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HIV Prevalence Estimates

from the Demographic and Health Surveys

Updated July 2012

This report summarizes the HIV prevalence estimates provided by the MEASURE Demographic and Health Surveys (DHS) project. The MEASURE DHS project is implemented by ICF International and funded by the United States Agency for International Development (USAID).

The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

This report was prepared by Erica Nybro and Bernard Barrere, ICF International.

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For more information about the MEASURE DHS project, contact:

ICF International
11785 Beltsville Drive
Calverton, Maryland, 20705 USA

Telephone: 301-572-0200
Fax: 301-572-0999
www.measuredhs.com
email: info@measuredhs.com

Photos: Photos used in this report are not necessarily of individuals living with HIV/AIDS. For a full list of photo credits and captions, see inside back cover.

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Data included in this report

This report includes data from MEASURE DHS surveys. It is an update of the 2008 and 2010 documents of the same name. The data are cross-sectional and provide a snapshot of the current situation in the 34 countries that included HIV testing in their surveys.

MEASURE DHS began including HIV testing in surveys in 2001. Many countries now have two surveys with HIV testing. For these countries, the most recent survey findings are presented throughout the report. Trends in HIV prevalence results are discussed on pages 21-24.

For more information

For more information on MEASURE DHS surveys, methodology, and results, visit:

www.measuredhs.com

To build your own tables, charts, and maps using MEASURE DHS data, visit:

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Introduction

The Demographic and Health Surveys project (MEASURE DHS) has been assisting local agencies to conduct surveys in Africa, Asia, Latin America, and Eastern Europe since 1984. DHS has earned a worldwide reputation for collecting and disseminating accurate, nationally representative data on fertility, family planning, maternal and child health, child survival, malaria, nutrition, and HIV/AIDS.

DHS household surveys typically interview a nationally representative sample of over 10,000 women and men age 15-49. In recent years, blood tests have been added to the verbal interview to test for various health conditions, including anemia, and more recently, malaria and HIV.

MEASURE DHS is implemented by the U.S.-based company ICF International, and is funded by the United States Agency for International Development (USAID). HIV activities also receive funding from the President's Emergency Plan for AIDS Relief (PEPFAR). Individual surveys also receive funding from national governments, as well as multilateral and bilateral donors.

HIV Estimates from the Demographic and Health Surveys

The MEASURE DHS project has changed the way the world measures HIV prevalence. Prior to 2001, HIV prevalence was estimated largely from sentinel surveillance systems that monitored HIV rates in pregnant women attending antenatal care. This was, at the time, the best available proxy measure for national prevalence. In 2001, MEASURE DHS included testing for HIV in the Mali Demographic and Health Survey, providing for the first time ever HIV prevalence estimates from a nationally representative, population-based sample. Unlike sentinel surveillance, population-level testing includes men, nonpregnant women, and those without access to health facilities, thereby providing a more representative estimate of HIV prevalence nationwide.

Governments and international agencies have recognized the value of population-based estimates. In response to MEASURE DHS results, UNAIDS and national governments have adjusted their official HIV prevalence estimates to reflect MEASURE DHS findings.

Including HIV testing in MEASURE DHS surveys also improves understanding of the HIV pandemic, because individual HIV test results are linked with all of the information collected during the survey interview. This allows for a more comprehensive examination of the sociodemographic and behavioral factors associated with HIV infection, such as age, education, residence, wealth, marital status, and sexual behaviors than is possible with sentinel surveillance data.

Between 2001 and 2012, MEASURE DHS has included population-based HIV testing as part of 47 surveys in 34 countries. With this information, researchers, program managers and policymakers can better understand how HIV is distributed in their communities.

Summary of Surveys with HIV Prevalence

Country	Type of survey	Year	Age group tested	Total # tested, all ages	# of women age 15-49 tested	# of men age 15-49 tested	Type of specimen
Asia							
Cambodia	DHS	2005	women 15-49/men 15-49	14,703	8,047	6,656	DBS
India	DHS	2005-06	women 15-49/men 15-54	102,946	53,332	46,506	DBS
Vietnam (Hai Phong Pr.)	AIS	2005	women 15-49/men 15-49	1,675	921	754	DBS
Caribbean							
Dominican Republic	DHS	2002	women 15-49/men 15-59	22,725	10,732	10,707	Oral fluids
Dominican Republic	DHS	2007	women 15-49/men 15-59	51,109	24,564	23,513	DBS
Haiti	DHS	2005	women 15-49/men 15-59	10,062	5,230	4,321	DBS
West/Central Africa							
Benin	DHS	2006	women 15-49/men 15-64	9,599	5,025	3,949	DBS
Bukina Faso	DHS	2003	women 15-49/men 15-59	7,515	4,086	3,065	DBS
Burkina Faso**	DHS	2010	women 15-49/men 15-59	15,377	8,293	6,314	DBS
Cameroon	DHS	2004	women 15-49/men 15-49	10,352	5,227	4,672	DBS
Cameroon**	DHS	2011	women 15-49/men 15-59	14,202	7,221	6,282	DBS
Cape Verde*	DHS	2005	women 15-49/men 15-59	5,596	2,863	2,601	DBS
Central African Rep.*	MICS	2006	women 15-49/men 15-59	10,592	5,413	4,657	DBS
Central African Rep.*	MICS	2010	women 15-49/men 15-59	10,689	5,737	4,518	DBS
Congo (Brazzaville)	AIS	2009	women 15-49/men 15-49	12,110	6,438	5,671	DBS
Cote d'Ivoire	AIS	2005	women 15-49/men 15-49	8,436	4,413	4,023	DBS
DR Congo	DHS	2007	women 15-49/men 15-59	8,504	4,492	4,012	DBS
Ghana	DHS	2003	women 15-49/men 15-59	9,566	5,097	4,047	DBS
Guinea	DHS	2005	women 15-49/men 15-59	6,836	3,772	2,616	DBS
Liberia	DHS	2007	women 15-49/men 15-49	11,733	6,382	5,351	DBS
Mali	DHS	2001	women 15-49/men 15-59	6,846	3,854	2,978	DBS
Mali	DHS	2006	women 15-49/men 15-59	8,629	4,528	3,614	DBS
Niger	DHS	2006	women 15-49/men 15-59	7,673	4,406	2,856	DBS
Sao Tome and Principe	DHS	2008-09	women 15-49/men15-59	4,710	2,378	2,110	DBS
Senegal	DHS	2005	women 15-49/men 15-59	7,823	4,278	3,226	DBS
Senegal	DHS	2010-11	women 15-49/men 15-59	9,917	5,326	4,104	DBS
Sierra Leone	DHS	2008	women 15-49/men 15-59	6,475	3,448	2,726	DBS
East Africa							
Burundi	DHS	2010	women 15-49/men 15-59	8,588	4,533	3,554	DBS
Ethiopia	DHS	2005	women 15-49/men 15-59	11,042	5,736	4,804	DBS
Ethiopia	DHS	2011	women 15-49/men 15-59	28,531	15,517	11,868	DBS
Kenya	DHS	2003	women 15-49/men 15-54	6,194	3,151	2,851	DBS
Kenya	DHS	2008-09	women 15-49/men 15-54	6,906	3,641	3,066	DBS
Rwanda	DHS	2005	women 15-49/men 15-59	10,419	5,656	4,361	DBS
Rwanda	DHS	2010	women 15-49/men 15-59	13,248	6,917	5,690	DBS
Tanzania	AIS	2003-04	women 15-49/men 15-49	10,747	5,753	4,994	DBS
Tanzania	AIS/MIS	2007-08	women 15-49/men 15-49	15,044	8,179	6,865	DBS
Uganda	AIS	2004-05	women 15-59/men 15-59	18,525	9,391	7,515	Venous & DBS
			children 0-4	8,374	4,226	4,148	DBS
Southern Africa							
Lesotho	DHS	2004-05	women 15-49/men 15-59	5,286	3,031	2,012	DBS
Lesotho	DHS	2009	women 15-49/men 15-59	6,924	3,778	2,856	DBS
Malawi	DHS	2004	women 15-49/men 15-54	5,266	2,686	2,465	DBS
Malawi	DHS	2010	women 15-49/men 15-54	13,930	7,091	6,497	DBS
Mozambique	DHS	2009	women 12-64/men 12-64	12,065	5,229	3,832	DBS
			children 0-11	4,534	2,275	2,259	DBS
Swaziland	DHS	2006-07	women 15+/men15+	9,177	4,424	3,763	DBS
			children 2-14	3,589	1,841	1,747	DBS
Zambia	DHS	2001-02	women 15-49/men 15-59	3,950	2,073	1,734	DBS from venous
Zambia	DHS	2007	women 15-49/men 15-59	10,876	5,502	4,424	DBS
Zimbabwe	DHS	2005-06	women 15-49/men 15-54	13,049	6,947	5,848	DBS
Zimbabwe	DHS	2010-11	women 15-49/men 15-54	13,897	7,313	6,250	DBS

DHS: Demographic and Health Survey; AIS:AIDS Indicator Survey; MICS: Multiple Indicator Cluster Survey (UNICEF); MIS: Malaria Indicator Survey; DBS: dried blood spots
**Non-MEASURE surveys; **Only preliminary report available; all figures based on preliminary data.*

HIV Testing in MEASURE DHS Surveys

Since 2001, more than 650,000 women and men worldwide have been tested for HIV through the MEASURE DHS project's Demographic and Health Surveys and AIDS Indicator Surveys. HIV testing is usually conducted on women and men age 15-49, although some countries have tested children, and others have tested older adults. The sample size for testing ranges from 1,675 in Hai Phong Province, Vietnam, to over 102,000 in India.

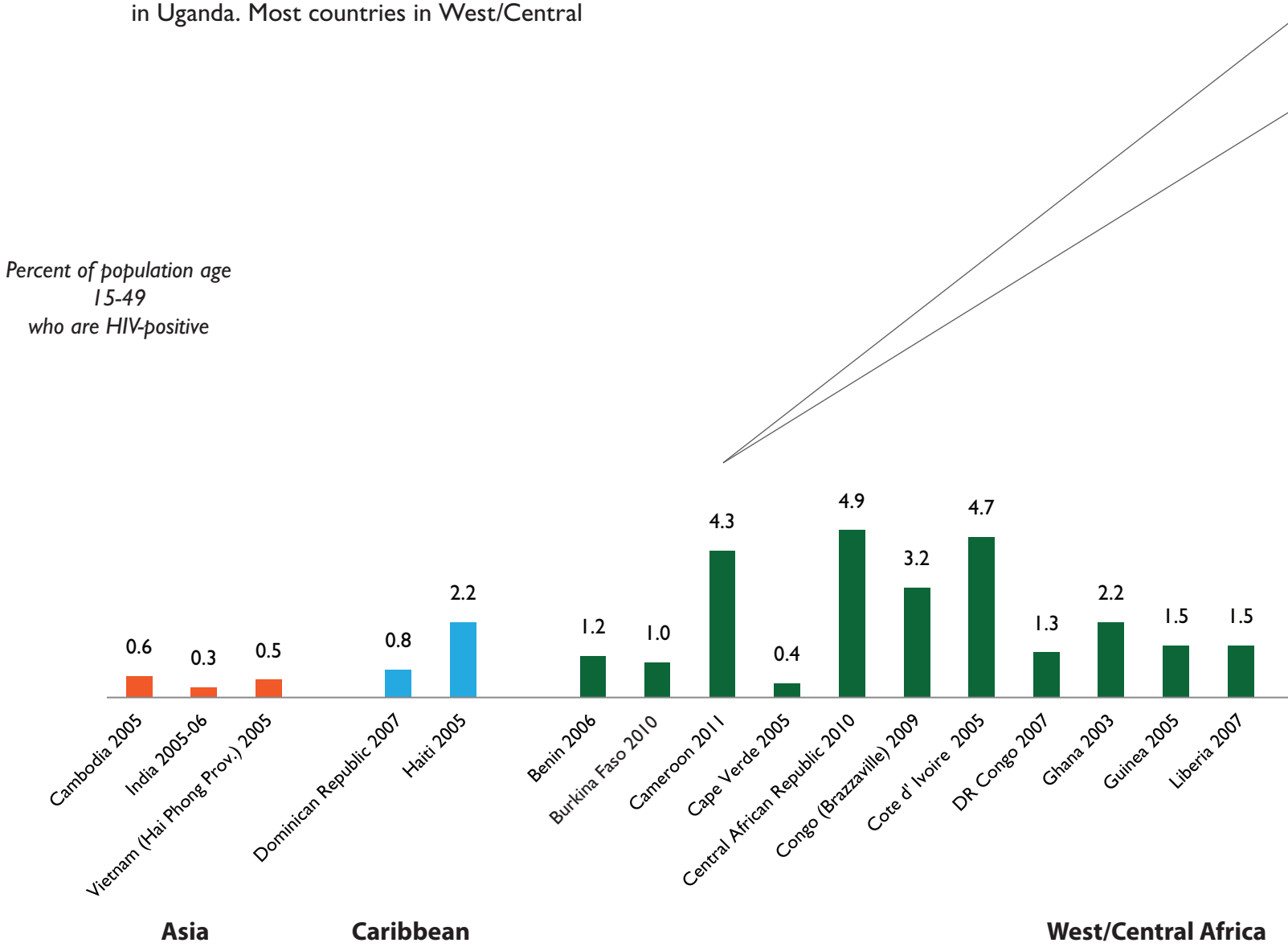
Testing Protocol

The DHS HIV testing protocol provides for informed, anonymous, and voluntary testing of women and men interviewed. The testing protocol undergoes a host-country ethical review as well as an ethical review at ICF International. In countries with CDC (U.S. Centers for Disease Control) involvement, the testing protocol is also reviewed by CDC. The testing is simple; in most cases, the interviewer collects blood drops from a finger prick on filter paper. The blood spots are then dried, and the dried blood spots (DBS) are transported to a laboratory for testing. In the laboratory, the sample undergoes an initial ELISA test, and then all positive samples and 10% of negative samples are retested with a second ELISA. For those tests with discordant results on the two ELISA tests, another test, usually a Western blot, is used to determine the result.

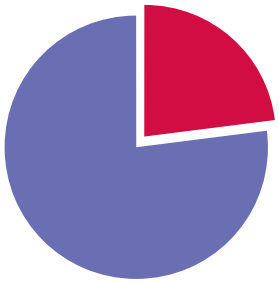
National HIV Prevalence

According to MEASURE DHS surveys, national HIV prevalence estimates are highest in southern Africa, with more than 14% of women and men age 15-49 infected with HIV in Lesotho, Swaziland, Zambia, and Zimbabwe. East Africa has more moderate rates of HIV infection, ranging from 1.4% in Ethiopia to 6.4% in Uganda. Most countries in West/Central Africa have HIV prevalence rates under 2%, although the rates in Cameroon, Central African Republic, Congo (Brazzaville), and Côte d'Ivoire are higher.

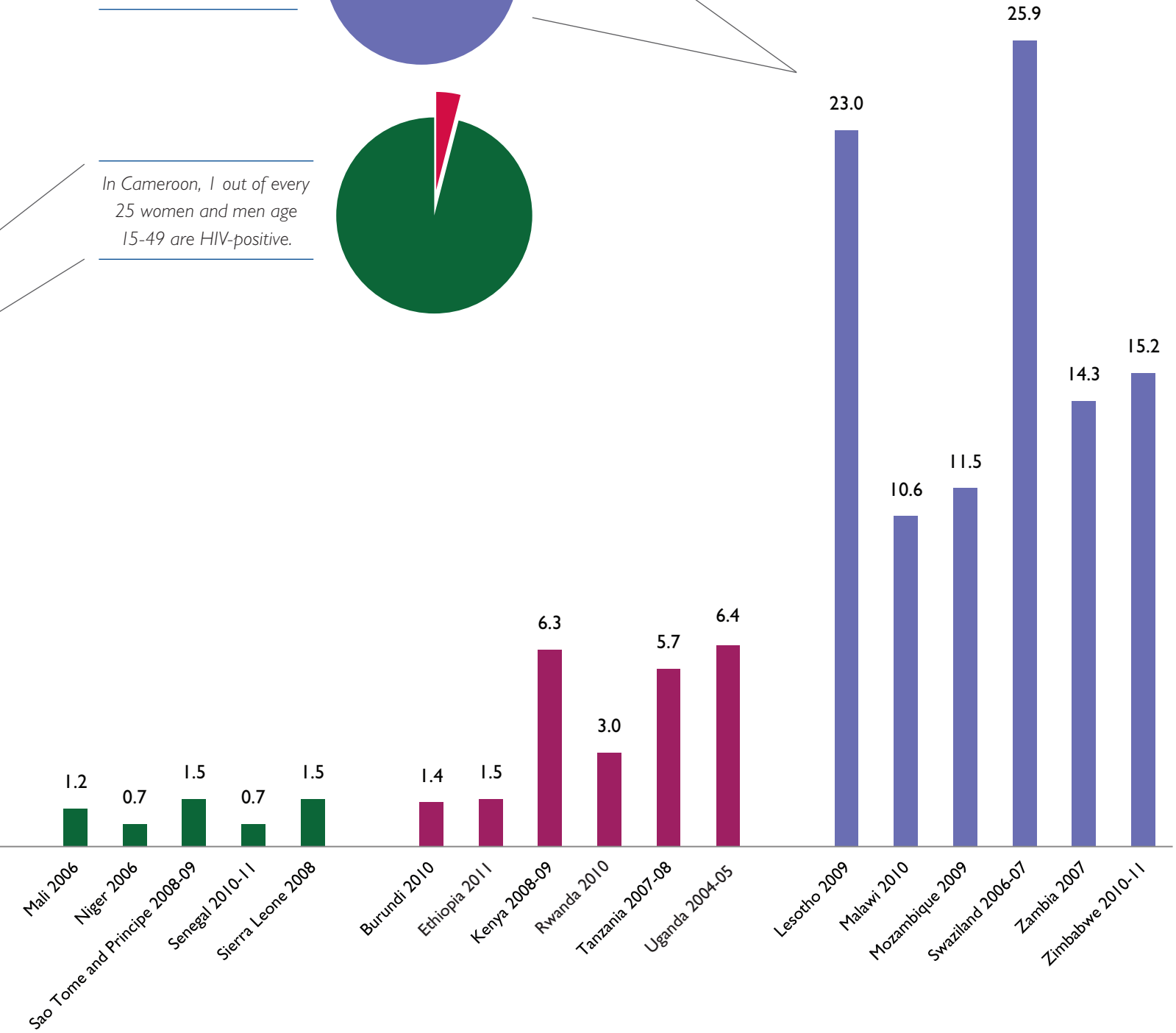
HIV prevalence in Asia is quite low–fewer than 1% of adults tested in Cambodia, India, and Hai Phong Province, Vietnam are HIV-positive. HIV prevalence is also low in the Caribbean, where about 1% of adults in the Dominican Republic and just over 2% of adults in Haiti are infected.



In Lesotho, nearly 1 in 4 women and men age 15-49 are HIV-positive.



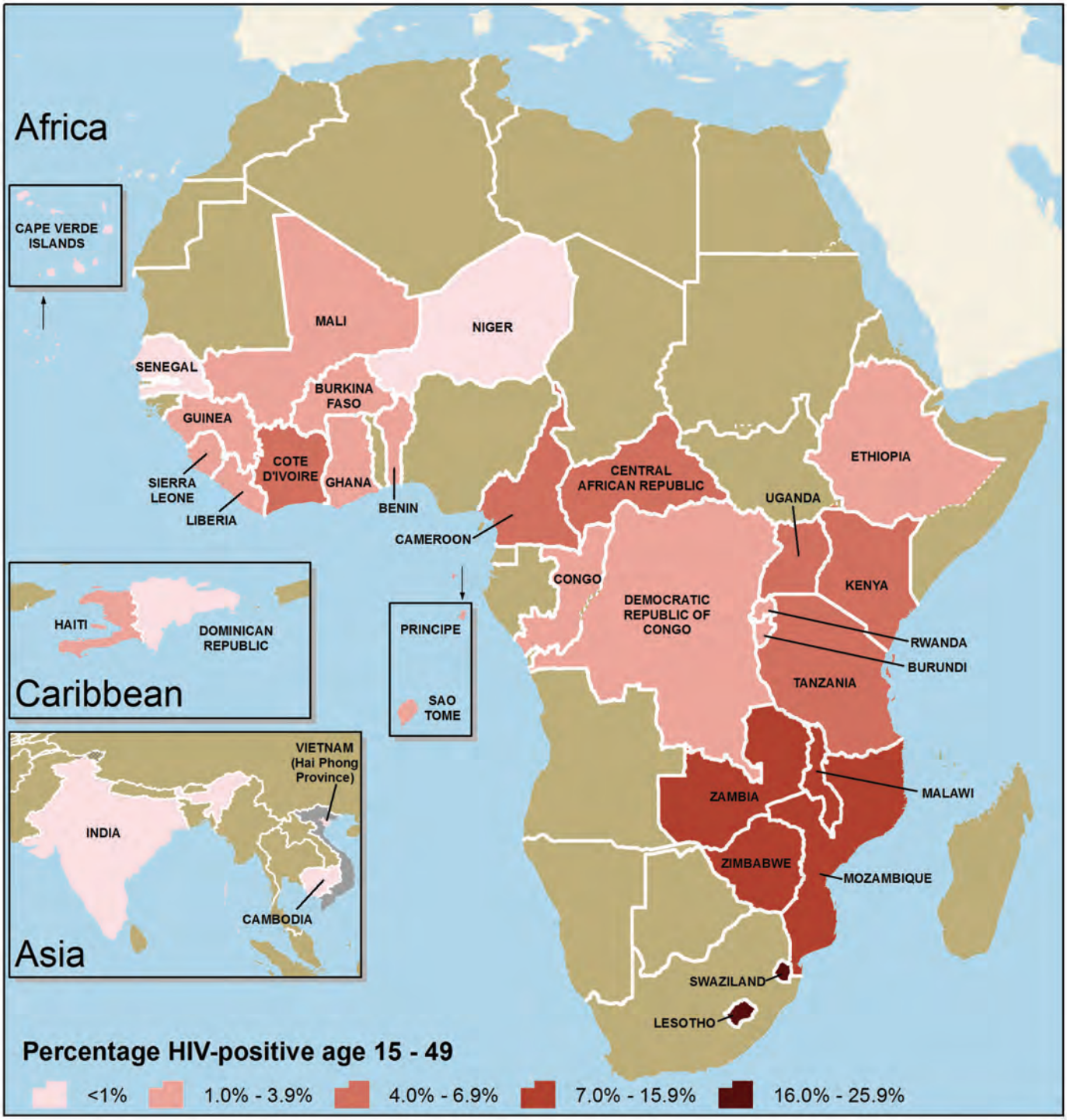
In Cameroon, 1 out of every 25 women and men age 15-49 are HIV-positive.



National HIV Prevalence

In general, HIV prevalence is highest in Southern Africa, followed by East Africa. Prevalence is mixed in West and Central Africa and is lowest in Asia and the Caribbean.

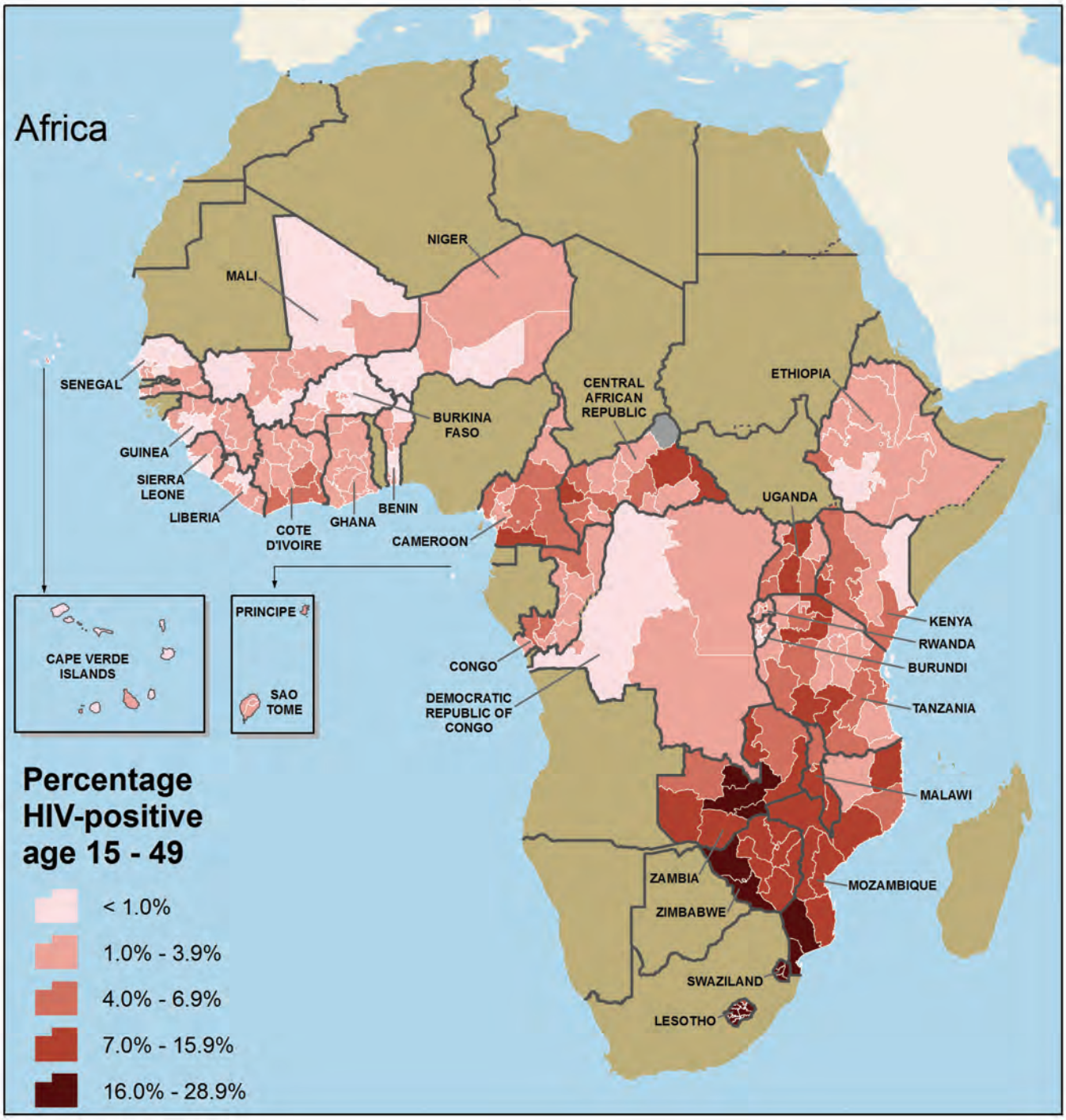
Percent of population age 15-49 who are HIV-positive



Subnational HIV Prevalence (Africa)

In most cases, DHS data provide HIV prevalence estimates at the subnational level. Some countries have fairly uniform prevalence; Lesotho, Swaziland, Zambia, and Zimbabwe have relatively high HIV prevalence across all regions, while much of West Africa has consistently lower prevalence across regions. There is greater regional variation in Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mozambique, Rwanda, Tanzania, and Uganda.

Percent of population age 15-49 who are HIV-positive

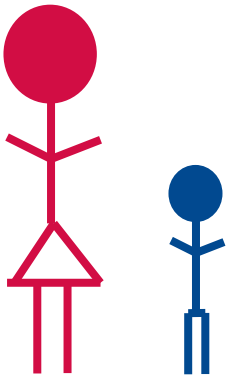


HIV Prevalence by Sex

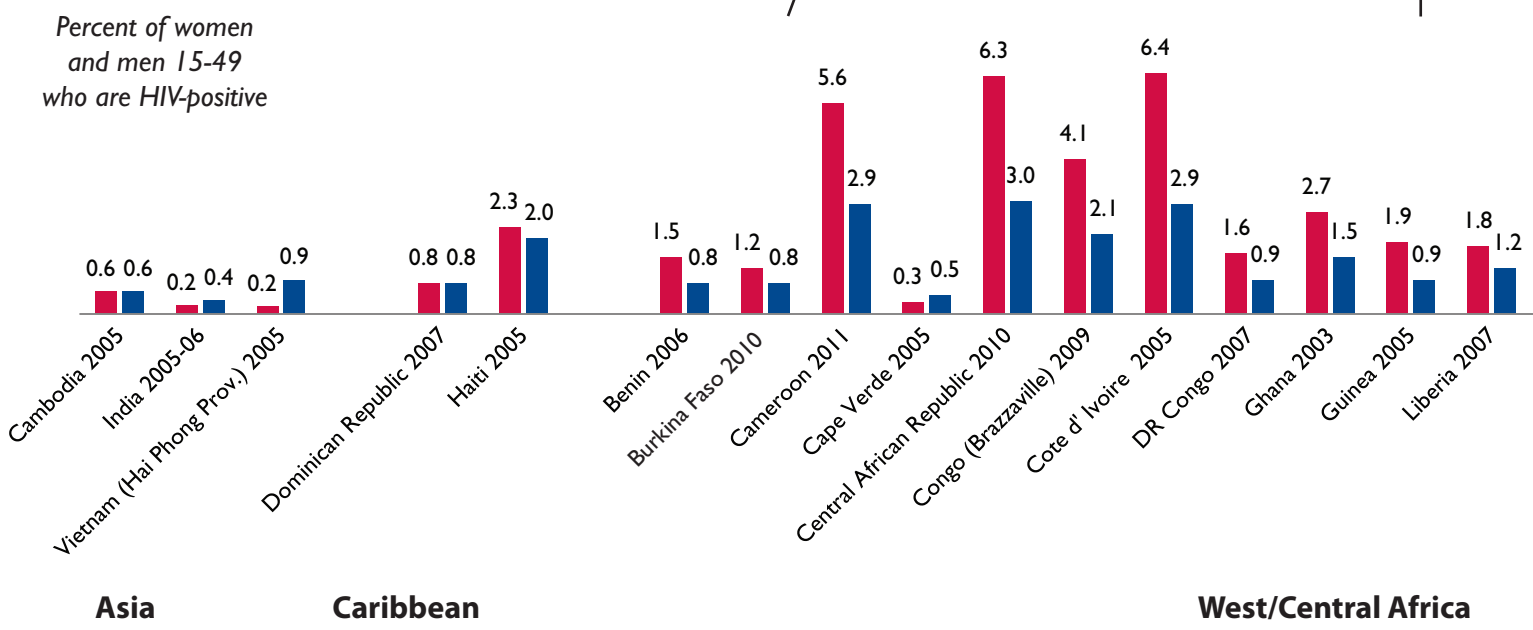
In most countries in sub-Saharan Africa, HIV prevalence is higher among women than men. Prevalence among women is highest in Swaziland, where over 30% of women tested are HIV-positive, compared to 20% of men.

In contrast, in Asia, where HIV is mainly concentrated in high-risk groups, HIV prevalence is slightly higher among men than women. There is little difference between men and women in the Caribbean.

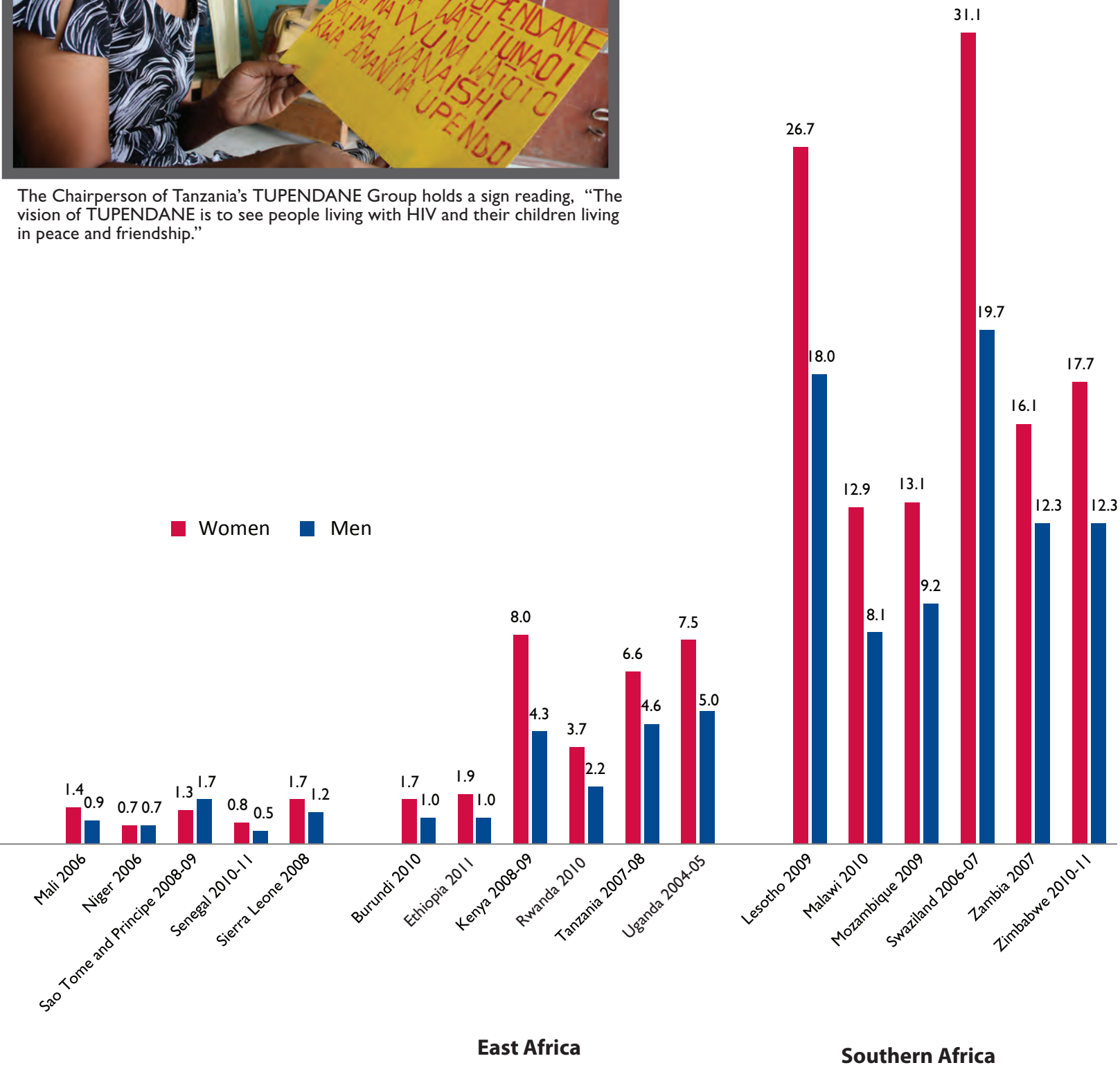
In general, the difference between women and men is smaller in countries where overall HIV infection rates are low.



The difference between women and men is most striking in West Africa. HIV prevalence is at least twice as high among women as men in Cameroon, Central African Republic, Congo, Cote d'Ivoire, Ghana, and Guinea.



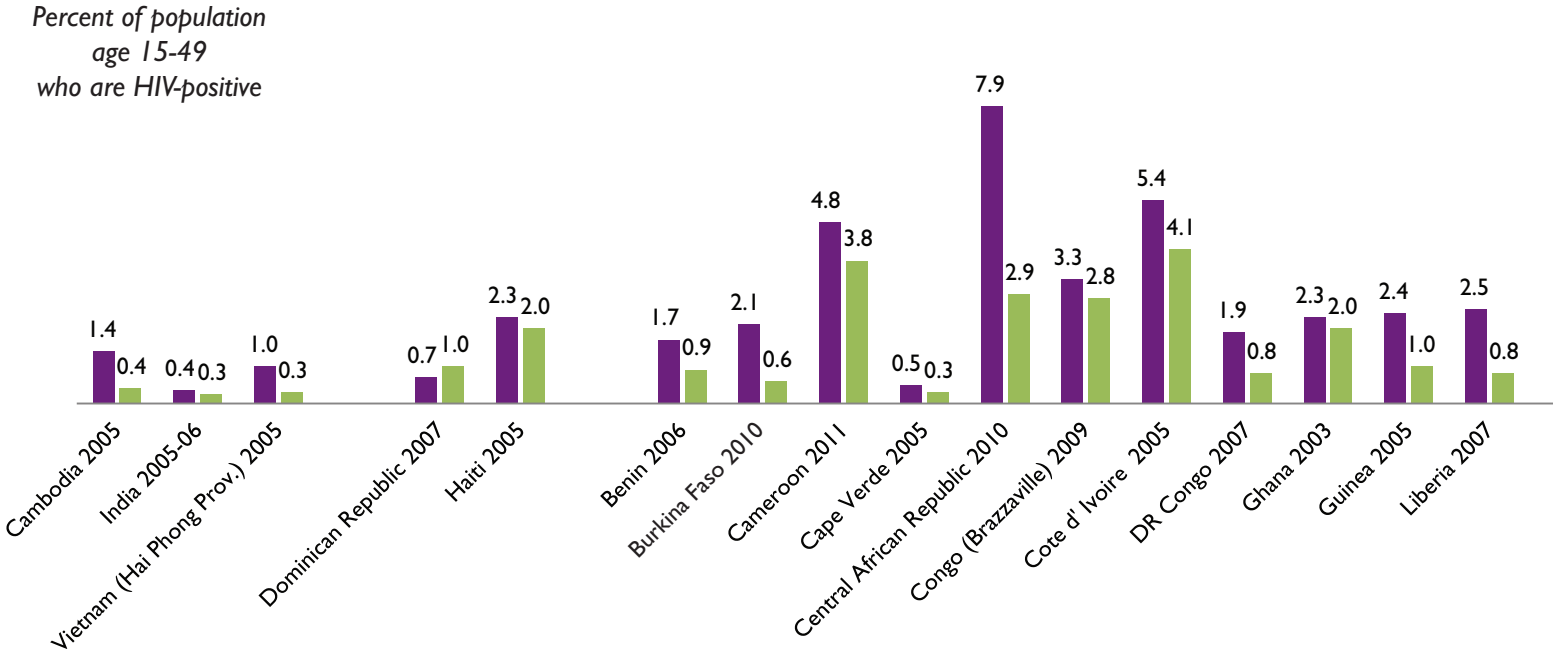
The Chairperson of Tanzania's TUPENDANE Group holds a sign reading, "The vision of TUPENDANE is to see people living with HIV and their children living in peace and friendship."

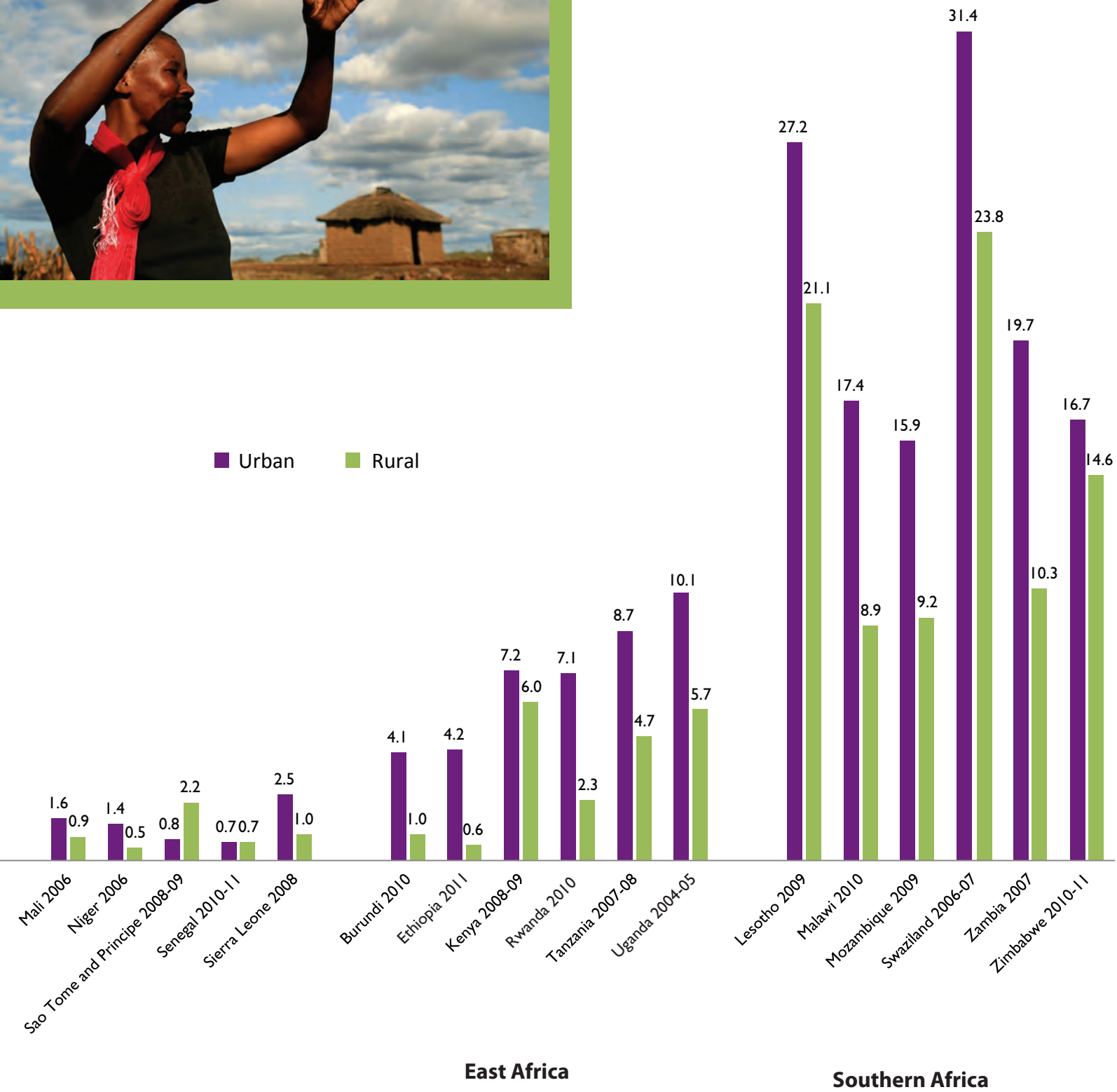


HIV Prevalence by Residence

In most countries, HIV prevalence is higher in urban than in rural areas. The Dominican Republic, São Tomé and Principe, and Senegal are the only exceptions.

The difference between urban and rural areas is most dramatic in Ethiopia, where the proportion of city dwellers infected with HIV is seven times higher than the proportion infected in rural areas.



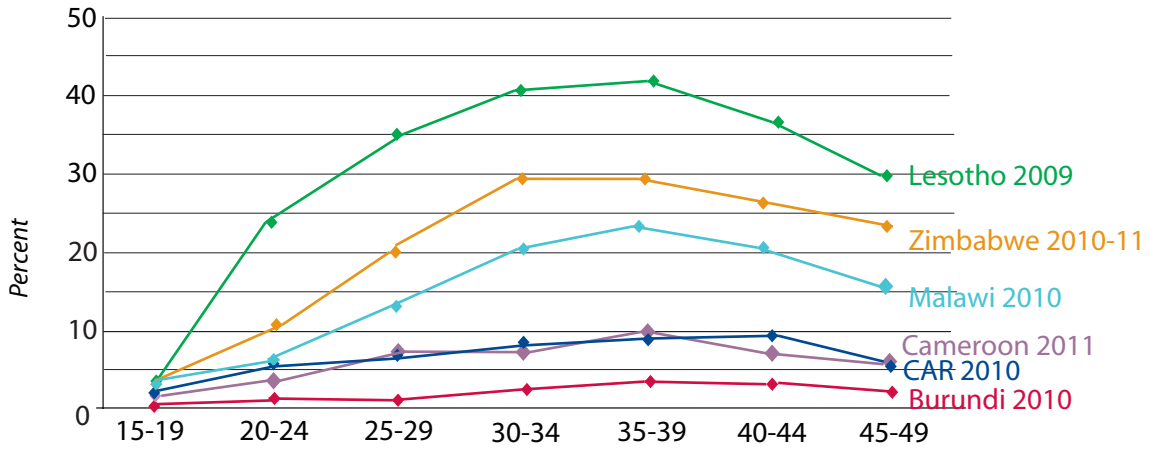

Urban
Rural
1.6
0.9
1.4
0.5
0.8
2.2
0.7
0.7
2.5
1.0
4.1
1.0
4.2
0.6
7.2
6.0
7.1
2.3
8.7
4.7
10.1
5.7
27.2
21.1
17.4
8.9
15.9
9.2
31.4
23.8
19.7
10.3
16.7
14.6
Mali 2006
Niger 2006
Sao Tome and Principe 2008-09
Senegal 2010-11
Sierra Leone 2008
Burundi 2010
Ethiopia 2011
Kenya 2008-09
Rwanda 2010
Tanzania 2007-08
Uganda 2004-05
Lesotho 2009
Malawi 2010
Mozambique 2009
Swaziland 2006-07
Zambia 2007
Zimbabwe 2010-11
East Africa
Southern Africa

HIV Prevalence by Age

In general, HIV prevalence among women increases until about age 30-39, and then declines. Among men, prevalence is lower in the early years and then hits its peak in the late 30s or early 40s.

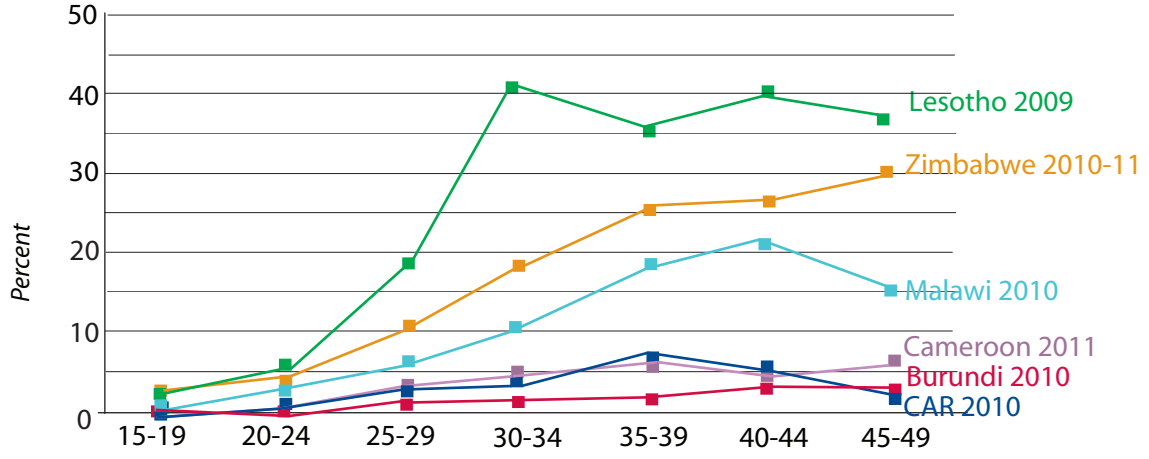
In some countries HIV prevalence is quite high among adults over 45; more than 20% of adults age 45-49 in Swaziland, Lesotho, and Zimbabwe are HIV-positive.

HIV Prevalence by Age: Women



In Zimbabwe, HIV prevalence among women peaks at age 30-39, while men's prevalence continues to increase through age 49.

HIV Prevalence by Age: Men



HIV Prevalence among Children and Older Adults

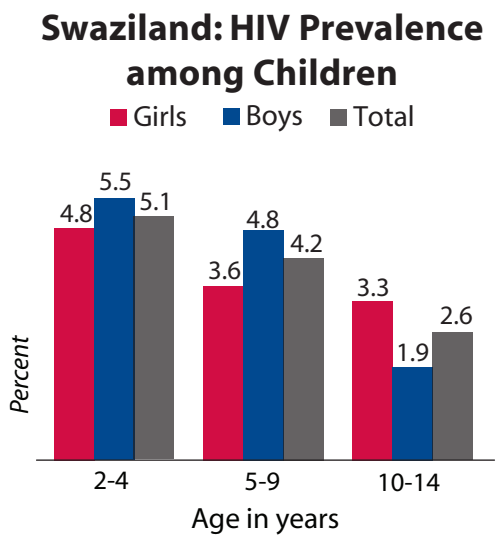
Some countries choose to test younger children and older adults. Uganda tested children under age 5; Mozambique tested children age 15 and under; and Swaziland's survey included testing of children age 2-14.

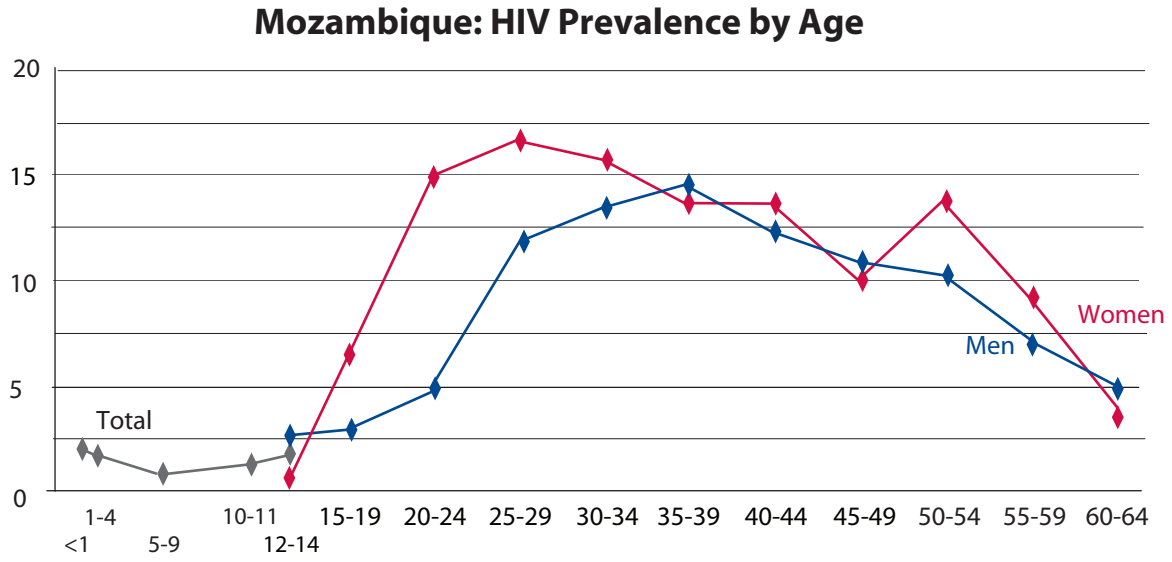
Prevalence among children is relatively low in these countries. In Uganda, less than 1% of children under age 5 are HIV-positive, while in Swaziland, 5% of children age 2-4 tested positive. In Mozambique, 2% of children under age 5 are HIV-positive.

Prevalence decreases with age among children. Children who are born with HIV have usually died before their early teen years, and the surviving have not yet been exposed to HIV through sexual activity.

While many countries test women up to age 49 and men up to age 55 or 59, the 2006-07 Swaziland DHS included testing of all women and men in the household and the Mozambique AIS tested women and men through age 64.

In Swaziland, one in four adults age 50-54 and one in ten adults 60 and over is infected with HIV. In Mozambique, 5% of women age 60-64 are HIV-positive.

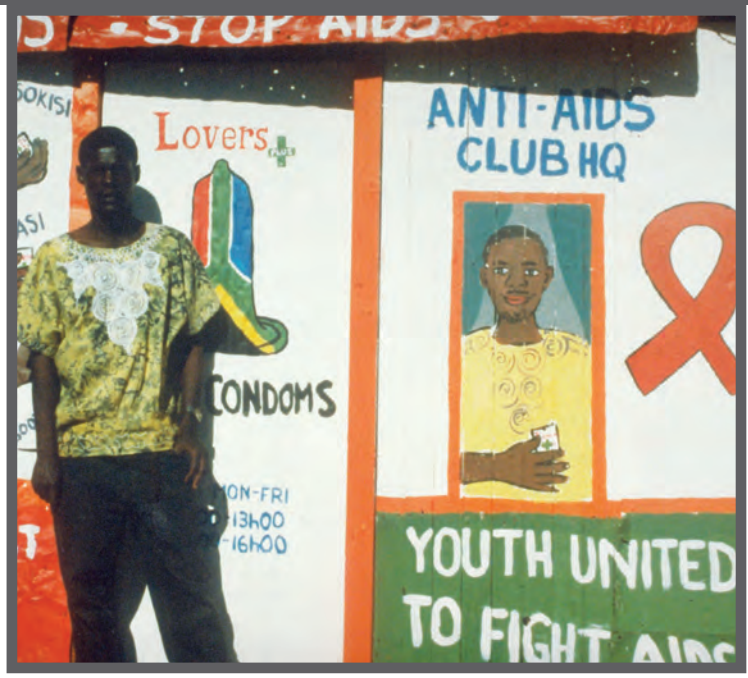


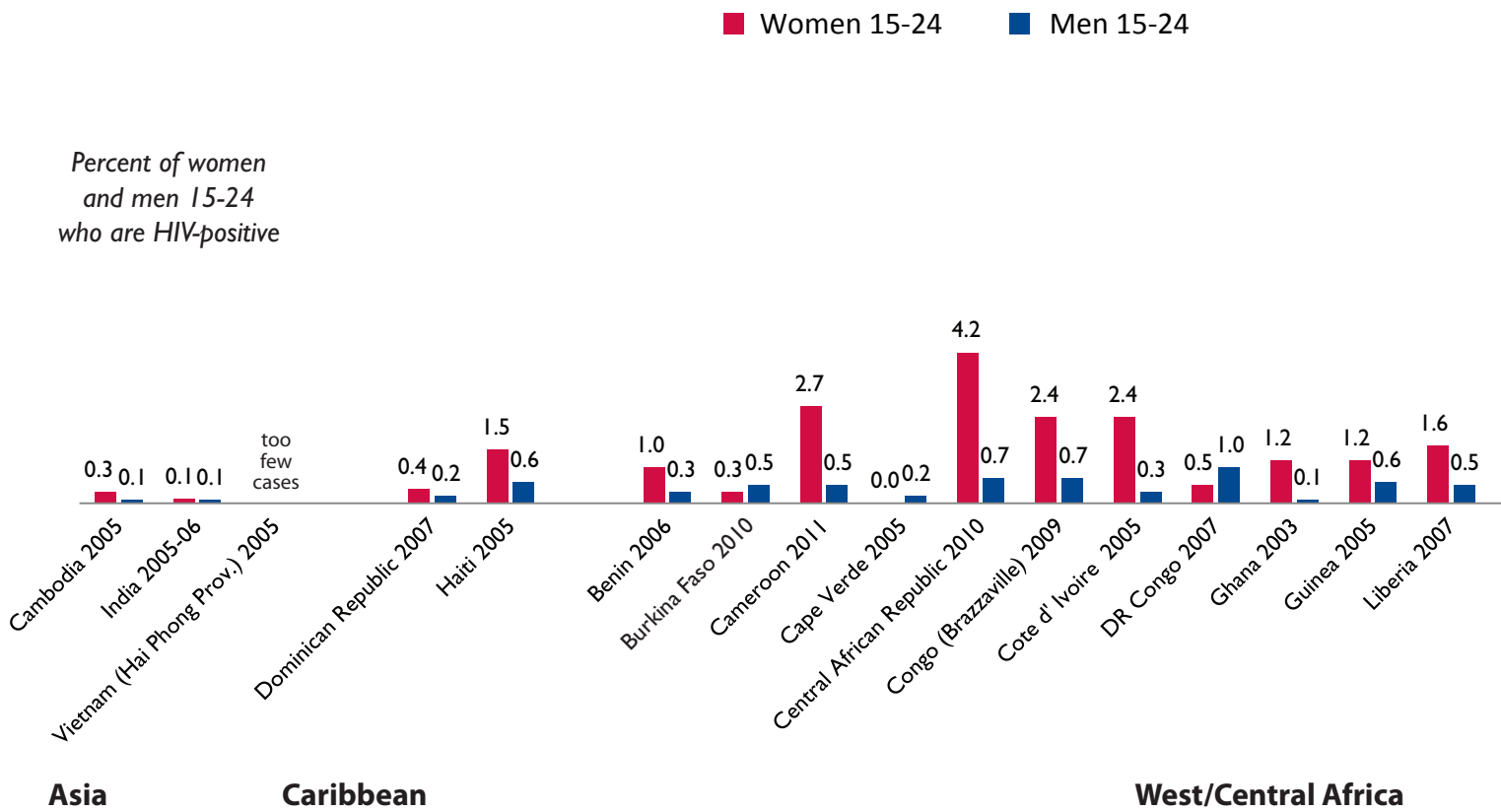


In Mozambique, HIV prevalence peaks for women in their 20s and men in their 30s.

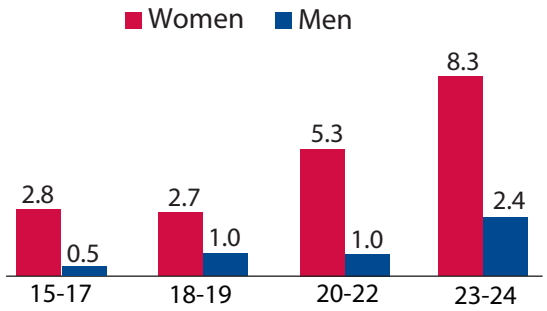
HIV Prevalence among Youth

In most countries, HIV prevalence among youth (age 15-24) is quite low. It is important to note that in almost all countries, young women are far more likely to be infected than young men. In high-prevalence countries such as Lesotho, Swaziland, and Mozambique, more than 10% of young women are already infected with HIV. The difference between young women and men is especially striking in Cameroon and the Central African Republic.

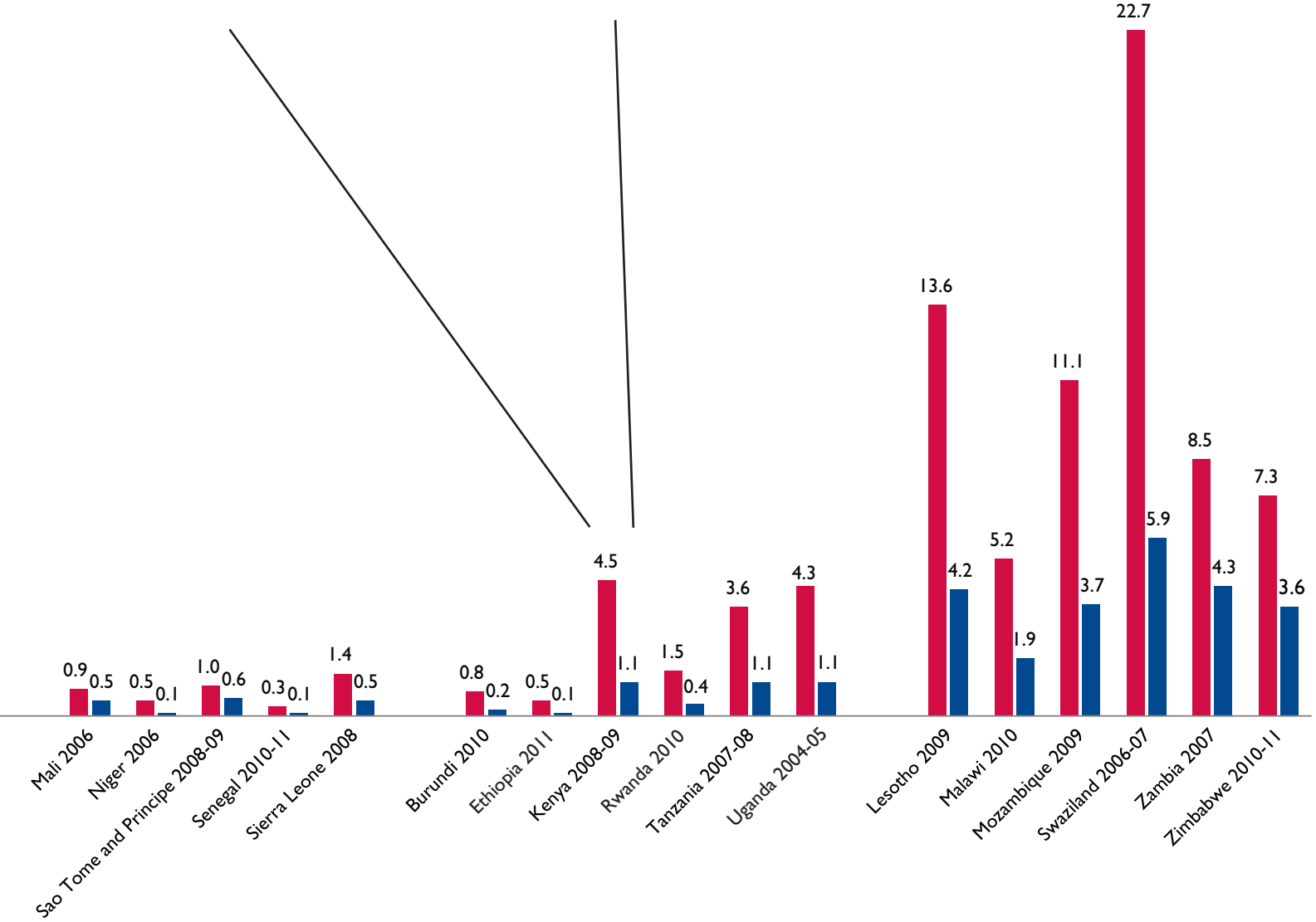




HIV Prevalence among Youth by Age: Kenya 2008-09

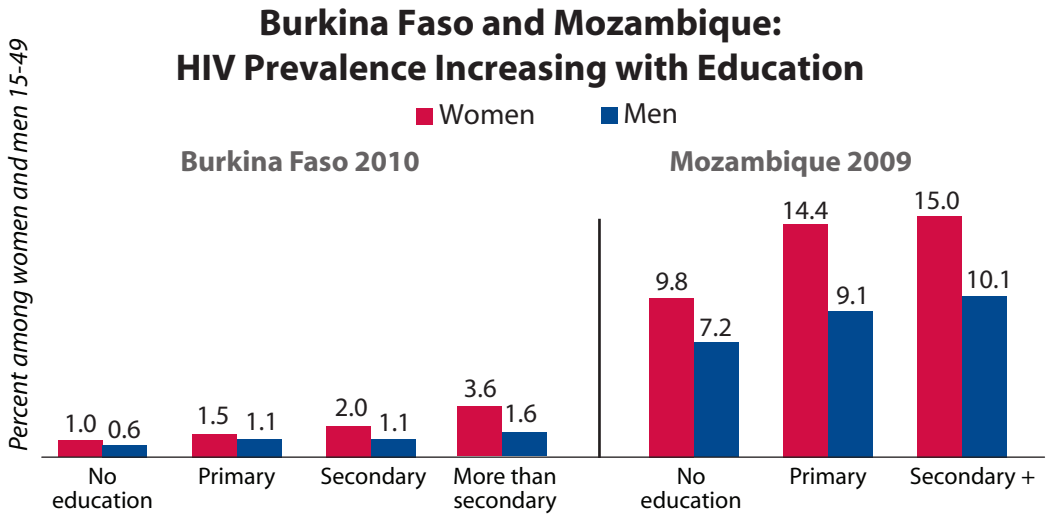


HIV prevalence increases with age as more young adults become sexually active. In Kenya, HIV prevalence among young women jumps three-fold from 2.8% of 15-17 year-olds to 8.3% among 23-24 year-olds.

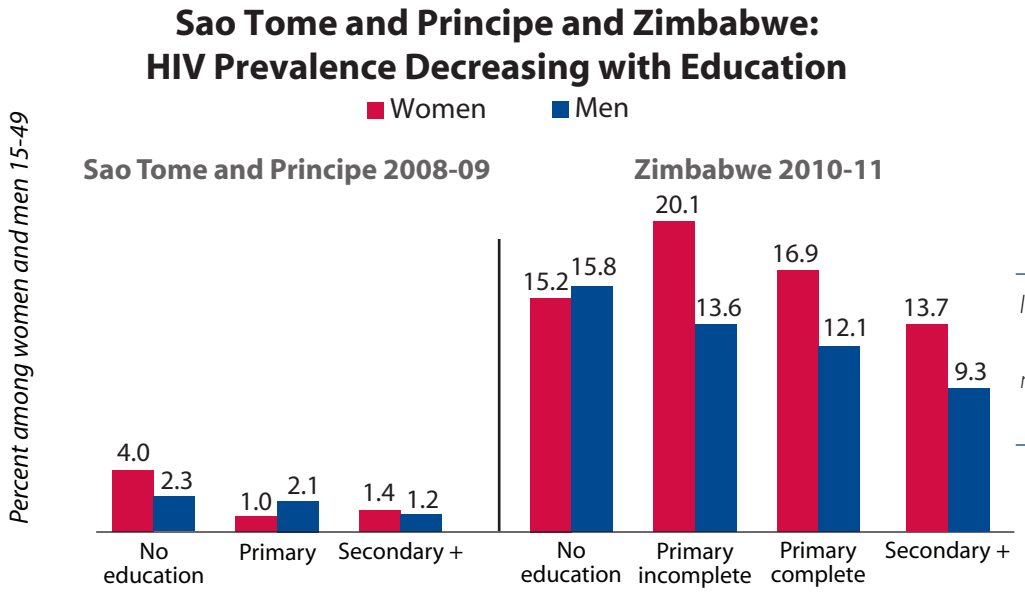


HIV Prevalence by Education

There is no consistent worldwide pattern in the relationship between HIV prevalence and education. In Burkina Faso, Burundi, Cameroon, Liberia, Mozambique, and Zambia, HIV prevalence increases as education of women and men increases. This is also true for women, but not men, in Central African Republic, D.R. Congo, and Guinea. In contrast, HIV prevalence is lower among educated women and men in the Dominican Republic, Haiti, India, Sao Tome and Principe, Senegal, Tanzania, and Zimbabwe. In these countries, the pattern is more pronounced for men than for women. In other countries there is no clear pattern (Cambodia, Benin, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mali, Niger, Rwanda, Sierra Leone, Swaziland, and Uganda).



In both Burkina Faso and Mozambique, HIV prevalence rises with education for both women and men.

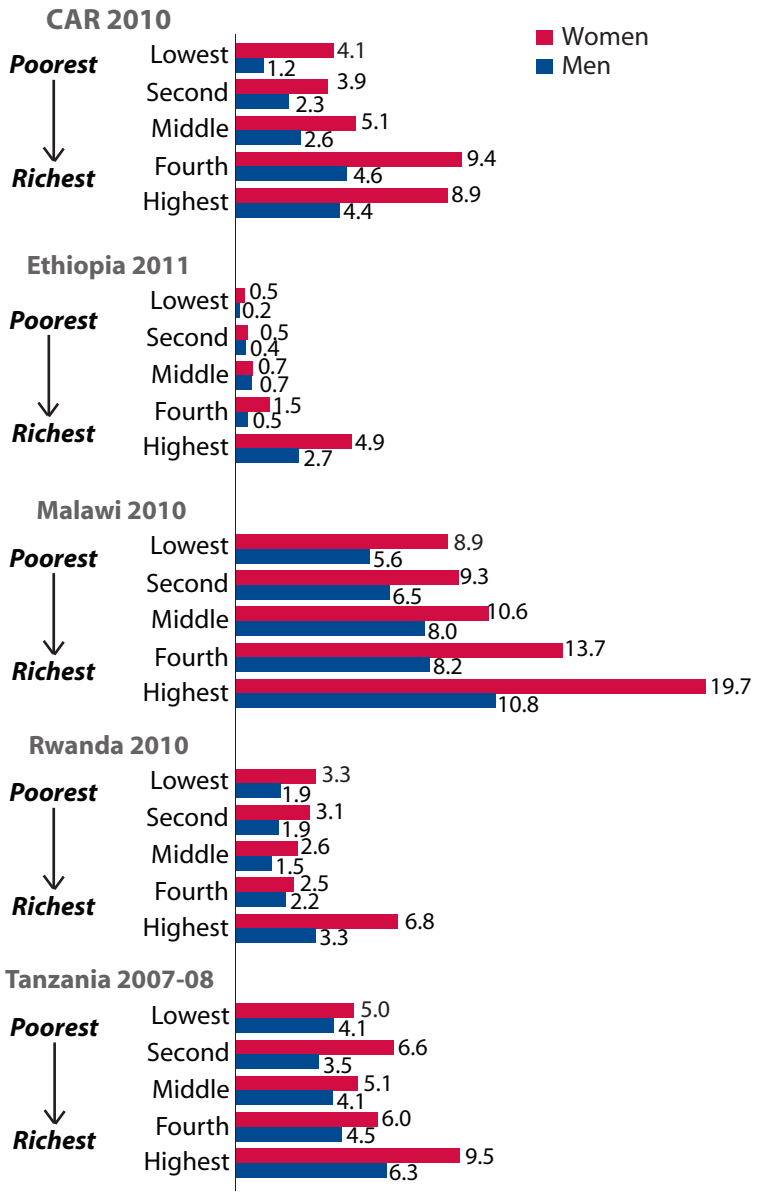


In Zimbabwe, HIV prevalence is lowest among women and men with secondary or higher education.

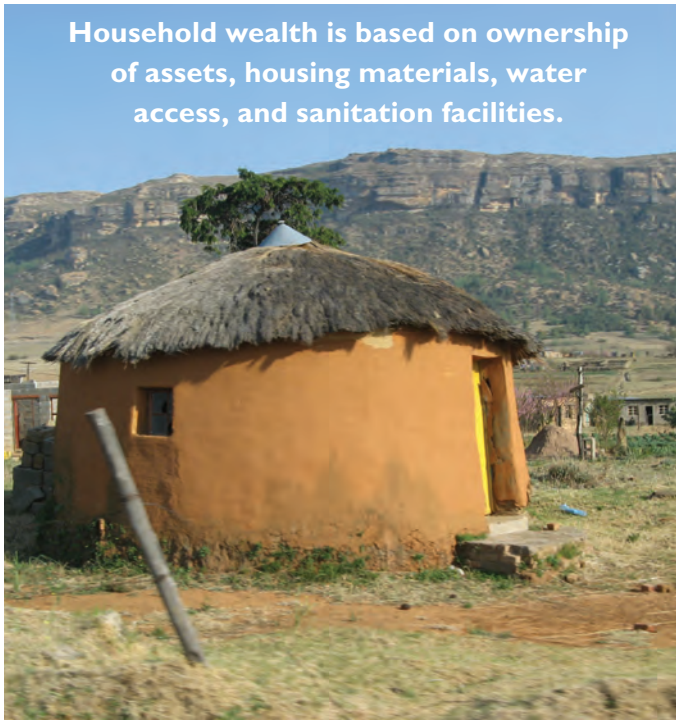
HIV Prevalence by Wealth

For most countries, prevalence is higher among women and men in the wealthiest households than among those in the poorest households. The association between wealth and HIV prevalence is generally stronger among women than among men. There are some exceptions to this pattern, however. In the Dominican Republic, Haiti, Benin, Congo, Ghana, São Tomé and Principe, Senegal, Uganda, and Zimbabwe there is no clear relationship between wealth and HIV infection.

HIV Prevalence by Household Wealth Quintile

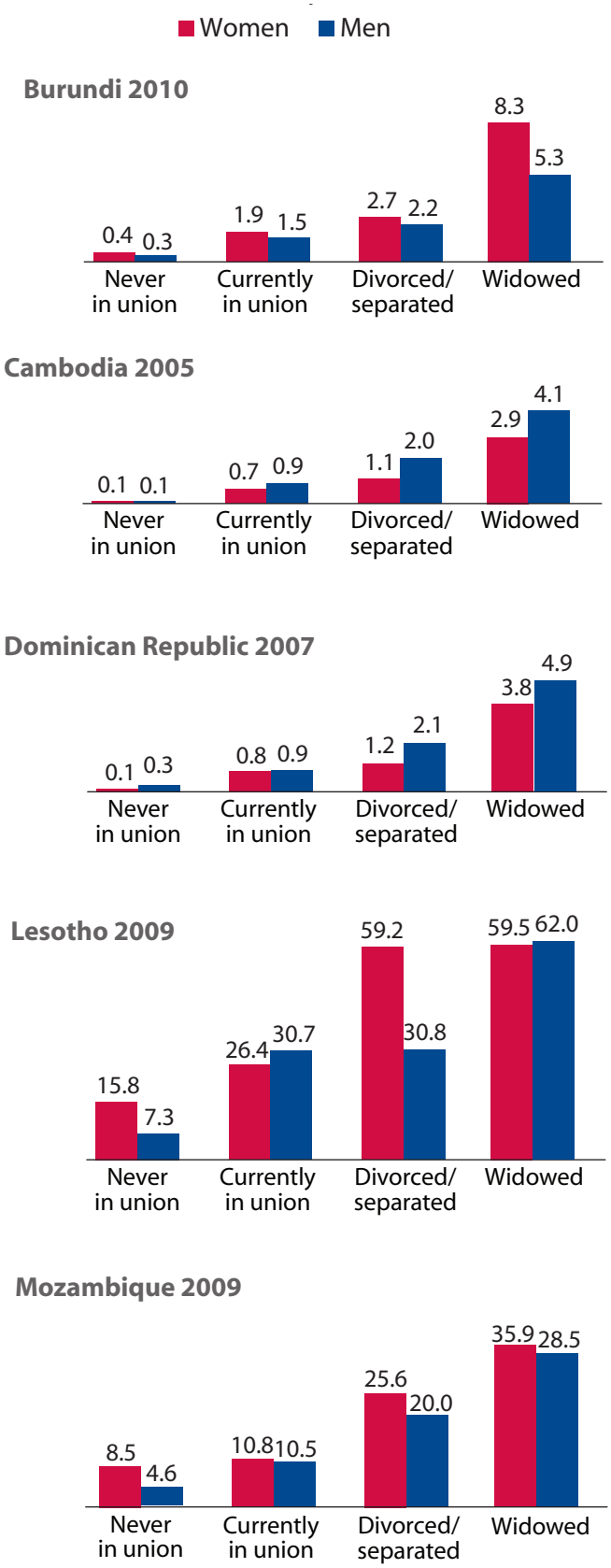


HIV prevalence tends to increase as household wealth increases. In some countries, prevalence increases incrementally with wealth, while in others, like Ethiopia and Rwanda, only the wealthiest have a markedly higher HIV prevalence.



HIV Prevalence by Marital Status

In all MEASURE DHS countries with HIV testing, women and men who are divorced/separated or widowed are far more likely to be HIV-positive than those who are currently married. And women and men who have never been married are least likely to be infected. This is true in both high-prevalence and low-prevalence countries.



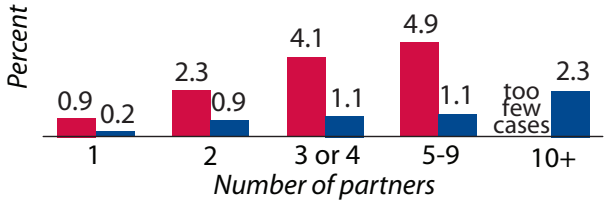
HIV Prevalence by Number of Partners

Women and men with more lifetime sexual partners are more likely to be infected with HIV. DHS data confirm the association between number of lifetime partners and HIV prevalence in almost all of the surveys for which this information was collected.

HIV Prevalence by Lifetime Number of Sexual Partners

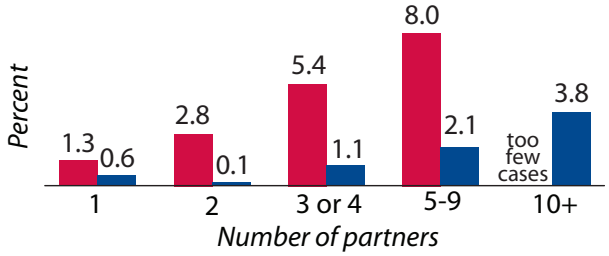
Women Men

Burkina Faso 2010



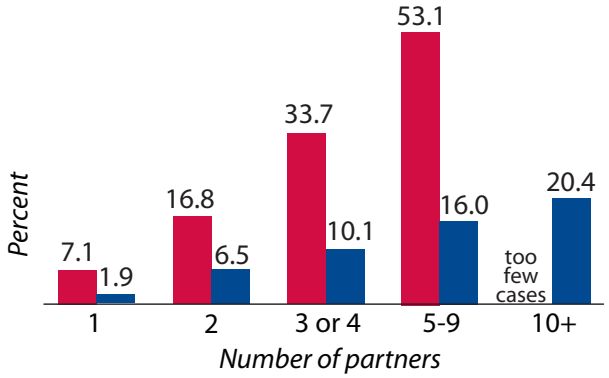
In Burkina Faso, risk of HIV infection increases slowly with women's and men's number of sexual partners.

Haiti 2005-06



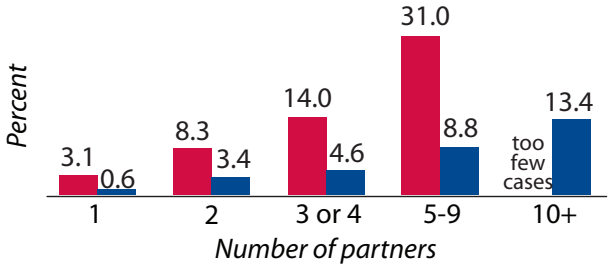
In Haiti, the association between number of partners and HIV prevalence is especially strong for women.

Malawi 2010



In Malawi, more than half of women who have had 5-9 lifetime sexual partners are HIV-positive compared to 7% of women with one lifetime partner.

Rwanda 2010



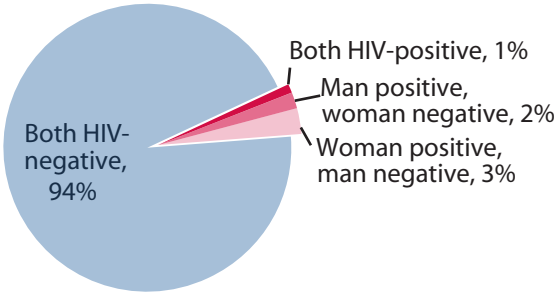
HIV prevalence is 10 times higher among Rwandan women and men with 5+ sexual partners than among those with only one lifetime sexual partner.

HIV Prevalence among Couples

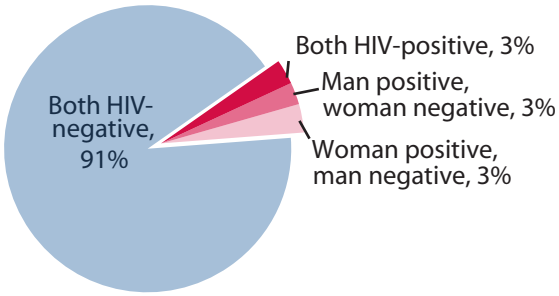
Worldwide, most couples are AIDS-free. However, in high prevalence countries, it is common to find couples in which both or one partner is HIV-positive. The couples in which one parter is HIV-positive and one is HIV-negative are called "discordant" because the HIV status of the two individuals is not the same. Identifying discordant couples is an essential step in reducing the spread of HIV. These couples must take extra steps to avoid transmission.

In Zimbabwe, for example, more than three-quarters of couples are HIV-negative. In 10% of couples, both are HIV-positive. But 12% of couples are discordant; in 7% the man is positive and the woman is negative, and in 5% the woman is positive and the man is negative.

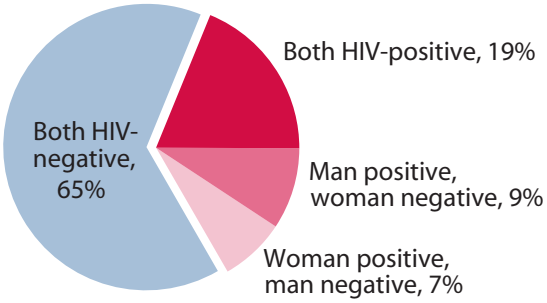
Congo 2009: HIV Prevalence in Couples



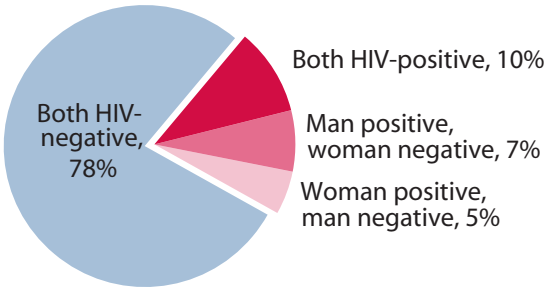
Kenya 2009: HIV Prevalence in Couples



Lesotho 2009: HIV Prevalence in Couples



Zimbabwe 2010-11: HIV Prevalence in Couples



Understanding Trends in HIV Prevalence

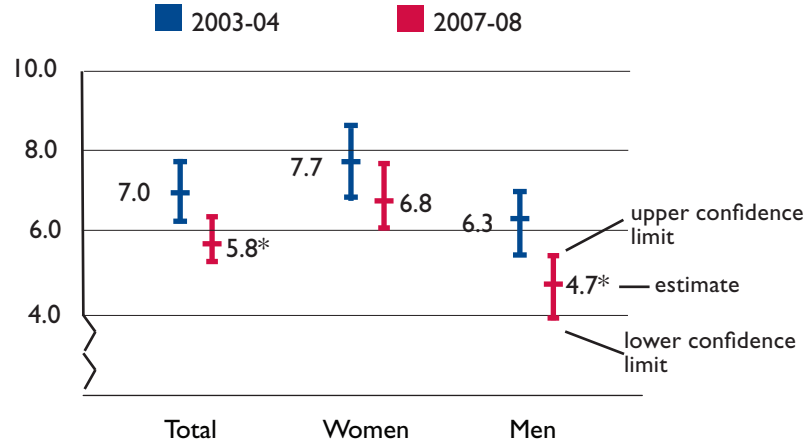
Tanzania Case Study

The 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS) was the first time HIV testing was carried out in a national, population-based survey in Tanzania. The 2003-04 THIS tested 5,753 women and 4,994 men age 15-49. The THIS reported that HIV prevalence in Mainland Tanzania* was 7.0%: 7.7% among women and 6.3% among men.

It is important to note, however, that all estimates based on sample surveys have a certain degree of "error" or uncertainty because they are based on a sample and not on the entire population. The reported national prevalence in the 2003-04 THIS of 7.0% is only an estimate. Based on statistical calculations, analysts are confident that the true HIV prevalence lies within a range, called the confidence interval. This range in the 2003-04 THIS is 6.3%-7.8%. In other words, statisticians are confident that the actual HIV prevalence in Tanzania in 2003-04 was between 6.3% and 7.8%; 7.0% marks the middle of that range.

In 2007-08, the National Bureau of Statistics implemented the Tanzania HIV and Malaria Indicator Survey (THMIS), the second national survey to include population-level HIV testing. The THMIS tested 8,179 women and 6,865 men age 15-49 for HIV, using the same methods as the 2003-04 THIS.

HIV Prevalence Trends for Mainland Tanzania: Confidence Intervals



The 2007-08 survey reported that 5.8% of Tanzanians living on the Mainland are HIV-positive. While this is lower than the result of 7.0% reported in 2003-04, it is important to take a closer look at the confidence intervals (see graph at right). In 2003-04 the confidence interval was 6.3% to 7.8%. For 2007-08, the confidence interval is 5.3% to 6.4%. These two ranges overlap, but just barely, suggesting that the decrease in the two estimates represents a true change in the population. Because there is some overlap between the confidence intervals, a second test is required to assess statistical significance. In the case of Tanzania, the second test concluded that the decrease in overall HIV prevalence between the two surveys is indeed significant. The case for men is similar: the confidence intervals for men just barely overlap, and the second statistical test confirmed that this decrease is statistically significant.

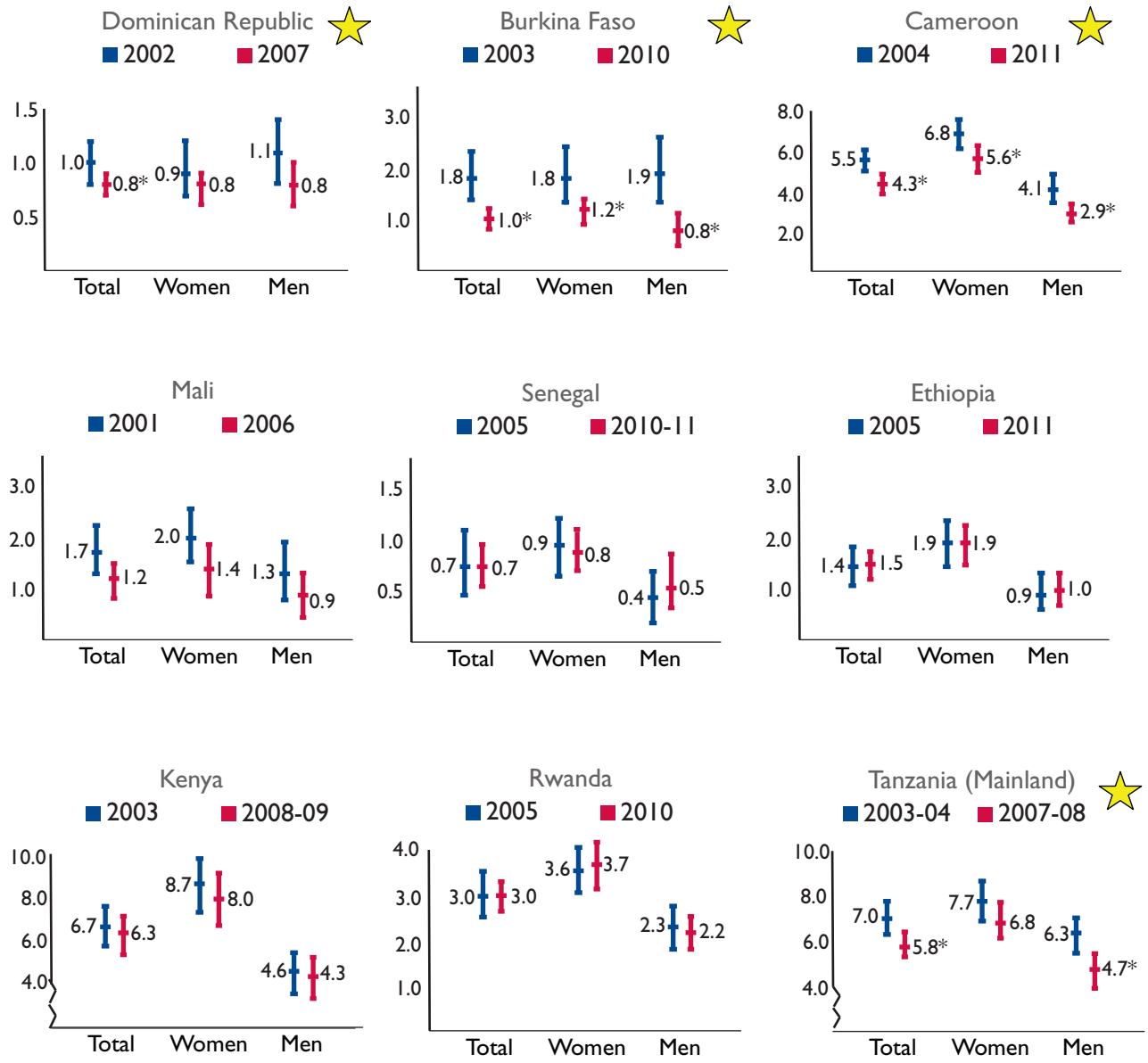
One cannot say, however, that prevalence among women has decreased. While prevalence among women appears to have changed, the confidence intervals for the two surveys' prevalence rates overlap quite a bit. Therefore, it is not possible to say with confidence that the lower HIV prevalence found among women in the 2007-08 survey represents a real decline in the prevalence.

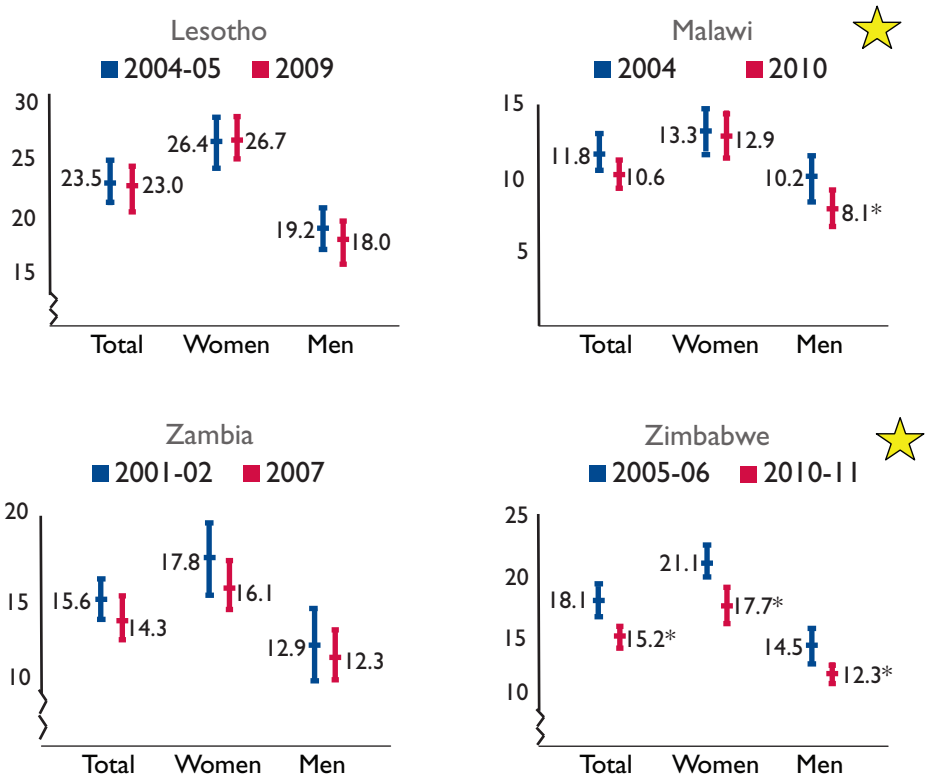
*In 2003-04, the THIS included testing only in Mainland Tanzania. In 2007-08, the THMIS included testing in Zanzibar as well as Mainland Tanzania. For the purpose of comparison, all figures on this page have been limited to Mainland Tanzania.

Trends in HIV Prevalence

Since 2001, MEASURE DHS surveys have included HIV testing in 31 countries. In 13 of these countries testing has been included in two surveys, which provides an opportunity to examine trends. However, trend data must be viewed with caution, as only some changes are statistically significant.

In the charts below, changes in HIV prevalence that are statistically significant are marked with an asterisk and a star. For further discussion of statistical significance and confidence intervals, see the Tanzania example on page 21.





While it may appear that HIV prevalence has decreased in most countries, these decreases are only statistically significant in the Dominican Republic, Burkina Faso, Cameroon, Tanzania, Malawi, and Zimbabwe. This means that in these countries, the change is large enough that it is unlikely that the decrease is due to chance alone; it probably represents true change in the HIV prevalence in the population.

In some countries, such as Tanzania, the decrease is statistically significant for the population as a whole, and for men, but not for women. In Cameroon, Burkina Faso, and Zimbabwe, HIV prevalence has decreased among both women and men.

DHS surveys have not detected any change in HIV prevalence in Mali, Senegal, Ethiopia, Kenya, Rwanda, Lesotho, or Zambia.

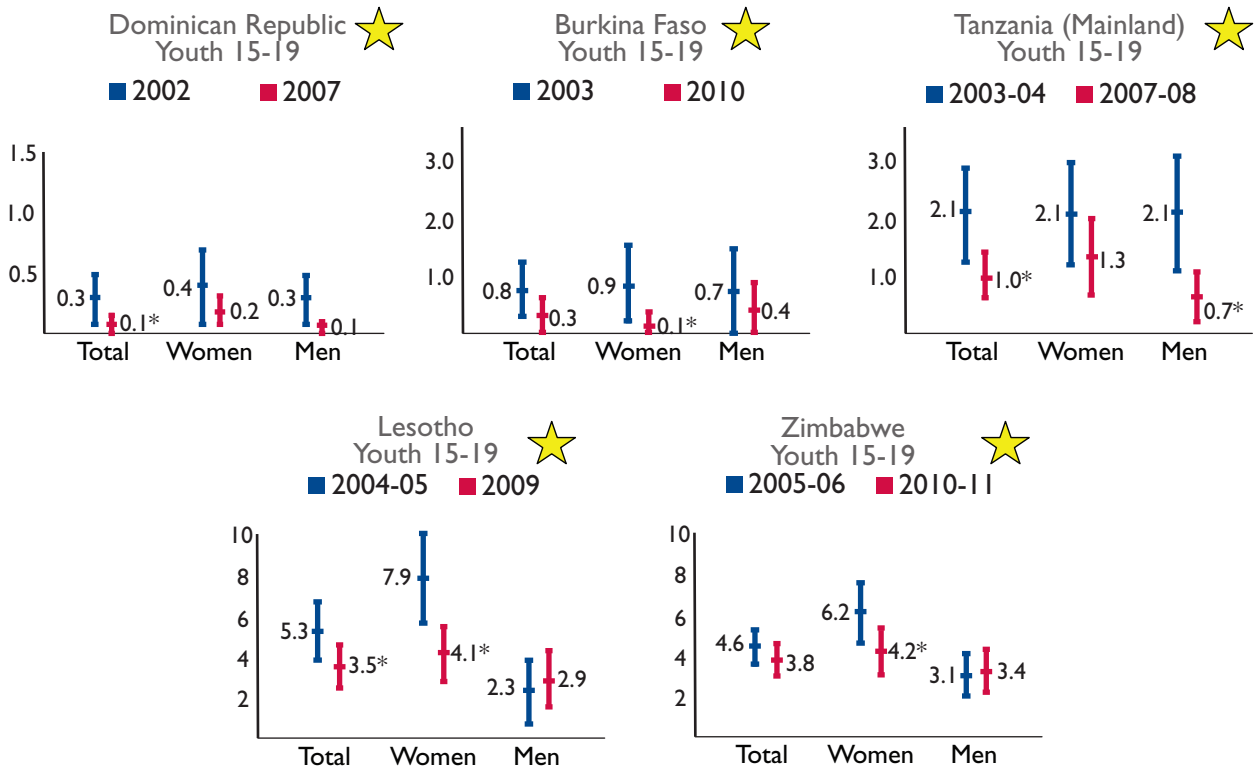
What does this mean? Because HIV prevalence is a measure of all HIV infections in a population, a decrease in HIV prevalence could indicate that fewer people are becoming infected, and/or that more people with HIV have died in a population. Similarly, an increase in HIV prevalence could point to more new infections, and/or could indicate an increase in HIV-positive individuals living longer on anti-retroviral therapy.

Trends in HIV Prevalence among Youth

MEASURE DHS surveys do not test for HIV incidence, that is, the rate of new HIV infections in a population. However, HIV prevalence among the youngest adults age 15-19 can be used as a proxy of new HIV infection.

Surveys in the Dominican Republic, Tanzania, and Lesotho have detected statistically significant decreases in HIV prevalence among women and men age 15-19. In Burkina Faso and Zimbabwe, the most recent surveys detected a statistically significant decrease in HIV prevalence among young women, but not among young men.

There were no statistically significant changes in HIV prevalence among youth in the other countries with two surveys.



Conclusions

HIV data from MEASURE DHS surveys in six countries suggest decreases in HIV prevalence. In the Dominican Republic, Burkina Faso, Cameroon, Tanzania, Malawi, and Zimbabwe, fewer women and men tested positive for HIV during their most recent DHS survey than in the survey approximately five years before.

Also encouraging is the finding that HIV prevalence has decreased among the youngest age group in five countries. In Burkina Faso, the Dominican Republic, Lesotho, Tanzania, and Zimbabwe, HIV prevalence has declined among young women and men age 15-19. This decrease in HIV prevalence among youth suggests fewer new infections and could contribute to the future decline in overall HIV prevalence.

Despite this promising news, DHS surveys have not detected any significant change in HIV prevalence in seven other countries. This may be due to more HIV-positive people living longer on anti-retroviral therapy, and/or may be a sign that infection rates have remained stable.

MEASURE DHS data should be used alongside other sources of information to assess the progress of prevention and treatment programs.

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MEASURE DHS has helped countries conduct HIV testing in population-based surveys for more than a decade. MEASURE DHS surveys with HIV testing are currently planned or underway in Angola, Benin, Côte d'Ivoire, Democratic Republic of Congo, Dominican Republic, Gabon, Guinea, Liberia, Mali, Namibia, Tanzania, Togo, Uganda, and Zambia. Several of these countries are doing HIV testing for the second or third time.

Photo credits

Cover photo: © 2008 Micah Albert, Courtesy of Photoshare. A youth-run HIV/AIDS center provides voluntary counseling and testing (VCT) in Chad.

Data used in this report: 2003 Sean Hawkey, Courtesy of Photoshare. A young HIV-positive woman in Malawi.

Page 1: © 2008 Alexandria Smith, Courtesy of Photoshare. A woman gives blood during a voluntary counseling and testing (VCT) outreach provided by Hope Clinic Lukuli in Ggaba, Uganda. Ggaba is a fishing village in Kampala with a high HIV rate due to the transient nature of fisherman.

Page 3: © Alfredo Fort, ICF International. A drop of blood used for HIV testing in DHS surveys; HIV testing in the Dominican Republic, 2007.

Page 4: © ICF International/MEASURE DHS. A filter paper with dried blood spots for HIV testing.

Page 9: © Aisha Felix. Ayesha (the subject of the photograph) is the Chairperson of the TUPENDANE Group, an organization for women living with HIV/AIDS. She is a single parent with three children. Her sign reads: "The vision of TUPENDANE is to see people living with HIV and their children living in peace and friendship."

Page 10: © 1995 Population Services International, Courtesy of Photoshare. A supply truck carrying condoms for HIV/AIDS prevention and birth spacing in Cameroon.

Page 11: © 2006 Matthew Willman, Courtesy of Photoshare. In the rural district of Josini, South Africa, a mother caring for 5 HIV positive children speaks about her issues and problems with several "Community Carers." The Oxfam Australia-funded program Sibambisene ("we are working together") trains these "Community Carers" to go into the rural communities of the KwaZulu-Natal province and educate, support, and help guide families who are affected by and infected with HIV/AIDS.

Page 14: © 2011 Population Services International, Courtesy of Photoshare. A colorful booth promotes condoms for HIV/AIDS prevention in South Africa.

Page 17: © Joanna Lowell, ICF International. A rural home in Lesotho.

Page 18: © Joanna Lowell, ICF International. A condom dispenser in Lesotho.

Page 19: © 2009 Gaurav Gaur, Courtesy of Photoshare. Love Life, Stop AIDS is written out with earthen lamps to pay homage to all those who have died due to HIV/AIDS on International AIDS Candlelight Day, at Government Model Senior Secondary School, Sector 22-A in Chandigarh, India.

Page 20: © 2006 Kunle Ajayi, Courtesy of Photoshare. A voluntary health worker counsels young people before they receive free HIV testing in Lagos, Nigeria.

Page 26: © 2008 Robert Karam, Courtesy of Photoshare. A mother with her infant in Tanzania listens to an HIV/AIDS radio program as part of the STRADCOM (Strategic Radio Communication for Development) project.

Back cover: © 2008 Sara A. Holtz, Courtesy of Photoshare. An HIV/AIDS red ribbon on a building in downtown Bridgetown, Barbados.