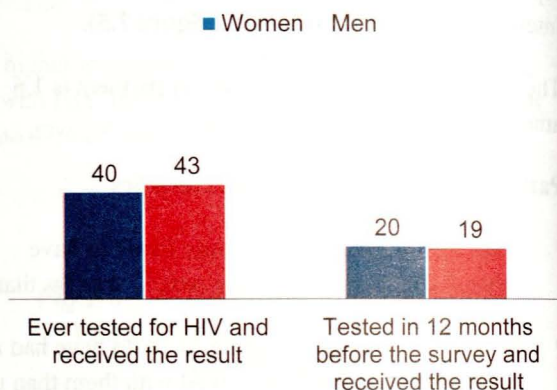
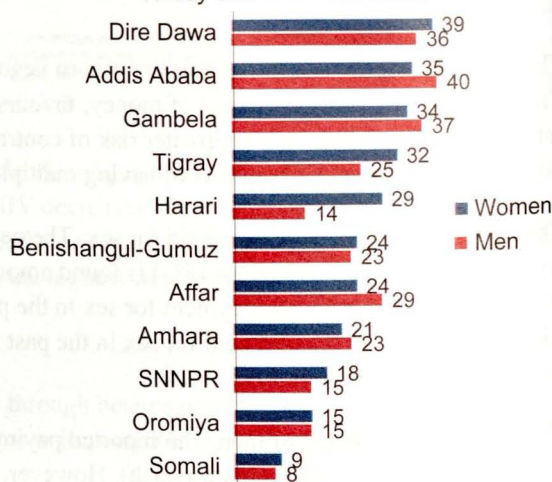


Figure 2.7 Recent HIV testing by region

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 2.8**).

Figure 2.8 Recent HIV testing by education

Percentage of women and men who were tested for HIV in the year before the survey and received results

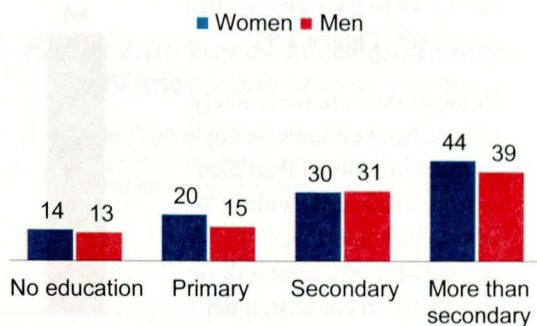


Table 2.8 presents information on self-reported HIV testing among currently married women age 15-49, before getting married or living with a partner.

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 2.8**.

2.7.2 HIV Testing of Pregnant Women

Table 2.9 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.

2.8 MALE CIRCUMCISION

Table 2.10 shows that 91% of men age 15-49 have been circumcised; 17% by a health professional, and 71% by traditional practitioners or family friends.

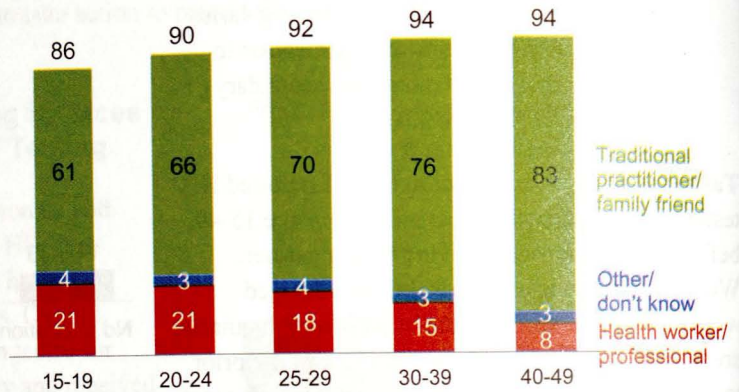
Trends: The percentage of men who are circumcised remained essentially the same in 2005 (93%), 2011 (92%), and 2016 (91%).

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 2.9).

Figure 2.9 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%).

2.9 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 2.11). 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 (KTable2_12).

2.10 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.

2.10.1 Knowledge

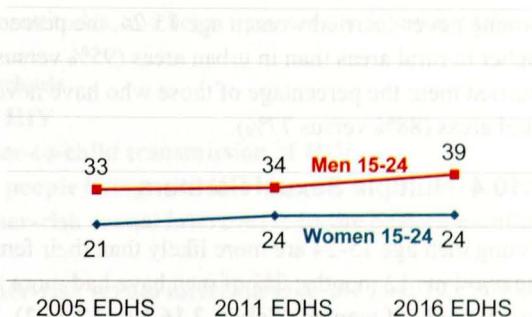
Knowledge of HIV transmission is crucial to enabling people to avoid HIV infection. This is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours.

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 2.13).

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 2.10).

Figure 2.10 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.

2.10.2 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 2.14 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 age 18 (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.

2.10.3 Premarital Sex

Table 2.15 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%).

2.10.4 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 2.16.1** and **2.16.2**). 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.

2.10.5 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 2.17** 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.

2.10.6 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 2.18**).

- 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 2.1 Knowledge of HIV prevention methods**
- **Table 2.2 Comprehensive knowledge about HIV**
- **Table 2.3 Knowledge of prevention of mother-to-child transmission of HIV**
- **Table 2.4 Discriminatory attitudes towards people living with HIV**
- **Table 2.5.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women**
- **Table 2.5.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men**
- **Table 2.6 Payment for sexual intercourse and condom use at last paid sexual intercourse**
- **Table 2.7.1 Coverage of prior HIV testing: Women**
- **Table 2.7.2 Coverage of prior HIV testing: Men**
- **Table 2.8 Coverage of prior HIV testing among married women**
- **Table 2.9 Pregnant women counselled and tested for HIV**
- **Table 2.10 Male circumcision**
- **Table 2.11 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms**
- **Table 2.12 Women and men seeking treatment for STIs**
- **Table 2.13 Comprehensive knowledge about HIV among young people**
- **Table 2.14 Age at first sexual intercourse among young people**
- **Table 2.15 Premarital sexual intercourse among young people**
- **Table 2.16.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months among young people: Women**
- **Table 2.16.2 Multiple sexual partners and higher-risk sexual behaviour in the past 12 months among young people: Men**
- **Table 2.17 Recent HIV tests among young people**
- **Table 2.18 HIV tests among children**

Table 2.1 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

Background characteristic	Women				Men			
	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms and limiting sexual intercourse to one uninfected partner ^{1,2}	Number of women	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms and limiting sexual intercourse to one uninfected partner ^{1,2}	Number of men
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 2.2 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 misconceptions ¹	Percentage with a comprehensive 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 2.3 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:				Percentage who know that the risk of MTCT can be reduced by mother taking special drugs	Number of respondents
	During pregnancy	During delivery	By breast-feeding	By all three means		
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 2.4 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

Background characteristic	Women				Men			
	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 2.5.1 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

Background characteristic	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	
	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 2.5.2 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

Background characteristic	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		
	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 intercourse	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 2.6 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

Age	Among all men:			Among men who paid for sex in the past 12 months:	
	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 2.7.1 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	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
	Percentage who know where to obtain an HIV test	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 2.7.2 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	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
	Percentage who know where to get an HIV test	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 2.8 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 2.9 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 2.10 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
Somali	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 2.11 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

Background characteristic	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	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 intercourse
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 2.12 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 2.13 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

Background characteristic	Women age 15-24		Men age 15-24	
	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 2.1, and 2.2.

Table 2.14 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

Background characteristic	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
	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 2.15 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

Background characteristic	Women age 15-24		Men age 15-24	
	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 2.16.1 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

Background characteristic	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	
	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 2.16.2 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

Background characteristic	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	
	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 2.17 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

Background characteristic	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:	
	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 2.18 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

Key Findings

- **HIV prevalence:** Among women and men age 15-49 in Ethiopia, 0.9% are living with HIV; HIV prevalence is higher among women than men (1.2% versus 0.6%).
- **HIV prevalence by residence:** HIV prevalence is seven times higher in urban areas than in rural areas (2.9% versus 0.4%).
- **HIV prevalence by region:** HIV prevalence ranges from less than 0.1% in Somali to 4.8% in Gambela.
- **HIV prevalence among young people:** HIV prevalence is 0.3% among young women and 0.1% among young men age 15-24.
- **Prior HIV testing by current HIV status:** Among women and men who are living with HIV, 78.7% have ever been tested for HIV and received the test result.

The 2016 EDHS included HIV serology testing for women age 15-49 and men age 15-59. The specimen collection and HIV testing procedures are described in this report's introductory chapter.

3.1 RESPONSE RATES FOR HIV TESTING

All women age 15-49 and men age 15-59 were eligible to participate in HIV testing. Slightly more than 80% of eligible women and men age 15-49 were interviewed, consented to the HIV test, and had a blood specimen collected and tested for HIV (Table 3.1). Five percent of women and men age 15-49 who were eligible for HIV testing were interviewed but refused to provide a blood specimen, 3% of women and men were interviewed but were absent for blood collection after repeated attempts to contact them, and 10% were not interviewed. A higher proportion of women than men participated in the HIV testing (87% versus 76%).

HIV testing response rate

Percentage of women and men who are interviewed and tested for HIV as part of the DHS survey

Sample: Women and men who are in households selected for HIV testing and are within the eligible age range for HIV testing based on information collected in the Household Questionnaire.

The HIV testing response rate is calculated as follows:

Women and men age 15-49 who were interviewed and whose blood sample underwent the complete HIV testing algorithm with a final result of positive, negative, or indeterminate.

All women and men age 15-49 in households selected for HIV testing

Trends: Participation in HIV testing is slightly lower in the 2016 EDHS than in the 2011 EDHS. The HIV test response rate among women and men age 15-49 decreased from 86% to 82%. The decrease in participation among men (82% to 76% is greater than the decrease among women (89% to 87%).

Patterns by background characteristics

- Among men, the HIV testing response rate is higher in rural areas than in urban areas (81% versus 67%). For women, the response rate is slightly higher in rural areas than in urban areas (90% versus 82%) (Table 3.1).
- By region, the HIV response rate is highest for women and men in Amhara (94%) and lowest in Harari (64%).
- A lower proportion of men with secondary and more than secondary education consented to HIV testing (71% for both) than men with no education (76%) or primary education (80%). A similar pattern of participation according to education level was observed among women (Table 3.2).

3.2 HIV PREVALENCE

3.2.1 HIV Prevalence by Age, Sex, and Region

HIV prevalence

Percentage of women and men testing positive for HIV as part of the DHS survey, according to the testing algorithm described in Chapter 1

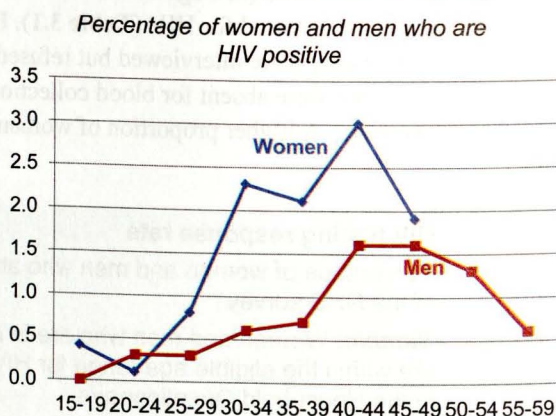
Sample: Women and men age 15-49 who are tested for HIV as part of the survey

Table 3.3 shows that 0.9%, (CI [0.7%-1.1%]), of women and men age 15-49 in Ethiopia are HIV positive. HIV prevalence is higher among women than men (1.2% versus 0.6%).

Among women, HIV prevalence generally increases with age, affecting 0.4% of women age 15-19 and 3.0% of women age 40-44, before declining to 1.9% among those age 45-49. Among men, HIV prevalence increases from less than 0.1% among those age 15-19 to 1.6% among men age 40-49, and then decreases to 0.6% among men age 55-59 (Figure 3.1).

Trends: The HIV testing algorithm for the 2016 EDHS differs from the algorithm used in the 2005 and 2011 EDHS surveys. The earlier surveys used an algorithm in which samples with positive results on two ELISAs were classified as positive (Central Statistical Agency [Ethiopia] and ORC Macro 2005; Central Statistical Agency [Ethiopia] and ICF International 2012). As described in Chapter 1, the algorithm for the 2016 survey requires that samples with positive results on two ELISAs must also be found positive on INNO-Lia to be classified as a final positive. This change responds to concerns that the previous HIV testing algorithm produced too many false positives and overestimated HIV prevalence because of the reliance on only two enzyme immunoassays (ELISAs) to classify specimens as HIV positive (CDC 2014; UNAIDS/WHO 2015). However, in the case of the 2016 EDHS, 99% of the samples with positive results on the two ELISAs were confirmed positive on INNO-Lia, so the use of a new testing algorithm in the 2016 EDHS does not affect the integrity of the trend in HIV prevalence over time.

Figure 3.1 HIV prevalence by age

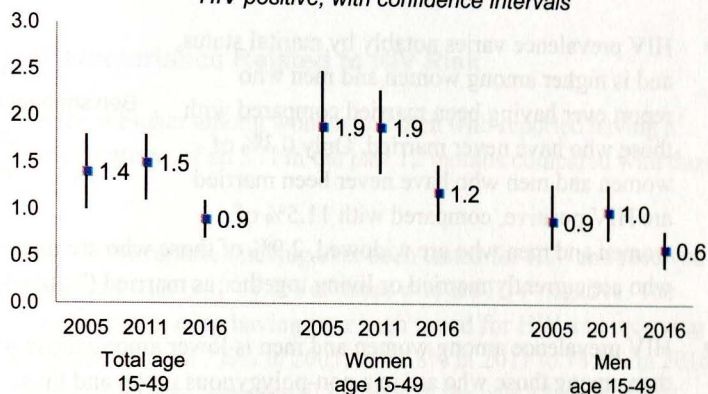


The HIV prevalence among women and men age 15-49 age has decreased between 2011 and 2016 from 1.5%, (CI [1.3%-1.7%]), to 0.9%, (CI [0.7%-1.1%]). The prevalence was 1.4%, (CI [1.1%-1.8%]), in 2005.

The results in **Figure 3.2**, which show the HIV prevalence estimates for all three EDHS surveys, indicate that HIV prevalence among women and men age 15-49 is likely to have decreased slightly between 2005 and 2016. Statistical testing indicates that the decrease in HIV prevalence among women and men age 15-49 from 2005 to 2016 is statistically significant (at $p < 0.05$), as is the decrease between 2011 and 2016. Among women age 15-49, the decreases in HIV prevalence between 2005 and 2016, and between 2011 and 2016, are also statistically significant. Among men, trends in HIV prevalence over time are less definitive. The decrease in HIV prevalence among men age 15-49 between 2005 and 2016 is not statistically significant; however, the decrease between 2011 and 2016 is statistically significant.

Figure 3.2 Trends in HIV prevalence

Percentage of women and men age 15-49 who are HIV positive, with confidence intervals



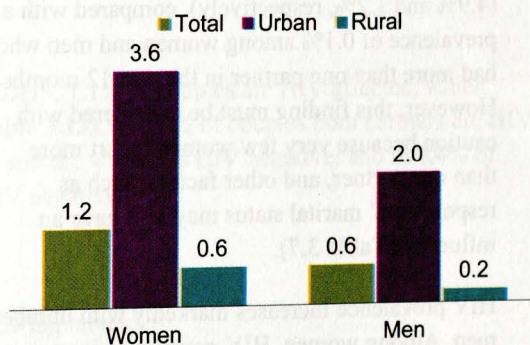
Trends in HIV prevalence by region are presented in **Table 3.4**, which shows decreasing HIV prevalence across all regions in Ethiopia between 2011 and 2016.

Patterns by background characteristics

- Among women and men combined, HIV prevalence is seven times higher in urban areas than in rural areas (2.9% versus 0.4%) (**Table 3.5**). HIV prevalence is 3.6% among women in urban areas compared with 0.6% among women in rural areas. The corresponding percentages for men are 2.0% and 0.2%, respectively (**Figure 3.3**).
- By region, among women and men combined, HIV prevalence is higher in Gambela (4.8%), Addis Ababa (3.4%), Dire Dawa (2.5%), and Harari (2.4%) than in other regions (**Figure 3.4**).

Figure 3.3 HIV prevalence by residence and sex

Percentage of women and men age 15-49 who are HIV positive



- Women in the highest wealth quintile have a higher HIV prevalence (3.0%) than women in lower wealth quintiles (1.0% or less) (Table 3.5).

Patterns by other sociodemographic and health characteristics

- HIV prevalence varies notably by marital status, and is higher among women and men who report ever having been married compared with those who have never married. Only 0.3% of women and men who have never been married are HIV positive, compared with 11.5% of women and men who are widowed, 2.9% of those who are divorced or separated, and 0.8% of those who are currently married or living together as married (Table 3.6).
- HIV prevalence among women and men is lower among those who report being in a polygynous union than among those who are in a non-polygynous union and those who are not currently in union (0.2% versus 0.9% and 1.0%, respectively).

3.2.2 HIV Prevalence by Sexual Risk Behaviour

Among women and men, HIV prevalence is lowest for those who first had sex after the age of 20.

Among women, the highest prevalence is for those who reported first sexual intercourse at age 18-19 (1.9%), and for men age 16-17 (1.4%) (Table 3.7).

- HIV prevalence is highest for both women and men who report no partner in the past 12 months (4.9% and 1.2%, respectively), compared with a prevalence of 0.1% among women and men who had more than one partner in the past 12 months. However, this finding must be considered with caution because very few women report more than one partner, and other factors, such as respondents' marital status may also have an influence (Table 3.7).
- HIV prevalence increases markedly with number of lifetime sexual partners among both women and men. Among women, HIV prevalence increases from 0.8% among those with one lifetime sexual partner to 7.0% among those with 10 or more, and increases from 0.3% among men with one lifetime sexual partner to 2.9% among those with 10 or more (Figure 3.5).
- Among HIV positive respondents who had sex in the past 12 months, a higher proportion of those used a condom (3.2%) than those who did not use a condom (0.8%). This proportion is more than 10 times higher among women than men (13.7% versus 1.1%). It should be emphasized that it is not possible to know from the data whether reported condom use occurred before or after HIV infection. This finding could indicate that people who know they are HIV positive are using condoms to protect their sexual partners (Table 3.7).

Figure 3.4 HIV prevalence by region

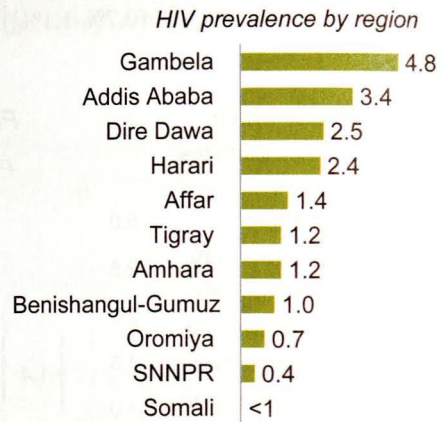
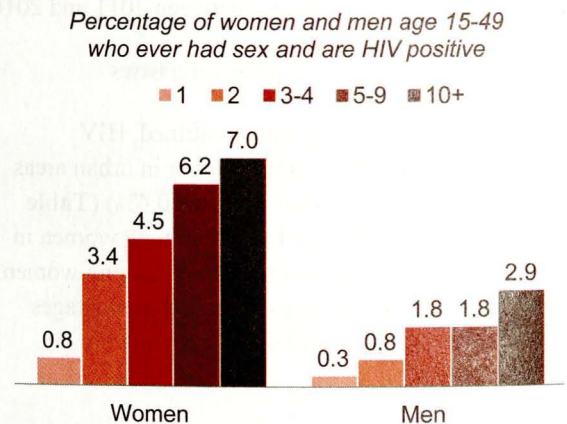


Figure 3.5 HIV prevalence by number of lifetime partners



3.2.3 HIV Prevalence among Young People

Tables 3.8 and **3.9** show HIV prevalence among young people age 15-24 according to background characteristics and sexual risk behaviours. Overall, 0.2% of young women and men age 15-24 are HIV positive. With this statistically low level of prevalence and the sampling errors inherent in the survey, it is very difficult to discern patterns by background characteristics. Among young women and men combined, prevalence ranges from less than 0.1% in Somali and Benishangul-Gumuz to 1.3% in Gambela (**Table 3.8**).

3.2.4 HIV Prevalence by Other Characteristics Related to HIV Risk

- As shown in **Table 3.10**, HIV prevalence is higher among women and men who reported having a sexually transmitted infection (STI) or symptoms of an STI in the past 12 months compared with those who did not (2.3% versus 1.2%).
- Among HIV-positive women and men, 78.7% reported having ever been tested for HIV and received the result of their most recent test, compared with only 41.2% of those who are HIV negative. The percentage of HIV-positive women and men reporting having ever been tested for HIV and receiving the result of the most recent test has improved from 7.6% in 2005, to 71.8% in 2011 to 78.8% in 2016. Forty-one percent of HIV-positive women and men were tested for HIV in the past 12 months and received the result of their most recent HIV test, and 37.4% were tested more than 12 months ago and received the result. Four percent of HIV-positive women and men had been tested for HIV but did not receive the result of their most recent test, and 17.7% have never been tested for HIV (**Table 3.11**).
- As shown in **Table 3.12**, HIV prevalence is 0.2% among men age 15-49 who have not been circumcised and 0.6% among men who have been circumcised (traditional and medical). However, it is important to note that HIV prevalence rates among men age 15-59 are nearly identical for circumcised and uncircumcised men. These findings are difficult to interpret and may be affected by sampling error. It is interesting to note that in Gambela, HIV prevalence is higher among uncircumcised men (6.9%) than among men who were circumcised by a medical practitioner (1.2%) and those who were circumcised by a traditional practitioner (3.1%).

3.2.5 HIV Prevalence among Couples

Of the cohabitating couples interviewed in the 2016 EDHS, 1.1% of couples are HIV affected, which means that one or both members are HIV positive (**Table 3.13**). In 0.3% of couples both partners are HIV positive; in 0.4% of couples, the man is HIV positive, and the woman is HIV negative; and in 0.4% of couples, the woman is HIV positive and the man is HIV negative.

LIST OF TABLES

For more information on HIV prevalence, see the following tables:

- Table 3.1** Coverage of HIV testing according to residence and region
- Table 3.2** Coverage of HIV testing according to selected background characteristics
- Table 3.3** HIV prevalence according to age
- Table 3.4** HIV prevalence by region and survey
- Table 3.5** HIV prevalence according to socioeconomic characteristics
- Table 3.6** HIV prevalence according to sociodemographic characteristics
- Table 3.7** HIV prevalence according to sexual behaviour
- Table 3.8** HIV prevalence among young people according to background characteristics
- Table 3.9** HIV prevalence among young people according to sexual behaviour
- Table 3.10** HIV prevalence according to other characteristics
- Table 3.11** Prior HIV testing by current HIV status

Table 3.12 HIV prevalence by male circumcision

Table 3.13 HIV prevalence among couples

(The following table content is extremely faint and largely illegible. It appears to be a multi-page table with several columns and rows, likely containing prevalence percentages and statistical data. The text is mirrored and difficult to read.)

Table 3.1 Coverage of HIV testing according to residence and region

Percent distribution of women and men, age 15-49 and eligible for HIV testing, by testing status, according to residence and region (unweighted), Ethiopia DHS 2016

Residence and region	Testing status								Total	Number
	DBS tested ¹		Refused to provide blood		Not available at the time of blood collection		Other/missing ²			
	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed		
WOMEN 15-49										
Residence										
Urban	82.0	0.2	7.8	1.7	3.5	4.0	0.2	0.6	100.0	5,720
Rural	89.9	0.1	2.9	0.7	2.1	3.2	0.3	0.8	100.0	10,863
Region										
Tigray	91.8	0.1	3.0	0.8	1.7	1.8	0.1	0.7	100.0	1,741
Affar	87.2	0.3	4.4	0.4	2.0	3.7	1.3	0.7	100.0	1,189
Amhara	96.2	0.1	1.1	0.1	0.5	0.9	0.1	1.0	100.0	1,754
Oromiya	90.9	0.2	2.8	1.3	1.9	2.4	0.1	0.5	100.0	1,978
Somali	84.5	0.3	6.4	1.1	2.4	4.6	0.2	0.5	100.0	1,488
Benishangul-Gumuz	88.0	0.2	3.2	1.2	4.2	2.2	0.2	0.8	100.0	1,177
SNNPR	91.7	0.1	2.1	0.5	2.3	3.0	0.2	0.2	100.0	1,921
Gambela	85.3	0.2	1.5	1.2	2.9	7.8	0.0	1.2	100.0	1,155
Harari	73.8	0.0	12.0	1.8	4.2	7.8	0.1	0.3	100.0	1,005
Addis Ababa	81.2	0.3	7.7	2.3	3.1	4.5	0.2	0.8	100.0	1,978
Dire Dawa	78.6	0.3	9.9	0.7	5.3	2.4	0.7	2.1	100.0	1,197
Total 15-49	87.1	0.2	4.6	1.0	2.6	3.5	0.2	0.8	100.0	16,583
MEN 15-49										
Residence										
Urban	66.6	0.1	7.7	2.9	5.7	14.4	0.4	2.3	100.0	4,432
Rural	80.7	0.6	3.0	1.3	3.8	8.9	0.4	1.3	100.0	9,118
Region										
Tigray	84.6	0.2	2.0	1.1	3.3	7.5	0.0	1.4	100.0	1,257
Affar	70.5	2.1	3.5	1.7	2.7	16.8	0.5	2.3	100.0	863
Amhara	91.6	0.1	1.4	0.3	1.4	3.8	0.4	1.1	100.0	1,597
Oromiya	81.4	1.0	3.5	2.4	4.2	6.4	0.2	1.0	100.0	1,786
Somali	70.2	0.5	6.0	1.9	5.1	14.2	0.5	1.5	100.0	1,132
Benishangul-Gumuz	77.5	0.7	2.8	1.4	8.3	8.5	0.3	0.7	100.0	1,016
SNNPR	84.4	0.1	2.8	0.9	2.7	8.7	0.2	0.2	100.0	1,626
Gambela	73.8	0.2	3.3	1.1	3.5	16.1	0.1	1.9	100.0	1,004
Harari	52.3	0.0	11.7	2.9	6.6	23.9	0.3	2.3	100.0	874
Addis Ababa	67.2	0.0	8.3	3.8	5.4	13.5	0.1	1.6	100.0	1,397
Dire Dawa	62.9	0.5	8.4	2.7	8.0	8.9	2.7	5.8	100.0	998
Total 15-49	76.1	0.5	4.6	1.8	4.4	10.7	0.4	1.6	100.0	13,550
50-59	81.8	0.1	3.9	1.2	2.5	8.3	0.8	1.4	100.0	1,245
Total 15-59	76.6	0.4	4.5	1.7	4.2	10.5	0.5	1.6	100.0	14,795
TOTAL (WOMEN AND MEN 15-49)										
Residence										
Urban	75.2	0.2	7.8	2.2	4.5	8.5	0.3	1.4	100.0	10,152
Rural	85.7	0.4	3.0	0.9	2.9	5.8	0.4	1.0	100.0	19,981
Region										
Tigray	88.8	0.1	2.6	0.9	2.4	4.2	0.1	1.0	100.0	2,998
Affar	80.2	1.1	4.0	1.0	2.3	9.2	0.9	1.4	100.0	2,052
Amhara	94.0	0.1	1.3	0.2	0.9	2.2	0.2	1.0	100.0	3,351
Oromiya	86.4	0.6	3.2	1.8	3.0	4.3	0.1	0.7	100.0	3,764
Somali	78.3	0.4	6.2	1.5	3.6	8.7	0.3	0.9	100.0	2,620
Benishangul-Gumuz	83.1	0.4	3.0	1.3	6.1	5.1	0.2	0.7	100.0	2,193
SNNPR	88.3	0.1	2.4	0.7	2.5	5.6	0.2	0.2	100.0	3,547
Gambela	79.9	0.2	2.3	1.2	3.1	11.7	0.0	1.5	100.0	2,159
Harari	63.8	0.0	11.9	2.3	5.3	15.3	0.2	1.2	100.0	1,879
Addis Ababa	75.4	0.1	7.9	2.9	4.1	8.2	0.1	1.1	100.0	3,375
Dire Dawa	71.5	0.4	9.2	1.6	6.5	5.4	1.6	3.8	100.0	2,195
Total 15-49	82.2	0.3	4.6	1.4	3.4	6.7	0.3	1.1	100.0	30,133

¹ Includes all dried blood spot (DBS) specimens tested at the lab for which there is a final result, which is either positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection such as technical problem in the field, (2) lost specimens, (3) noncorresponding bar codes, and (4) lab results such as blood not tested for technical reason or not enough blood to complete the algorithm

Table 3.2 Coverage of HIV testing according to selected background characteristics

Percent distribution of women and men age 15-49 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Ethiopia DHS 2016

Background characteristic	Testing status								Total	Number
	DBS tested ¹		Refused to provide blood		Not available at the time of blood collection		Other/missing ²			
	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed	Inter-viewed	Not inter-viewed		
WOMEN 15-49										
Age										
15-19	84.7	0.2	5.4	1.0	3.3	4.2	0.3	0.9	100.0	3,731
20-24	86.9	0.2	4.6	1.0	2.9	3.4	0.2	0.7	100.0	3,064
25-29	87.5	0.1	4.2	1.3	2.2	3.8	0.4	0.6	100.0	3,021
30-34	88.4	0.1	4.5	0.9	2.0	3.2	0.0	0.8	100.0	2,359
35-39	87.1	0.3	4.5	1.3	2.5	2.9	0.3	1.0	100.0	2,029
40-44	88.2	0.1	4.3	0.8	2.6	3.0	0.1	0.9	100.0	1,369
45-49	91.0	0.1	3.6	0.4	1.8	2.6	0.4	0.2	100.0	1,010
Education										
No education	88.9	0.2	3.9	0.8	2.0	2.9	0.3	1.1	100.0	7,406
Primary	88.4	0.2	4.0	1.0	2.4	3.3	0.2	0.5	100.0	5,486
Secondary	83.6	0.0	5.9	1.8	3.9	4.1	0.3	0.3	100.0	2,390
More than secondary	78.5	0.1	8.9	1.2	4.7	6.1	0.2	0.4	100.0	1,300
Missing	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	1
Wealth quintile										
Lowest	87.1	0.3	3.2	0.8	2.5	4.8	0.4	0.9	100.0	4,178
Second	91.4	0.1	2.5	0.9	1.7	2.1	0.4	0.9	100.0	2,132
Middle	92.3	0.0	3.0	0.5	1.8	1.7	0.1	0.6	100.0	2,060
Fourth	91.5	0.0	2.6	0.5	1.7	2.7	0.2	0.8	100.0	2,126
Highest	82.3	0.2	7.5	1.6	3.6	3.9	0.2	0.6	100.0	6,087
Total	87.1	0.2	4.6	1.0	2.6	3.5	0.2	0.8	100.0	16,583
MEN 15-49										
Age										
15-19	76.9	0.8	4.0	1.4	4.7	10.5	0.4	1.4	100.0	2,948
20-24	76.4	0.3	5.0	1.7	4.1	10.9	0.3	1.3	100.0	2,294
25-29	75.1	0.3	5.0	1.7	5.0	10.8	0.3	1.9	100.0	2,377
30-34	75.2	0.1	5.2	2.2	3.7	11.2	0.5	1.8	100.0	1,872
35-39	74.5	0.5	3.5	2.4	4.7	11.5	0.7	2.1	100.0	1,647
40-44	76.8	0.4	5.1	1.7	4.0	10.0	0.5	1.6	100.0	1,410
45-49	78.5	0.8	3.7	1.6	4.1	9.4	0.5	1.4	100.0	1,002
Education										
No education	76.4	0.8	3.5	1.6	3.9	10.6	0.8	2.4	100.0	3,433
Primary	79.8	0.5	3.7	1.6	4.0	9.0	0.3	1.1	100.0	5,732
Secondary	71.3	0.2	5.4	2.5	5.7	13.1	0.2	1.7	100.0	2,596
More than secondary	71.2	0.2	8.2	1.7	4.7	12.4	0.3	1.4	100.0	1,772
Missing	0.0	5.9	0.0	23.5	0.0	52.9	0.0	17.6	100.0	17
Wealth quintile										
Lowest	75.0	0.9	3.4	1.2	4.2	12.9	0.4	1.9	100.0	3,188
Second	82.4	0.5	2.9	1.4	3.4	7.3	0.7	1.3	100.0	1,833
Middle	83.1	0.6	2.9	1.4	3.7	6.9	0.6	0.9	100.0	1,764
Fourth	84.3	0.4	2.7	1.3	3.6	6.7	0.2	0.9	100.0	1,913
Highest	68.6	0.1	7.3	2.7	5.5	13.5	0.3	2.1	100.0	4,852
Total	76.1	0.5	4.6	1.8	4.4	10.7	0.4	1.6	100.0	13,550

¹ Includes all dried blood spots (DBS) tested at the lab and for which there is a result, which is either positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection such as technical problem in the field, (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason and not enough blood to complete the algorithm

Table 3.3 HIV prevalence according to age

Among the de facto women age 15-49 and men age 15-59 who were interviewed and tested, percentage HIV positive, according to age, Ethiopia DHS 2016

Age	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	0.4	2,821	<0.1	2,525	0.2	5,346
20-24	0.1	2,352	0.3	1,840	0.2	4,193
25-29	0.8	2,527	0.3	1,928	0.6	4,455
30-34	2.3	2,003	0.6	1,597	1.5	3,600
35-39	2.1	1,629	0.7	1,364	1.5	2,993
40-44	3.0	1,094	1.6	1,178	2.3	2,272
45-49	1.9	872	1.6	949	1.7	1,821
50-54	na	na	1.3	593	na	na
55-59	na	na	0.6	504	na	na
Total 15-49	1.2	13,297	0.6	11,381	0.9	24,679
Confidence interval	(0.9-1.5)		(0.4-0.8)		(0.7-1.1)	
Total 15-59	na	na	0.6	12,479	na	na
Confidence interval			(0.4-0.8)			

na = Not applicable

Table 3.4 HIV prevalence by region and survey

Among the de facto women age 15-49 and men age 15-59 who were interviewed and tested, HIV prevalence rate, by region and survey, Ethiopia DHS 2016

Region	2005		2011		2016	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Tigray	2.1 (CI: 0.6-3.7)	661	1.8 (CI: 1.1-2.5)	1,738	1.2 (CI: 0.7-1.6)	1,653
Affar	2.9 (CI: <0.1-6.1)	107	1.8 (CI: 0.6-3.1)	228	1.4 (CI: 0.5-2.4)	190
Amhara	1.7 (CI: 0.8-2.7)	2,623	1.6 (CI: 0.7-2.5)	7,364	1.2 (CI: 0.7-1.7)	6,007
Oromiya	1.4 (CI: 0.6-2.2)	3,812	1.0 (CI: 0.5-1.4)	10,202	0.7 (CI: 0.3-1.0)	9,157
Somali	0.7 (CI: <0.1-1.8)	328	1.1 (CI: 0.2-2.0)	532	<0.1 (CI: <0.1-0.1)	683
Benishangul-Gumuz	0.5 (CI: <0.1-1.1)	100	1.3 (CI: 0.1-2.5)	290	1.0 (CI: 0.5-1.5)	252
SNNPR	0.2 (CI: <0.1-0.5)	2,300	0.9 (CI: 0.4-1.3)	5,141	0.4 (CI: 0.1-0.6)	5,114
Gambela	6.0 (CI: 2.2-9.9)	35	6.5 (CI: 1.8-11.2)	119	4.8 (CI: 3.0-6.5)	71
Harari	3.5 (CI: 1.7-5.4)	29	2.8 (CI: 1.6-3.9)	83	2.4 (CI: 1.6-3.3)	61
Addis Ababa	4.7 (CI: 3.3-6.2)	495	5.2 (CI: 4.0-6.4)	1,466	3.4 (CI: 2.6-4.2)	1,351
Dire Dawa	3.2 (CI: 0.9-5.6)	50	4.0 (CI: 2.5-5.5)	114	2.5 (CI: 1.6-3.4)	142
Ethiopia 15-49	1.4	10,540	1.5	27,276	0.9	24,679
Confidence interval	(1.1-1.8)		(1.3-1.7)		(0.7-1.1)	

Table 3.5 HIV prevalence according to socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, according to socioeconomic characteristics, Ethiopia DHS 2016

Socioeconomic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Employment (last 12 months)						
Not employed	0.7	6,619	0.1	941	0.6	7,560
Employed	1.8	6,678	0.6	10,440	1.1	17,119
Residence						
Urban	3.6	2,947	2.0	2,257	2.9	5,204
Rural	0.6	10,350	0.2	9,125	0.4	19,475
Region						
Tigray	1.5	957	0.7	696	1.2	1,653
Affar	1.6	109	1.2	81	1.4	190
Amhara	1.3	3,149	1.0	2,858	1.2	6,007
Oromiya	1.1	4,834	0.2	4,324	0.7	9,157
Somali	0.1	390	M<0.1	293	<0.1	683
Benishangul-Gumuz	1.6	136	0.3	116	1.0	252
SNNPR	0.5	2,788	0.2	2,326	0.4	5,114
Gambela	5.7	37	3.7	34	4.8	71
Harari	3.5	33	1.3	28	2.4	61
Addis Ababa	4.2	789	2.2	562	3.4	1,351
Dire Dawa	3.5	77	1.3	65	2.5	142
Education						
No education	0.8	6,373	0.1	3,119	0.6	9,492
Primary	1.7	4,682	0.5	5,562	1.1	10,244
Secondary	1.7	1,516	1.3	1,737	1.5	3,253
More than secondary	1.0	726	1.1	963	1.1	1,689
Wealth quintile						
Lowest	0.7	2,239	0.3	1,811	0.5	4,050
Second	0.4	2,389	<0.1	2,099	0.2	4,487
Middle	0.4	2,544	0.2	2,200	0.3	4,745
Fourth	1.0	2,616	0.3	2,408	0.6	5,025
Highest	3.0	3,509	1.6	2,863	2.4	6,372
Total 15-49	1.2	13,297	0.6	11,381	0.9	24,679
50-59	na	na	1.0	1,097	na	na
Total 15-59	na	na	0.6	12,479	na	na

na = Not applicable

Table 3.6 HIV prevalence according to sociodemographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, according to sociodemographic characteristics, Ethiopia DHS 2016

Socioeconomic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	0.5	3,372	0.1	4,739	0.3	8,111
Ever had sexual intercourse	2.1	338	0.5	1,023	0.9	1,361
Never had sexual intercourse	0.3	3,034	<0.1	3,716	0.2	6,750
Married/living together	0.9	8,707	0.8	6,378	0.8	15,085
Divorced or separated	3.5	849	0.7	239	2.9	1,089
Widowed	10.9	369	(19.8)	25	11.5	394
Type of union						
In polygynous union	0.2	918	0.2	302	0.2	1,220
In non-polygynous union	1.0	7,731	0.8	6,076	0.9	13,807
Not currently in union	1.9	4,591	0.3	5,003	1.0	9,594
Times slept away from home in past 12 months						
None	na	na	0.6	6,198	0.6	6,198
1-2	na	na	0.4	1,557	0.4	1,557
3-4	na	na	0.2	825	0.2	825
5+	na	na	0.8	2,802	0.8	2,802
Time away in past 12 months						
Away for more than 1 month	na	na	0.6	1,195	0.6	1,195
Away for less than 1 month	na	na	0.5	3,989	0.5	3,989
No away	na	na	0.6	6,198	0.6	6,198
Currently pregnant						
Pregnant	0.4	963	na	na	na	na
Not pregnant or not sure	1.3	12,334	na	na	na	na
ANC for last birth in the last 3 years						
ANC provided by the public sector	0.9	2,967	na	na	na	na
ANC provided by other than the public sector	<0.1	219	na	na	na	na
No ANC/No birth in last 3 years	1.4	10,112	na	na	na	na
Total 15-49	1.2	13,297	0.6	11,381	0.9	24,679
50-59	na	na	1.0	1,097	na	na
Total 15-59	na	na	0.6	12,479	na	na

na = Not applicable

Note: Total includes 58 women with missing information on type of union. Figures in parentheses are based on 25-49 unweighted cases.

Table 3.7 HIV prevalence according to sexual behaviour

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, according to sexual behaviour characteristics, Ethiopia DHS 2016

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	1.6	4,401	0.7	474	1.5	4,875
16-17	1.1	2,346	1.4	1,109	1.2	3,456
18-19	1.9	1,606	0.9	1,752	1.4	3,358
20+	1.0	1,682	0.7	4,166	0.8	5,848
Number of lifetime partners						
1	0.8	7,811	0.3	3,465	0.6	11,276
2	3.4	1,850	0.8	2,075	2.0	3,925
3-4	4.5	450	1.8	1,017	2.7	1,467
5-9	6.2	76	1.8	501	2.4	577
10+	7.0	57	2.9	245	3.7	303
Multiple sexual partners in the past 12 months						
0	4.9	1,471	1.2	625	3.8	2,096
1	0.9	8,738	0.8	6,642	0.9	15,380
2+	0.1	43	0.1	384	0.1	427
Non-marital, non-cohabiting partners in the past 12 months¹						
0	1.5	9,932	0.9	6,890	1.2	16,822
1	3.4	300	0.4	650	1.3	950
2+	(<0.1)	21	<0.1	112	<0.1	132
Condom use at last sexual intercourse in past 12 months						
Used condom	13.7	83	1.1	408	3.2	492
Did not use condom	0.8	8,698	0.8	6,618	0.8	15,316
No sexual intercourse in last 12 months	4.9	1,471	1.2	625	3.8	2,096
Condom use at last sexual intercourse with a non-marital, non-cohabiting partner in past 12 months¹						
Used condom	10.4	62	0.1	379	1.6	441
Did not use condom	1.4	257	0.5	376	0.9	633
No sexual intercourse with any non-marital, non-cohabiting partners in past 12 months	1.5	9,934	0.9	6,896	1.2	16,830
Paid for sexual intercourse in past 12 months						
Yes	na	na	1.0	64	na	na
Used condom	na	na	1.0	51	na	na
Did not use condom	na	na	*	13	na	na
No (no paid sexual intercourse/no sexual intercourse in last 12 months)	na	na	0.8	7,588	na	na
Total 15-49	1.5	10,253	0.8	7,651	1.2	17,904
50-59	na	na	0.9	1,095	na	na
Total 15-59	na	na	0.8	8,746	na	na

na = Not applicable

Note: Total includes 217 women and 150 men with missing information on age at first intercourse and 8 women and 348 men with missing information on number of lifetime partners. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Any partner who was not a spouse and did not live with the respondent

Table 3.8 HIV prevalence among young people according to background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	0.4	2,821	<0.1	2,525	0.2	5,346
15-17	0.3	1,708	<0.1	1,560	0.2	3,268
18-19	0.5	1,113	<0.1	965	0.3	2,078
20-24	0.1	2,352	0.3	1,840	0.2	4,193
20-22	<0.1	1,544	0.1	1,187	0.1	2,731
23-24	0.3	808	0.5	654	0.4	1,462
Marital status						
Never married	0.3	2,923	<0.1	3,812	0.2	6,735
Ever had sex	0.8	191	<0.1	564	0.2	755
Never had sex	0.3	2,731	<0.1	3,248	0.1	5,980
Married/Living together	0.2	1,962	0.7	490	0.3	2,451
Divorced/Separated/ Widowed	0.3	289	(<0.1)	63	0.2	352
Currently pregnant						
Pregnant	<0.1	342	na	na	na	na
Not pregnant or not sure	0.3	4,831	na	na	na	na
Residence						
Urban	0.3	1,240	0.4	895	0.3	2,135
Rural	0.3	3,933	<0.1	3,470	0.2	7,403
Region						
Tigray	0.5	415	<0.1	308	0.3	723
Affar	0.9	48	0.5	29	0.8	76
Amhara	0.2	1,157	0.1	1,112	0.2	2,269
Oromiya	0.4	1,886	0.2	1,615	0.3	3,501
Somali	<0.1	152	<0.1	119	<0.1	270
Benishangul-Gumuz	0.5	54	<0.1	40	0.3	95
SNNPR	<0.1	1,054	<0.1	891	<0.1	1,945
Gambela	1.7	15	0.9	14	1.3	30
Harari	0.2	14	0.8	10	0.5	24
Addis Ababa	0.4	347	<0.1	201	0.3	548
Dire Dawa	1.3	31	<0.1	27	0.7	58
Education						
No education	0.1	1,032	<0.1	508	<0.1	1,540
Primary	0.4	2,818	0.1	2,695	0.2	5,513
Secondary	0.2	989	0.4	905	0.3	1,895
More than secondary	<0.1	334	<0.1	256	<0.1	591
Wealth quintile						
Lowest	0.4	800	0.2	648	0.3	1,448
Second	0.3	910	<0.1	730	0.2	1,640
Middle	0.1	947	<0.1	814	0.1	1,761
Fourth	0.4	1,017	<0.1	1,047	0.2	2,064
Highest	0.2	1,498	0.3	1,126	0.3	2,624
Total 15-24	0.3	5,173	0.1	4,365	0.2	9,538

na = Not applicable

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

Table 3.9 HIV prevalence among young people according to sexual behaviour

Percentage HIV-positive among women and men age 15-24 who have ever had sex and were tested for HIV, according to sexual behaviour, Ethiopia DHS 2016

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Multiple sexual partners in the past 12 months						
0	0.7	297	<0.1	219	0.4	515
1	0.2	2,124	0.4	810	0.3	2,934
2+	*	14	<0.1	76	0.1	91
Non-marital, non-cohabiting partners in the past 12 months¹						
0	0.3	2,288	0.5	700	0.3	2,988
1	0.1	135	<0.1	341	<0.1	476
2+	*	12	<0.1	64	<0.1	76
Condom use at last sexual intercourse in past 12 months						
Used condom	0.4	34	<0.1	198	0.1	232
Did not use condom	0.2	2,104	0.5	689	0.3	2,793
No sexual intercourse in last 12 months	0.7	297	<0.1	219	0.4	515
Total 15-24	0.3	2,435	0.3	1,105	0.3	3,540

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

¹ Any partner who was not a spouse and did not live with the respondent

Table 3.10 HIV prevalence according to other characteristics

Percentage HIV positive among women and men age 15-49 who have ever had sex and were tested for HIV, according to whether they had a sexually transmitted infection (STI) in the past 12 months and prior testing for HIV, Ethiopia DHS 2016

Characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
STI in past 12 months						
Had STI or STI symptoms	3.1	400	1.2	279	2.3	679
No STI, no symptoms	1.4	9,825	0.8	7,358	1.2	17,184
Prior HIV testing						
Ever tested	2.5	5,093	1.3	4,220	1.9	9,313
Received results	2.6	4,655	1.3	3,973	2.0	8,628
Did not received results	1.1	438	1.3	247	1.2	685
Never tested	0.5	5,159	0.3	3,431	0.4	8,591
Total 15-49	1.5	10,253	0.8	7,651	1.2	17,904

Note: Total includes 27 women and 14 men with missing information on STI in past 12 months.

Table 3.11 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative, according to HIV testing status prior to the survey, Ethiopia DHS 2016

HIV testing prior to the survey	Women		Men		Total	
	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Ever tested for HIV and received the result of the most recent test						
Tested in the past 12 months and received the result ¹	78.9	39.8	78.3	42.9	78.7	41.2
Tested 12 or more months ago and received the result ¹	41.3	19.2	41.3	18.5	41.3	18.9
	37.6	20.5	37.0	24.4	37.4	22.3
Ever tested for HIV and did not receive the result of the most recent test						
	2.9	4.2	5.1	2.7	3.5	3.5
Not previously tested						
	18.1	56.0	16.7	54.3	17.7	55.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	165	13,133	64	11,318	228	24,450

¹ Of the most recent HIV test

Table 3.12 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, the percentage HIV positive according to whether circumcised, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Circumcised by health worker/professional		Circumcised by health traditional practitioner/family/friend		All circumcised ¹		Uncircumcised	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age								
15-19	0.0	561	0.0	1,538	0.0	2,190	0.0	325
20-24	0.4	384	0.3	1,209	0.3	1,654	0.0	182
25-29	1.0	354	0.1	1,352	0.3	1,773	0.2	150
30-34	0.3	278	0.7	1,160	0.6	1,478	0.1	116
35-39	0.0	169	0.8	1,086	0.8	1,293	0.1	71
40-44	4.6	107	1.5	957	1.7	1,116	0.1	58
45-49	(0.0)	65	1.6	816	1.5	897	(2.3)	51
Residence								
Urban	2.2	439	2.0	1,593	2.0	2,178	1.5	74
Rural	0.1	1,478	0.3	6,526	0.2	8,222	0.1	878
Region								
Tigray	(0.0)	18	0.8	582	0.7	677	(0.0)	18
Affar	2.8	11	1.0	68	1.2	80	*	1
Amhara	5.2	149	0.8	2,418	1.0	2,672	0.6	169
Oromiya	0.0	642	0.3	3,217	0.2	3,927	0.0	390
Somali	0.0	22	0.0	266	0.0	291	*	2
Benishangul-Gumuz	*	3	0.4	88	0.3	110	(0.0)	5
SNNPR	0.0	884	0.5	1,076	0.3	1,975	0.0	351
Gambela	1.2	5	3.1	19	2.6	25	6.9	9
Harari	0.0	4	0.9	19	1.3	28	*	0
Addis Ababa	1.6	168	2.5	315	2.3	551	*	7
Dire Dawa	1.0	10	1.2	51	1.3	65	*	0
Education								
No education	0.0	169	0.1	2,603	0.1	2,853	0.0	248
Primary	0.1	1,029	0.7	3,818	0.5	5,001	0.1	554
Secondary	2.1	459	1.0	1,059	1.4	1,603	0.1	132
More than secondary	0.0	259	1.3	638	1.0	943	6.8	18
Wealth quintile								
Lowest	0.6	212	0.3	1,331	0.4	1,594	0.2	208
Second	0.0	262	0.0	1,541	0.0	1,860	0.1	234
Middle	0.0	367	0.3	1,591	0.2	2,008	0.1	190
Fourth	0.0	460	0.4	1,709	0.3	2,218	0.0	182
Highest	1.6	616	1.7	1,947	1.6	2,721	0.8	138
Total 15-49	0.6	1,917	0.6	8,118	0.6	10,400	0.2	952
50-59	0.0	83	0.8	937	0.7	1,045	6.1	52
Total 15-59	0.5	2,000	0.6	9,056	0.6	11,445	0.5	1,004

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 all men who report they are circumcised, including men circumcised by medical or traditional practitioners. Also includes those circumcised by other practitioners, those who don't know what practitioner performed their circumcision, and those who did not report a practitioner of circumcision, not shown separately.

Table 3.13 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, Ethiopia DHS 2016

Background characteristic	Both HIV positive ¹	Man HIV positive, woman HIV negative ¹	Woman HIV positive, man HIV negative ¹	Both HIV negative ¹	Total	Number
Woman's age	0.6	<0.1	<0.1	99.4	100.0	363
15-19	0.2	0.4	0.2	99.2	100.0	2,814
20-29	0.3	0.6	0.6	98.5	100.0	2,380
30-39	0.1	0.2	0.8	98.9	100.0	985
40-49						
Man's age	*	*	*	*	100.0	22
15-19	<0.1	0.6	0.2	99.2	100.0	1,432
20-29	0.4	0.2	0.3	99.2	100.0	2,422
30-39	0.3	0.7	0.9	98.1	100.0	1,846
40-49	0.4	0.2	0.2	99.1	100.0	818
50-59						
Age difference between partners						
Woman older	1.0	0.1	0.9	98.0	100.0	206
Same age/man older by 0-4 years	0.1	0.5	0.5	99.0	100.0	2,029
Man older by 5-9 years	0.2	0.4	0.3	99.2	100.0	2,636
Man older by 10-14 years	0.4	0.4	0.8	98.4	100.0	1,137
Man older by 15+ years	0.7	0.4	0.2	98.7	100.0	533
Type of union						
Non-polygynous	0.3	0.4	0.4	98.9	100.0	6,075
Polygynous	<0.1	0.9	0.4	98.7	100.0	445
Multiple partners in past 12 months¹						
Both no	0.2	0.4	0.5	98.9	100.0	6,224
Man yes, woman no	1.1	<0.1	<0.1	98.9	100.0	312
Woman yes, man no	*	*	*	*	100.0	5
Both yes	*	*	*	*	100.0	1
Residence						
Urban	1.0	1.7	1.8	95.5	100.0	960
Rural	0.1	0.2	0.2	99.5	100.0	5,581
Region						
Tigray	0.6	0.5	0.2	98.6	100.0	370
Affar	1.1	0.4	0.9	97.6	100.0	42
Amhara	0.2	0.6	0.5	98.8	100.0	1,662
Oromiya	0.2	0.3	0.5	99.1	100.0	2,596
Somali	<0.1	<0.1	<0.1	100.0	100.0	161
Benishangul-Gumuz	0.2	0.2	0.2	99.3	100.0	72
SNNPR	0.1	0.2	0.1	99.5	100.0	1,376
Gambela	3.0	2.2	3.0	91.8	100.0	14
Harari	0.6	0.9	<0.1	98.5	100.0	14
Addis Ababa	1.8	1.6	2.7	93.9	100.0	205
Dire Dawa	1.3	0.6	1.4	96.7	100.0	30
Woman's education						
No education	0.2	0.2	0.2	99.4	100.0	3,986
Primary	0.5	0.8	0.9	97.8	100.0	1,942
Secondary	0.7	0.5	0.5	98.3	100.0	389
More than secondary	<0.1	<0.1	0.5	99.4	100.0	223
Man's education						
No education	0.1	0.1	0.2	99.7	100.0	2,783
Primary	0.3	0.4	0.4	98.9	100.0	2,757
Secondary	1.0	2.3	0.4	96.3	100.0	559
More than secondary	0.3	0.2	2.2	97.3	100.0	443
Wealth quintile						
Lowest	<0.1	0.4	0.2	99.4	100.0	1,163
Second	<0.1	<0.1	<0.1	100.0	100.0	1,405
Middle	0.4	<0.1	0.1	99.4	100.0	1,356
Fourth	0.2	0.2	0.5	99.2	100.0	1,332
Highest	0.8	1.4	1.4	96.3	100.0	1,287
Total	0.3	0.4	0.4	98.9	100.0	6,541

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners. Total includes 21 couples with missing information on type of union. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ A respondent is considered to have had multiple sexual partners in the past 12 months if he or she had sexual intercourse with two or more people during this time period. (Respondents with multiple partners include polygynous men who had sexual intercourse with two or more wives.)

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SAMPLE PROBABILITIES AND SAMPLING WEIGHTS

Due to the nonproportional allocation of the sample across districts and the differential response rates, sampling weights must be used in all analyses of the 2016 EDHS results to ensure that the survey results are representative at both the national and domain levels. The sampling weights for HIV testing are calculated in a similar way, although the normalisation of the HIV weights is different. The individual HIV testing weights are normalised at the national level for women and men together so that HIV prevalence estimates calculated for women and men together are valid.

For detailed information on the 2016 EDHS sample probabilities and sampling weights, see Appendix A of the 2016 EDHS report.

LIST OF TABLES

For information on coverage of HIV testing, see the following tables:

- **Table A.1 Coverage of HIV testing according to social and demographic characteristics: Women**
- **Table A.2 Coverage of HIV testing according to social and demographic characteristics: Men**
- **Table A.3 Coverage of HIV testing according to sexual behaviour characteristics: Women**
- **Table A.4 Coverage of HIV testing according to sexual behaviour characteristics: Men**

Table A.1 Coverage of HIV testing according to social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Ethiopia DHS 2016

Characteristic	Testing status				Total	Number
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection	Other/missing		
Marital status						
Never married	88.8	6.7	4.2	0.3	100.0	4,278
Ever had sexual intercourse	89.8	5.7	4.2	0.4	100.0	566
Never had sexual intercourse	88.7	6.8	4.2	0.3	100.0	3,712
Married/living together	93.6	4.1	2.1	0.2	100.0	9,824
Divorced or separated	91.9	4.9	2.7	0.4	100.0	1,130
Widowed	92.0	4.4	3.1	0.4	100.0	451
Type of union						
In polygynous union	94.1	3.4	2.5	0.1	100.0	1,302
In non-polygynous union	93.5	4.2	2.1	0.2	100.0	8,454
Not currently in union	89.7	6.2	3.8	0.3	100.0	5,859
Don't know/missing	94.1	4.4	1.5	0.0	100.0	68
Ever had sexual intercourse						
Yes	93.2	4.2	2.3	0.3	100.0	11,962
No	88.6	6.9	4.2	0.3	100.0	3,721
Currently pregnant						
Pregnant	93.3	4.2	2.1	0.4	100.0	1,122
Not pregnant or not sure	92.0	4.9	2.8	0.3	100.0	14,561
Ethnic group						
Affar	91.7	4.6	2.3	1.4	100.0	947
Amhara	92.8	4.7	2.2	0.3	100.0	3,688
Guragie	88.1	6.6	5.0	0.3	100.0	655
Hadiya	94.3	2.2	3.0	0.4	100.0	230
Oromo	90.5	6.8	2.5	0.2	100.0	3,611
Sidama	94.9	2.3	2.8	0.0	100.0	355
Somali	88.9	7.5	3.4	0.2	100.0	1,463
Tigray	94.7	3.2	2.0	0.1	100.0	1,905
Welaita	96.3	1.2	2.5	0.0	100.0	322
Others	93.5	2.8	3.6	0.1	100.0	2,507
Religion						
Orthodox	92.7	4.7	2.5	0.2	100.0	6,413
Catholic	91.2	6.6	2.2	0.0	100.0	91
Protestant	94.9	1.6	3.4	0.1	100.0	2,814
Muslin	90.3	6.5	2.8	0.4	100.0	6,209
Traditional	96.4	2.4	1.2	0.0	100.0	84
Other	93.1	5.6	1.4	0.0	100.0	72
Total	92.1	4.9	2.7	0.3	100.0	15,683

¹ Includes all dried blood spots (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason or not enough blood to complete the algorithm.

Table A.2 Coverage of HIV testing according to social and demographic characteristics: Men

Percent distribution of interviewed men 15-59 by HIV testing status, according to social and demographic characteristics (unweighted). Ethiopia DHS 2016

Characteristic	Testing status				Total	Number
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection	Other/missing		
Marital status						
Never married	87.5	6.1	6.0	0.4	100.0	5 105
Ever had sexual intercourse	86.0	7.3	6.5	0.2	100.0	1 497
Never had sexual intercourse	88.2	5.6	5.7	0.5	100.0	3 608
Married/living together	90.6	4.6	4.2	0.6	100.0	7 208
Divorced or separated	85.4	7.6	5.7	1.3	100.0	315
Widowed	95.0	5.0	0.0	0.0	100.0	60
Type of union						
In polygynous union	89.8	4.2	5.3	0.6	100.0	472
In non-polygynous union	90.7	4.6	4.2	0.6	100.0	6 736
Not currently in union	87.5	6.2	5.9	0.5	100.0	5 480
Ever had sexual intercourse						
Yes	89.7	5.1	4.6	0.5	100.0	9 070
No	88.2	5.6	5.7	0.5	100.0	3 618
Male circumcision						
Circumcised	89.2	5.4	4.9	0.6	100.0	11 712
Not circumcised	90.6	3.5	5.7	0.2	100.0	935
Don't know/missing	90.2	9.8	0.0	0.0	100.0	41
Times slept away from home in past 12 months						
None	87.5	6.1	5.7	0.7	100.0	6 866
1-2	93.3	2.9	3.4	0.4	100.0	1 511
3-4	90.4	4.8	4.7	0.1	100.0	921
5+	90.8	4.7	4.2	0.3	100.0	3 390
Time away in past 12 months						
Away for more than 1 month	89.6	5.7	4.4	0.3	100.0	1 563
Away for less than 1 month	92.1	3.7	3.9	0.3	100.0	4 259
No away	87.5	6.1	5.7	0.7	100.0	6 866
Ethnic group						
Affar	91.3	4.6	3.6	0.5	100.0	584
Amhara	91.3	4.2	4.2	0.3	100.0	3 134
Guragie	81.9	10.4	7.0	0.8	100.0	530
Hadiya	89.2	4.3	6.5	0.0	100.0	185
Oromo	85.9	7.2	6.0	0.8	100.0	2 966
Sidama	95.2	3.3	1.5	0.0	100.0	333
Somali	83.7	8.2	6.6	1.5	100.0	1 138
Tigray	93.5	2.9	3.5	0.1	100.0	1 472
Welaita	95.9	2.5	1.7	0.0	100.0	242
Others	90.7	3.7	5.3	0.3	100.0	2 104
Religion						
Orthodox	90.9	4.5	4.3	0.3	100.0	5 477
Catholic	89.4	5.8	4.8	0.0	100.0	104
Protestant	93.0	3.2	3.6	0.2	100.0	2 110
Muslim	85.9	7.0	6.2	1.0	100.0	104
Traditional	89.2	5.4	5.4	0.0	100.0	4 866
Other	87.2	4.3	8.5	0.0	100.0	37
Total	89.3	5.3	4.9	0.5	100.0	12 688

¹ Includes all dried blood spots (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason or not enough blood to complete the algorithm.

Table A.3 Coverage of HIV testing according to sexual behaviour characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Ethiopia DHS 2016

Sexual behaviour characteristic	Testing status				Total	Number
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection	Other/missing		
Age at first sexual intercourse						
<16	94.7	3.3	1.9	0.2	100.0	4,703
16-17	93.5	3.9	2.4	0.3	100.0	2,791
18-19	92.6	4.5	2.5	0.4	100.0	2,073
20+	90.8	6.3	2.8	0.2	100.0	2,142
Missing	89.3	5.9	4.0	0.8	100.0	253
Multiple sexual partners and partner concurrency in past 12 months						
0	91.6	4.7	3.3	0.4	100.0	2,068
1	93.6	4.1	2.1	0.2	100.0	9,837
Missing	93.0	5.3	1.8	0.0	100.0	57
Condom use at last sexual intercourse in past 12 months						
Used condom	86.3	7.6	6.1	0.0	100.0	197
Did not use condom	93.7	4.0	2.0	0.2	100.0	9,697
No sexual intercourse in last 12 months	91.6	4.7	3.3	0.4	100.0	2,068
Number of lifetime partners						
1	92.9	4.3	2.4	0.3	100.0	9,163
2	94.2	3.8	1.9	0.0	100.0	2,163
3-4	94.3	3.6	2.1	0.0	100.0	477
5-9	97.1	1.4	1.4	0.0	100.0	70
10+	91.0	3.0	6.0	0.0	100.0	67
Missing	81.8	13.6	4.5	0.0	100.0	22
Prior HIV testing						
Ever tested	92.9	4.4	2.5	0.2	100.0	6,418
Received results	92.8	4.5	2.5	0.2	100.0	6,029
Did not received results	94.9	2.8	1.3	1.0	100.0	389
Never tested	93.6	4.0	2.1	0.3	100.0	5,544
Total	93.2	4.2	2.3	0.3	100.0	11,962

¹ Includes all dried blood spots (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason or not enough blood to complete the algorithm.

³ A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey.

Table A.4 Coverage of HIV testing according to sexual behaviour characteristics: Men

Percent distribution of interviewed men age 15-59 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Ethiopia DHS 2016

Sexual behaviour characteristic	Testing status				Total	Number
	DBS tested ¹	Refused to provide blood	Absent at the time of blood collection	Other/missing		
Age at first sexual intercourse						
<16	90.4	5.3	4.3	0.0	100.0	812
16-17	90.4	4.6	4.5	0.5	100.0	1 226
18-19	90.3	4.9	4.6	0.1	100.0	2 023
20+	89.0	5.4	4.8	0.8	100.0	4 836
Missing	93.6	1.2	4.6	0.6	100.0	173
Multiple sexual partners and partner concurrency in past 12 months						
0	87.7	6.3	5.4	0.6	100.0	886
1	90.0	4.9	4.5	0.6	100.0	7 676
Missing	88.4	6.9	4.7	0.0	100.0	508
Condom use at last sexual intercourse in past 12 months						
Used condom	83.2	9.0	7.4	0.4	100.0	721
Did not use condom	90.6	4.6	4.3	0.5	100.0	7 463
No sexual intercourse in last 12 months	87.7	6.3	5.4	0.6	100.0	886
Paid for sexual intercourse in past 12 months						
Yes	88.0	6.0	6.0	0.0	100.0	100
Used condom	87.5	5.6	6.9	0.0	100.0	72
Did not use condom	89.3	7.1	3.6	0.0	100.0	28
No (no paid sexual intercourse/no sexual intercourse in last 12 months)	89.7	5.1	4.6	0.5	100.0	8 970
Number of lifetime partners						
1	89.6	4.9	4.6	0.9	100.0	3 768
2	89.7	5.1	5.0	0.3	100.0	2 503
3-4	90.1	5.1	4.6	0.2	100.0	1 470
5-9	90.1	5.3	4.2	0.4	100.0	714
10+	91.3	5.4	3.0	0.2	100.0	404
Missing	84.8	7.6	7.1	0.5	100.0	211
Prior HIV testing						
Ever tested	90.2	4.9	4.6	0.4	100.0	5 027
Received results	90.2	4.8	4.6	0.4	100.0	4 855
Did not received results	89.2	6.8	4.1	0.4	100.0	222
Never tested	89.2	5.4	4.7	0.0	100.0	4 855
Total	89.7	5.1	4.6	0.8	100.0	222
				0.5	100.0	3 093
					100.0	9 070

¹ Includes all dried blood spots (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.

² Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason or not enough blood to complete the algorithm.

³ A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners includes polygynous men who had overlapping sexual partnerships with two or more wives).

The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2016 Ethiopia Demographic and Health Survey (2016 EDHS) to minimise this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2016 EDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

For detailed information on the 2016 EDHS estimates of sampling errors, see Appendix B of the 2016 EDHS report.

Table B.1. List of indicators for sampling errors, Ethiopia DHS 2016

Variable	Estimate	Base population
Women		
HIV prevalence	Proportion	All women 15-49 who were tested
Men		
HIV prevalence (Men 15-49)	Proportion	All men 15-49 who were tested
HIV prevalence (Men 15-59)	Proportion	All men 15-59 who were tested
Men and Women		
HIV prevalence (Women and Men 15-49)	Proportion	All men and women 15-49 who were tested

* Mortality rates are calculated for last 0-4 years before the survey for the national sample, and last 0-9 years before the survey for regional samples.

Table B.2. Sampling errors: Total sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.012	0.001	14,449	13,297	1.589	0.118	0.009	0.015
Men								
HIV prevalence (Men 15-49)	0.006	0.001	10,308	11,381	1.399	0.184	0.004	0.008
HIV prevalence (Men 15-59)	0.006	0.001	11,327	12,479	1.423	0.173	0.004	0.008
Men and Women								
HIV prevalence (Women and men 15-49)	0.009	0.001	24,757	24,679	1.629	0.107	0.007	0.011

Table B.3 Sampling errors: Urban sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.036	0.005	4,688	2,947	1.826	0.139	0.026	0.045
Men								
HIV prevalence (Men 15-49)	0.020	0.005	2,950	2,257	1.750	0.225	0.011	0.029
HIV prevalence (Men 15-59)	0.020	0.004	3,215	2,460	1.735	0.216	0.011	0.028
Men and Women								
HIV prevalence (Women and men 15-49)	0.029	0.004	7,638	5,204	1.963	0.130	0.021	0.036

Table B.4 Sampling errors: Rural sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.006	0.001	9,761	10,350	1.555	0.206	0.003	0.008
Men								
HIV prevalence (Men 15-49)	0.002	0.001	7,358	9,125	1.233	0.321	0.001	0.003
HIV prevalence (Men 15-59)	0.003	0.001	8,112	10,019	1.365	0.298	0.001	0.004
Men and Women								
HIV prevalence (Women and men 15-49)	0.004	0.001	17,119	19,475	1.552	0.187	0.003	0.006

Table B.5 Sampling errors: Tigray sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.015	0.003	1,598	957	1.127	0.228	0.008	0.022
Men								
HIV prevalence (Men 15-49)	0.007	0.003	1,064	696	1.114	0.412	0.001	0.012
HIV prevalence (Men 15-59)	0.007	0.003	1,200	782	1.058	0.362	0.002	0.012
Men and Women								
HIV prevalence (Women and men 15-49)	0.012	0.002	2,662	1,653	1.172	0.210	0.007	0.016

Table B.6 Sampling errors: Affar sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.016	0.005	1,037	109	1.360	0.332	0.005	0.027
Men								
HIV prevalence (Men 15-49)	0.012	0.005	608	81	1.203	0.441	0.001	0.023
HIV prevalence (Men 15-59)	0.013	0.005	668	88	1.185	0.406	0.002	0.023
Men and Women								
HIV prevalence (Women and men 15-49)	0.014	0.005	1,645	190	1.581	0.324	0.005	0.024

Table B.7 Sampling errors: Amhara sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.013	0.003	1,688	3,149	1.075	0.224	0.007	0.019
Men								
HIV prevalence (Men 15-49)	0.010	0.003	1,463	2,858	1.253	0.329	0.003	0.016
HIV prevalence (Men 15-59)	0.010	0.003	1,632	3,177	1.297	0.324	0.003	0.016
Men and Women								
HIV prevalence (Women and men 15-49)	0.012	0.003	3,151	6,007	1.326	0.217	0.007	0.017

Table B.8 Sampling errors: Oromiya sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.011	0.003	1,798	4,834	1.273	0.290	0.004	0.017
Men								
HIV prevalence (Men 15-49)	0.002	0.001	1,454	4,324	1.042	0.590	0.000	0.005
HIV prevalence (Men 15-59)	0.003	0.001	1,570	4,679	1.020	0.502	0.000	0.005
Men and Women								
HIV prevalence (Women and men 15-49)	0.007	0.002	3,252	9,157	1.266	0.272	0.003	0.010

Table B.9 Sampling errors: Somali sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.001	0.001	1,257	390	0.908	1.012	0.000	0.002
Men								
HIV prevalence (Men 15-49)	0	0	795	293	NA	NA	0.000	0.000
HIV prevalence (Men 15-59)	0	0	872	323	NA	NA	0.000	0.000
Men and Women								
HIV prevalence (Women and men 15-49)	0	0	2,052	683	0.877	1.012	0.000	0.001

Table B.10 Sampling errors: Benishanqul-Gumuz sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.016	0.004	1,036	136	1.159	0.286	0.007	0.025
Men								
HIV prevalence (Men 15-49)	0.003	0.002	787	116	1.017	0.656	0.000	0.007
HIV prevalence (Men 15-59)	0.005	0.003	858	125	1.279	0.588	0.000	0.012
Men and Women								
HIV prevalence (Women and men 15-49)	0.010	0.002	1,823	252	1.053	0.247	0.005	0.015

Table B.11 Sampling errors: SNNPR sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.005	0.002	1,761	2,788	1.259	0.429	0.001	0.009
Men								
HIV prevalence (Men 15-49)	0.002	0.001	1,372	2,326	1.015	0.584	0.000	0.005
HIV prevalence (Men 15-59)	0.003	0.001	1,509	2,553	1.000	0.509	0.000	0.005
Men and Women								
HIV prevalence (Women and men 15-49)	0.004	0.001	3,133	5,114	1.244	0.367	0.001	0.006

Table B.12 Sampling errors: Gambela sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.057	0.012	985	37	1.616	0.210	0.033	0.081
Men								
HIV prevalence (Men 15-49)	0.037	0.008	741	34	1.205	0.225	0.021	0.054
HIV prevalence (Men 15-59)	0.038	0.008	797	36	1.197	0.212	0.022	0.055
Men and Women								
HIV prevalence (Women and men 15-49)	0.048	0.009	1,726	71	1.719	0.185	0.030	0.065

Table B.13 Sampling errors: Harari sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.035	0.006	742	33	0.906	0.176	0.022	0.047
Men								
HIV prevalence (Men 15-49)	0.013	0.005	457	28	1.007	0.416	0.002	0.023
HIV prevalence (Men 15-59)	0.018	0.007	506	31	1.153	0.378	0.004	0.032
Men and Women								
HIV prevalence (Women and men 15-49)	0.024	0.004	1,199	61	0.903	0.165	0.016	0.033

Table B.14 Sampling errors: Addis Ababa sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.042	0.006	1,606	789	1.154	0.138	0.030	0.053
Men								
HIV prevalence (Men 15-49)	0.022	0.005	939	562	1.002	0.216	0.013	0.032
HIV prevalence (Men 15-59)	0.023	0.005	1,024	611	1.037	0.212	0.013	0.033
Men and Women								
HIV prevalence (Women and men 15-49)	0.034	0.004	2,545	1,351	1.087	0.115	0.026	0.042

Table B.15 Sampling errors: Dire Dawa sample, Ethiopia DHS 2016

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			Lower (R-2SE)	Upper (R+2SE)
Women								
HIV prevalence (Women 15-49)	0.035	0.007	941	77	1.218	0.208	0.021	0.050
Men								
HIV prevalence (Men 15-49)	0.013	0.005	628	65	1.029	0.364	0.003	0.022
HIV prevalence (Men 15-59)	0.016	0.005	691	71	1.118	0.333	0.005	0.027
Men and Women								
HIV prevalence (Women and Men 15-49)	0.025	0.005	1,569	142	1.149	0.182	0.016	0.034

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		
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