HIV/AIDS in Ethiopia

Data from the 2011 Ethiopia Demographic and Health Survey

This report summarises the HIV/AIDS-related findings from the 2011 Ethiopia Demographic and Health Survey (EDHS), which was carried out under the aegis of the Ministry of Health (MOH) and was implemented by the Central Statistical Agency (CSA). The testing of blood samples for HIV status was handled by the Ethiopia Health and Nutrition Research Institute (EHNRI). ICF International provided technical assistance as well as funding to the project through the MEASURE DHS project, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide. Funding for the EDHS was also provided by the government of Ethiopia and various international donor organizations and governments: the United States Agency for International Development (USAID), the HIV/AIDS Prevention and Control Office (HAPCO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the United Kingdom Department for International Development (DFID), and the United States Centers for Disease Control and Prevention (CDC). The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organisations.

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

Additional information about the DHS programme may be obtained from MEASURE DHS, ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, U.S.A. Telephone: 1.301.572.0200; Fax: 1.301.572.0999; E-mail: reports@measuredhs.com.

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Cover photograph: © 2009 Michael Tsegaye, Courtesy of Photoshare. A local celebrity poses for a voluntary counselling and testing (VCT) day poster in Semera, Ethiopia.

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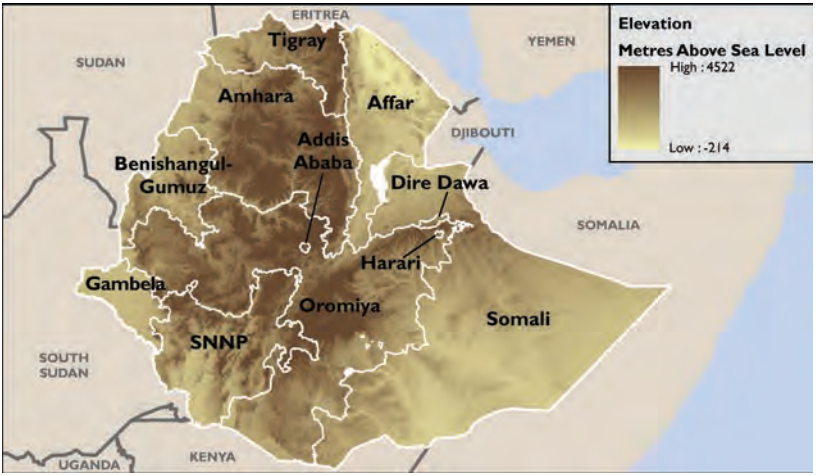
About the Survey

2011 Ethiopia Demographic and Health Survey (EDHS)

The 2011 EDHS is the third Demographic and Health Survey conducted in Ethiopia. It is designed to measure levels, patterns, and trends in demographic and health indicators.

In the 2011 EDHS, a nationally representative sample of 16,515 women age 15–49 and 14,110 men age 15–59 in all selected households were interviewed. This represents a response rate of 95% for women and 89% for men. The sample design for the 2011 EDHS provides estimates at the national (total, urban, and rural) and regional levels (shown below).

The Ethiopia DHS provides data on fertility, family planning, maternal and child health, childhood mortality, nutrition, malaria, HIV knowledge and behaviour, and HIV prevalence. Both the 2005 EDHS and the 2011 EDHS included HIV prevalence testing. In 2011, more than 28,000 women and men were tested for HIV as part of the EDHS.



Introduction

HIV/AIDS has been a major health issue in sub-Saharan Africa for more than two decades. Ethiopia has one of the lowest HIV prevalence rates in East Africa, but there are still more than one million people estimated to be living with HIV in Ethiopia. Continued education, prevention, and treatment are necessary to prevent the spread of future infections and to care for those already infected.

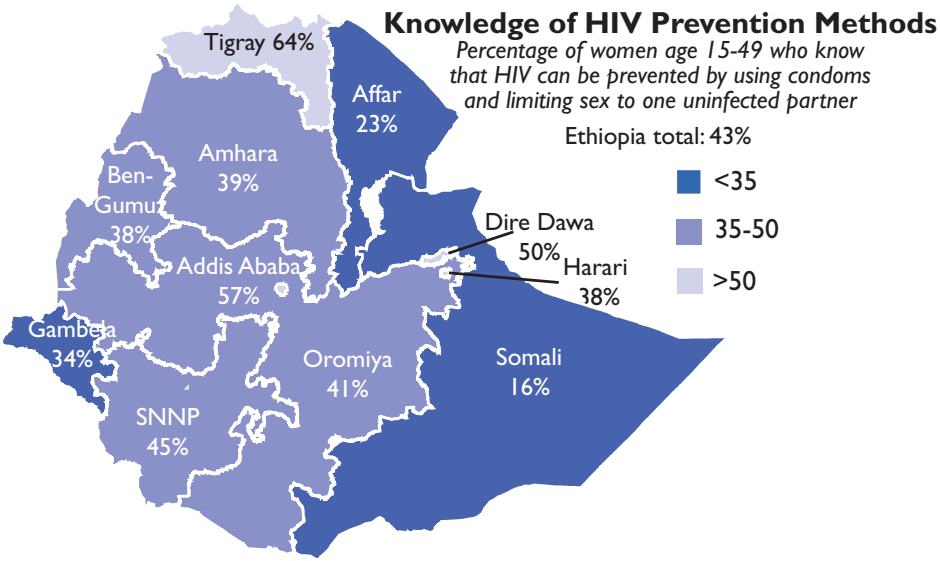
The last decade has seen tremendous growth in HIV-related programmes, including education and stigma-reduction programs, behaviour change initiatives, expansion of HIV testing, and programmes aimed at youth. The 2005 and 2011 Ethiopia Demographic and Health Surveys, as well as most MEASURE DHS surveys in East Africa, measured HIV prevention knowledge, HIV-related attitudes, high risk sexual behaviours, HIV testing, and HIV prevalence. A detailed look at these data suggest that many programmes have been effective. Overall awareness of HIV/AIDS has increased, and HIV testing has become much more common. But EDHS data also point to areas where improvement is still needed, and where focused activities could help to address inequities.

HIV/AIDS-Related Knowledge

As of 2011, almost all women and men in Ethiopia had heard of AIDS. Women's knowledge of AIDS has increased since 2005 when only 90% women age 15-49 had ever heard of AIDS.

Knowledge of HIV prevention methods is not as high. Currently only 56% of women know that HIV can be prevented by using condoms and only 65% know that HIV can be prevented by limiting sex to one uninfected partner. Men's knowledge of the two major prevention methods is much higher; 82% of men know about using condoms and 74% of men know about limiting sex to one partner.

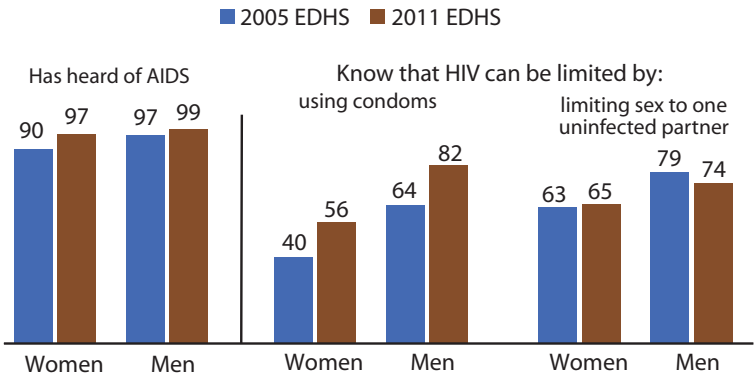
Knowledge of HIV prevention methods is highest among women and men in urban areas, those with secondary or higher education, and those from the wealthiest households. Women and men living in Tigray are most likely to know the two prevention methods, while those in Somali are least knowledgeable.



Knowledge of using condoms to prevent HIV has increased since 2005 among both women and men. However, the knowledge that limiting sex to one uninfected partner prevents HIV has stagnated among both women and men.

Trends in HIV Knowledge

Percentage of women and men age 15-49



EDHS respondents were also asked about several HIV/AIDS misconceptions. About two-thirds of women (63%) and four-fifths of men (78%) age 15-49 know that a healthy-looking person can be infected with HIV. This is an increase of about 10 percentage points since 2005 (51% and 69%, respectively). About half of Ethiopian women and 63% of Ethiopian men incorrectly believe that HIV can be transmitted by mosquito bites and about one-quarter of Ethiopian women and men believe that HIV can be transmitted by supernatural means.

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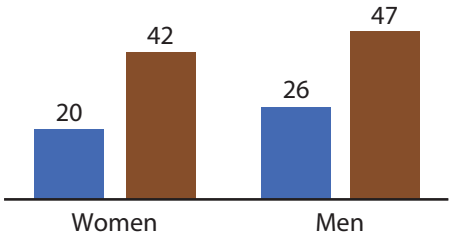
A soldier in Ethiopia reads a comic book on HIV/AIDS

Knowledge of Mother-to-Child Transmission

Knowledge of mother-to-child transmission (MTCT) of HIV has increased in recent years. Currently 42% of women and 47% of men know that HIV can be transmitted by breastfeeding and that the risk of mother-to-child transmission can be reduced by taking drugs during pregnancy. This is a sizeable increase since 2005 when only 20% of women and 26% of men knew about MTCT.

Trends in Knowledge of Mother-to-Child Transmission

Percentage who know that HIV can be transmitted by breastfeeding and that the risk can be reduced by mother taking special drugs during pregnancy



Knowledge of MTCT is unevenly spread throughout Ethiopia. Women living in urban areas are twice as likely to know about MTCT as those living in rural areas. MTCT knowledge is very high among those who have more than secondary education (84%) compared to only 28% among those with no education. MTCT knowledge among women ranges from a low of only 17% in Somali to 81% in Addis Ababa.

© 2005 Virginia Lamprecht, Courtesy of Photoshare
A mother holds her infant in a village near Awassa, Ethiopia.

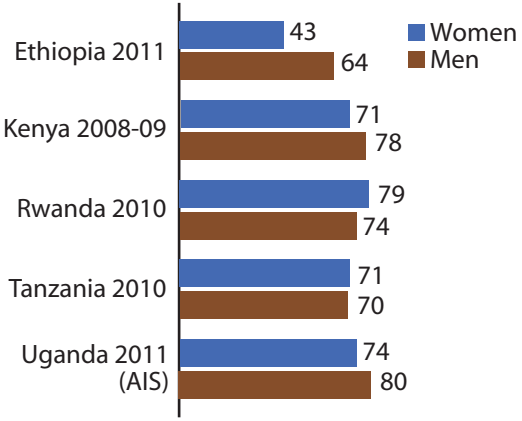
HIV-Related Knowledge in East Africa

Despite improvements in HIV-related knowledge, Ethiopia continues to lag behind its neighbours in HIV knowledge. Women's knowledge in Ethiopia is particularly low when compared to women in other East African countries. More than 70% of women in Kenya, Rwanda, Tanzania, and Uganda know the two major methods for preventing HIV compared to only 43% in Ethiopia.

Similarly, knowledge of mother-to-child transmission of HIV is lower in Ethiopia than in nearby countries.

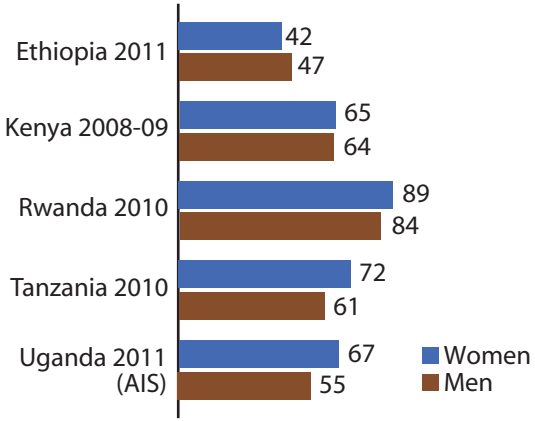
HIV Prevention Knowledge in East Africa

Percentage of women and men who know that HIV can be prevented by using condoms and by limiting sex to one uninfected partner



MTCT Knowledge in East Africa

Percentage of women and men who know that HIV can be transmitted by breastfeeding and the risk of MTCT can be reduced by mother taking special drugs during pregnancy



HIV/AIDS-Related Attitudes

Accepting attitudes about HIV/AIDS

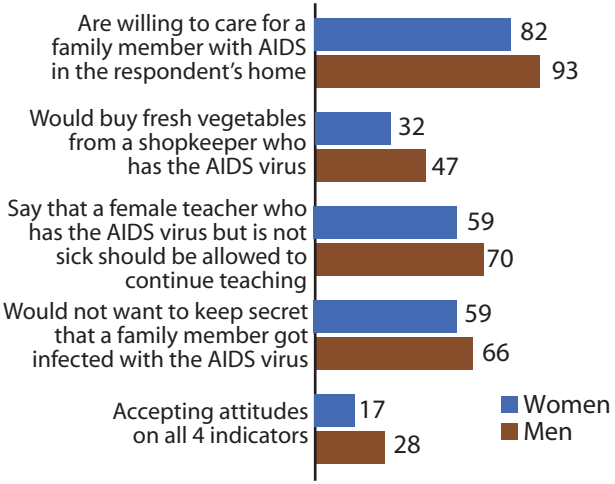
HIV-related stigma persists in Ethiopia. While 82% of women and 93% of men say that they would be willing to take care of a family member with AIDS in their own home, only 32% of women and 47% of men report that they would buy fresh vegetables from a shopkeeper who has the AIDS virus. In addition, about 6 in 10 women and men would not want to keep a secret that a family member was infected with the AIDS virus. Overall, only 17% of women and 28% of men express accepting attitudes on all four indicators.

HIV-related stigma is most common in SNNP, while acceptance is highest in the major cities of Harari, Addis Ababa, and Dire Dawa. Acceptance also increases with education—more than half of women and men with more than secondary education express accepting attitudes on all four indicators compared with less than 15% of those with no education.

HIV acceptance is lower in Ethiopia than in several neighbouring countries. More than 30% of women and 40% of men in Kenya, Tanzania, and Rwanda, had accepting attitudes on all four indicators, while attitudes among women and men in Uganda are more comparable to Ethiopians.

Accepting Attitudes Towards Those Living with HIV/AIDS

Percentage of women and men age 15-49 who express the following accepting attitudes:

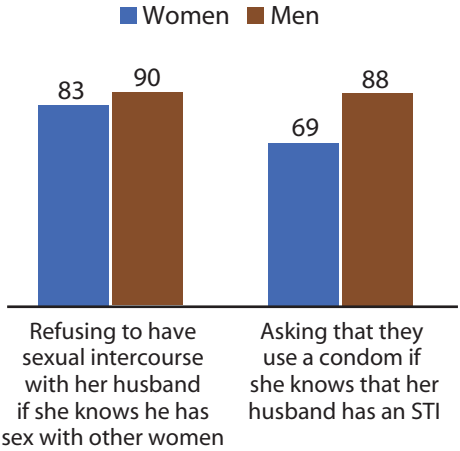


Negotiating safer sex with husband

Most women and men in Ethiopia believe that a woman is justified in negotiating safer-sex practices under certain circumstances. The majority of women and men in Ethiopia believe that women are justified in refusing to have sex with their husband if she suspects that the husband has sex with other women. Two-thirds of women and almost 9 in 10 men believe that women are justified in asking husbands to wear a condom if they know the husband has a sexually transmitted infection.

Attitudes Towards Negotiating Safer Sex with Husbands

Percentage of women and men who believe that a woman is justified in:



These safer-sex negotiations are more acceptable in urban areas than in rural areas and are much more common among the most educated and wealthy women and men. For example, almost all (97%) of women with more than secondary education say that a woman is justified in asking the husband to use a condom if he has an STI compared to only 56% of women with no education.

Adult support of condom education

Half of women and three-quarters of men agree that children age 12-14 years should be taught about using a condom to avoid AIDS. Support of condom education varies widely by region. In Somali and Affar, less than 30% of women and about half of men support condom education compared to more than two-thirds of women in Addis Ababa and Tigray.

Multiple Sexual Partnerships and Paid Sex

Having sex with multiple partners, especially without using a condom, puts women and men at risk of contracting HIV. Multiple sexual partnerships are very rare among women. Less than 1% of women in Ethiopia report having more than one sexual partner in the year before the survey. The one exception is women in Gambela, where 11% report having had more than one sexual partner in the year before the survey.

Multiple sexual partnerships are slightly more common among men (4%). Among these men with multiple partners, 16% reported having used a condom the last time they had sex. Interestingly, older men (age 40-49) are most likely to have had multiple partners in the past year (8%), but least likely to have used a condom at last sex (3%). Again, multiple sexual partnership is most common among men in Gambela (9%).

1% of women and 4% of men report having had more than one sexual partner in the past year.

Overall, women have an average of 1.5 sexual partners in their lifetime; men report an average of 2.6 lifetime sexual partners. These numbers are fairly consistent across regions in Ethiopia with the exception of Gambela. Women in Gambela report an average of more than 8 lifetime sexual partners, while men report an average of about 6 lifetime sexual partners.

5% of men have ever paid for sex.

Five percent of men age 15-49 report having ever paid for sex. Paid sex is most common among older men (13% for those age 40-49) and among those living in Gambela (15%), Tigray (13%), and Addis Ababa (11%).

Nationally, only 1% of men reported paying for sex in the year before the survey. Recent paid sex is most common in Gambela (4%).

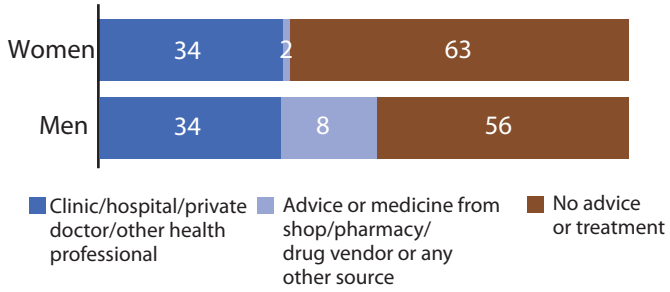
STIs and Medical Injections

Sexually active respondents to the 2011 EDHS were asked whether they had a sexually transmitted infection (STI) or an STI symptom, such as abnormal genital discharge, genital sores, or ulcers, during the 12 months before the survey. About 1% of women and men reported having an STI, but an additional 2% reported STI symptoms. In all, 3% of women and 2% of men reported having an STI or STI symptom in the year before the survey. This is the same proportion reported in 2005.

Women and men with STI symptoms should seek appropriate treatment. About one-third of women and men with STI symptoms sought care from a clinic, hospital, doctor, or other health professional. More than half of women and men with STI symptoms did not seek any advice or treatment.

STI Treatment

Percentage of women and men age 15-49 with STI symptoms by type of treatment sought



Unsafe medical injections can be a source of HIV transmission. Two in five women and one in four men received a medical injection in the year before the survey. Almost all (98%) women and men who received a medical injection in the year before the survey report that the syringe and needle used were taken from new, unopened packages.

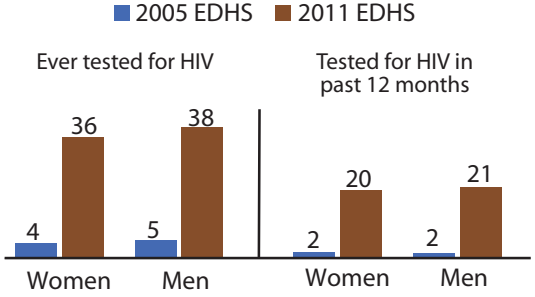
Prior HIV Testing

According to the 2011 EDHS, 66% of women and 82% of men know where to get an HIV test.

Coverage of HIV testing increased dramatically between the 2005 and 2011 surveys. In 2005, only 4% of women and 5% of men had ever been tested for HIV and received the results. In 2011, these figures had risen to 36% of women and 38% of men. Recent HIV testing has also increased. In 2005, only about 2% of Ethiopian adults had been tested for HIV in the 12 months before the survey compared to 20% in 2011.

Trends in HIV Testing

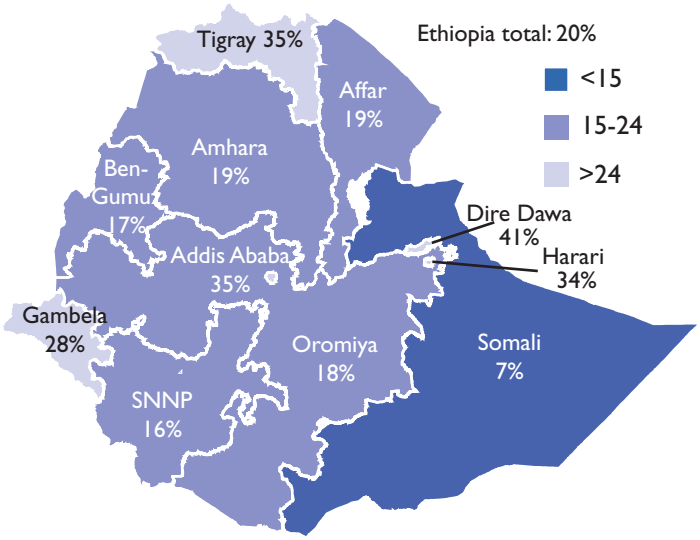
Percentage of women and men age 15-49 who have been tested for HIV and received the results



HIV testing is most common in urban areas, and among those who have higher levels of education and come from wealthier households. HIV testing also varies by region, ranging from a low of about 7% of women and men recently tested in Somali to more than 40% of women and men tested in the past year in Dire Dawa.

Recent HIV Testing

Percentage of women age 15-49 who were tested for HIV in the 12 months before the survey and received the results

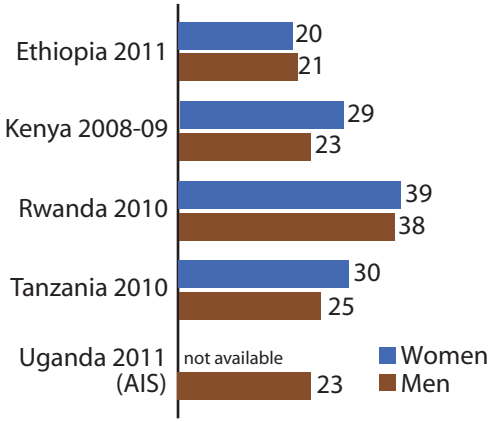


Prior HIV Testing

HIV testing is not quite as common in Ethiopia as in surrounding countries, but given Ethiopia's low HIV prevalence (see page 16), this level of testing is impressive. In most other countries, women are more likely to have been tested for HIV. In Ethiopia's case, men are slightly more likely than women to have been recently tested for HIV.

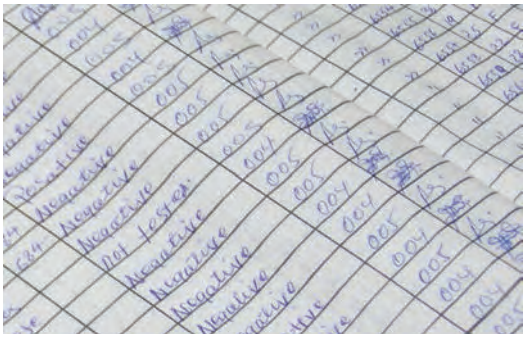
Prior HIV Testing in East Africa

Percentage of women and men who have been tested for HIV in the 12 months before the survey and received the results of the test



HIV testing during ANC

HIV counselling and testing during antenatal care (ANC) is still relatively rare in Ethiopia. This is due mostly to the fact that antenatal care itself is not common in Ethiopia—only 34% of women with a birth in the five years before the survey attended antenatal care at least once. According to the 2011 survey, only 11% of women who gave birth in the two years before the survey had received counselling, HIV testing, and the results during antenatal care. HIV counselling and testing during ANC is far more common in urban areas (43%) than rural areas (6%). Similarly, three-quarters of women in Addis Ababa with recent births received counselling and testing for HIV during ANC compared to 2% of women in Somali. Testing and counselling during ANC is also very common among women with more than secondary education (72%).



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The voluntary counseling and testing (VCT) client logbook at a family planning clinic in Addis Ababa, Ethiopia

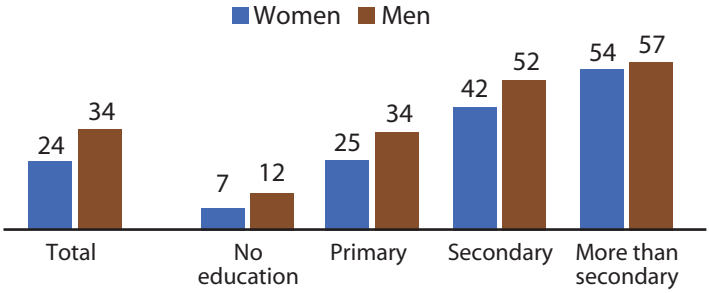
HIV Knowledge among Youth

HIV prevention among youth is key to limiting the spread of the HIV epidemic. In 2011, 43% of young women age 15-24 and 74% of young men age 15-24 knew a condom source. Young women and men in urban areas are most likely to know a condom source (76% and 95%, respectively). In addition, more than 90% of young women and men with more than secondary education know a condom source.

Only one-quarter of young women and one-third of young men have a comprehensive knowledge of AIDS, meaning that they know the two major methods for preventing HIV transmission, know that a healthy-looking person can be HIV-positive, and reject the two most common misconceptions about HIV/AIDS. Comprehensive knowledge increases dramatically with education, from only 7% of young women with no education to 54% of young women with more than secondary education. Comprehensive knowledge among youth has not changed since 2005.

Comprehensive Knowledge among Youth by Education

Percent of young women and men age 15-24 who have comprehensive knowledge of HIV



HIV-Related Behaviours among Youth

Age at first sex

Early sexual debut continues to be common in Ethiopia, especially among women. Eleven percent of young women age 15-24 and 1% of young men age 15-24 had sexual intercourse by age 15. Four in ten young women age 18-24 and 13% of young men age 18-24 had sexual intercourse by age 18.

It is important to note that sexual intercourse among young women and men in Ethiopia happens mostly within marriage. Women are married at a median age of 16.5 and men at 23.2. Ninety-five percent of never-married young women and 87% of never-married young men report that they have never had sex.

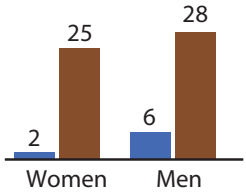
Young women and men are initiating sexual activity later than previous youth. In 2005, 11% of 15-19 year old women had had sex by age 15 compared to only 7% in 2011. Similarly, 37% of women age 18-19 had had sex by age 18 in 2005 compared to 32% in 2011.

HIV Testing among Youth

One-quarter of young women and men in Ethiopia have had a recent HIV test and received the results. This is a large increase from 2005 when only 2% of young women and 6% of young men had been tested for HIV in the 12 months before the survey.

Trends in HIV Testing among Youth

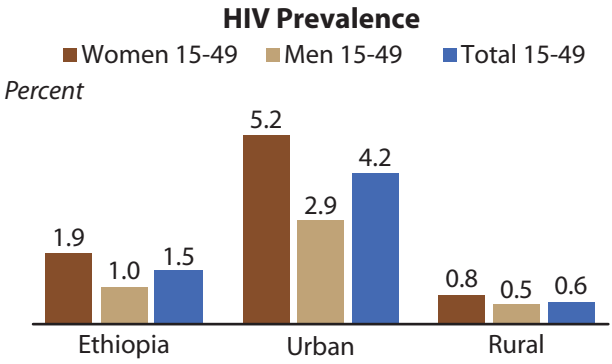
Percentage of women and men age 15-24 who have been tested for HIV in the 12 months before the survey and received the results



Recent HIV testing is most common among youth living in urban areas and among those who are most educated and from the wealthiest families. Recent HIV testing is especially high among never-married women (58%) and men (38%), possibly due to the increased emphasis placed on premarital HIV testing.

HIV Prevalence

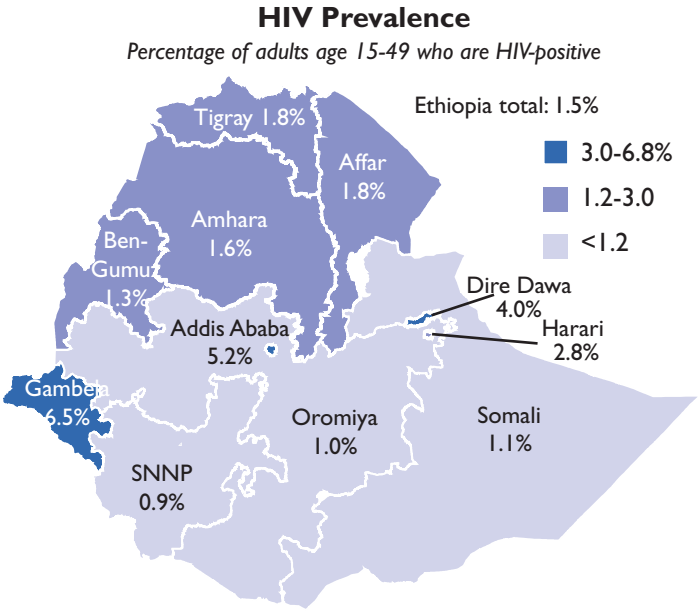
The 2011 EDHS included HIV testing of over 15,000 women age 15-49 and over 13,000 men age 15-59. Eighty-nine percent of women and 82% of men agreed to be tested for HIV.



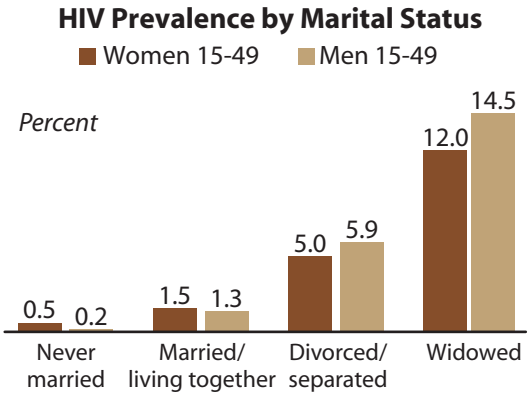
In Ethiopia, overall HIV prevalence has remained low. According to the 2011 EDHS, HIV prevalence is 1.9% for women and 1.0% for men with an overall prevalence of 1.5%. This is essentially unchanged from the HIV prevalence reported in 2005 (1.4%).

HIV prevalence is six and a half times higher among women living in urban areas (5.2%) than among women living in rural areas (0.8%). HIV estimates vary by age, with HIV prevalence highest among women age 30-34 and men age 35-39. HIV prevalence also varies by region, ranging from a low of 0.9% in SNNP to 6.5% in Gambela.

HIV prevalence is highest among employed women and men and those living in the wealthiest households.



HIV prevalence varies dramatically by marital status. Less than 1% of never-married women and men are HIV-positive, compared with 12% of widowed women and 14.5% of widowed men. HIV prevalence is also higher among women and men who are divorced or separated.



HIV Prevalence by Prior Testing

HIV-positive women and men are more likely to have tested previously for HIV. Almost three-quarters of HIV-positive women have been tested previously for HIV compared to only 35% of HIV-negative women. Similarly, 70% of HIV-positive men have been tested for HIV in the past compared to only 38% of HIV-negative men. This suggests that HIV-positive women and men are being appropriately targeted for HIV. However, about one-quarter of HIV-positive women and men have never been tested, and therefore, cannot know their status or take steps to get treatment or reduce the risk of further transmission.

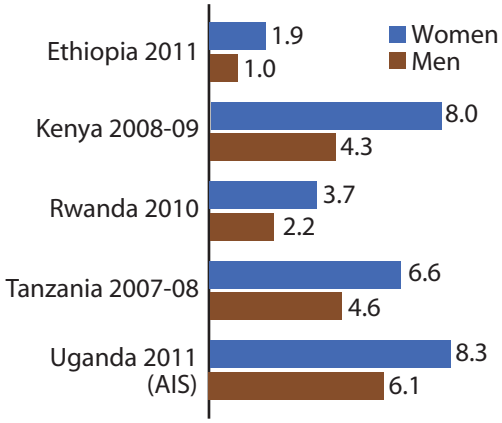
© 2004 Donna M. Guenther, Courtesy of Photoshare. Home based care kits are used by young volunteers who provide home care and hospice service to AIDS patients in communities along the High Risk Corridor of Ethiopia.

HIV Prevalence in East Africa

HIV prevalence is lower in Ethiopia than in any of the other neighbouring countries for which estimates are available through population-based testing. All of these countries have had two surveys which have included HIV testing, making a trend comparison possible. Surveys have not detected a change in HIV prevalence in Ethiopia, Kenya, or Rwanda. HIV prevalence has decreased in recent years in Tanzania, particularly among men. HIV prevalence has increased slightly in Uganda.

HIV Prevalence in East Africa

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



Interpretation of HIV prevalence trends must be undertaken with caution. An increase in HIV prevalence could be due to increased new HIV infections in a country or due to an increased number of HIV-positive people surviving on anti-retroviral therapy. Conversely, a decrease in HIV prevalence could be due to fewer new infections or due to an increased number of people dying of AIDS.

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Conclusions

HIV knowledge has improved throughout East Africa in recent years, and Ethiopia is no exception. Ethiopians are more aware of HIV now than they were in 2005; they are more likely to know about condoms as a primary method of preventing HIV, they reject common HIV-related misconceptions, and they are much more aware of mother-to-child-transmission of HIV. Considerable progress has also been made in HIV testing throughout Africa and in Ethiopia. One in five Ethiopian adults were tested for HIV in the year before the 2011 EDHS, a ten-fold increase from the 2005 survey.

In other ways, Ethiopia is quite different from its neighbours. Very few Ethiopians report higher-risk sexual behaviours. Despite early age at sexual debut, there is little sex before marriage reported, especially among women. Ethiopians also report very few lifetime sexual partners, and reports of multiple sexual partnerships are very rare.

These safe behaviours, as well as the improvements in knowledge and testing, are all factors that may be contributing to the low HIV prevalence found in Ethiopia compared to the much higher rates found throughout East Africa. Only 1.5% or Ethiopian adults are HIV-positive. This low prevalence makes the dramatic increase in HIV testing even more impressive.

Still, there is room for improvement. Ethiopians continue to lag behind in overall HIV knowledge, and improvements in overall access to health care would improve access to HIV-related care, such as in the case of antenatal care. And while national figures in Ethiopia point to the infrequency of risk behaviours, there are regional differences that demand attention. In Gambela, HIV prevalence is four times higher than the national rate. This correlates to the high rate of multiple sexual partnerships in Gambela.

The HIV epidemic is stable in Ethiopia, and substantial progress has been made in the past six years towards preventing future infections. But there are still many opportunities for improved knowledge, safer sex behaviours, testing, and treatment. Further investments in Ethiopia's health care system as a whole are key to improving general health, as well as HIV/AIDS-related health.