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HIV Prevalence Estimates

from the Demographic and Health Surveys

Updated June 2010





This report summarizes the HIV prevalence estimates provided in MEASURE Demographic and Health Surveys. The MEASURE DHS project is implemented by ICF Macro, an ICF International Company, 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 the USAID.

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

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For more information about the MEASURE DHS project, contact:

ICF Macro
11785 Beltsville Drive,
Calverton, Maryland, 20705 USA

Telephone: 301-572-0200

Fax: 301-572-0999

www.measuredhs.com.

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

Introduction

Demographic and Health Surveys

The Demographic and Health Surveys project (MEASURE DHS) has been conducting 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 ICF Macro based in Calverton, Maryland, and is funded by the United States Agency for International Development (USAID) and 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, 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 representative sample of a national population. UNAIDS and national governments have adjusted their official HIV prevalence estimates in response to the nationally representative HIV prevalence data provided through DHS surveys.

Including HIV testing in the DHS also improves understanding of the HIV pandemic, because HIV test results are connected to the full DHS survey data. 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 higher-risk sexual behaviors than is possible with sentinel surveillance data.

Between 2001 and 2009, DHS has included population-based HIV testing as part of 36 surveys in 31 countries, resulting in revised HIV estimates for these countries and a new understanding of the global HIV epidemic.

Data included in this report

This report includes data from MEASURE DHS surveys. It is an update of the 2008 document of the same name. The data are cross-sectional and provide a snapshot of the current situation in the 31 countries that included HIV testing in their surveys. The Dominican Republic, Kenya,

Mali, Tanzania, and Zambia have had two surveys with HIV testing done since 2001. For these five countries, the most recent survey findings are presented throughout the report. Trends in HIV prevalence results are discussed on pages 20-21.

For more information

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

www.measuredhs.com

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

STATcompiler (www.statcompiler.com) and the

HIV/AIDS Survey Indicators Database (www.measuredhs.com/hivdata)

For interactive mapping tools, visit

STATmapper (www.statmapper.com) and

HIVmapper (www.hivmapper.com)



Summary of Surveys with HIV Prevalence

Country	Type of survey	Year	Total number tested- all ages	Number of women 15-49 tested	Number of men 15-49 tested	Type of specimen
Asia						
Cambodia	DHS	2005	14,703 ¹	8,047	6,656	DBS
India	DHS	2005-06	102,946 ²	53,332	46,506	DBS
Vietnam (Hai Phong Prov.)	AIS	2005	1,675 ¹	921	754	DBS
Caribbean						
Dominican Republic*	DHS	2002	22,725 ³	10,732	10,707	Oral fluids
Dominican Republic	DHS	2007	51,109 ³	24,564	23,513	DBS
Haiti	DHS	2005	10,062 ³	5,230	4,321	DBS
West/Central Africa						
Benin	DHS	2006	9,599 ⁴	5,025	3,949	DBS
Burkina Faso	DHS	2003	7,515 ³	4,086	3,065	DBS
Cameroon	DHS	2004	10,352 ¹	5,227	4,672	DBS
Cape Verde**	DHS	2005	5,596 ³	2,863	2,601	DBS
Central African Republic**	MICS	2006	10,592 ³	5,413	4,657	DBS
Congo (Brazzaville)	AIS	2009	12,110 ¹	6,438	5,671	DBS
Côte d'Ivoire	AIS	2005	8,436 ¹	4,413	4,023	DBS
DR Congo	DHS	2007	8,504 ³	4,492	4,012	DBS
Ghana	DHS	2003	9,566 ³	5,097	4,047	DBS
Guinea	DHS	2005	6,836 ³	3,772	2,616	DBS
Liberia	DHS	2007	11,733 ¹	6,382	5,351	DBS
Mali*	DHS	2001	6,846 ³	3,854	2,978	DBS
Mali	DHS	2006	8,629 ³	4,528	3,614	DBS
Niger	DHS	2006	7,673 ³	4,406	2,856	DBS
São Tomé and Príncipe	DHS	2008-09	4,710 ³	2,378	2,110	DBS
Senegal	DHS	2005	7,823 ³	4,278	3,226	DBS
Sierra Leone	DHS	2008	6,475 ³	3,448	2,726	DBS
East Africa						
Ethiopia	DHS	2005	11,042 ³	5,736	4,804	DBS
Kenya	DHS	2003	6,194 ²	3,151	2,851	DBS
Kenya	DHS	2009	6,906 ²	3,641	3,066	DBS
Rwanda	DHS	2005	10,419 ³	5,656	4,361	DBS
Tanzania	AIS	2003-04	10,747 ¹	5,753	4,994	DBS
Tanzania	AIS/MIS	2007-08	15,044 ¹	8,179	6,865	DBS
Uganda	AIS	2004-05	18,525 ⁵	9,391	7,515	Venous & DBS
			Children 0-4: 8,374	4,226	4,148	DBS
Southern Africa						
Lesotho	DHS	2004-05	5,286 ³	3,031	2,012	DBS
Malawi	DHS	2004	5,266 ²	2,686	2,465	DBS
Swaziland	DHS	2006-07	9,177 ⁶	4,424	3,763	DBS
			Children 2-14: 3,589	1,841	1,747	DBS
Zambia*	DHS	2001-02	3,950 ³	2,073	1,734	DBS from venous
Zambia	DHS	2007	10,876 ³	5,502	4,424	DBS
Zimbabwe	DHS	2005-06	13,049 ²	6,947	5,848	DBS

DHS: Demographic and Health Survey; AIS: AIDS Indicator Survey; MICS: Multiple Indicator Cluster Survey (UNICEF); MIS: Malaria Indicator Survey; DBS: dried blood spots
*HIV prevalence not linked to full DHS survey; **Non-MEASURE surveys;

¹women 15-49 and men 15-49; ²women 15-49 and men 15-54; ³women 15-49 and men 15-59; ⁴women 15-49 and men 15-64; ⁵women and men 15-59; ⁶women 15+, men 15+

Summary of HIV Testing

Since 2001, more than 480,000 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.

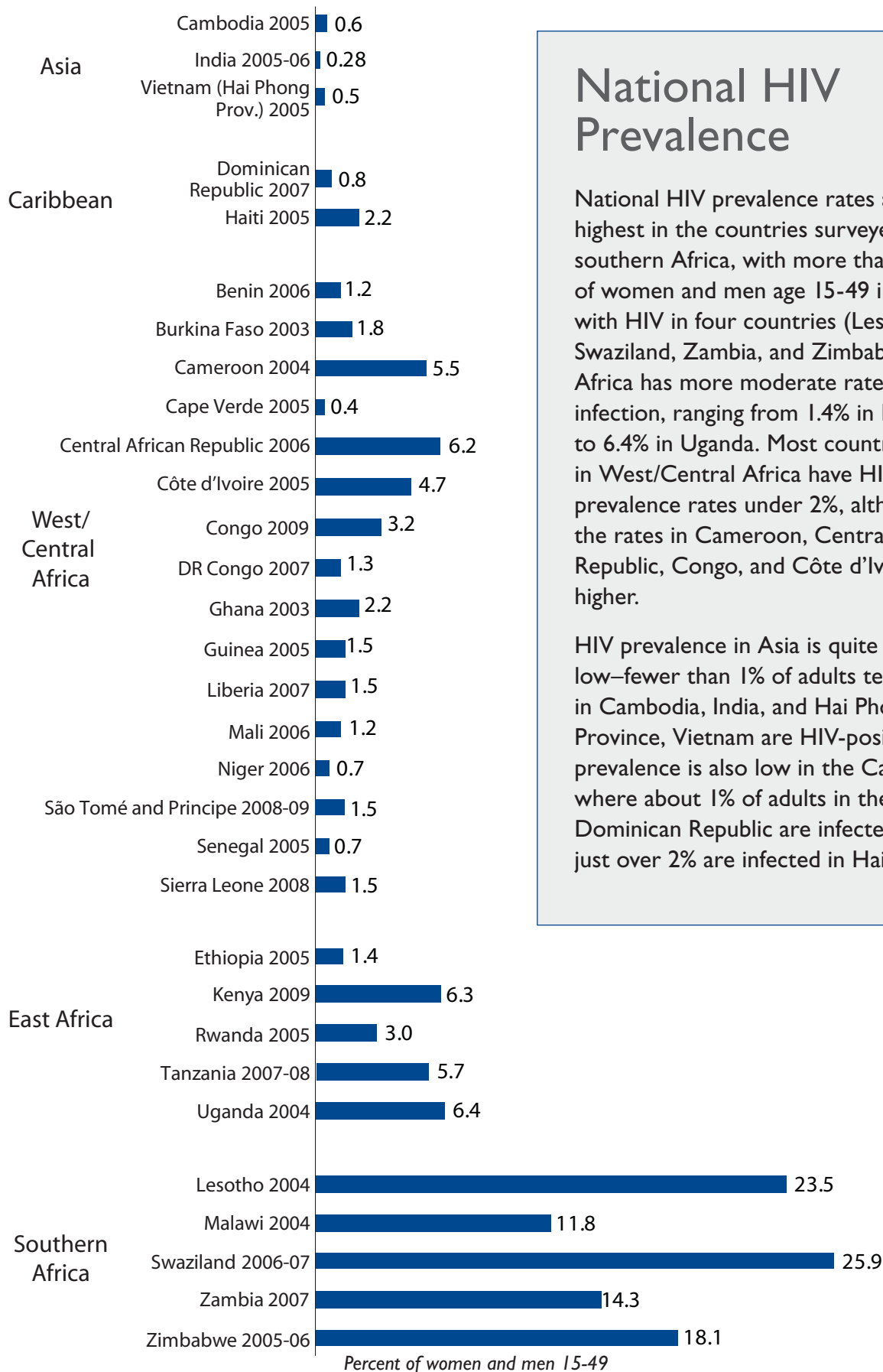
Testing Protocol

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 Macro. In countries with CDC involvement, the testing protocol is also reviewed by CDC. The testing is simple; in most cases, the interviewer collects dried blood spots (DBS) on filter paper from a finger prick and the filter paper is transported to a laboratory for testing. The laboratory protocol includes an initial ELISA test, and then retesting of all positive tests and 5% to 10% of the negative tests 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.



HIV Prevalence: Adults Age 15-49



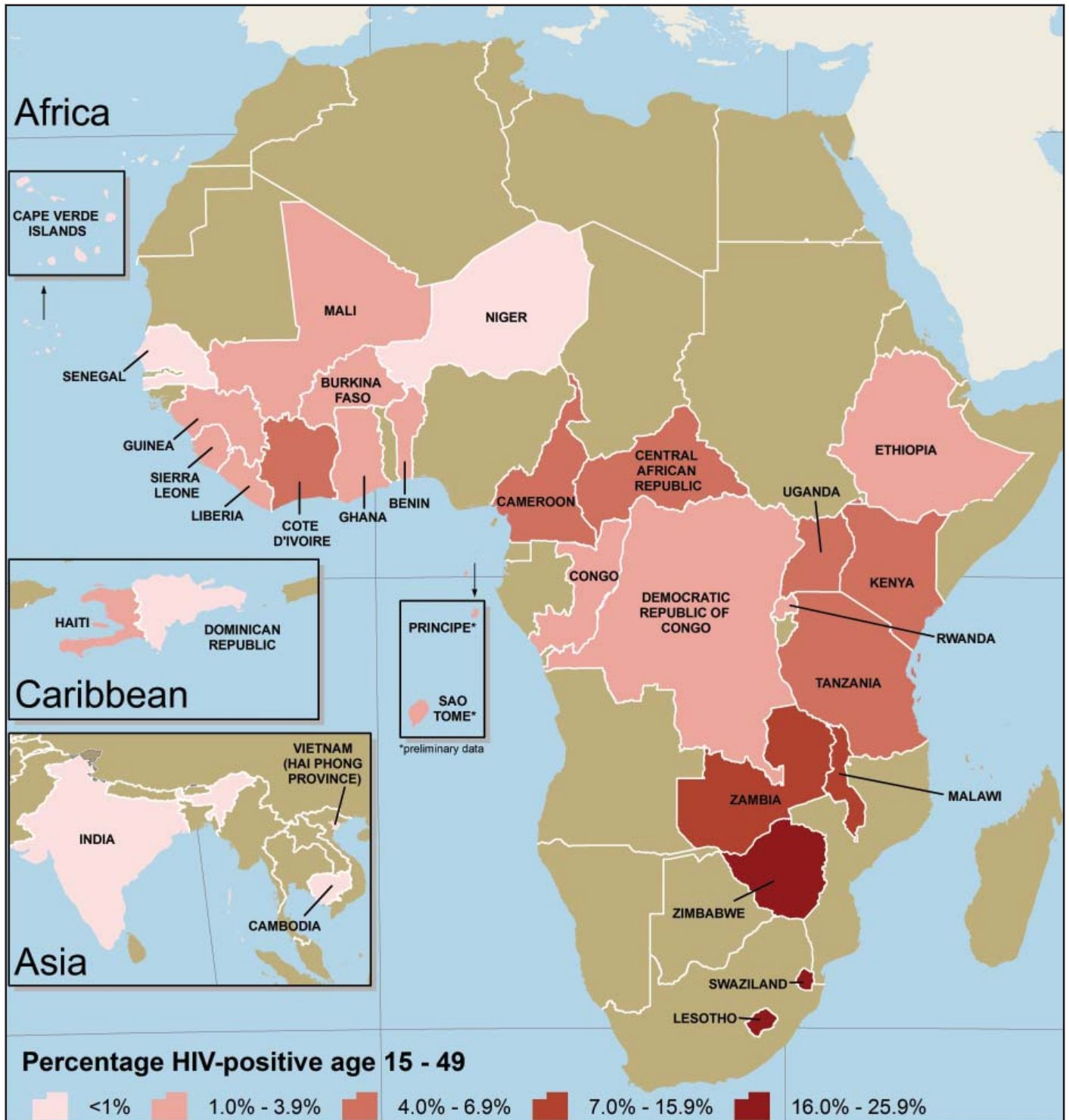
National HIV Prevalence

National HIV prevalence rates are highest in the countries surveyed in southern Africa, with more than 14% of women and men age 15-49 infected with HIV in four countries (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, 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 are infected, and just over 2% are infected in Haiti.

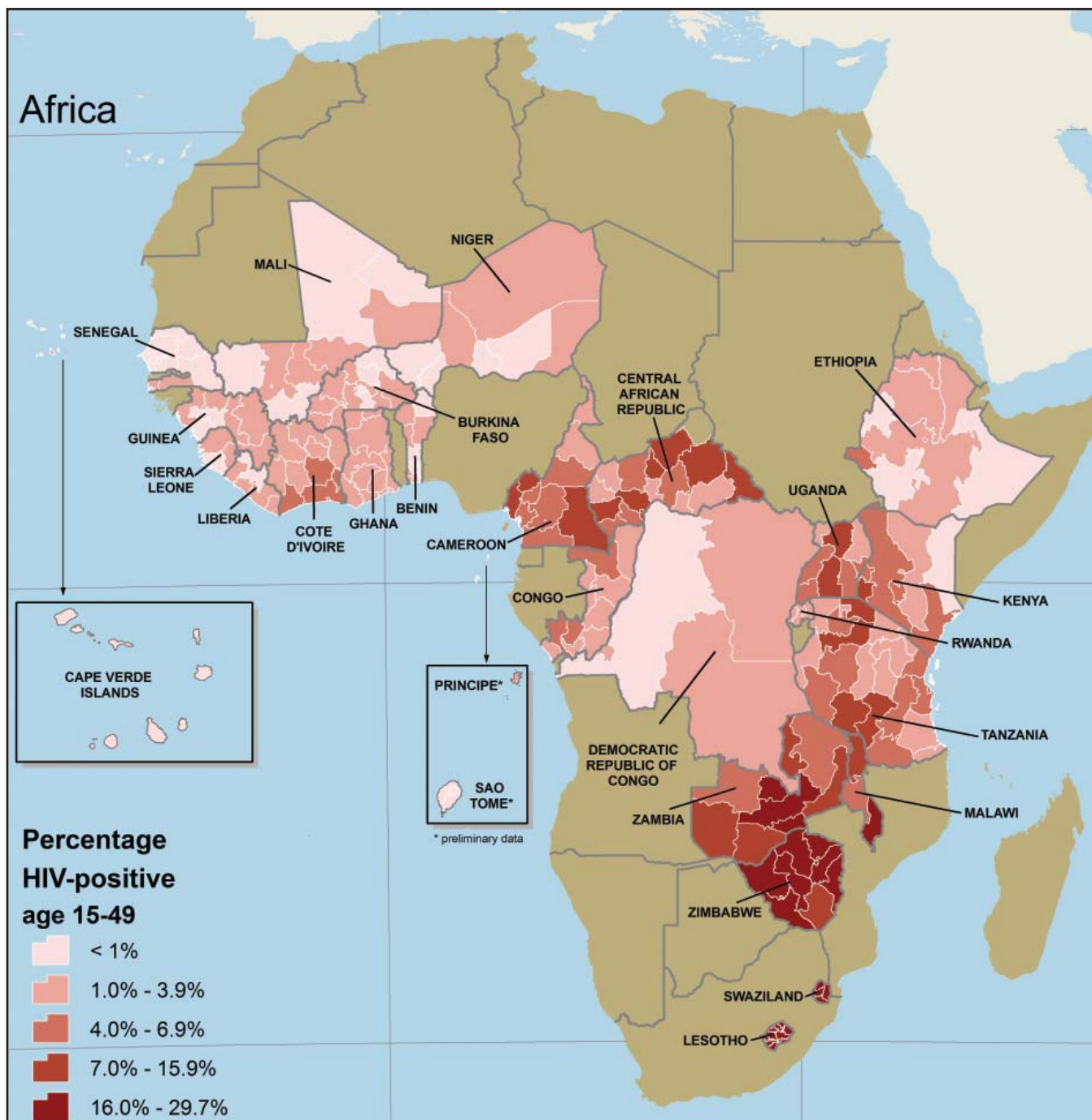
National HIV Prevalence

Percent of women and men age 15-49 who are HIV-Positive

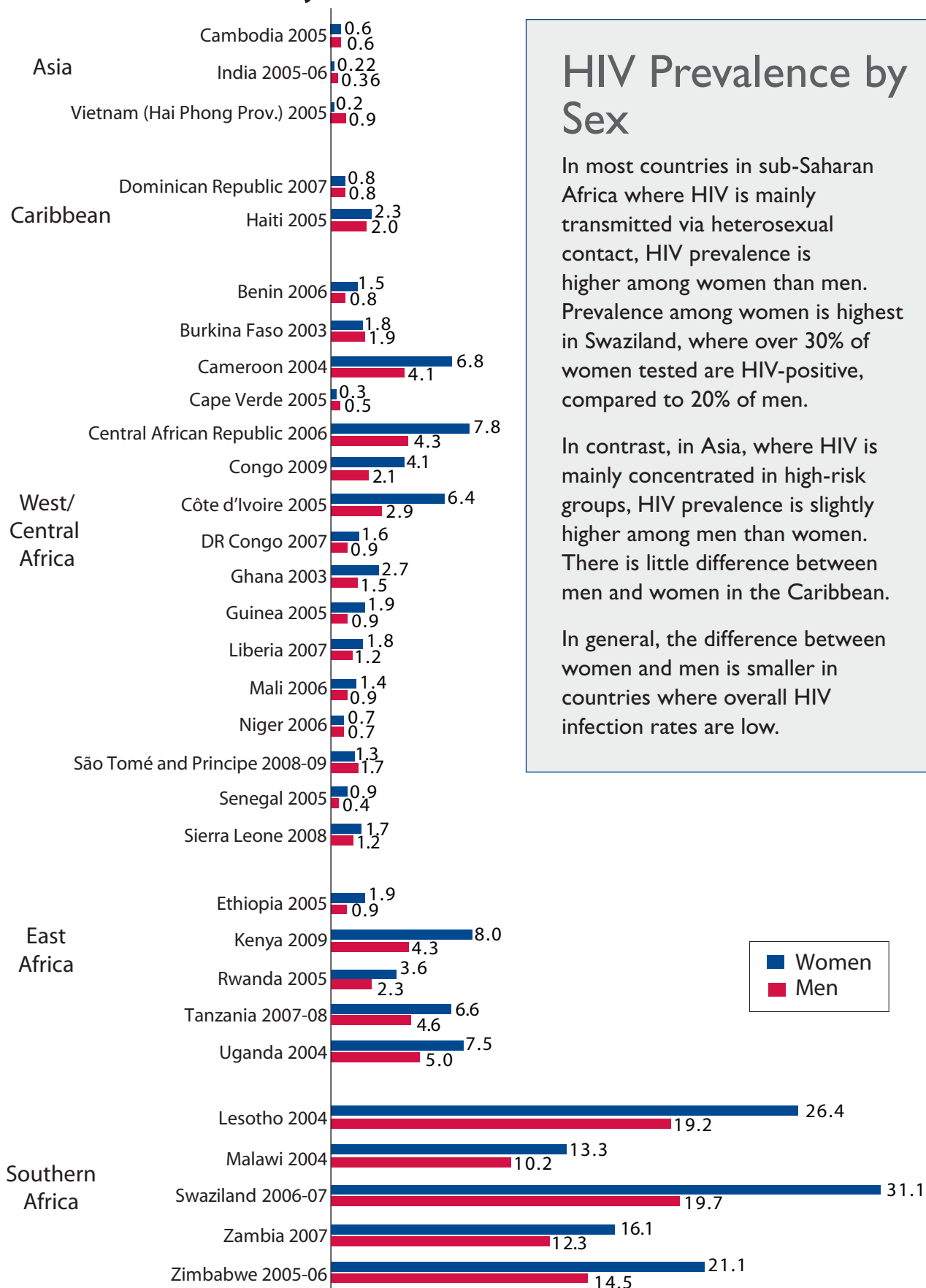


HIV Prevalence in Africa at the Subnational Level

In most cases, DHS data provide HIV prevalence estimates at the regional (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 is consistently low. There is greater regional variation in Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Rwanda, Tanzania, and Uganda.



HIV Prevalence by Sex



HIV Prevalence by Sex

In most countries in sub-Saharan Africa where HIV is mainly transmitted via heterosexual contact, 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.

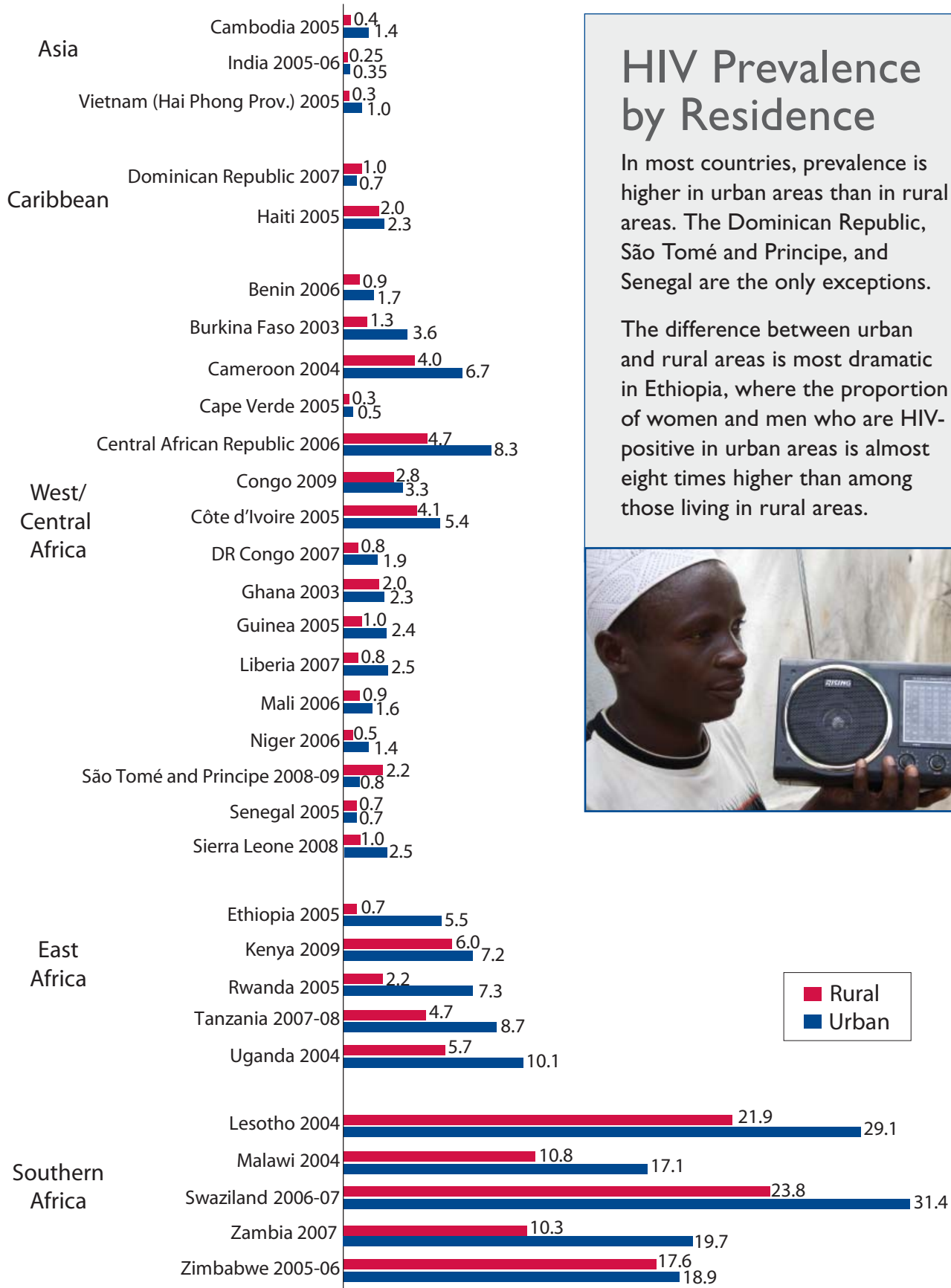
In contrast, in Asia, where HIV is mainly concentrated in high-risk groups, HIV prevalence is slightly higher among men than women. There is little difference between men and women in the Caribbean.

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

■ Women
■ Men

Percent of women and men 15-49

HIV Prevalence by Residence



HIV Prevalence by Residence

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

The difference between urban and rural areas is most dramatic in Ethiopia, where the proportion of women and men who are HIV-positive in urban areas is almost eight times higher than among those living in rural areas.



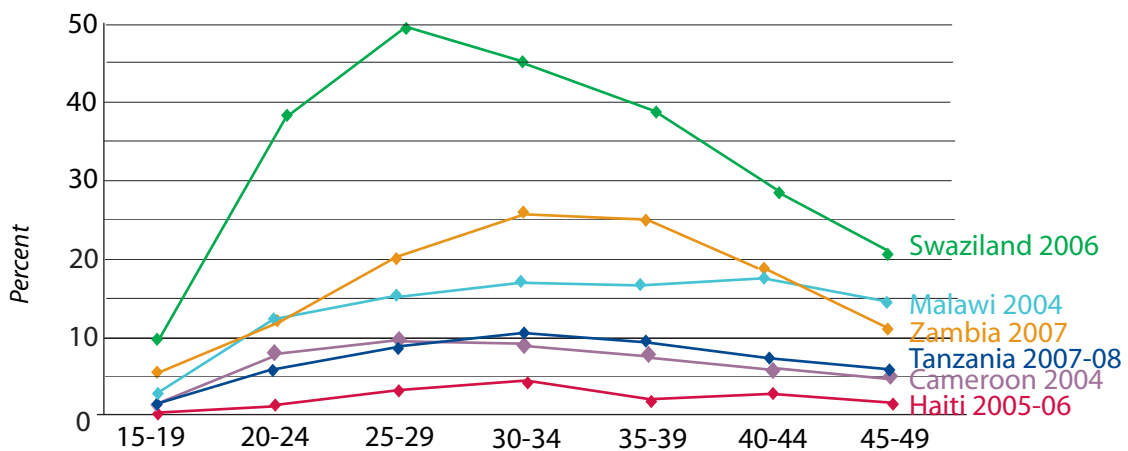
■ Rural
■ Urban

Percent of women and men 15-49

HIV Prevalence by Age

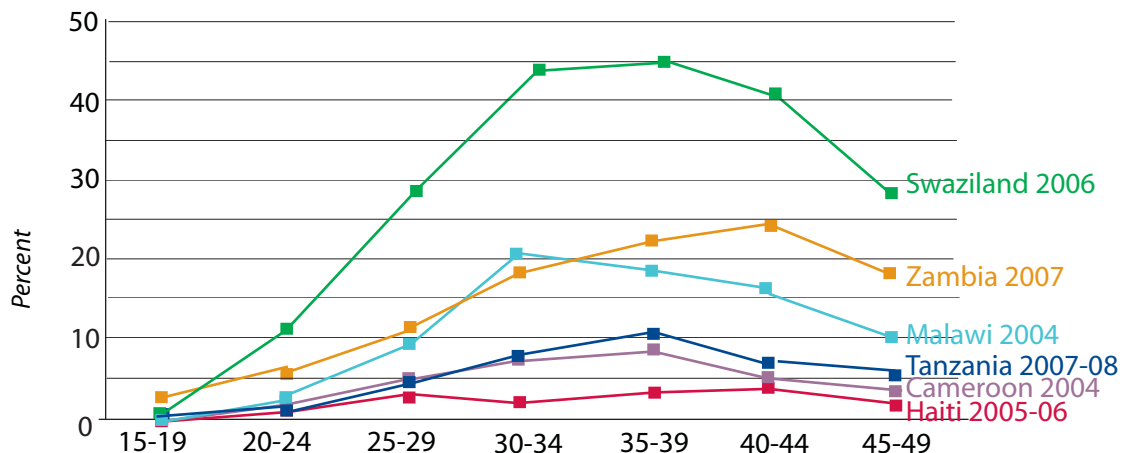
In general, HIV prevalence increases until about age 30-34 for women, and then declines. Among men, prevalence is lower than women in the early years and then hits its peak in the late 30s or early 40s. In some countries HIV prevalence is quite high among older adults; more than 10% of adults age 45-49 in Swaziland, Zimbabwe, and Malawi are HIV-positive.

HIV Prevalence by Age: Women



In Zambia, for example, HIV prevalence among women peaks at age 30-34, while men's prevalence peaks at age 40-44.

HIV Prevalence by Age: Men



Testing of Children

Some countries also choose to test younger children. Uganda tested children under age 5, while in Swaziland, children age 2-14 were tested.

Prevalence among children under 5 in Uganda is less than 1%. Younger children have a higher rate of infection than older children.

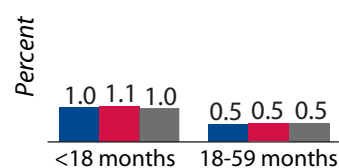
In Swaziland, 5% of the youngest children are HIV-positive. Prevalence decreases with age among children, as those who are born with HIV have usually died before their early teen years, and have not yet been exposed to HIV through sexual activity.



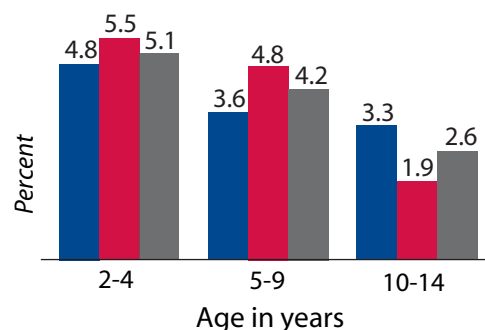
Uganda and Swaziland: HIV Prevalence among Children

■ Girls ■ Boys ■ Total

Uganda 2004-05

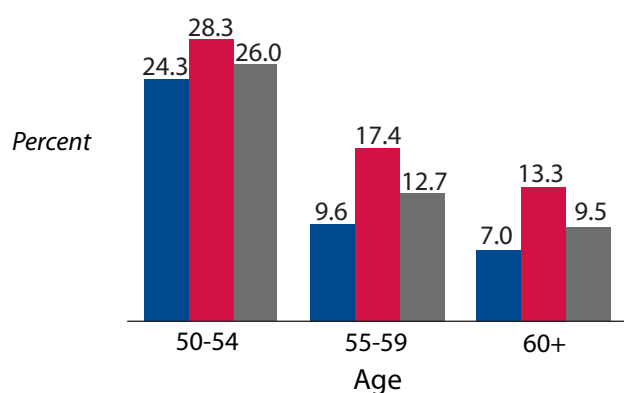


Swaziland 2006-07



Swaziland: HIV Prevalence among Older Adults

■ Women ■ Men ■ Total

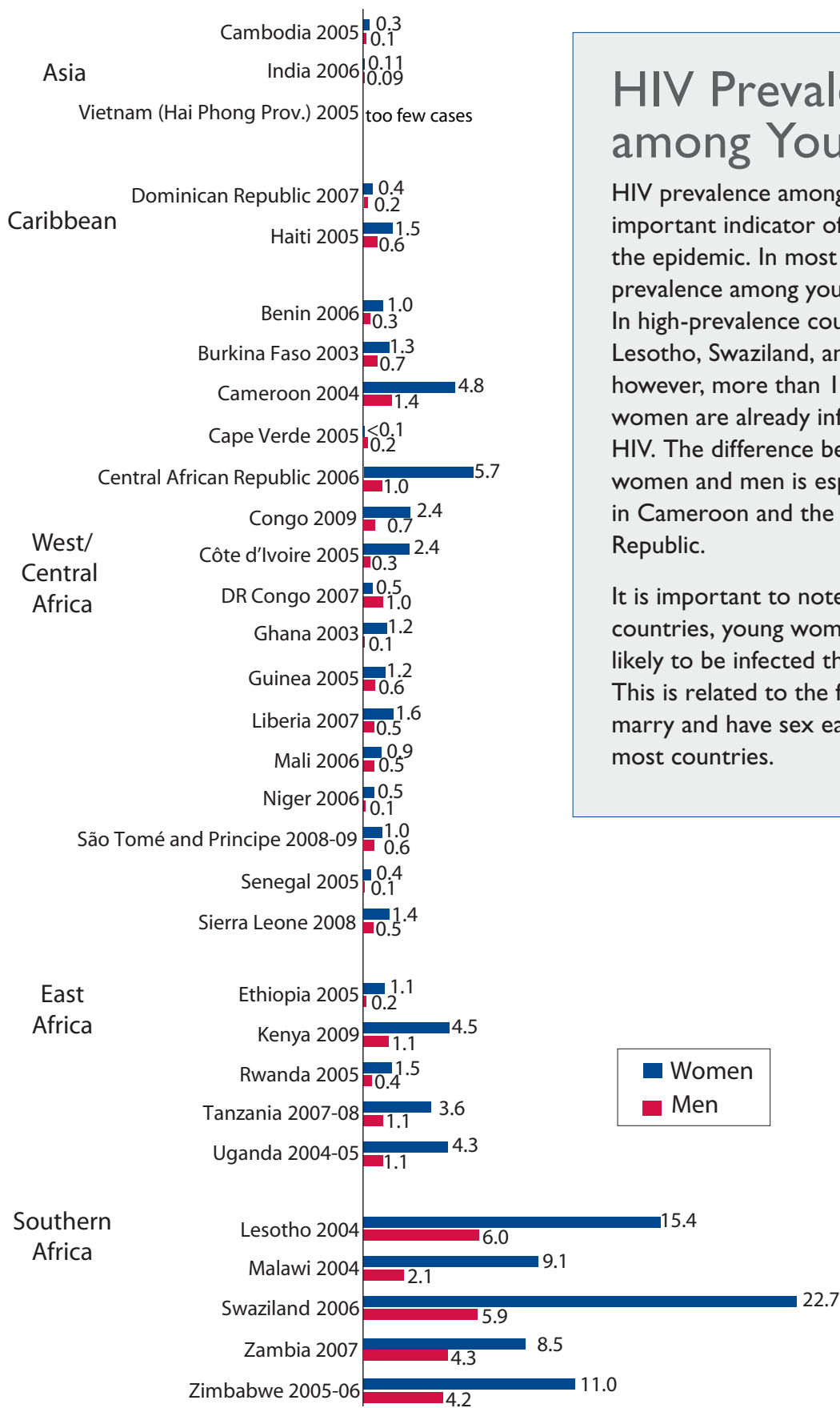


Testing of Older Adults

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.

In Swaziland, one in four adults age 50-54 and one in ten adults 60 and over is infected with HIV.

HIV Prevalence among Youth 15-24



HIV Prevalence among Youth

HIV prevalence among youth is an important indicator of the future of the epidemic. In most countries, HIV prevalence among youth is quite low. In high-prevalence countries such as Lesotho, Swaziland, and Zimbabwe, however, 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.

It is important to note that in almost all countries, young women are far more likely to be infected than young men. This is related to the fact that women marry and have sex earlier than men in most countries.

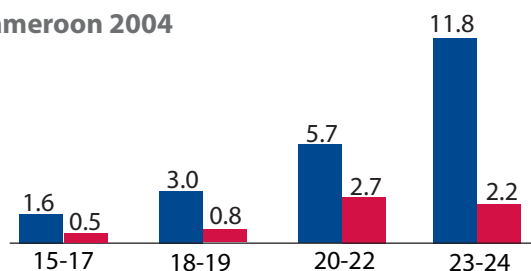
■ Women
■ Men

Percent of women and men 15-24

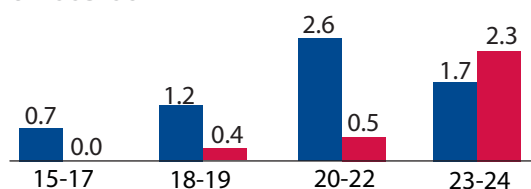
HIV Prevalence among Youth by Age

■ Women ■ Men

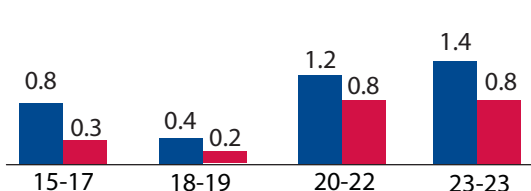
Cameroon 2004



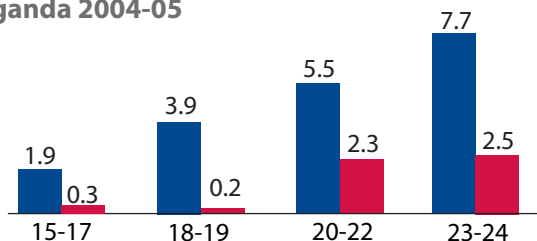
Haiti 2005-06



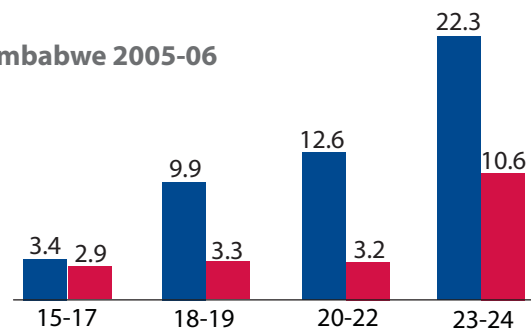
Mali 2006



Uganda 2004-05



Zimbabwe 2005-06



Older Youth at Increased Risk

HIV prevalence is much lower among the youth age 15-17 than those age 23-24 in most countries and among both women and men. This indicates that HIV prevalence increases quickly with age. This increase in prevalence mirrors the increased exposure to risk. As young people become sexually active and have more sexual partners they are more likely to be exposed to HIV.

Young women are especially vulnerable to HIV due to their early age of marriage and sexual debut. Young women age 23-24 in Cameroon, for example, are 7 times as likely to be HIV-positive as young women age 15-17.

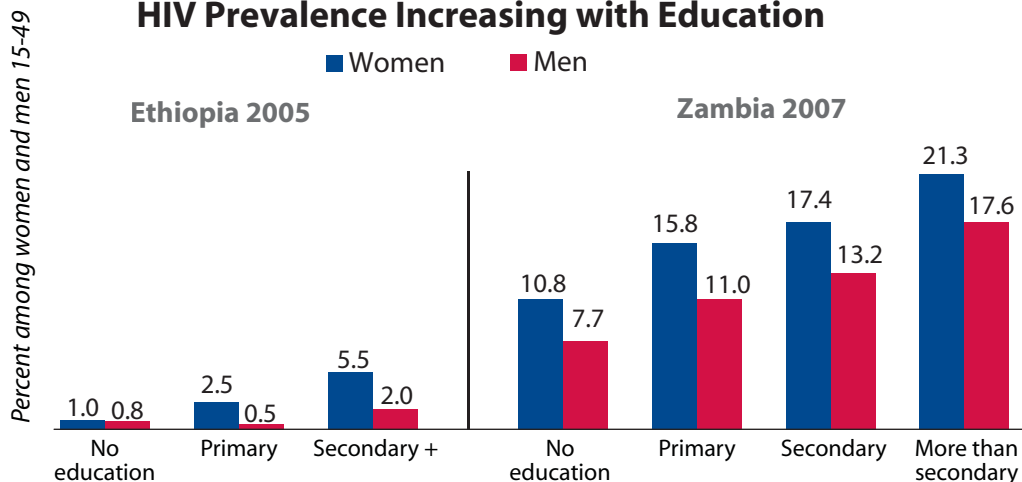


HIV Prevalence by Education

There is no consistent pattern in HIV prevalence by education. In Ethiopia and Zambia, as well as Burkina Faso, Cameroon, the Central African Republic, Congo, Rwanda, and Uganda, HIV prevalence is higher among educated men and women. In other countries this association with education occurs only for men (Malawi) or only for women (the Democratic Republic of the Congo and Guinea). In contrast, HIV prevalence is lower among educated women and men in the Dominican Republic, Haiti, India, Senegal, Tanzania, and Zimbabwe, although in these cases, the pattern is more evident for men than for women. In some countries, there is no pattern at all (Cambodia, Côte d'Ivoire, Ghana, Kenya, Lesotho, Mali, Niger, Sierra Leone, and Swaziland).

Ethiopia and Zambia:

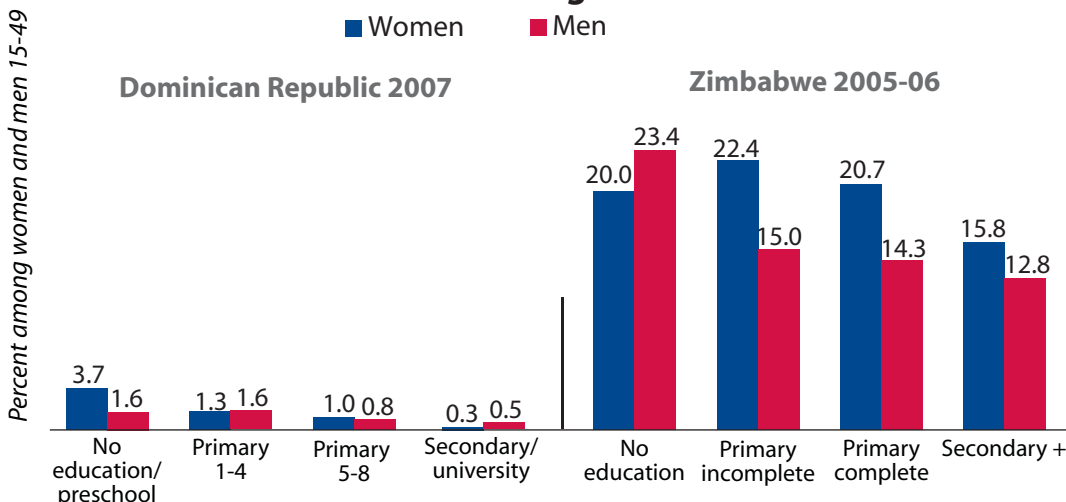
HIV Prevalence Increasing with Education



In both Ethiopia and Zambia, HIV prevalence rises with each subsequent level of education for both women and men.

Dominican Republic and Zimbabwe:

HIV Prevalence Decreasing with Education

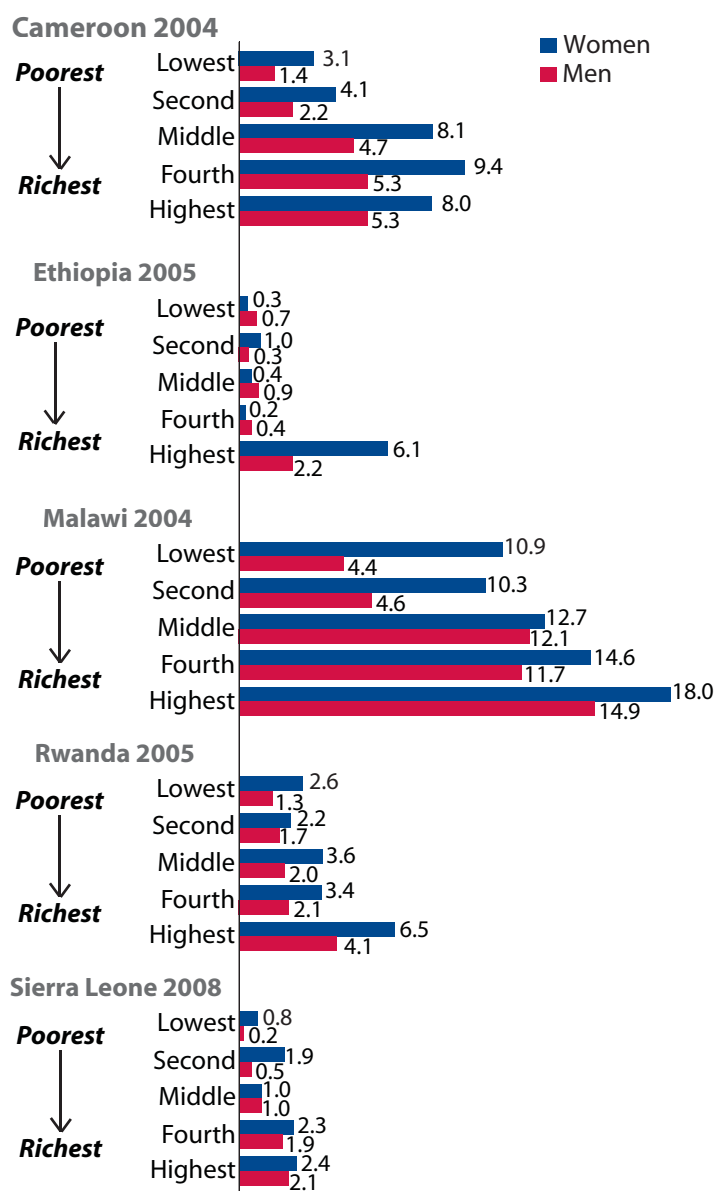


In Zimbabwe, HIV prevalence among men with no education is twice as high as prevalence among those with secondary or more education.

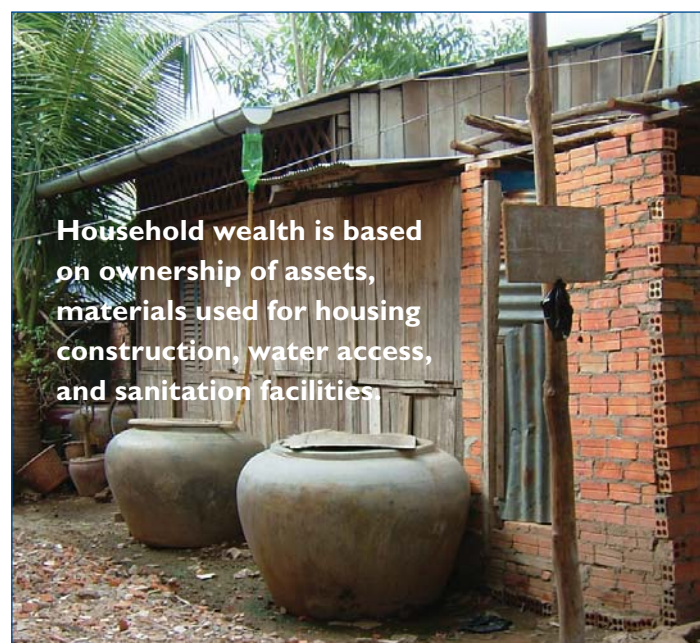
HIV Prevalence by Wealth

For most countries, prevalence is higher among women and men in the wealthiest households than among those in the poorest households. The relationship 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 Príncipe, 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, only the wealthiest have a markedly higher rate of HIV infection.



Household wealth is based on ownership of assets, materials used for housing construction, water access, and sanitation facilities

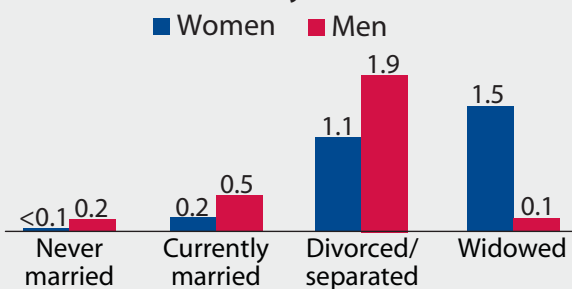
Percent of women and men 15-49

HIV Prevalence by Marital Status

The relationship between marital status and HIV prevalence is consistent across almost all DHS countries: 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.

Despite low national prevalence, the relationship between HIV infection and marital status in India is still strong. Widowed women are more than 6 times as likely to be HIV-positive as currently married women. Men who are separated or divorced are 4 times as likely to be HIV-infected as married men.

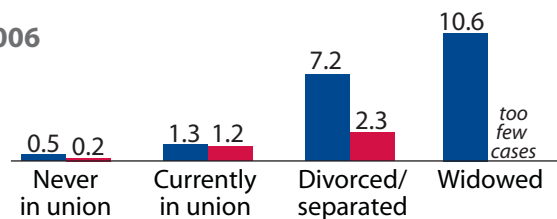
**India 2005-06:
HIV Prevalence by Marital Status**



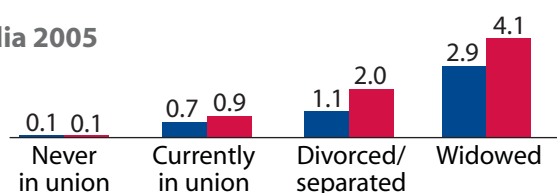
HIV Prevalence by Marital Status

■ Women ■ Men

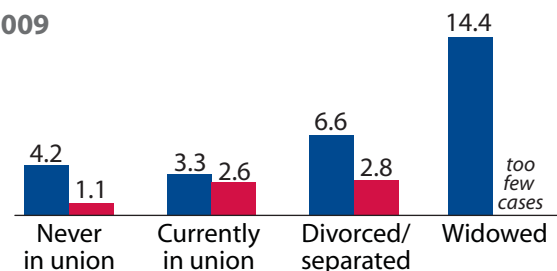
Benin 2006



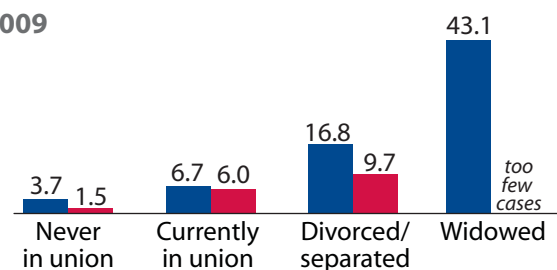
Cambodia 2005



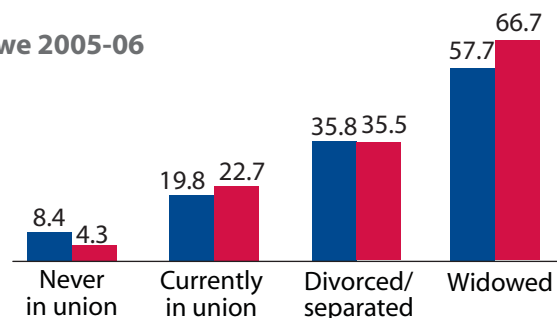
Congo 2009



Kenya 2009



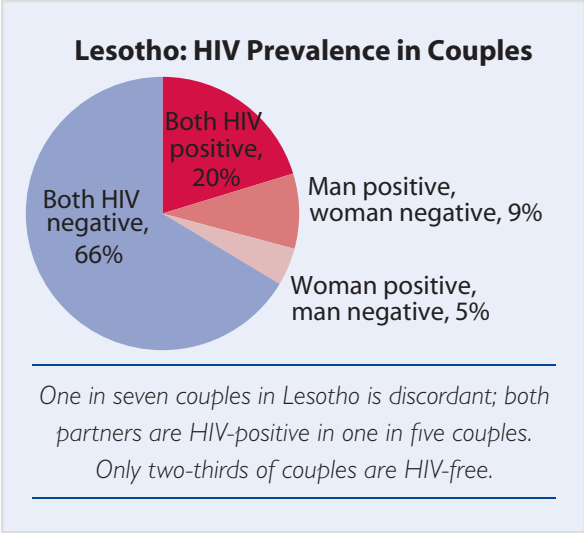
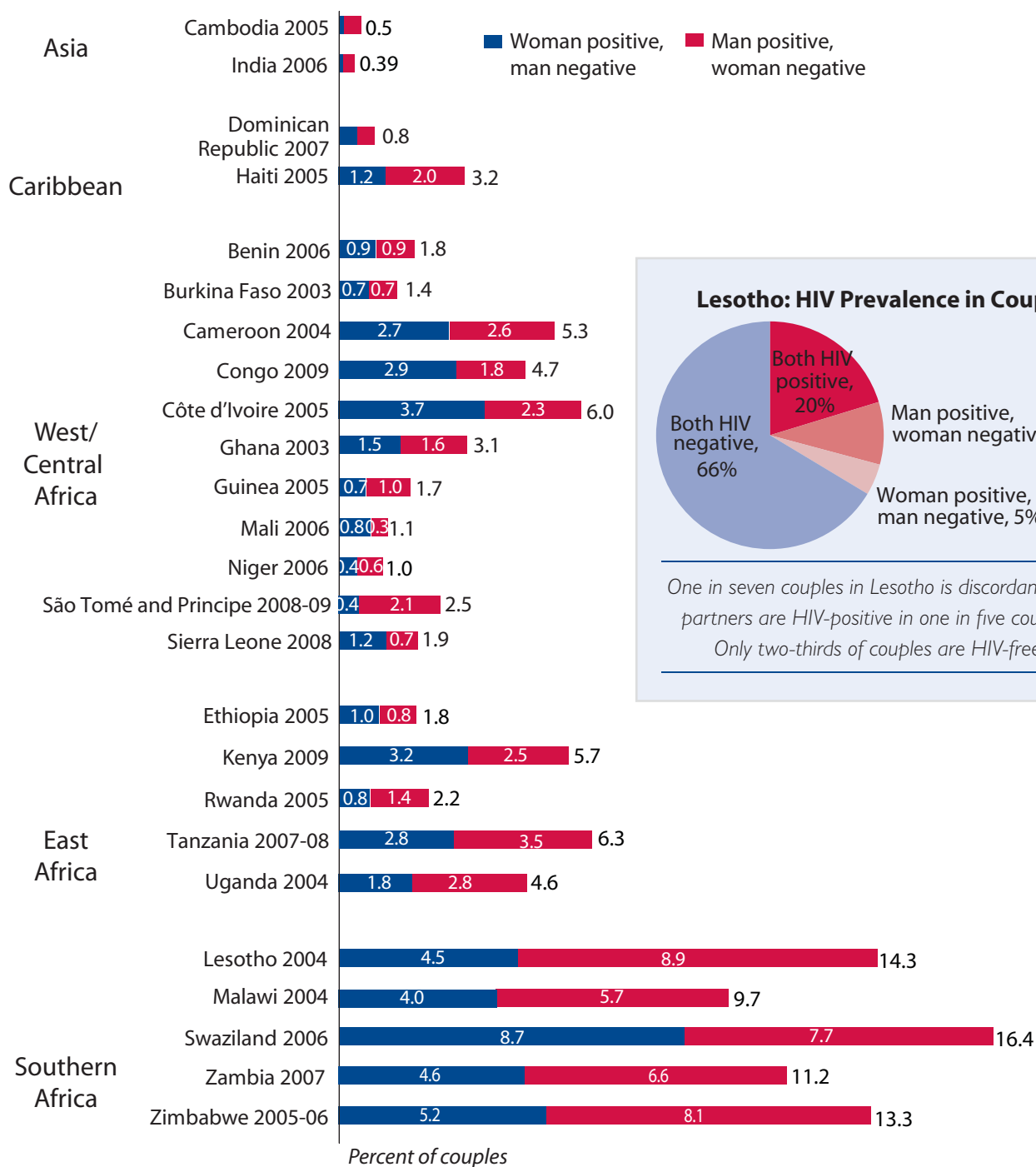
Zimbabwe 2005-06



HIV Prevalence among Couples

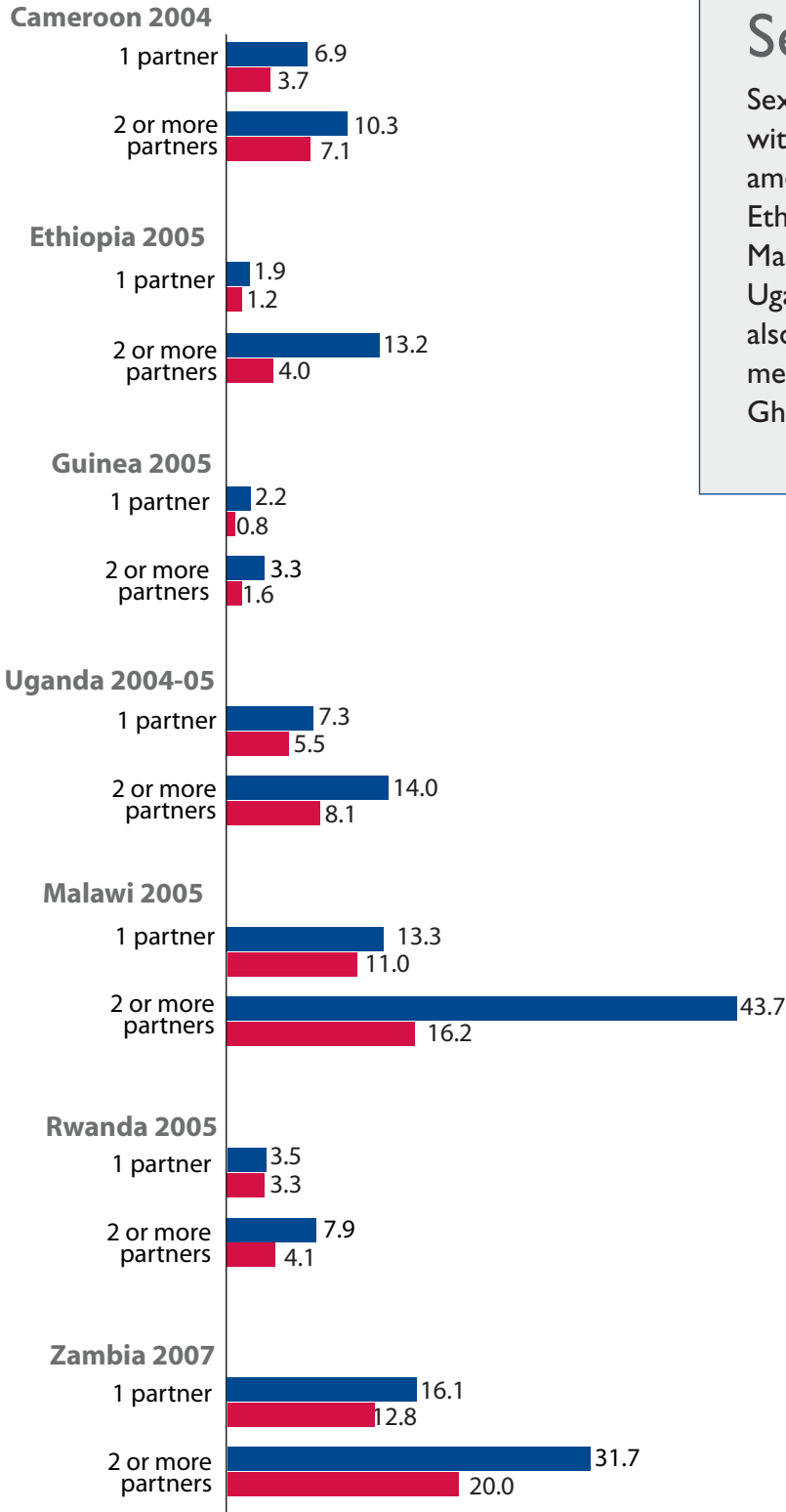
The best way to avoid contracting HIV is to avoid having sexual intercourse with a partner who is HIV-positive. However, in many married and cohabiting couples, one partner is positive. These couples are called “discordant” because one partner is HIV-positive and the other is negative. Identifying discordant couples is an essential step in reducing the spread of HIV. These couples must take extra steps to avoid transmission.

Discordant Couples



HIV Prevalence by Number of Sexual Partners in Past Year

■ Women ■ Men



Percent of women and men 15-49

HIV Prevalence by Sexual Behavior

Sex with multiple partners is associated with higher levels of HIV prevalence among women and men in Cameroon, Ethiopia, Guinea, India, Lesotho, Malawi, Rwanda, Sierra Leone, Tanzania, Uganda, and Zambia. This relationship also holds true for women, but not men, in Burkina Faso, Côte d'Ivoire, Ghana, Haiti, and Zimbabwe.

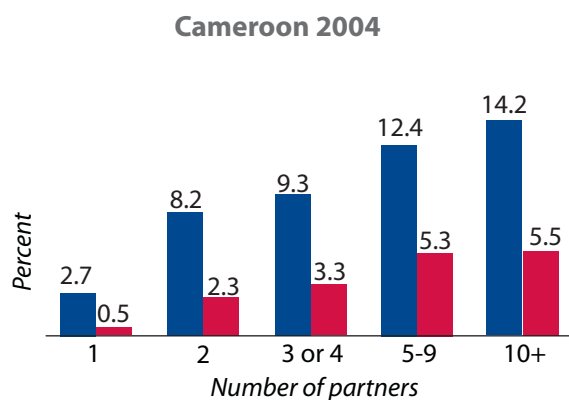


HIV Prevalence by Number of Lifetime Partners

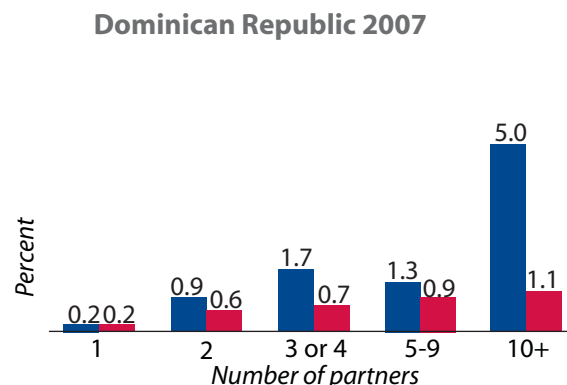
Women and men with more lifetime sexual partners are more likely to have been exposed to HIV. DHS data confirm the association between number of lifetime partners and HIV prevalence in almost all of the surveys for which this information was collected: Cambodia, Cameroon, Congo, Côte d'Ivoire, the Dominican Republic, Ethiopia, Guinea, Kenya, Mali, Niger, Rwanda, Swaziland, Tanzania, Zambia, and Zimbabwe.

HIV Prevalence by Lifetime Number of Sexual Partners

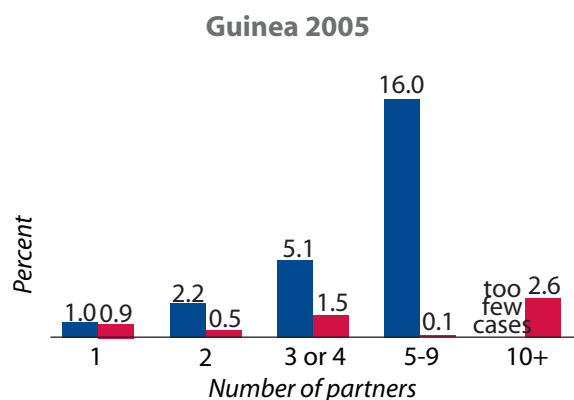
■ Women ■ Men



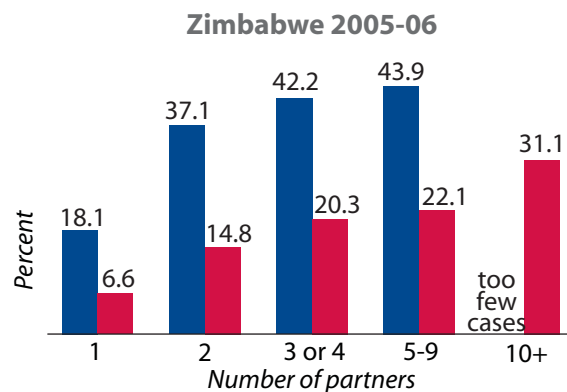
In Cameroon, risk of HIV infection increases steadily as women and men have more sexual partners.



As in most countries, the association between number of partners and HIV prevalence is especially strong for women in the Dominican Republic.



In Guinea, 16% of women with 5 to 9 lifetime sexual partners are HIV-positive, compared to only 1% of those with only one lifetime sexual partner.



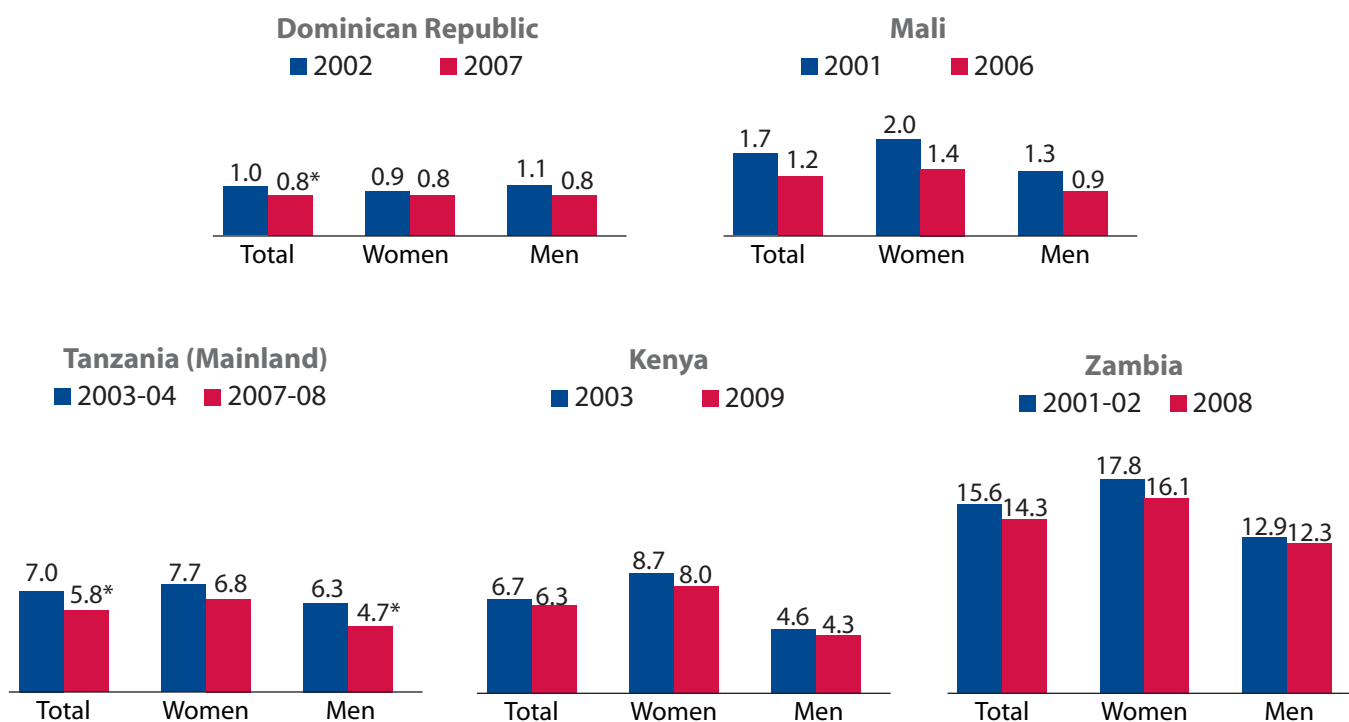
Prevalence is high even among those with only one partner in Zimbabwe, and yet HIV-infection rates more than double as women and men have more lifetime partners.

Trends in HIV Prevalence

Since 2001, MEASURE DHS surveys have included HIV testing in 31 countries. In five of these countries—Dominican Republic, Kenya, Mali, Tanzania, and Zambia—testing has been included in two surveys, which provides the 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. For further discussion of statistical significance and confidence intervals, see the Tanzania example on page 21.

HIV Prevalence Trends



While it may appear that HIV prevalence has decreased in all five countries, these decreases are only statistically significant in Tanzania and the Dominican Republic. It cannot be concluded that HIV prevalence has truly decreased in Mali, Kenya, or Zambia.

Understanding Trends in HIV Prevalence: Tanzania Case Study

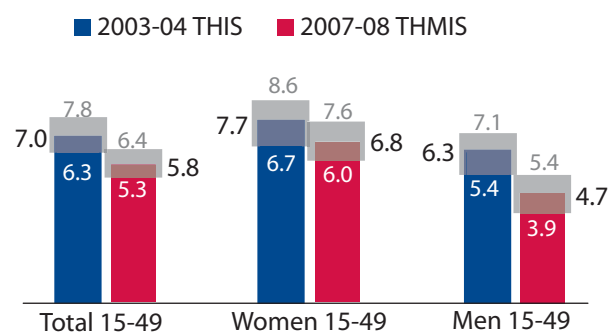
The 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS) was the first time HIV testing was carried out in a national, population-based survey in Tanzania. The 2003-04 THIS tested 5,753 women and 4,994 men age 15-49. The THIS reported that HIV prevalence in Mainland Tanzania* was 7.0%: 7.7% among women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

It is important to note, however, that all surveys have a certain degree of error, especially for estimating events that are not very common. 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 in the 2003-04 THIS.

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 (shaded areas in 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.

HIV Prevalence Trends for Mainland Tanzania: Confidence Intervals



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 population.

*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.

The Way Forward

Survey data provide valuable insights into the patterns of HIV infection, allowing countries to channel scarce resources and design more effective prevention and care programs.

MEASURE DHS has helped countries conduct HIV testing in population-based surveys for almost 10 years. Interest in population-based testing continues to grow in both high and low prevalence countries. MEASURE DHS surveys with HIV testing are currently planned or underway in Angola, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Gabon, Lesotho, Malawi, Mozambique, Rwanda, Uganda, and Zimbabwe. Several of these countries are doing HIV testing for the second time.

While trend data are important, they must be interpreted with caution. Even in a case where a change in HIV prevalence is statistically significant, interpretation of these results is

not clear cut. Has HIV prevalence decreased because the epidemic has slowed, or because many HIV-positive individuals have died? Has prevalence increased because there are more new cases of the disease or because so many more are surviving on anti-retroviral treatment? DHS data must be considered along with other sources of data to assess the true HIV situation in a given context and develop appropriate, evidence-based interventions.

Such evidence-based programming will increase effectiveness and efficiency, leading to improved prevention of HIV transmission and treatment of those living with HIV/AIDS.



Photo credits

Cover photo: © 2009 Gaurav Gaur/Social Activist, 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 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 2: © 2009 David Snyder, Courtesy of Photoshare. A pharmacist at a clinic in Nairobi, Kenya's sprawling Kibera slum displays some of the ARV medications in-stock for HIV patients who visit the clinic. The clinic is supported by the Centers for Disease Control, which conducts disease surveillance of the surrounding community.

Page 4: © Alfredo Fort, ICF Macro.

Page 9: © 2008 Bob Msangi, Courtesy of Photoshare. A man in Tanzania listens to an HIV/AIDS radio program as part of the STRADCOM (Strategic Radio Communication for Development) project.

Page 11: © Jasbir Sangha, ICF Macro.

Page 13: © 2007 Pradeep Tewari, Courtesy of Photoshare. An adolescent peer volunteer demonstrates correct condom use to the students of Government Sr.Sec.School, Khuda Lahora, Chandigarh, India, under the Adolescent Development and Empowerment Project run by the Ministry of Sports and Youth Welfare, Government of India.

Page 15: © Kia Reinis, ICF Macro. Household water collection in Cambodia.

Page 16: © 2009 Robyn Iqbal, Courtesy of Photoshare. A young HIV positive woman and her second husband await treatment in the HIV ward of a large municipal hospital in Tamil Nadu, India. Born into a poor family, she was married off at 15 to her first husband (not pictured) who physically abused her, burned her with cigarettes, hit her with pans and threw away her meager income on alcohol. She could not choose her own clothes, go out with friends, or even turn to her family for help because he paid them off. Her husband had many women and infected her with HIV at age 16. She had two children (both HIV negative) before finally divorcing at 19, and her father took her children from her for fear she would infect them.

Page 18: © 2008 Mali Health Organizing, Courtesy of Photoshare. A community health worker sells raffle tickets at Mali Health Organizing Project's annual World AIDS Day Celebration.

Page 22: © 2009 Community Peer Educators, Courtesy of Photoshare. Health workers in Uganda conduct HIV testing as the community mobilizers look on.

Inside back cover: © 2009 Netsanet Assaye, Courtesy of Photoshare. A voluntary counseling and testing center in Mijengo, Nairobi, Kenya. Commercial sex workers visit often to get free condoms and tested for their HIV status.

Back cover: © 2009 Cindi Cohen, Courtesy of Photoshare. A community health prevention volunteer demonstrates the proper use of condoms to a group of women from the rural community of Tevele, Massinga district, Mozambique. The community of Tevele has formed a Community Health Initiative to address the most significant health issues in their community, including HIV/AIDS.



