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CHANGES IN HIV-RELATED KNOWLEDGE AND BEHAVIORS IN SUB-SAHARAN AFRICA

DHS COMPARATIVE REPORTS 24

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MEASURE DHS assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. Additional information about the MEASURE DHS project can be obtained by contacting Demographic and Health Research Division, ICF Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; e-mail: reports@macrointernational.com; internet: www.measuredhs.com).

The main objectives of the MEASURE DHS project are:

- to provide decisionmakers in survey countries with information useful for informed policy choices;
- to expand the international population and health database;
- to advance survey methodology; and
- to develop in participating countries the skills and resources necessary to conduct high-quality demographic and health surveys.

DHS Comparative Reports No. 24

Changes in HIV-Related Knowledge and Behaviors in Sub-Saharan Africa

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Preface

One of the most significant contributions of the MEASURE DHS program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries. The *DHS Comparative Reports* series examines these data across countries in a comparative framework. The *DHS Analytical Studies* series focuses on specific topics. The principal objectives of both series are to provide information for policy formulation at the international level and to examine individual country results in an international context. Whereas *Comparative Reports* are primarily descriptive, *Analytical Studies* have a more analytical approach.

The *Comparative Reports* series covers a variable number of countries, depending on the availability of data sets. Where possible, data from previous DHS surveys are used to evaluate trends over time. Each report provides detailed tables and graphs organized by region. Survey-related issues such as questionnaire comparability, survey procedures, data quality, and methodological approaches are addressed as needed.

The topics covered in *Comparative Reports* are selected by MEASURE DHS staff in conjunction with the U.S. Agency for International Development. Some reports are updates of previously published reports.

It is anticipated that the availability of comparable information for a large number of developing countries will enhance the understanding of important issues in the fields of international population and health by analysts and policymakers.

Ann Way
Project Director

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Executive Summary

The purpose of this study is to provide strategic information on key HIV-related indicators for program managers and policymakers to monitor and evaluate prevention programs and to design new strategies. The report summarizes levels and recent changes in 69 indicators of HIV-related knowledge, attitudes, and behaviors of women and men age 15–49 in 23 countries in sub-Saharan Africa. Data come from the two most recent rounds of population-based, nationally representative Demographic and Health Surveys (DHS) conducted between 1992 and 2006.

The results show that in most countries in the region education levels and exposure to the mass media have improved in recent years, yet men remain better educated than women and continue to have more exposure to the media. Overall, there have been improvements in women's participation in household decision-making, and women report greater ability to negotiate safer sex. Men are more likely than women themselves to report that women can negotiate safer sex.

In most sub-Saharan countries knowledge about HIV prevention methods has increased. However, considerable proportions of men and women still lack knowledge of specific prevention methods: abstinence, partner faithfulness, and condom use. Comprehensive knowledge about HIV/AIDS has increased, but in most countries, especially in west Africa, levels of such knowledge remain unacceptably low.

Although men generally are more knowledgeable than women about HIV prevention methods, higher percentages of women than men know that HIV can spread from mother to child through breast milk. Few adults know about drugs that can prevent mother-to-child HIV transmission.

The results suggest that considerable proportions of people continue to have discriminatory attitudes toward people living with HIV (PLHIV). While a majority of adults indicate that they would care for an infected family member, fewer would want others to know if someone in their own family were infected. Levels of acceptance of HIV-infected female teachers or vegetable vendors are also low, though improving.

An overwhelming majority of adults agree that children age 12–14 should be taught to abstain from sex until they get married. However, in most sub-Saharan countries only about half of women and a slightly higher percentage of men would want children age 12–14 to be taught about condom use.

In all countries a large majority of people perceive themselves to be at no risk or low risk of becoming infected with HIV. Nonetheless, many adults, particularly men, report being at no risk or low risk of HIV infection, even though they have had multiple lifetime sexual partners. The proportion of people who consider themselves to be at high risk or who already have HIV shows no correlation to HIV prevalence in the country.

A high percentage of men and women initiate sex before age 15. Median age at first sex is much lower among women than among men. In recent years, the median age at first sex has remained generally unchanged for both men and women in most countries.

Men are much more likely than women to report having multiple sexual partners in their lifetime, as well as in the year before the survey. Men also are much more likely than women to report non-spousal sex. In most countries women have become less likely to report multiple partners, but among men there is no clear pattern of change. The highest levels of paid sex among men are in southern Africa, where the prevalence of HIV is higher than in east Africa or west Africa.

Among never-married youth age 15–24, no clear pattern of change appears across countries in the practice of primary abstinence, but secondary abstinence has increased in most countries. Over time, fewer youth are having multiple sex partners, comparing the two rounds of surveys. Considerable proportions of young women report that their first sex was forced and that they have had sex with non-spousal partners who were 10 years or older than themselves. Women in west Africa are more likely to have older non-spousal partners than women in east Africa or southern Africa.

Overall, condom use has increased somewhat but remains very low in most sub-Saharan countries. Less than one woman in every six and one man in every three report using a condom at last sex in the year before the survey. Levels of consistent condom use are even lower.

Although in east Africa and southern Africa the percentages of respondents who know where to get tested for HIV are substantial, the percentages of respondents who have ever been tested for HIV and received test results are quite low in most sub-Saharan countries, at less than 25 percent of men and women. For countries with data from two time points, the study finds sizeable increases among both women and men in knowledge of where to get tested for HIV.

In sum, the study provides a comprehensive look at the levels and direction of many important HIV/AIDS-related indicators in sub-Saharan countries. Notably, the study finds evidence of improvements in HIV/AIDS-related knowledge and attitudes but also highlights persistent high levels of sexual risk-taking and very low levels of voluntary counseling and testing coverage and condom use. These findings make a case for strengthening prevention programs in sub-Saharan Africa with a range of efforts to promote safer sexual behavior.

The study also highlights large differentials between women and men in a number of HIV-related indicators, and wide variations among the 23 countries studied in the levels of and recent changes in HIV-related knowledge, attitudes, and behaviors. These differences suggest the need for HIV prevention, treatment, and care policies and programs to be gender and context specific.

1 Introduction

1.1 Purpose

The purpose of this study is to provide strategic information on key HIV-related indicators for program managers and policymakers to monitor and evaluate prevention programs and design new strategies. The report summarizes levels and recent changes in 69 indicators of HIV-related knowledge, attitudes, and behaviors of women and men age 15–49 in 23 countries in sub-Saharan Africa. Data come from the two most recent rounds of population-based, nationally representative Demographic and Health Surveys (DHS) conducted between 1992 and 2006.

Over the years, as the HIV epidemic has become more widespread, numerous programs and policies have evolved that focus on providing education about prevention methods, reducing misconceptions about HIV/AIDS, and increasing protective sexual behaviors, including sexual abstinence, reduction in premarital sex, and condom use during risky sex. The HIV/AIDS epidemic has also resulted in several global initiatives, such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to fight AIDS, TB, and malaria in developing countries. The data contained in this report can assist these and other efforts to combat HIV/AIDS, particularly in sub-Saharan Africa.

1.2 HIV/AIDS in Sub-Saharan Africa

Globally in 2007, an estimated 33 million [30 million–36 million] people were living with HIV (UNAIDS 2008). Sub-Saharan Africa is the region hardest hit by HIV/AIDS, accounting for two-thirds of all people living with HIV (PLHIV) and almost 90 percent of all infected children worldwide. An estimated 1.9 million [1.6 million–2.1 million] people were newly infected with HIV in sub-Saharan Africa in 2007, bringing the total number of PLHIV in sub-Saharan Africa to 22 million [20.5 million–23.6 million]. Sub-Saharan Africa accounted for three quarters of all AIDS-related deaths in 2007 (UNAIDS 2008). Unlike in the rest of the world, women in sub-Saharan Africa are disproportionately more likely than men to be infected with HIV.

The sub-Saharan region's HIV/AIDS epidemics vary significantly from country to country, in both scale and scope (Mishra et al. 2009; UNAIDS 2008; Asamoah-Odei, Garcia-Calleja, and Boerma 2004). In 2007, adult national HIV prevalence was below 2 percent in most countries of west Africa, was above 5 percent in several east African countries, but exceeded 15 percent in some southern African countries. Southern Africa continues to bear a disproportionate share of the global burden of HIV. For example, 35 percent of HIV infections and 38 percent of AIDS deaths in 2007 occurred in this sub-region. In recent years, some epidemics in sub-Saharan Africa appear to have stabilized at high levels, while in a few others there are signs of resurgence (UNAIDS 2008).

1.3 Risk Factors of HIV

A recent cross-country study has shown that in a majority of countries HIV prevalence increases with risky sexual behaviors, such as a higher number of lifetime sex partnerships, sex with non-marital or non-cohabitating partners, alcohol use by either or both partners, and not using condoms at last sex (Mishra et al. 2009). Numerous other studies have also examined sexual and other behaviors in sub-Saharan Africa as they relate to the spread of HIV in the general population (Hudson 1996; Ferry et al. 2001; Lagarde et al. 2001; Morris and Kretzchmar 1997; Slaymaker and Buckner 2004; Kirungi et al. 2006; Hallett et al. 2006).

More specifically, studies have explored the role of risk factors that lead to HIV infection—including sexual behavior, particularly higher-risk behavior by certain sections of the population such as commercial sex workers (Morison et al. 2001); low prevalence of condom use (Ghys et al. 2002); early marriage, poor gender relations, and the risk and vulnerability of women (Clark, Bruce, and Dude 2006; Clark 2004; Glynn et al. 2001; Kelly et al. 2003; Luke 2005; Pettifor et al. 2004); male circumcision and STIs (Auvert et al. 2001; Auvert et al. 2005; NIAID 2006; Johnson and Way 2006; Weiss, Quigley, and Hayes 2000); and transmission of HIV infection from mothers to children (Coovadia et al. 2007). Most of these studies focus on individual countries or particular contexts.

Heterosexual intercourse remains the epidemic's main driving force in sub-Saharan Africa, unlike in the rest of the world where HIV disproportionately affects injecting drug users, commercial sex workers, and men who have sex with men (UNAIDS 2008). At the same time, an increased focus on understanding the causes and determinants of HIV infection has developed to respond effectively to the fast-growing epidemic (Boerma and Weir 2005). In recent years, the need to understand the reasons for stagnation in the rate of decline or reversal in HIV prevalence rates in some countries, such as Kenya and Uganda, has been increasingly emphasized (Opio et al. 2008; Cheluget et al. 2006; Murphy et al. 2006; Stoneburner and Low-Beer 2004).

This stagnation and reversal are often accompanied by increased sexual risk-taking. In Uganda, for example, where HIV prevalence has risen slightly, multiple sexual partnerships among Ugandan men age 15–49 increased from 28 percent in 2001 to 37 percent in 2005, while condom use at last non-spousal sex declined from 65 percent to 55 percent during the same period (Opio et al. 2008; Green et al. 2006).

Given this context, there is need for a comprehensive look at the levels and direction of HIV/AIDS-related indicators in sub-Saharan Africa, to assess whether program efforts to raise levels of knowledge of prevention measures, reduce stigma and discrimination, promote safer sexual practices, and provide counseling and testing services are having their intended consequences, as well as to identify population groups and program areas needing greater attention.

1.4 Organization of this Report

In addition to this introductory chapter, the report has 10 chapters that define the study, present results, and suggest implications:

- Chapter 2 provides details on survey sample sizes, indicators used, and the methodological approach.

- Chapter 3 examines changes in selected socioeconimic and demographic characteristics.

- Chapter 4 covers respondents' knowledge, misconceptions, and perceptions of their risk of HIV exposure. This includes information on whether individuals have ever heard of HIV/AIDS; their awareness of methods by which HIV infection can be prevented – by abstaining from sex, by limiting sex to one faithful partner, and by using condoms; their misconceptions regarding ways of transmitting HIV, such as by sharing food; and their perceived risk of HIV infection, also measured in relation to their sexual behaviors, including the number of sexual partners.

- Chapter 5 presents attitudes and perceptions related to how respondents would treat PLHIV. This includes attitudes such as whether a respondent would care for a family member with HIV, would allow a teacher with HIV to continue teaching, and would buy vegetables from a person with HIV.

The chapter also covers beliefs on whether children age 12–14 should be taught about condoms and about abstaining from sex until marriage.

- Chapter 6 examines changes in sexual behavior, including detailed information on riskier sexual behavior that could be associated with HIV infection and spread. The indicators of sexual behavior include age at initiation of sexual activity, number of lifetime sexual partners, sex with non-spousal partners, paid sex, condom use, and alcohol consumption during sex.

- Chapter 7 reports data on youth, including primary and secondary abstinence, condom use, and risky sexual behavior. This focus reflects the fact that youth is a time of risk taking, and that HIV infection can occur early in a person's sexual life.

- Chapter 8 presents data on number of medical injections, prevalence of circumcision among men, and prevalence of sexually transmitted infections (STIs) or STI symptoms among women and men. Although the emphasis of this report is on changes in sexual behaviors in relation to the HIV epidemic, other possible modes of HIV transmission may contribute to risk.

- Chapter 9 presents selected indicators from the individual's perspective, including whether the survey respondents know where to get tested for HIV and whether they did get tested for HIV and received test results.

- Chapter 10 focuses on indicators of gender relations. General indicators of gender relations examined in the DHS include women's ability to make decisions on their health care, household purchases, and visiting family or relatives. Other indicators more specific to sexual behavior include male and female perspectives on whether a woman is justified in refusing sex or requesting a condom under circumstances where she is aware of her husband's extra-marital sexual activities or of his exposure to STIs.

- Chapter 11 concludes the report with a summary of key findings, discussion of limitations, and mention of implications for HIV policies and programs.

2 Data and Methods

2.1 DHS Surveys

The DHS surveys collect data from population-based, nationally representative samples of adult women and men in developing countries. The surveys are designed to obtain national and sub-national data on key program-related indicators of fertility, family planning, reproductive and child health, and women's status, as well as knowledge, attitudes, and behaviors related to HIV/AIDS. The surveys also collect data on many background socioeconomic and demographic characteristics of the households and individual respondents. Survey data of this kind can provide program managers and policymakers with strategic information needed to monitor and evaluate existing programs and to design effective new strategies.

Surveys select a random sample of clusters (usually villages or urban blocks) from a national sampling frame, usually from the most recent national population census. Within the selected clusters, a full listing of all households is made before the survey, and then a systematic random sample of households is taken. During the main fieldwork, all women age 15–49 and men age 15–59 (age cut-offs for men vary by survey) who are either permanent residents of the households in the sample or visitors present in the household on the night before the survey are eligible to be interviewed in the survey. Information is gathered using three questionnaires: a household questionnaire, a woman's questionnaire, and a man's questionnaire.

Using information from the woman's and man's questionnaires, this report analyzes data from the two most recent rounds of DHS surveys in 23 countries in sub-Saharan Africa. All analysis in this report is limited to women and men age 15–49. The surveys included in this analysis were conducted between 1992 and 2006. By region within sub-Saharan Africa, the countries and survey years included are:

West Africa: Benin (1996 and 2001), Burkina Faso (1998/99 and 2003), Cameroon (1998 and 2004), Chad (1996/97 and 2004), Cote d'Ivoire (1998/99 and 2005[1]), Ghana (1998 and 2003), Guinea (1999 and 2005), Mali (1995/96 and 2001), Niger (1998 and 2005), Nigeria (1999 and 2003), and Senegal (1997 and 2005);

East Africa: Eritrea (1995 and 2002), Ethiopia (2000 and 2005), Kenya (1998 and 2003), Rwanda (2000 and 2005), Tanzania (1999 and 2004/05), and Uganda (2000/01 and 2006);

Southern Africa: Madagascar (1997 and 2003/04), Malawi (2000 and 2004), Mozambique (1997 and 2003), Namibia (1992 and 2000), Zambia (1996 and 2001/02), and Zimbabwe (1999 and 2005/06).

Details about the survey design and data collection procedures used in each survey are available in individual DHS country reports (available at www.measuredhs.com).

2.2 Sample Sizes

Table 2.1 presents total sample sizes for women and men in age groups 15–49 and 15–24, for each survey round in the 23 countries. Table 2.1 also presents sample sizes for women and men currently in union (married or cohabiting), those who have ever had sex, and those who had sex in last 12 months.

[1] 2005 survey for Cote d'Ivoire was an AIDS Indicator Survey.

These indicators provide denominators for most of the indicators presented in this report. Sample sizes for women and men varied considerably across countries, depending on the objectives of each survey round.

Table 2.1 Sample sizes of women and men age 15–49, in selected countries in sub-Saharan Africa, 1992–2006

	Sample sizes									
	Women					Men				
Country/year	Age 15–49	Age 15–24	Currently in union[1]	Ever had sex	Had sex in last 12 months	Age 15–49	Age 15–24	Currently in union[1]	Ever had sex	Had sex in last 12 months
West Africa										
Benin 1996	5,491	2,095	4,198	4,925	4,064	1,272	295	886	1,228	1,105
Benin 2001	6,219	2,448	4,563	5,608	4,617	2,465	905	1,378	2,164	1,957
Burkina Faso 1998/99	6,445	2,602	5,181	5,665	4,389	2,354	994	1,230	1,773	1,554
Burkina Faso 2003	12,477	5,050	9,655	10,911	8,168	3,209	1,440	1,636	2,375	2,014
Cameroon 1998	5,501	2,409	3,676	5,019	4,441	2,345	1,067	1,122	2,006	1,879
Cameroon 2004	10,656	4,936	7,166	9,280	8,060	4,815	2,177	2,271	3,959	3,660
Chad 1996/97	7,454	3,084	5,832	6,596	5,770	2,140	863	1,307	1,716	1,609
Chad 2004	6,085	2,432	4,663	5,284	4,512	1,682	673	977	1,324	1,232
Cote d'Ivoire 1998/99	3,040	1,353	1,863	2,743	2,320	799	338	349	691	630
Cote d'Ivoire* 2005	5,183	2,360	3,057	4,707	4,116	4,503	1,836	2,000	3,951	3,497
Ghana 1998	4,843	1,810	3,131	4,183	3,495	1,382	575	670	1,014	876
Ghana 2003	5,691	2,160	3,549	4,807	3,863	4,529	1,791	2,228	3,376	2,906
Guinea 1999	6,753	2,407	5,561	6,144	4,597	1,752	689	899	1,501	1,292
Guinea 2005	7,954	2,800	6,292	7,213	5,345	2,709	1,146	1,419	2,315	2,014
Mali 1995/96	9,704	3,477	8,222	9,004	8,412	2,163	727	1,343	1,800	1,694
Mali 2001	12,849	4,904	10,723	11,810	10,84	3,000	1,131	1,723	2,447	2,259
Niger 1998	7,577	3,078	6,382	6,806	6,318	3,143	1,260	1,935	2,383	2,154
Niger 2005	9,223	3,369	7,941	8,342	7,658	3,101	1,110	1,923	2,283	2,067
Nigeria 1999	8,206	3,296	5,757	6,872	5,910	2,255	830	1,205	1,712	1,526
Nigeria* 2003	7,620	3,210	5,336	6,530	5,855	2,093	880	1,006	1,535	1,373
Senegal 1997	8,593	3,601	5,851	6,652	5,926	3,070	824	1,591	2,696	n/a
Senegal 2005	14,602	6,400	9,866	10,716	9,238	3,415	1,571	1,533	2,414	1,983
East Africa										
Eritrea 1995	5,054	1,952	3,371	4,067	3,348	964	379	537	640	591
Eritrea 2002	8,754	3,456	5,733	6,815	5,320	n/a	n/a	n/a	n/a	n/a
Ethiopia 2000	15,367	6,570	9,789	11,860	10,007	2,320	1,008	1,179	1,558	1,419
Ethiopia* 2005	14,070	5,813	9,066	10,748	4,354	5,464	2,399	2,890	3,450	3,121
Kenya 1998	7,881	3,399	4,834	6,639	5,924	3,224	1,400	1,616	2,788	2,566
Kenya* 2003	8,195	3,547	4,919	6,806	5,710	3,363	1,537	1,615	2,825	2,380
Rwanda 2000	10,421	4,524	5,052	7,361	5,301	2,532	1,195	1,249	1,748	1,427
Rwanda* 2005	11,321	4,938	5,510	7,816	5,887	4,413	2,048	2,126	3,053	2,399

(Cont'd)

Table 2.1 – cont'd

Country/year	Sample sizes									
	Women					Men				
	Age 15–49	Age 15–24	Currently in union[1]	Ever had sex	Had sex in last 12 months	Age 15–49	Age 15–24	Currently in union[1]	Ever had sex	Had sex in last 12 months
Tanzania 1999	4,029	1,720	2,653	3,533	3,209	3,171	1,330	1,722	2,75	2,602
Tanzania* 2004/05	10,329	4,252	6,950	8,979	8,038	2,635	1,130	1,401	2,22	1,975
Uganda 2000/01	7,246	3,119	4,881	6,398	5,594	1,879	762	1,108	1,56	1,376
Uganda* 2006	8,531	3,646	5,337	7,281	6,266	2,385	997	1,343	1,93	1,703
Southern Africa										
Madagascar 1997	7,060	2,878	4,435	6,206	5,619	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	7,949	2,919	5,140	7,095	6,201	2,216	832	1,331	1,915	1,851
Malawi 2000	13,220	5,824	9,452	11,845	10,360	2,915	1,259	1,745	2,609	2,303
Malawi 2004	11,698	5,262	8,312	10,397	9,087	3,114	1,237	1,936	2,715	2,402
Mozambique 1997	8,779	3,499	6,530	8,181	7,140	1,975	715	1,332	1,825	1,650
Mozambique* 2003	12,418	4,910	8,736	11,712	9,824	2,490	1,076	1,466	2,264	2,117
Namibia 1992	5,421	2,377	2,259	4,399	3,912	n/a	n/a	n/a	n/a	n/a
Namibia* 2000	6,755	2,838	2,610	5,775	4,568	2,766	1,304	887	2,474	2,094
Zambia 1996	8,021	3,834	4,902	7,077	6,056	1,731	863	834	1,528	1,364
Zambia* 2001/02	7,658	3,476	4,694	6,751	5,613	1,974	804	1,087	1,772	1,568
Zimbabwe 1999	5,907	2,741	3,609	4,685	4,132	2,505	1,219	1,152	1,866	1,711
Zimbabwe 2005/06	8,907	4,104	5,143	7,059	5,879	6,863	3,358	3,132	5,070	4,382

Note: Cote d'Ivoire 2005 was an AIDS Indicator Survey.
*** PEPFAR focus country.**
[1] Currently in union is defined as married or cohabiting at the time of the survey.
n/a: not available

Sample sizes of women and men age 15–49 in the earlier survey rounds ranged from 3,040 in Cote d'Ivoire to 15,367 in Ethiopia for women, and from 799 in Cote d'Ivoire to 3,224 in Kenya for men; and in the later rounds from 5,183 in Cote d'Ivoire to 14,602 in Senegal for women, and from 1,682 in Chad to 6,863 in Zimbabwe for men. In most countries included in the analysis, sample sizes in the later rounds were larger than sample sizes in the earlier rounds, for both women and men. The exceptions are Chad, Nigeria, Ethiopia, Malawi, and Zambia for women, and Chad, Niger, Nigeria, and Tanzania for men, where sample sizes decreased slightly in the later rounds. In Madagascar and Namibia, men were not included in the earlier survey, and in Eritrea men were not included in the later survey.

2.3 Indicators Included in the Analysis

Socioeconomic and Demographic Characteristics:

1. Age groups (15–24, 25–34, 35–49), among all women and men age 15–49

2. Residence (urban, rural), among all women and men age 15–49

3. Educational status (no education, primary or less, secondary or higher), among all women and men age 15–49

4. Wealth quintile (lowest, lower, middle, higher, highest)[2], among all women and men age 15–49

5. Marital status (never married, currently in union-monogamous, currently in union-polygynous, widowed, divorced/separated)[3], among all women and men age 15–49

6. Media exposure: Exposed to at least one of the three mass media (newspaper, radio, television) at least once a week (no, yes), among all women and men age 15–49

7. Number of years living in the current place of residence (<3 years, 3–9 years, 10+ years), among all women and men age 15–49

8. Number of times slept away from home in last 12 months (0, 1–2, 3–4, 5+ times), among all men age 15–49

9. Period of time stayed away from home in last 12 months (never away, away less than 1 month, away 1 month or longer), among all men age 15–49

Knowledge, Misconceptions, and Risk Perception:

10. Ever heard of HIV/AIDS (no, yes), among all women and men age 15–49

11. Knowledge that HIV infection can be prevented by abstaining from sex (no, yes), among all women and men age 15–49

12. Knowledge that HIV infection can be prevented by limiting sex to one faithful partner (no, yes), among all women and men age 15–49

13. Knowledge that HIV infection can be prevented by always using a condom when having sex (no, yes), among all women and men age 15–49

14. Knowledge that HIV infection can be prevented by limiting sex to one faithful partner and by always using a condom when having sex (no, yes), among all women and men age 15–49

15. Knowledge that a healthy-looking person can have HIV (no, yes), among all women and men age 15–49

16. Knowledge that HIV cannot be transmitted by mosquitoes (no, yes), among all women and men age 15–49

17. Knowledge that HIV cannot be transmitted by sharing food (no, yes), among all women and men age 15–49

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[2] Household wealth is measured by means of an index based on household ownership of consumer durables (such as a television and a bicycle); materials used for housing construction; and the availability of amenities (such as electricity, source of drinking water, and type of toilet facility) that tend to be correlated with household economic status. The index, constructed using principal components analysis, is a composite measure of the cumulative living standard of a household, which places individual households on a continuous scale of relative wealth. The wealth index is divided into quintiles, with the lowest quintile representing the poorest 20 percent and the highest quintile representing the wealthiest 20 percent of households within each country (Rutstein and Johnson 2004).

[3] Currently in union includes currently married and cohabiting. For some countries, only the combined "currently in union" category is available, without the distinction between monogamy and polygyny.

18. Comprehensive knowledge about HIV/AIDS: Knows that HIV infection can be prevented by limiting sex to one faithful partner and by always using a condom when having sex, and knows that a healthy-looking person can have HIV, as well as rejects the two most common misconceptions (country specific) about HIV transmission (no, yes), among all women and men age 15–49

19. Knowledge that HIV can be transmitted from mother to child through breastfeeding (no, yes), among all women and men age 15–49

20. Knowledge that there is a special drug that can prevent HIV transmission from mother to child through breastfeeding (no, yes), among all women and men age 15–49

21. Knowledge both that HIV can be transmitted from mother to child through breastfeeding and that there is a special drug that can prevent HIV transmission from mother to child through breastfeeding (no, yes), among all women and men age 15–49

22. Perceived risk of getting HIV (no risk, small risk, moderate risk, high risk/has HIV), among all women and men age 15–49

23. Believes that the respondent has a low/no risk of getting HIV and having 3+ lifetime sex partners (no, yes), among all women and men age 15–49

24. Believes that the respondent has a low/no risk of getting HIV and having 2+ sex partners in last 12 months (no, yes), among women and men age 15–49 who had sex in last 12 months

Attitudes Related to HIV/AIDS:

25. Would not want the HIV-positive status of a family member to remain secret (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

26. Willingness to care for a family member who has HIV (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

27. Would allow female[4] teacher with HIV to continue teaching (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

28. Would buy vegetables from a vendor who has HIV (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

29. Having all four accepting attitudes toward people with HIV (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

30. Believes that children age 12–14 should be taught to wait till marriage for sexual intercourse (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

31. Believes that children age 12–14 should be taught about condom use to prevent HIV infection (no, yes), among all women and men age 15–49 who have heard about HIV/AIDS

[4] Some surveys do not specify the gender of the teacher.

Sexual Behavior:

32. Median age at first sex, among women and men age 20–24

33. Number of lifetime sex partners (0, 1, 2, 3+), among all women and men age 15–49

34. Number of sex partners in last 12 months (1, 2+), among women and men age 15–49 who had sex in last 12 months

35. Higher-risk sex[5] in last 12 months (sex with spouse/cohabiting partner, sex with other), among women and men age 15–49 who had sex in last 12 months

36. Extramarital sex in last 12 months (sex with spouse/cohabiting partner, sex with other), among women and men age 15–49 currently in union and who had sex in last 12 months

37. Paid for sex in last 12 months (no, yes), among men age 15–49 who had sex in last 12 months

38. Ever used condom (no, yes), among women and men age 15–49 who ever had sex

39. Used condom at last sex in last 12 months (no, yes), among women and men age 15–49 who had sex in last 12 months

40. Used a condom at last higher-risk sex in last 12 months (no, yes), among women and men age 15–49 who had higher-risk sex in last 12 months

41. Used condom consistently in last 12 months: Used condom at last sex with all sexual partners (up to three) in last 12 months (no, yes), among women and men age 15–49 who had sex in last 12 months

42. Alcohol use (never, 3+ months before the survey, in last 3 months)[6], among all women and men age 15–49

43. Alcohol use at last sex in last 12 months[7] (neither used, either used, both used), among women and men age 15–49 who had sex in last 12 months

Sexual Behavior of Youth:

44. Had sex before age 15 (no, yes), among women and men age 15–19

45. Primary abstinence: never had sex (no, yes), among women and men age 15–24 who never married

46. Secondary abstinence: ever had sex but not in last 12 months (no, yes), among women and men age 15–24 who never married and ever had sex

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[5] Higher-risk sex is defined as sex with a non-marital, non-cohabiting partner.
[6] Some countries asked about last one month
[7] The question was asked for up to three most recent sex partners in last 12 months. The responses "respondent only" and "partner only" were grouped into "either used." Some countries additionally asked about getting drunk, which is not analyzed here.

47. Women age 15–19 who had higher-risk sex in last 12 months with a partner who was 10 or more years older (no, yes), among women age 15–19 who had higher-risk sex in last 12 months

48. Condom use at first sex (no, yes), among women and men age 15–24 who never married and ever had sex

49. Forced at first sex (no, yes), among women age 15–24 who ever had sex

50. Forced sex in last 12 months, among women age 15–24 who had sex in last 12 months

51. Having 3+ lifetime sex partners, among women and men age 15–24 who ever had sex

52. Having 2+ sex partners in last 12 months (no, yes), among women and men age 15–24 who had sex in last 12 months

Other Modes of HIV Transmission:

53. Number of injections by a health care professional in recent months[8] (0, 1–3, 4+), among all women and men age 15–49

54. Circumcised (no, yes), among all men age 15–49

55. Had STI or STI symptoms[9] in last 12 months (no, yes), among women and men age 15–49 who ever had sex

Program Coverage:

56. Ever tested for HIV and received test results (no, yes), among all women and men age 15–49

57. Tested for HIV in last 12 month and received test results (no, yes), among all women and men age 15–49

58. Know where to get tested for HIV (no, yes), among all women and men age 15–49

Gender Relations:

59. Agrees that a wife is justified in refusing to have sex with her husband if she knows that the husband has an STI (no, yes), among all women and men age 15–49

60. Agrees that a wife is justified in refusing to have sex with her husband if she knows that the husband has had sex with other women (no, yes), among all women and men age 15–49

61. Agrees that a wife is justified to ask the husband to use a condom if the husband has an STI (no, yes), among all women and men age 15–49

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[8] The reference period for this question varied across surveys, from last 3 months to 12 months preceding the survey.
[9] STI or STI symptoms include having diagnosed STI, genital sore or ulcer, or bad smelling, abnormal genital discharge in last 12 months.

62. Woman's ability to negotiate safer sex[10] (no, yes), among all women and men age 15–49

63. Has never discussed HIV/AIDS with any of the sexual partners (no, yes), among women and men age 15–49 currently in union

64. Participates in making decision on own health care (no, yes), among all women age 15–49

65. Participates in making decision on large household purchases (no, yes), among all women age 15–49

66. Participates in making decision on household purchases for daily needs (no, yes), among all women age 15–49

67. Participates in making decision on visit to family or relatives (no, yes), among all women age 15–49

68. Participates in making 2 or more of the 4 household decisions (no, yes), among all women age 15–49

69. Participates in making all 4 household decisions (no, yes), among all women age 15–49

[10] Wife can negotiate safer sex if response was "yes" to one of the two questions: 1) a woman can refuse sex if she knows that the husband has an STI or 2) a woman can request condom use if she knows that the husband has an STI.

3 Socioeconomic and Demographic Characteristics

This chapter presents key socioeconomic and demographic characteristics that have been associated with HIV, including age, marital status, educational attainment, household wealth, exposure to mass media, urban/rural residence, and two indicators of mobility.

3.1 Age

Table 3.1 shows the percentage distribution of the samples of each country studied, by age group and sex for the two most recent rounds of DHS surveys. In general, the proportion of youth age 15–24 in the population was high in most of the sub-Saharan African countries studied. Zimbabwe, Cameroon, and Cote d'Ivoire had the highest percentages of female youth (46 percent). The country with the highest proportion of male youth was Zimbabwe (49 percent), followed by Namibia (47 percent).

The percentage of young women age 15–24 ranged from 36 percent in Guinea and Mali to 48 percent in Zambia in the earlier surveys. In the later surveys, this percentage remained relatively unchanged in the majority of countries. However, in Niger, Madagascar, and Zambia the percentage of female youth decreased slightly, while in Cameroon and Mali it increased slightly.

Table 3.1 Changes in age distribution (%) of women and men age 15–49, in selected countries in sub-Saharan Africa, 1992–2006

	Age group							
	Women				Men			
	15–24	25–34	35–49		15–24	25–34	35–49	
Country/year	%	%	%	Number	%	%	%	Number
West Africa								
Benin 1996	38.1	31.5	30.3	5,491	23.2	36.5	40.4	1,272
Benin 2001	39.4	32.7	27.9	6,219	36.7	32.5	30.7	2,465
Burkina Faso 1998/99	40.4	29.6	30.1	6,445	42.2	29.0	28.8	2,354
Burkina Faso 2003	40.5	29.3	30.2	12,477	44.9	26.3	28.9	3,209
Cameroon 1998	43.8	29.7	26.5	5,501	45.5	27.4	27.1	2,345
Cameroon 2004	46.3	29.1	24.6	10,656	45.2	29.7	25.0	4,815
Chad 1996/97	41.4	31.2	27.4	7,454	40.3	30.3	29.4	2,140
Chad 2004	40.0	31.6	28.4	6,085	40.0	30.0	30.0	1,682
Cote d'Ivoire 1998/99	44.5	30.3	25.2	3,040	42.3	31.3	26.4	799
Cote d'Ivoire 2005	45.5	30.8	23.7	5,183	40.8	31.7	27.5	4,503
Ghana 1998	37.4	31.4	31.3	4,843	41.6	31.0	27.4	1,382
Ghana 2003	38.0	30.8	31.2	5,691	39.5	30.6	29.8	4,529
Guinea 1999	35.6	32.8	31.5	6,753	39.4	27.2	33.5	1,752
Guinea 2005	35.2	29.9	34.9	7,954	42.3	22.8	34.9	2,709
Mali 1995/96	35.8	33.1	31.0	9,704	33.6	27.1	39.3	2,163
Mali 2001	38.2	32.0	29.9	12,849	37.7	29.1	33.2	3,000
Niger 1998	40.6	30.7	28.7	7,577	40.1	26.4	33.5	3,143
Niger 2005	36.5	34.1	29.4	9,223	35.8	28.9	35.3	3,101
Nigeria 1999	40.2	32.3	27.5	8,206	36.8	31.6	31.5	2,255
Nigeria 2003	42.1	30.5	27.4	7,620	42.0	29.9	28.0	2,093
Senegal 1997	41.9	30.4	27.7	8,593	26.8	35.1	38.1	3,070
Senegal 2005	43.8	29.7	26.5	14,602	46.0	27.4	26.6	3,415

(Cont'd)

Table 3.1 – cont'd

	Age group							
	Women				Men			
	15–24	25–34	35–49		15–24	25–34	35–49	
Country/year	%	%	%	Number	%	%	%	Number
East Africa								
Eritrea 1995	38.6	28.1	33.3	5,054	39.3	23.8	36.9	964
Eritrea 2002	39.5	30.3	30.2	8,754	n/a	n/a	n/a	n/a
Ethiopia 2000	42.8	28.8	28.4	15,367	43.4	26.7	29.9	2,320
Ethiopia 2005	41.3	30.7	28.0	14,070	43.9	27.4	28.7	5,464
Kenya 1998	43.1	29.9	27.0	7,881	43.4	27.3	29.2	3,224
Kenya 2003	43.3	30.1	26.6	8,195	45.7	27.5	26.8	3,363
Rwanda 2000	43.4	27.5	29.1	10,421	47.2	24.8	28.0	2,532
Rwanda 2005	43.6	28.3	28.1	11,321	46.4	25.8	27.8	4,413
Tanzania 1999	42.7	30.7	26.6	4,029	42.0	28.9	29.1	3,171
Tanzania 2004/05	41.2	33.2	25.7	10,329	42.9	30.1	27.1	2,635
Uganda 2000/01	43.0	32.1	24.9	7,246	40.6	32.0	27.4	1,879
Uganda 2006	42.7	30.8	26.4	8,531	41.8	29.6	28.7	2,385
Southern Africa								
Madagascar 1997	40.8	31.3	28.0	7,060	n/a	n/a	n/a	n/a
Madagascar 2003/04	36.7	31.5	31.8	7,949	37.6	29.4	33.1	2,216
Malawi 2000	44.1	30.0	25.9	13,220	43.2	29.8	27.0	2,915
Malawi 2004	45.0	31.1	23.9	11,698	39.7	35.9	24.3	3,114
Mozambique 1997	39.9	31.8	28.4	8,779	36.2	30.1	33.7	1,975
Mozambique 2003	39.5	32.3	28.1	12,418	43.2	28.4	28.4	2,490
Namibia 1992	43.9	29.7	26.4	5,421	n/a	n/a	n/a	n/a
Namibia 2000	42.0	31.4	26.6	6,755	47.1	29.9	23.0	2,766
Zambia 1996	47.8	29.5	22.7	8,021	49.9	27.7	22.4	1,731
Zambia 2001/02	45.4	30.7	24.0	7,658	40.7	32.5	26.7	1,974
Zimbabwe 1999	46.4	28.8	24.8	5,907	48.7	28.4	23.0	2,505
Zimbabwe 2005/06	46.1	30.1	23.8	8,907	48.9	28.6	22.5	6,863

The percentage of young men age 15–24 in the earlier surveys ranged from 23 percent in Benin to 50 percent in Zambia. Over time, the percentage of young men remained relatively unchanged in eight countries, increased in eight others, and decreased in four (three countries do not have data on men for both survey rounds).

3.2 Marital Status

Table 3.2 presents the marital status of women and men age 15–49 in the two most recent rounds of DHS surveys. All countries had a greater percentage of never-married men than women, and a greater percentage of widowed women than men. Generally, the percentages of widowed women were higher in east and southern Africa than in west Africa. In the most recent surveys, Namibia had the highest percentage of never-married men (63 percent), and Zimbabwe had the highest percentage of widowed women (8 percent). In Zimbabwe the percentage of widows doubled comparing the earlier survey to the most recent, while in Rwanda the proportion of widows decreased from 8 percent to 4 percent. Of the 20 countries with data available for men in both rounds of surveys, the proportion of never-married men increased in 6 countries, decreased in 5 others, and remained stable in the other 9.

Table 3.2 Changes in marital status of women and men age 15–49, in selected countries in sub-Saharan Africa, 1992–2006

	Marital status											
	Women						Men					
		Currently in union*						Currently in union*				
Country/year	Never married %	Mono-gamy %	Poly-gyny %	Widowed %	Divorced/ separated %	Number	Never married %	Mono-gamy %	Poly-gyny %	Widowed %	Divorced/ separated %	Number
West Africa												
Benin 1996	19.0	38.5	37.8	1.8	2.7	5,491	26.4	48.7	20.8	0.6	3.4	1,272
Benin 2001	21.7	39.8	33.3	1.7	3.2	6,219	40.6	41.0	14.9	0.5	3.1	2,465
Burkina Faso 1998/99	16.9	36.4	43.9	1.8	1.0	6,445	46.0	37.8	14.4	0.4	1.3	2,354
Burkina Faso 2003	18.7	39.9	37.4	2.2	1.7	12,477	47.4	38.8	12.2	0.2	1.4	3,209
Cameroon 1998	23.4	44.7	21.9	3.2	6.6	5,501	48.0	40.4	7.5	0.4	3.7	2,345
Cameroon 2004	24.0	46.6	20.2	2.8	5.9	10,656	43.9	42.0	5.2		[9.0]	4,815
Chad 1996/97	13.7	47.6	30.6	3.1	5.0	7,454	36.3	47.2	13.8	0.4	2.2	2,140
Chad 2004	14.3	46.5	29.9	3.2	5.8	6,085	38.6	46.3	11.8	0.4	2.8	1,682
Cote d'Ivoire 1998/99	30.4	39.8	21.3	2.0	6.3	3,040	52.5	38.5	5.2		[3.8]	799
Cote d'Ivoire 2005	32.3	41.1	15.6	2.7	6.0	5,183	49.7	37.7	6.4	0.8	5.1	4,503
Ghana 1998	23.7	50.0	14.6	1.8	9.8	4,843	45.8	43.3	5.1	0.3	5.5	1,382
Ghana 2003	28.4	48.0	14.1	1.9	7.3	5,691	45.0	43.5	5.7	0.4	5.4	4,529
Guinea 1999	13.9	38.1	43.9	1.4	2.2	6,753	46.6	36.6	14.7	0.1	1.9	1,752
Guinea 2005	16.5	37.1	40.8	2.0	2.4	7,954	42.9	36.1	16.3	0.2	4.5	2,709
Mali 1995/96	12.8	47.2	37.4	1.2	1.2	9,704	36.2	47.8	14.3	0.3	1.4	2,163
Mali 2001	13.5	47.8	35.4	1.3	1.8	12,849	40.4	n/a	n/a		[2.1]	3,000
Niger 1998	11.2	52.4	31.7	1.4	3.1	7,577	35.8	48.8	12.7	0.3	2.3	3,143
Niger 2005	9.9	55.2	30.7	1.5	2.5	9,223	35.8	49.7	12.3	0.5	1.8	3,101
Nigeria 1999	26.0	45.1	22.9	1.6	2.3	8,206	43.8	41.5	9.0	0.4	2.4	2,255
Nigeria 2003	25.3	44.5	25.1	1.8	2.9	7,620	50.1	38.2	9.7	0.3	1.6	2,093
Senegal 1997	26.9	35.0	31.3	1.0	4.1	8,593	45.7	40.4	11.3	0.1	2.3	3,070
Senegal 2005	27.0	40.7	25.8	1.2	4.3	14,602	51.4	36.0	8.9	0.1	3.6	3,415

(Cont'd)

Table 3.2 – cont'd

	Marital status											
	Women						Men					
		Currently in union*						Currently in union*				
Country/year	Never married %	Mono-gamy %	Poly-gyny %	Widowed %	Divorced/ separated %	Number	Never married %	Mono-gamy %	Poly-gyny %	Widowed %	Divorced/ separated %	Number
East Africa												
Eritrea 1995	20.0	62.0	4.6	4.8	8.6	5,054	40.2	53.1	2.6	1.2	2.9	964
Eritrea 2002	23.3	59.3	5.9	3.7	7.4	8,754	n/a	n/a	n/a	n/a	n/a	n/a
Ethiopia 2000	24.0	55.0	8.6	3.6	8.7	15,367	44.7	46.7	4.1	0.5	3.9	2,320
Ethiopia 2005	25.0	56.5	7.4	4.0	6.6	14,070	44.2	49.7	3.2	0.4	2.5	5,464
Kenya 1998	30.1	51.3	9.8	3.7	4.9	7,881	46.2	45.7	4.4	0.5	3.2	3,224
Kenya 2003	29.8	48.7	9.9	4.2	5.9	8,195	47.9	43.6	4.4	0.7	3.4	3,363
Rwanda 2000	34.1	42.5	5.9	7.9	9.5	10,421	48.2	46.8	2.3	0.9	1.6	2,532
Rwanda 2005	37.7	43.2	5.4	4.3	9.3	11,321	49.7	45.8	2.4	0.5	1.7	4,413
Tanzania 1999	23.4	n/a	n/a	3.2	7.6	4,029	40.6	49.9	4.4	0.6	4.5	3,171
Tanzania 2004/05	23.0	51.2	15.4	2.6	7.2	10,329	41.7	47.3	5.9	0.4	4.7	2,635
Uganda 2000/01	20.1	45.4	19.5	3.4	9.2	7,246	35.9	48.5	10.4	0.7	4.5	1,879
Uganda 2006	23.8	43.4	17.6	4.3	9.4	8,531	38.5	47.2	9.2	0.6	4.6	2,385
Southern Africa												
Madagascar 1997	23.4	60.3	2.1	2.2	11.6	7,060	n/a	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	21.3	62.4	2.0	2.2	11.8	7,949	34.2	59.8	0.3	0.2	5.5	2,216
Malawi 2000	17.0	59.2	12.2	3.5	8.0	13,220	36.8	54.9	5.0	0.6	2.8	2,915
Malawi 2004	16.8	59.8	11.1	3.7	8.4	11,698	34.8	56.2	6.0	0.5	2.5	3,114
Mozambique 1997	15.1	53.2	20.3	1.2	9.3	8,779	28.7	57.4	10.0		[3.8]	1,975
Mozambique 2003	15.8	48.1	17.0	0.9	13.0	12,418	36.6	51.8	7.1	0.1	4.4	2,490
Namibia 1992	51.3	31.1	4.8	1.4	5.5	5,421	n/a	n/a	n/a	n/a	n/a	n/a
Namibia 2000	54.3	26.8	4.8	1.8	5.3	6,755	63.2	30.8	1.2	0.2	4.5	2,766
Zambia 1996	25.3	50.6	10.1	4.1	9.5	8,021	47.0	44.4	3.7	0.9	3.9	1,731
Zambia 2001/02	24.8	51.4	9.6	4.7	9.3	7,658	39.6	50.4	4.7	0.9	4.4	1,974
Zimbabwe 1999	27.7	51.6	9.4	4.2	7.0	5,907	49.9	43.5	2.5	1.1	2.9	2,505
Zimbabwe 2005/06	27.0	48.5	6.6	7.5	7.7	8,907	49.6	43.5	2.0	1.3	3.5	6,863

*** In some countries currently in union has only one category, without a distinction between monogamy and polygyny.**
[ ] Combines widowed, divorced, or separated.

In the most recent surveys, west African countries had a higher proportion of women in polygynous marriages (ranging from 14 percent to 41 percent) than east African countries (5 percent to 18 percent) and southern African countries (2 percent to 17 percent). In all three regions a greater percentage of women than men reported being in polygynous marriages. The proportion of women in polygynous unions decreased in eight countries and increased in one country. Among men, the proportion in polygynous marriages decreased in only six of the countries in this study.

3.3 Educational Attainment

Table 3.3 presents the educational attainment of women and men age 15–49 for the two survey rounds. The educational levels of women and men varied notably across countries. In the most recent surveys, the proportion of women with no education ranged from 4 percent in Zimbabwe to 80 percent in Burkina Faso. In 10 countries more than 50 percent of women had no education, while among men the same was true in only 3 countries.

Table 3.3 Changes in educational status of women and men age 15–49, in selected countries in sub-Saharan Africa, 1992–2006

	Educational status							
	Women				Men			
Country/year	No education %	Primary or less %	Secondary or higher %	Number	No education %	Primary or less %	Secondary or higher %	Number
West Africa								
Benin 1996	70.8	19.8	9.4	5,491	43.0	33.3	23.6	1,272
Benin 2001	64.1	22.1	13.9	6,219	37.6	32.6	29.7	2,465
Burkina Faso 1998/99	85.8	8.4	5.8	6,445	71.4	15.1	13.5	2,354
Burkina Faso 2003	80.3	11.0	8.7	12,477	62.7	18.9	18.4	3,209
Cameroon 1998	28.1	38.6	33.3	5,501	12.2	39.3	48.5	2,345
Cameroon 2004	22.4	38.6	39.1	10,656	9.7	36.1	54.2	4,815
Chad 1996/97	77.0	19.3	3.8	7,454	52.0	30.1	17.9	2,140
Chad 2004	74.8	18.8	6.4	6,085	45.0	33.1	21.9	1,682
Cote d'Ivoire 1998/99	55.9	28.8	15.3	3,040	37.5	25.8	36.7	799
Cote d'Ivoire 2005	53.9	26.5	19.6	5,183	34.0	25.1	40.9	4,503
Ghana 1998	29.1	18.0	52.8	4,843	14.7	12.6	72.6	1,382
Ghana 2003	28.2	20.0	51.8	5,691	16.4	16.6	67.1	4,529
Guinea 1999	80.4	10.2	9.4	6,753	51.1	21.6	27.2	1,752
Guinea 2005	77.5	11.4	11.1	7,954	48.2	17.8	34.1	2,709
Mali 1995/96	81.1	11.9	7.1	9,704	66.7	16.7	16.6	2,163
Mali 2001	80.0	11.3	8.7	12,849	62.3	16.7	20.9	3,000
Niger 1998	84.8	9.9	5.3	7,577	68.1	17.6	14.3	3,143
Niger 2005	83.5	10.4	6.1	9,223	66.0	18.5	15.5	3,101
Nigeria 1999	40.5	22.8	36.7	8,206	20.2	26.0	53.8	2,255
Nigeria 2003	41.6	21.4	37.0	7,620	18.4	24.8	56.8	2,093
Senegal 1997	66.6	20.9	12.5	8,593	49.9	23.7	26.4	3,070
Senegal 2005	59.6	25.2	15.2	14,602	41.1	28.3	30.6	3,415

(Cont'd)

Table 3.3 – cont'd

	Educational status							
	Women				Men			
Country/year	No education %	Primary or less %	Secondary or higher %	Number	No education %	Primary or less %	Secondary or higher %	Number
East Africa								
Eritrea 1995	65.9	18.1	16.0	5,054	41.8	26.9	31.3	964
Eritrea 2002	50.1	29.8	20.1	8,754	n/a	n/a	n/a	n/a
Ethiopia 2000	75.2	15.8	9.1	15,367	47.6	36.0	16.4	2,320
Ethiopia 2005	65.9	22.2	11.9	14,070	39.6	39.2	21.2	5,464
Kenya 1998	11.5	59.3	29.2	7,881	3.5	55.1	41.5	3,224
Kenya 2003	12.7	58.0	29.3	8,195	5.7	57.0	37.3	3,363
Rwanda 2000	29.4	59.9	10.6	10,421	21.1	64.3	14.7	2,532
Rwanda 2005	23.4	67.1	9.6	11,321	16.3	71.0	12.7	4,413
Tanzania 1999	27.1	67.5	5.3	4,029	12.2	80.1	7.5	3,171
Tanzania 2004/05	24.2	67.2	8.6	10,329	11.8	76.9	11.2	2,635
Uganda 2000/01	21.9	59.8	18.4	7,246	5.9	65.1	29.0	1,879
Uganda 2006	19.3	59.3	21.3	8,531	4.9	65.0	30.1	2,385
Southern Africa								
Madagascar 1997	21.2	51.9	26.9	7,060	n/a	n/a	n/a	n/a
Madagascar 2003/04	22.4	46.8	30.8	7,949	17.2	48.3	34.5	2,216
Malawi 2000	27.0	61.9	11.1	13,220	9.9	69.2	20.9	2,915
Malawi 2004	22.6	61.9	15.5	11,698	10.6	62.3	27.2	3,114
Mozambique 1997	42.9	52.7	4.4	8,779	16.2	71.8	12.0	1,975
Mozambique 2003	41.1	51.1	7.8	12,418	13.7	68.6	17.7	2,490
Namibia 1992	14.5	48.4	37.1	5,421	n/a	n/a	n/a	n/a
Namibia 2000	9.5	33.1	57.4	6,755	11.7	34.3	54.0	2,766
Zambia 1996	13.3	58.9	27.8	8,021	6.5	50.0	43.5	1,731
Zambia 2001/02	12.1	58.0	30.0	7,658	4.9	50.8	44.3	1,974
Zimbabwe 1999	6.7	40.2	53.0	5,907	2.0	30.6	67.3	2,505
Zimbabwe 2005/06	4.3	32.6	63.1	8,907	1.3	26.0	72.8	6,863

While overall a greater percentage of women than men had no education, there were large regional variations. West African countries showed higher proportions of women with no education (22 percent to 84 percent) than east African countries (13 percent to 66 percent) and southern African countries (4 percent to 41 percent). The percentage of women with secondary or higher education ranged from 6 percent in Niger and Chad to 63 percent in Zimbabwe. Although the percentage of women and men with secondary or higher education increased in the majority of countries, men were consistently more educated than women (Figures 3.1a and 3.1b). In Namibia and Zimbabwe, however, the proportion of women with secondary or higher education increased by 20 percentage points and 10 percentage points, respectively.

Figure 3.1a Changes in educational level among women age 15–49, 1992–2006

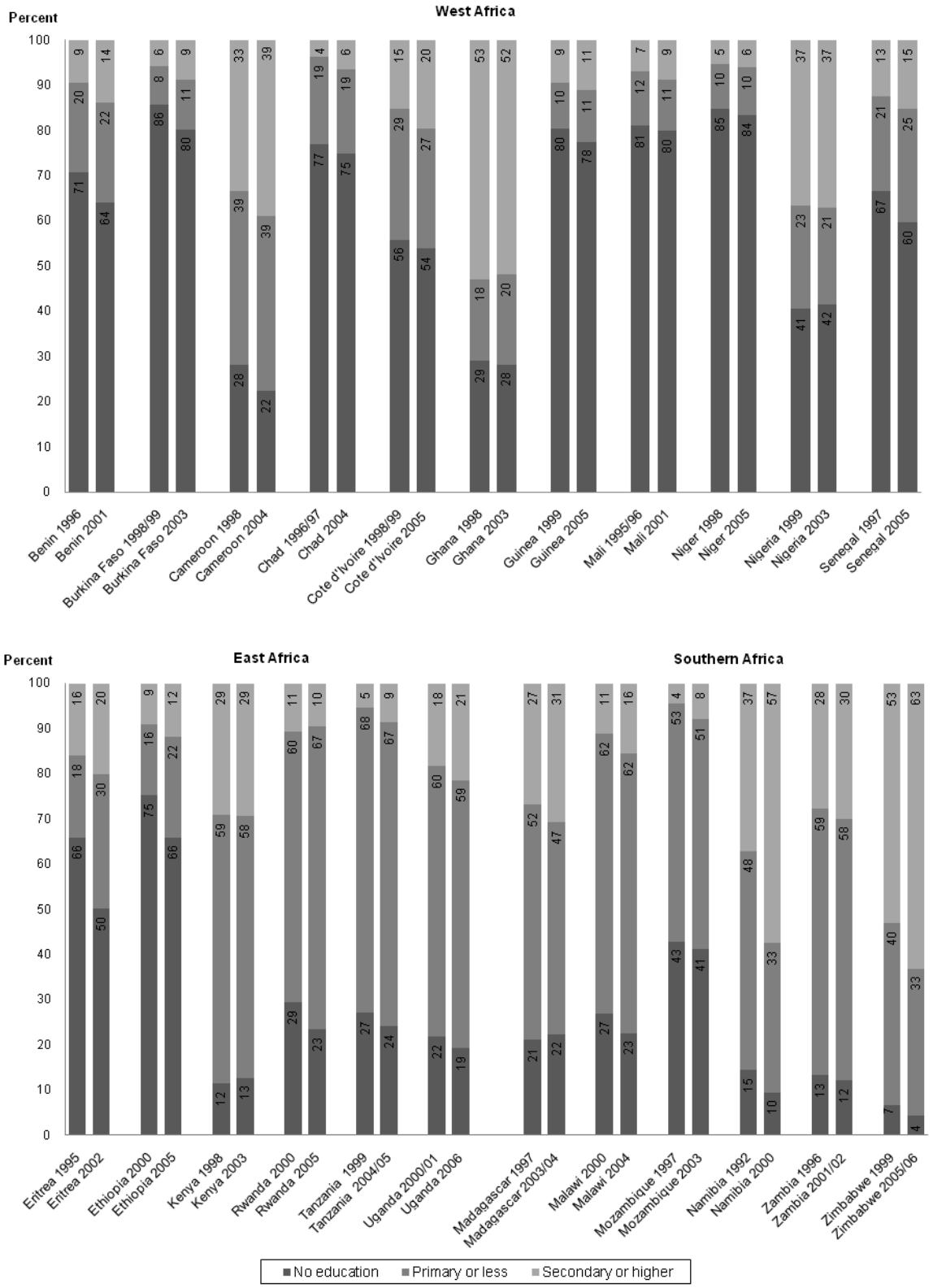
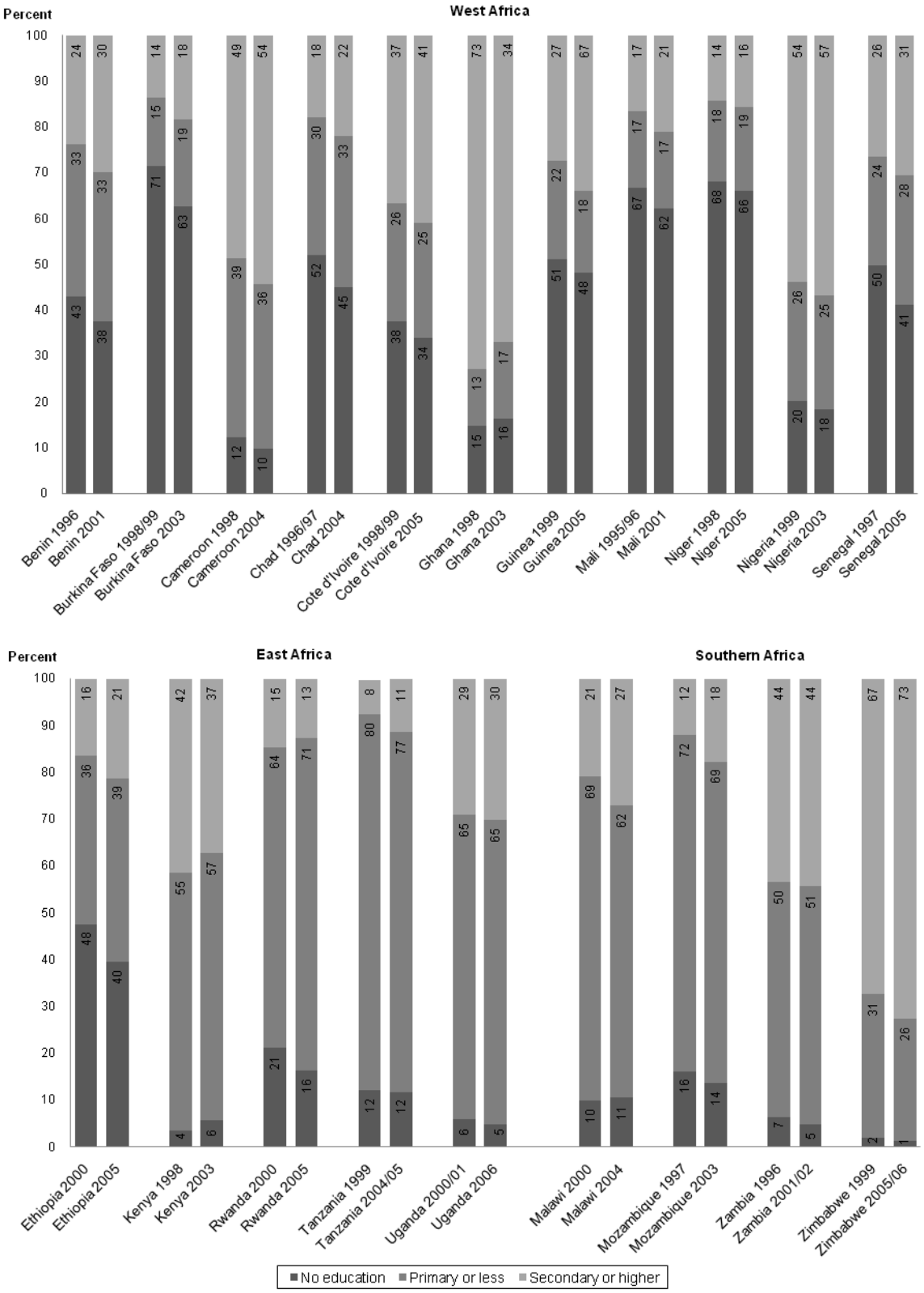


Figure 3.1b Changes in educational level among men age 15–49, 1995–2006



3.4 Household Wealth

Table 3.4 presents the distribution of respondents by household wealth for the two most recent surveys. The DHS measure of household wealth is based on household ownership of durable assets. In most of the sub-Saharan African countries studied, a greater proportion of women and men lived in households in the highest wealth quintile than in households in the lowest wealth quintile. Although household wealth was not strictly comparable across surveys,[11] in most countries this pattern remained generally unchanged between the first and second survey rounds.

[11] Household wealth status is not strictly comparable across surveys because the composition of durable assets varies from survey to survey.

Table 3.4 Changes in percent distribution of women and men age 15–49 by household wealth status, in selected countries in sub-Saharan Africa, 1992–2006

	Wealth quintile											
	Women						Men					
	Lowest	Lower	Middle	Higher	Highest		Lowest	Lower	Middle	Higher	Highest	
Country/year	%	%	%	%	%	Number	%	%	%	%	%	Number
West Africa												
Benin 1996	19.4	18.5	18.5	20.9	22.8	5,491	21.3	18.3	16.6	18.7	25.1	1,272
Benin 2001	17.8	18.3	18.5	20.9	24.6	6,219	21.4	18.3	16.1	18.3	25.9	2,465
Burkina Faso 1998/99	20.3	21.6	17.1	19.1	21.9	6,445	15.9	18.6	18.5	17.8	29.1	2,354
Burkina Faso 2003	17.6	18.4	23.8	16.5	23.8	12,477	14.9	19.2	21.9	15.8	28.3	3,209
Cameroon 1998	21.8	16.4	17.9	21.1	22.8	5,501	15.0	16.4	19.0	23.4	26.2	2,345
Cameroon 2004	18.8	16.5	19.2	21.4	24.1	10,656	13.5	16.4	18.8	23.1	28.2	4,815
Chad 1996/97	16.8	28.6	17.1	18.3	19.2	7,454	11.4	24.2	19.4	18.3	26.6	2,140
Chad 2004	20.0	21.5	18.1	20.5	19.9	6,085	15.3	19.3	18.3	19.7	27.4	1,682
Cote d'Ivoire 1998/99	19.1	17.5	17.2	21.2	24.9	3,040	16.4	14.3	21.3	20.6	27.5	799
Cote d'Ivoire 2005	17.1	18.3	18.6	21.2	24.8	5,183	16.8	18.8	20.1	20.9	23.4	4,503
Ghana 1998	20.3	17.2	18.2	20.1	24.2	4,843	15.6	17.4	21.3	22.4	23.4	1,382
Ghana 2003	17.0	16.7	18.8	21.9	25.6	5,691	17.1	17.7	19.4	21.4	24.3	4,529
Guinea 1999	21.8	18.1	17.9	19.8	22.4	6,753	16.8	17.8	18.3	19.8	27.4	1,752
Guinea 2005	20.6	19.0	19.3	20.0	21.1	7,954	16.5	16.8	17.1	19.1	30.4	2,709
Mali 1995/96	19.3	19.6	18.8	19.5	22.9	9,704	17.9	19.7	18.3	19.8	24.4	2,163
Mali 2001	19.0	18.6	19.1	19.8	23.4	12,849	21.6	16.5	15.7	17.1	28.6	3,000
Niger 1998	16.1	26.9	17.8	18.2	21.1	7,577	12.9	22.0	19.1	19.7	26.2	3,143
Niger 2005	19.0	19.3	19.0	20.7	22.0	9,223	13.3	17.8	20.8	19.9	28.2	3,101
Nigeria 1999	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Nigeria 2003	18.6	18.9	19.9	20.0	22.7	7,620	17.3	17.2	18.7	21.6	25.2	2,093
Senegal 1997	17.0	17.8	19.0	21.5	24.8	8,593	14.8	18.0	17.2	23.1	26.9	3,070
Senegal 2005	16.7	17.6	19.4	21.6	24.7	14,602	15.3	14.1	17.6	22.8	30.2	3,415

(Cont'd)

Table 3.4 – cont'd

	Wealth quintile											
	Women						Men					
	Lowest	Lower	Middle	Higher	Highest		Lowest	Lower	Middle	Higher	Highest	
Country/year	%	%	%	%	%	Number	%	%	%	%	%	Number
East Africa												
Eritrea 1995	18.9	18.1	18.3	19.0	25.6	5,054	11.7	19.5	21.0	21.5	26.3	964
Eritrea 2002	16.8	18.6	19.1	20.9	24.6	8,754	n/a	n/a	n/a	n/a	n/a	n/a
Ethiopia 2000	18.6	18.8	19.1	19.5	24.1	15,367	18.8	20.0	19.8	19.2	22.2	2,320
Ethiopia 2005	17.3	18.8	19.4	18.8	25.7	14,070	17.9	19.3	17.9	19.9	25.0	5,464
Kenya 1998	18.4	18.9	18.8	19.4	24.5	7,881	15.0	16.7	17.9	23.9	26.5	3,224
Kenya 2003	16.6	18.0	18.3	20.9	26.1	8,195	15.2	17.0	18.3	22.0	27.5	3,363
Rwanda 2000	12.6	22.6	18.9	23.4	22.4	10,421	12.0	18.1	20.7	26.0	23.1	2,532
Rwanda 2005	21.4	20.5	18.5	18.8	20.7	11,321	18.1	18.0	20.2	20.4	23.3	4,413
Tanzania 1999	16.9	18.0	20.9	19.6	24.6	4,029	15.9	17.7	21.1	20.2	25.1	3,171
Tanzania 2004/05	17.8	18.8	18.8	19.4	25.1	10,329	18.4	19.1	19.6	19.6	23.3	2,635
Uganda 2000/01	19.0	19.0	18.7	19.8	23.5	7,246	19.0	21.2	17.6	21.1	21.2	1,879
Uganda 2006	18.1	19.2	18.9	19.0	24.8	8,531	15.8	20.8	17.7	21.2	24.5	2,385
Southern Africa												
Madagascar 1997	20.3	19.5	17.2	19.5	23.5	7,060	n/a	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	21.4	15.2	18.4	19.3	25.7	7,949	17.3	19.7	19.8	18.8	24.4	2,216
Malawi 2000	20.2	18.3	20.8	18.5	22.2	13,220	18.4	17.9	22.0	17.7	24.0	2,915
Malawi 2004	17.4	19.5	20.4	20.2	22.6	11,698	12.3	19.7	21.4	21.4	25.2	3,114
Mozambique 1997	27.6	12.0	19.9	19.0	21.5	8,779	19.6	16.6	19.5	22.1	22.1	1,975
Mozambique 2003	22.7	17.4	18.8	18.1	23.0	12,418	21.6	16.2	17.9	17.1	27.2	2,490
Namibia 1992	16.8	17.4	18.1	21.9	25.8	5,421	n/a	n/a	n/a	n/a	n/a	n/a
Namibia 2000	16.4	16.8	20.2	22.1	24.4	6,755	13.0	15.5	21.2	26.5	23.8	2,766
Zambia 1996	22.5	15.0	17.5	21.5	23.4	8,021	17.2	15.8	19.5	20.9	26.6	1,731
Zambia 2001/02	15.3	20.9	20.2	20.4	23.2	7,658	13.9	20.6	18.8	21.0	25.7	1,974
Zimbabwe 1999	16.4	17.8	18.5	23.0	24.3	5,907	14.0	17.2	16.9	28.7	23.1	2,505
Zimbabwe 2005/06	17.4	16.8	17.4	22.5	25.9	8,907	15.2	16.6	17.4	27.6	23.3	6,863

3.5 Exposure to Mass Media

Table 3.5 presents the proportion of women and men age 15–49 regularly exposed to mass media, for the two survey rounds. Regular media exposure was defined as listening to radio, watching television, or reading a newspaper or magazine at least once a week. Media exposure of women and men varied considerably across countries. In the first round of surveys, the percentage of women exposed to the mass media ranged from 14 percent in Ethiopia to 86 percent in Namibia. Media exposure among both women and men increased substantially between surveys in all countries except Niger, Zambia, and Zimbabwe. In the most recent round of surveys, mass media exposure among women exceeded 50 percent in 17 of the 23 countries, and among men in 21 of the 22 countries with data.

Table 3.5 Changes in percentage of women and men age 15–49 regularly exposed to the mass media, and percentage living in urban areas, in selected countries in sub-Saharan Africa, 1992–2006

	Media exposure*				Urban residence			
	Women		Men		Women		Men	
Country/year	%	Number	%	Number	%	Number	%	Number
West Africa								
Benin 1996	21.4	5,491	52.9	1,272	39.7	5,491	41.1	1,272
Benin 2001	66.8	6,219	87.1	2,465	40.7	6,219	42.4	2,465
Burkina Faso 1998/99	25.1	6,445	50.3	2,354	16.9	6,445	22.9	2,354
Burkina Faso 2003	55.7	12,477	75.8	3,209	21.6	12,477	25.2	3,209
Cameroon 1998	44.2	5,501	70.8	2,345	35.3	5,501	38.9	2,345
Cameroon 2004	54.9	10,656	82.0	4,815	54.8	10,656	58.4	4,815
Chad 1996/97	24.9	7,454	45.6	2,140	23.1	7,454	30.8	2,140
Chad 2004	23.7	6,085	58.7	1,682	21.2	6,085	27.9	1,682
Cote d'Ivoire 1998/99	66.8	3,040	85.3	799	41.9	3,040	43.8	799
Cote d'Ivoire 2005	66.3	5,183	85.0	4,503	47.3	5,183	47.0	4,503
Ghana 1998	69.7	4,843	85.6	1,382	35.9	4,843	35.8	1,382
Ghana 2003	78.8	5,691	91.8	4,529	48.4	5,691	45.2	4,529
Guinea 1999	38.1	6,753	60.4	1,752	32.2	6,753	38.0	1,752
Guinea 2005	48.9	7,954	78.8	2,709	31.1	7,954	40.5	2,709
Mali 1995/96	63.6	9,704	84.5	2,164	31.7	9,704	33.5	2,164
Mali 2001	66.4	12,849	86.4	3,000	30.1	12,849	34.5	3,000
Niger 1998	56.5	7,577	83.7	3,143	20.4	7,577	24.5	3,143
Niger 2005	44.7	9,223	75.8	3,101	19.7	9,223	26.3	3,101
Nigeria 1999	58.0	8,206	83.3	2,255	31.0	8,206	31.1	2,255
Nigeria 2003	64.7	7,620	88.9	2,093	34.5	7,620	37.8	2,093
Senegal 1997	71.3	8,593	n/a	n/a	44.2	8,593	49.8	3,070
Senegal 2005	88.1	14,602	56.3	3,415	48.7	14,602	57.0	3,415
East Africa								
Eritrea 1995	54.5	5,054	73.4	964	32.6	5,054	32.8	964
Eritrea 2002	73.6	8,754	n/a	n/a	43.0	8,754	n/a	n/a
Ethiopia 2000	13.6	15,367	29.4	2,320	18.2	15,367	15.2	2,320
Ethiopia 2005	20.1	14,070	36.9	5,464	17.8	14,070	15.6	5,464
Kenya 1998	69.8	7,881	90.0	3,224	23.2	7,881	26.8	3,224
Kenya 2003	78.2	8,195	92.2	3,363	25.1	8,195	25.5	3,363

(Cont'd)

Table 3.5 – cont'd

Country/year	Media exposure*				Urban residence			
	Women		Men		Women		Men	
	%	Number	%	Number	%	Number	%	Number
Rwanda 2000	41.2	10,421	66.1	2,532	17.2	10,421	20.0	2,532
Rwanda 2005	56.4	11,321	81.0	4,413	17.0	11,321	17.8	4,413
Tanzania 1999	30.4	4,029	50.6	3,171	27.9	4,029	27.2	3,171
Tanzania 2004/05	66.6	10,329	83.5	2,635	28.4	10,329	27.2	2,635
Uganda 2000/01	54.6	7,246	77.7	1,879	16.7	7,246	17.0	1,879
Uganda 2006	74.9	8,531	88.7	2,385	16.9	8,531	16.9	2,385
Southern Africa								
Madagascar 1997	49.6	7,060	n/a	n/a	28.1	7,060	n/a	n/a
Madagascar 2003/04	62.2	7,949	68.6	2,216	24.8	7,949	23.5	2,216
Malawi 2000	54.1	13,220	74.0	2,915	15.9	13,220	18.8	2,915
Malawi 2004	68.6	11,698	87.2	3,114	17.8	11,698	21.2	3,114
Mozambique 1997	32.0	8,779	50.9	1,975	23.9	8,779	30.3	1,975
Mozambique 2003	49.6	12,418	79.2	2,490	36.6	12,418	42.9	2,490
Namibia 1992	86.4	5,421	n/a	n/a	38.3	5,421	n/a	n/a
Namibia 2000	79.9	6,755	86.8	2,766	41.2	6,755	44.5	2,766
Zambia 1996	63.3	8,021	80.5	1,731	44.9	8,021	46.7	1,731
Zambia 2001/02	48.7	7,658	69.4	1,974	40.1	7,658	39.9	1,974
Zimbabwe 1999	59.8	5,907	78.5	2,505	38.6	5,907	42.0	2,505
Zimbabwe 2005/06	56.3	8,907	73.3	6,863	39.3	8,907	40.3	6,863

*** Media exposure is defined as listening to the radio, watching television, or reading a newspaper or magazine at least once a week.**

3.6 Urban Residence

Table 3.5 also shows the percentage of women and men age 15–49 living in urban areas in the two rounds of DHS surveys studied. The percentage of women and men in urban areas varied considerably across countries—among women in the first round of surveys, for example, from 16 percent in Malawi to 45 percent in Zambia, and in the recent surveys from 17 percent in Rwanda and Uganda to 55 percent in Cameroon. Most countries witnessed an increase in the percentage of women and men living in urban areas from the earlier survey round to the more recent. In several countries, including Cameroon, Ghana, Eritrea, and Mozambique, the increases in urban residence were large.

3.7 Number of Years Living at Current Place of Residence

Table 3.6 presents the percent distribution of women and men age 15–49 by number of years living at their current place of residence, for both survey rounds. In the recent surveys the percentage of women living at their current place of residence for less than three years ranged from 6 percent in Niger to 30 percent in Zambia and Cote d'Ivoire. For men, the range was from 4 percent in Ethiopia to 28 percent in Cote d'Ivoire. Among both women and men, the proportion living in their current place of residence for less than three years increased in some countries but decreased in others, while the overall pattern varied widely both within and across regions.

Table 3.6 Changes in percent distribution of women and men age 15–49 by number of years living at their current place of residence, in selected countries in sub-Saharan Africa, 1992–2006

	Number of years living at their current place of residence							
	Women				Men			
Country/year	<3	3–9	10+	Number	<3	3–9	10+	Number
West Africa								
Benin 1996	16.9	22.9	60.1	5,491	9.8	20.0	70.2	1,272
Benin 2001	18.1	21.2	60.5	6,219	12.4	17.4	70.1	2,465
Burkina Faso 1998/99	12.1	21.8	65.6	6,445	9.7	13.0	76.9	2,354
Burkina Faso 2003	12.1	20.4	67.4	12,477	9.7	12.8	77.3	3,209
Cameroon 1998	22.1	24.2	53.3	5,501	18.9	25.3	55.6	2,345
Cameroon 2004	20.4	22.0	57.4	10,656	21.4	23.7	54.9	4,815
Chad 1996/97	11.0	18.6	70.1	7,454	11.9	17.6	70.5	2,140
Cote d'Ivoire 2005	29.8	24.3	45.6	5,183	27.9	26.1	45.9	4,503
Ghana 1998	14.5	23.2	62.3	4,843	12.0	22.4	65.6	1,382
Ghana 2003	17.4	25.5	57.0	5,691	14.2	25.1	60.6	4,529
Guinea 2005	7.4	12.3	80.0	7,954	8.1	14.4	77.4	2,709
Mali 1995/96	10.1	15.0	74.4	9,704	13.4	20.2	66.3	2,163
Mali 2001	12.2	19.5	67.8	12,849	16.5	20.8	62.1	3,000
Niger 1998	11.7	16.5	71.7	7,577	7.9	8.6	83.4	3,143
Niger 2005	6.2	11.8	81.3	9,223	8.9	7.6	83.4	3,101
Nigeria 1999	11.3	18.4	69.7	8,206	8.7	16.5	73.7	2,255
Nigeria 2003	14.2	17.9	67.7	7,620	10.8	16.4	72.8	2,093
Senegal 1997	13.4	17.4	69.0	8,593	n/a	n/a	n/a	n/a
Senegal 2005	13.0	18.8	67.8	14,602	14.5	17.4	67.5	3,415
East Africa								
Eritrea 1995	9.7	16.3	74.0	5,054	12.1	15.9	71.7	964
Eritrea 2002	9.5	21.9	68.5	8,754	n/a	n/a	n/a	n/a
Ethiopia 2000	8.1	11.1	80.8	15,367	7.3	9.1	83.5	2,320
Ethiopia 2005	7.0	13.0	80.0	14,070	4.2	6.2	89.4	5,464
Kenya 1998	20.0	17.4	62.5	7,881	11.6	13.6	74.6	3,224
Kenya 2003	23.0	24.1	52.8	8,195	16.0	19.5	64.4	3,363
Rwanda 2000	17.9	22.0	59.9	10,421	11.9	11.4	76.6	2,532
Rwanda 2005	15.2	23.9	60.7	11,321	10.6	14.2	75.1	4,413
Tanzania 1999	14.8	18.9	66.2	4,029	9.4	15.7	74.9	3,171
Tanzania 2004/05	19.5	19.2	61.2	10,329	15.0	17.7	67.2	2,635
Uganda 2000/01	30.7	27.8	41.4	7,246	19.2	20.3	60.4	1,879
Uganda 2006	28.8	27.0	44.2	8,531	17.2	22.9	59.8	2,385

(Cont'd)

Table 3.6 – cont'd

Country/year	Number of years living at their current place of residence							
	Women				Men			
	<3	3–9	10+	Number	<3	3–9	10+	Number
Southern Africa								
Madagascar 1997	13.0	17.6	69.4	7,060	n/a	n/a	n/a	n/a
Madagascar 2003/04	11.3	17.9	70.8	7,949	7.1	12.6	80.2	2,216
Malawi 2000	21.2	22.1	56.7	13,220	24.0	23.0	52.9	2,915
Malawi 2004	22.8	22.2	55.0	11,698	22.2	22.3	55.5	3,114
Mozambique 1997	10.6	15.7	72.9	8,779	10.9	16.2	72.5	1,975
Mozambique 2003	9.6	16.4	73.6	12,418	9.2	16.4	74.4	2,490
Namibia 1992	15.6	11.2	72.9	5,421	n/a	n/a	n/a	n/a
Namibia 2000	12.1	12.8	74.8	6,755	12.6	13.0	74.1	2,766
Zambia 1996	21.1	24.1	54.6	8,021	18.3	23.0	58.4	1,731
Zambia 2001/02	30.3	27.9	41.7	7,658	20.8	25.4	53.7	1,974
Zimbabwe 1999	26.7	27.0	46.3	5,907	22.0	22.8	55.1	2,505
Zimbabwe 2005/06	11.6	22.2	66.2	8,907	13.4	15.7	70.9	6,863

3.8 Slept and Stayed Away from Home

Table 3.7 shows changes in the percentages of men who slept away from home, both the number of times slept away and the period of time away. The percentage of men who slept away from home more than five times in last 12 months ranged from 5 percent in Rwanda to 28 percent in Nigeria in the recent surveys. The percentage of men who slept away for more than one month ranged from 6 percent in Ethiopia to 34 percent in Niger. Data were available for both rounds of DHS in only three countries (Rwanda, Uganda, and Malawi).

Table 3.7 Changes in percent distribution of men age 15–49 by number of times slept away from home and by period of time stayed away from home in last 12 months, in selected countries in sub-Saharan Africa. 1992–2006

	Number of times slept away from home					Period of time stayed away from home			
Country/year	0	1–2	3–4	5+	Number	Never	<1	≥1	Number
West Africa									
Burkina Faso 2003	59.8	21.3	8.4	10.2	3,209	59.8	22.7	16.7	3,209
Cote d'Ivoire 2005	54.3	24.2	8.5	12.5	9,686	54.3	26.4	18.4	9,686
Ghana 2003	41.0	22.3	16.1	20.1	4,529	41.0	38.2	19.6	4,529
Guinea 2005	49.9	26.6	10.2	12.7	2,709	49.9	30.8	17.7	2,709
Niger 2005	43.5	37.2	8.2	10.4	3,101	43.5	20.9	33.8	3,101
Nigeria 2003	36.3	21.2	14.4	27.6	2,093	36.3	39.5	23.1	2,093
East Africa									
Ethiopia 2005	70.6	16.8	5.1	7.4	5,464	70.6	22.9	6.1	5,464
Kenya 2003	50.6	21.7	10.0	17.2	3,363	50.6	31.7	16.8	3,363
Rwanda 2000	90.3	5.6	2.3	1.5	2,532	90.3	0.0	9.4	2,532
Rwanda 2005	74.3	15.0	5.4	4.8	4,413	74.3	16.7	7.8	4,413
Tanzania 2004/05	50.2	27.0	12.0	10.7	2,635	50.2	32.9	16.7	2,635
Uganda 2000/01	52.6	17.2	13.8	16.1	1,879	52.6	35.4	11.4	1,879
Uganda 2006	46.5	21.1	14.4	17.6	2,385	46.5	38.7	13.6	2,385
Southern Africa									
Madagascar 2003/04	68.2	15.2	7.7	8.7	2,216	68.2	21.7	9.8	2,216
Malawi 2000	51.5	29.6	10.0	8.7	2,915	51.5	22.5	25.6	2,915
Malawi 2004	64.5	17.1	8.0	10.3	3,114	64.5	23.7	11.4	3,114
Mozambique 2003	56.4	22.3	11.4	9.8	2,490	56.4	33.0	10.4	2,490
Zambia 2001/02	46.5	28.1	12.0	12.7	1,974	46.5	35.5	17.2	1,974
Zimbabwe 2005/06	44.6	21.2	11.2	22.6	6,863	44.6	35.6	18.9	6,863

4 Knowledge, Misconceptions, and Risk Perception

This chapter presents changes in HIV/AIDS-related knowledge, common misconceptions, and risk perception among women and men age 15–49, comparing the recent surveys with the earlier round.

4.1 Knowledge of HIV Prevention Methods

Table 4.1 presents changes in awareness of HIV/AIDS and knowledge of HIV prevention methods among women and men. In most countries, awareness of HIV/AIDS was generally high and was increasing. In some countries almost everyone surveyed had heard of HIV/AIDS, although men were somewhat more likely than women to have heard of HIV/AIDS.

The surveys also asked women and men if a person could reduce the risk of HIV infection by abstaining from sexual intercourse, limiting sex to one faithful partner, and always using a condom when having sex—the so-called "A,B,C" prevention methods. Knowledge of the A (abstaining), B (being faithful), and C (condoms) prevention methods varied considerably across countries, both among women and men. While levels varied widely within and across regions, knowledge was somewhat higher in east Africa compared with the other two regions.

Table 4.1 Changes in percentage of women and men age 15–49 who ever heard of HIV/AIDS and percentage knowing that HIV infection can be prevented by abstaining from sex, by limiting sex to one faithful partner, and by always using a condom when having sex, in selected countries in sub-Saharan Africa, 1992–2006

			Knowledge of prevention methods							
	Heard of HIV/AIDS		Abstinence		Being faithful		Using a condom		Number	
Country/year	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
West Africa										
Benin 1996	81.7	96.2	n/a	n/a	n/a	n/a	n/a	n/a	5,491	1,272
Benin 2001	95.5	97.7	43.2	37.2	51.2	58.9	45.6	51.8	6,219	2,465
Burkina Faso 1998/99	87.2	96.2	n/a	n/a	n/a	n/a	n/a	n/a	6,445	2,354
Burkina Faso 2003	95.8	96.5	n/a	50.2	62.9	75.5	48.4	65.9	12,477	3,209
Cameroon 1998	89.7	97.7	n/a	n/a	n/a	n/a	n/a	n/a	5,501	2,345
Cameroon 2004	97.8	99.2	77.4	83.2	81.4	87.5	68.7	82.2	10,656	4,815
Chad 1996/97	60.0	89.1	n/a	n/a	n/a	n/a	n/a	n/a	7,454	2,140
Chad 2004	79.9	89.8	54.7	73.3	55.7	81.0	27.4	60.0	6,085	1,682
Cote d'Ivoire 1998/99	96.7	99.5	n/a	n/a	n/a	n/a	n/a	n/a	3,040	799
Cote d'Ivoire 2005	89.9	94.6	67.5	73.4	69.2	78.0	60.4	74.4	5,183	4,503
Ghana 1998	96.7	98.9	n/a	n/a	n/a	n/a	n/a	n/a	4,843	1,382
Ghana 2003	98.4	99.3	78.8	82.6	86.1	89.9	72.9	82.1	5,691	4,529
Guinea 1999	94.9	96.2	n/a	n/a	n/a	n/a	n/a	n/a	6,753	1,752
Guinea 2005	97.0	98.8	83.4	90.0	87.9	92.1	71.0	82.1	7,954	2,709
Mali 1995/96	76.7	95.7	n/a	n/a	n/a	n/a	n/a	n/a	9,704	2,164
Mali 2001	90.3	98.2	33.3	46.1	41.3	56.3	38.5	56.4	12,849	3,000
Niger 1998	54.6	89.0	n/a	n/a	n/a	n/a	n/a	n/a	7,577	3,143
Niger 2005	83.1	94.6	68.4	78.8	74.4	87.6	55.2	67.2	9,223	3,101

(Cont'd)

Table 4.1 – cont'd

Country/year	Heard of HIV/AIDS		Knowledge of prevention methods: Abstinence		Knowledge of prevention methods: Being faithful		Knowledge of prevention methods: Using a condom		Number	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Nigeria 1999	74.4	89.7	n/a	n/a	n/a	n/a	n/a	n/a	8,206	2,255
Nigeria 2003	86.3	97.0	47.2	66.8	59.9	80.2	44.6	63.4	7,620	2,093
Senegal 1997	91.7	98.1	n/a	n/a	n/a	n/a	n/a	n/a	8,593	3,070
Senegal 2005	96.6	98.0	85.5	86.8	91.4	89.8	73.8	74.0	14,602	3,415
East Africa										
Eritrea 1995	72.2	89.5	n/a	n/a	n/a	n/a	n/a	n/a	5,054	964
Eritrea 2002	96.1	n/a	n/a	n/a	82.2	n/a	55.9	n/a	8,754	n/a
Ethiopia 2000	84.7	95.2	n/a	n/a	65.4	85.6	33.5	60.3	15,367	2,320
Ethiopia 2005	89.9	96.5	62.3	80.3	62.5	79.0	40.2	64.3	14,070	5,464
Kenya 1998	99.0	99.3	n/a	n/a	n/a	n/a	n/a	n/a	7,881	3,224
Kenya 2003	98.5	99.4	79.2	88.9	80.5	88.8	61.0	72.0	8,195	3,363
Rwanda 2000	99.6	99.6	81.1	84.3	75.9	80.2	64.9	80.4	10,421	2,532
Rwanda 2005	99.9	99.9	81.8	88.1	86.8	87.0	80.0	89.7	11,321	4,413
Tanzania 1999	97.0	99.0	n/a	n/a	n/a	n/a	n/a	n/a	4,029	3,171
Tanzania 2004/05	98.9	99.1	92.5	88.8	91.2	86.2	78.5	80.3	10,329	2,635
Uganda 2000/01	99.7	100.	n/a	n/a	82.8	90.1	64.7	77.4	7,246	1,879
Uganda 2006	99.2	99.9	86.4	92.8	89.4	95.4	70.0	84.1	8,531	2,385
Southern Africa										
Madagascar 1997	68.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7,060	n/a
Madagascar 2003/04	79.0	87.7	52.9	54.5	60.4	72.7	50.8	61.0	7,949	2,216
Malawi 2000	98.9	99.7	74.5	82.7	77.2	81.3	64.0	73.0	13,220	2,915
Malawi 2004	98.6	99.5	70.7	89.8	67.6	79.9	57.3	75.5	11,698	3,114
Mozambique 1997	82.2	94.4	n/a	n/a	n/a	n/a	n/a	n/a	8,779	1,975
Mozambique 2003	95.7	97.8	46.2	63.3	52.7	66.5	53.3	70.3	12,418	2,490
Namibia 2000	98.1	99.5	n/a	n/a	74.2	87.7	73.1	83.7	6,755	2,766
Zambia 1996	99.6	99.5	n/a	n/a	n/a	n/a	n/a	n/a	8,021	1,731
Zambia 2001/02	99.3	98.6	n/a	n/a	81.3	85.3	68.7	71.0	7,658	1,974
Zimbabwe 1999	96.5	99.1	n/a	n/a	n/a	n/a	n/a	n/a	5,907	2,505
Zimbabwe 2005/06	97.9	99.2	80.7	87.5	80.8	84.7	75.7	81.4	8,907	6,863

Examining data from the few countries with data from both rounds of surveys, the following comparisons could be observed: knowledge levels about abstinence increased among men in Rwanda and Malawi, remained steady among women in Rwanda, and declined among women in Malawi. Knowledge of faithfulness as a prevention method declined in Ethiopia and Malawi but increased in Rwanda and Uganda. Knowledge of condom use to prevent infection rose in all countries with two data points except Malawi, where it declined slightly among women.

4.2 Misconceptions about HIV/AIDS

Having correct beliefs about HIV/AIDS is important to avoiding infection, but surveys have shown that many people have misconceptions. Table 4.2 presents several of these misconceptions among women and men age 15–49. Misconceptions about HIV/AIDS varied notably across the countries studied. Among women in the recent round of surveys, knowledge that a healthy-looking person could have HIV ranged from 37 percent in Niger to 86 percent in Zimbabwe. Among men the range was from 48 percent in Madagascar to more than 90 percent in Zimbabwe, Malawi, and Rwanda.

In the vast majority of countries, knowledge that a healthy-looking person could have HIV increased among women and men from the earlier survey to the more recent. Among women in Guinea, however, the percentage declined by 12 percentage points, and among men in Zambia declined by 9 percentage points (Figures 4.1a and 4.1b).

Table 4.2 Changes in percentage of women and men age 15–49, who know that a healthy-looking person can have HIV, percentage who know that HIV cannot be transmitted by mosquitoes, and percentage who know that HIV cannot be transmitted by sharing food, in selected countries in sub-Saharan Africa. 1992–2006

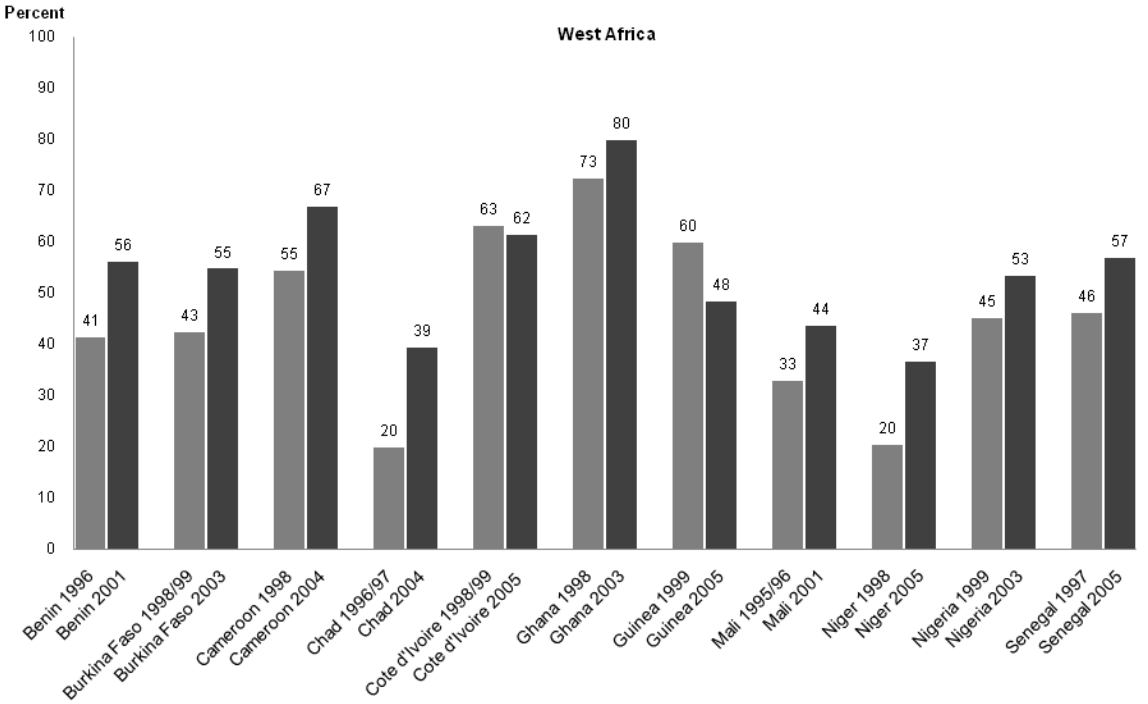
	Misconceptions about HIV/AIDS							
	Know that a healthy-looking person can have HIV		Know that HIV cannot be transmitted by mosquitoes		Know that HIV cannot be transmitted by sharing food		Number	
Country/year	Women	Men	Women	Men	Women	Men	Women	Men
West Africa								
Benin 1996	41.4	62.3	n/a	n/a	n/a	n/a	5,491	1,272
Benin 2001	56.2	68.8	23.1	35.6	28.0	46.0	6,219	2,465
Burkina Faso 1998/99	42.5	70.5	n/a	n/a	n/a	n/a	6,445	2,354
Burkina Faso 2003	54.8	69.3	26.3	42.4	39.4	62.8	12,477	3,209
Cameroon 1998	54.5	63.6	n/a	n/a	n/a	n/a	5,501	2,345
Cameroon 2004	67.0	79.9	46.2	53.6	65.0	75.3	10,656	4,815
Chad 1996/97	19.8	32.8	n/a	n/a	n/a	n/a	7,454	2,140
Chad 2004	39.4	48.7	39.8	49.3	52.3	61.8	6,085	1,682
Cote d'Ivoire 1998/99	63.1	69.3	n/a	n/a	n/a	n/a	3,040	799
Cote d'Ivoire 2005	61.5	75.4	40.0	49.4	58.8	67.5	5,183	4,503
Ghana 1998	72.5	81.3	n/a	n/a	n/a	n/a	4,843	1,382
Ghana 2003	79.9	86.3	55.2	60.2	71.8	75.5	5,691	4,529
Guinea 1999	59.9	60.5	n/a	n/a	n/a	n/a	6,753	1,752
Guinea 2005	48.4	68.4	43.6	35.9	46.8	49.1	7,954	2,709
Mali 1995/96	32.9	55.0	n/a	n/a	n/a	n/a	9,704	2,164
Mali 2001	43.7	63.3	22.6	33.8	35.2	54.6	12,849	3,000
Niger 1998	20.4	42.7	n/a	n/a	n/a	n/a	7,577	3,143
Niger 2005	36.6	64.8	32.6	38.3	38.2	61.8	9,223	3,101
Nigeria 1999	45.2	56.2	n/a	n/a	n/a	n/a	8,206	2,255
Nigeria 2003	53.4	73.2	36.9	44.6	44.9	59.0	7,620	2,093
Senegal 1997	46.1	64.1	n/a	n/a	n/a	n/a	8,593	3,070
Senegal 2005	56.9	72.7	38.1	41.2	66.1	67.7	14,602	3,415

(Cont'd)

Table 4.2 – cont'd

Country/year	Misconceptions about HIV/AIDS: Know that a healthy-looking person can have HIV		Know that HIV cannot be transmitted by mosquitoes		Know that HIV cannot be transmitted by sharing food		Number	
	Women	Men	Women	Men	Women	Men	Women	Men
East Africa								
Eritrea 1995	42.3	61.3	n/a	n/a	n/a	n/a	5,054	964
Eritrea 2002	75.6	n/a	53.8	n/a	71.7	n/a	8,754	n/a
Ethiopia 2000	37.2	55.5	n/a	n/a	n/a	n/a	15,367	2,320
Ethiopia 2005	50.6	69.1	47.1	57.1	63.4	79.9	14,070	5,464
Kenya 1998	78.3	84.7	n/a	n/a	n/a	n/a	7,881	3,224
Kenya 2003	84.7	89.9	61.0	74.2	71.3	80.5	8,195	3,363
Rwanda 2000	68.1	75.6	61.1	54.4	69.7	64.9	10,421	2,532
Rwanda 2005	83.8	91.7	81.2	77.5	89.3	91.7	11,321	4,413
Tanzania 1999	69.2	77.2	n/a	n/a	n/a	n/a	4,029	3,171
Tanzania 2004/05	81.4	84.0	75.2	73.0	78.8	81.0	10,329	2,635
Uganda 2000/01	77.2	87.6	44.6	55.5	66.7	79.7	7,246	1,879
Uganda 2006	84.9	90.0	54.4	61.0	77.4	83.7	8,531	2,385
Southern Africa								
Madagascar 1997	34.4	n/a	n/a	n/a	n/a	n/a	7,060	n/a
Madagascar 2003/04	48.0	47.8	31.7	36.4	39.6	41.7	7,949	2,216
Malawi 2000	84.3	91.8	67.6	67.5	78.8	84.9	13,220	2,915
Malawi 2004	81.8	92.0	66.0	69.1	81.7	90.6	11,698	3,114
Mozambique 1997	39.0	61.2	n/a	n/a	n/a	n/a	8,779	1,975
Mozambique 2003	62.5	81.9	36.5	49.2	44.7	58.7	12,418	2,490
Namibia 2000	82.8	87.0	56.0	59.3	63.1	62.3	6,755	2,766
Zambia 1996	81.4	87.5	n/a	n/a	n/a	n/a	8,021	1,731
Zambia 2001/02	77.1	79.3	52.3	63.3	65.3	76.5	7,658	1,974
Zimbabwe 1999	75.7	85.4	n/a	n/a	n/a	n/a	5,907	2,505
Zimbabwe 2005/06	85.8	91.4	74.9	74.6	82.4	85.3	8,907	6,863

Figure 4.1a Changes in knowledge that a healthy-looking person can have HIV among women age 15–49, 1995–2006



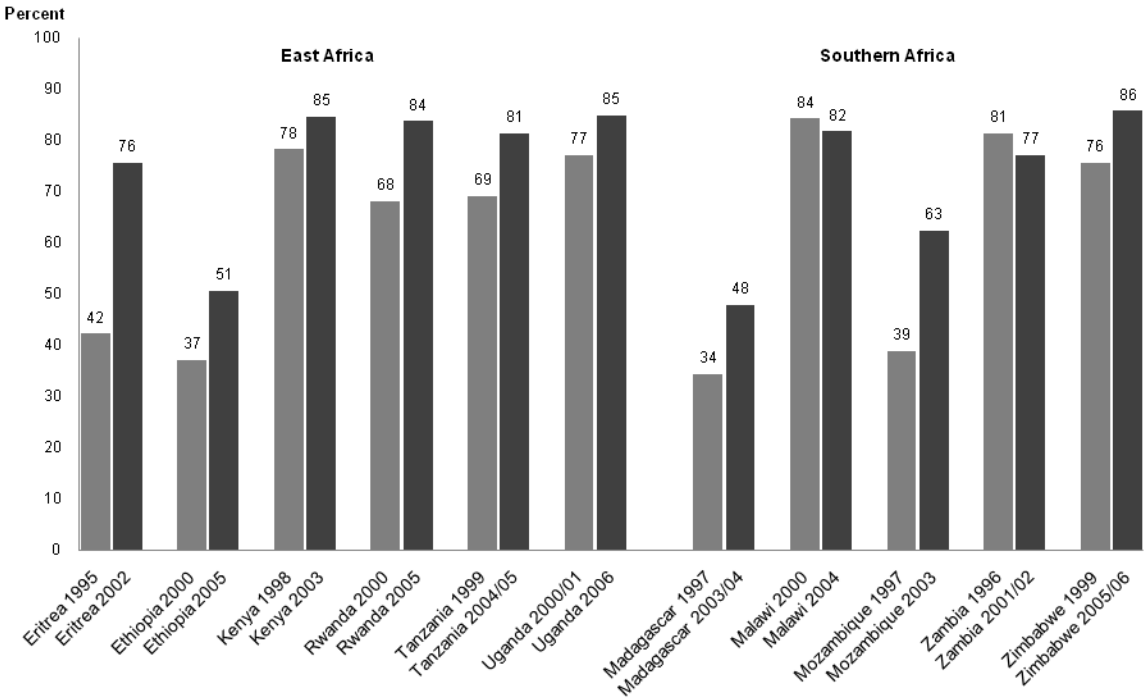
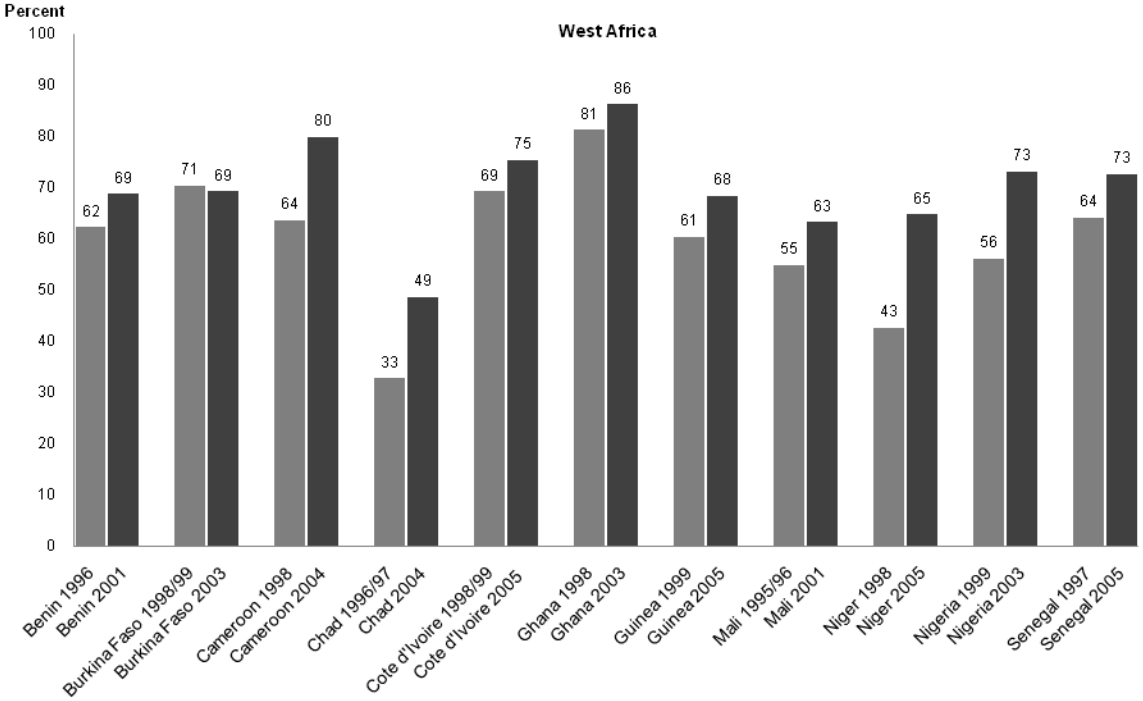
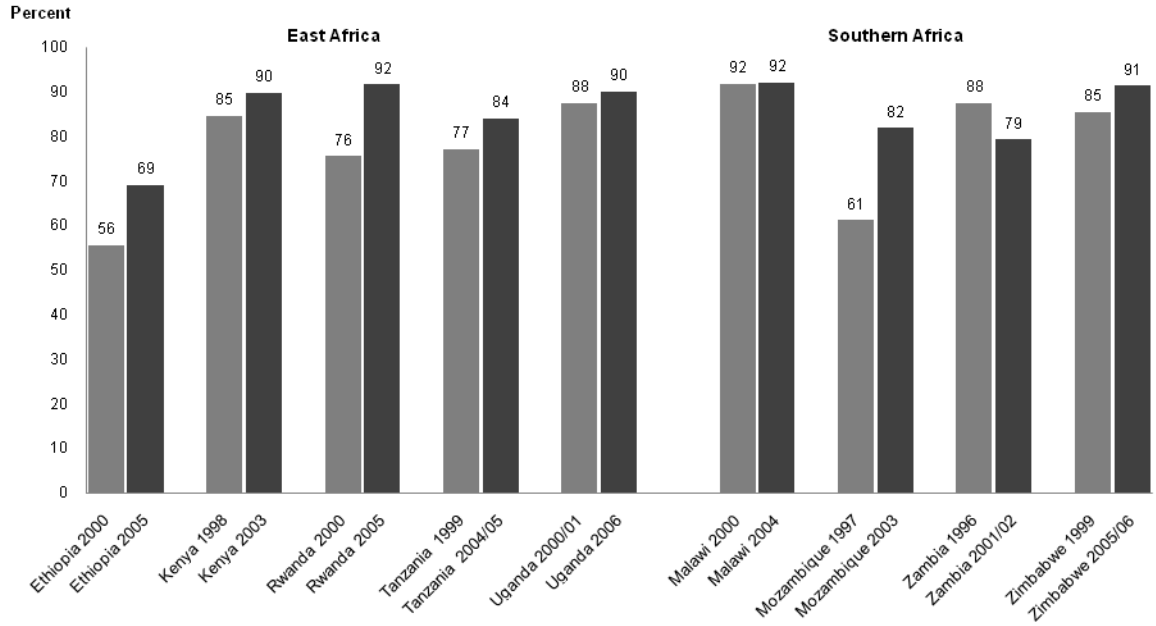


Figure 4.1b Changes in knowledge that a healthy-looking person can have HIV among men age 15–49, 1995–2006





Knowledge that HIV cannot be transmitted by mosquitoes ranged from 23 percent among women in Benin and Mali to 81 percent in Rwanda. Among men, knowledge levels were higher. The percentage of women who knew that HIV cannot be transmitted by sharing food ranged from 28 percent in Benin to 89 percent in Rwanda, and among men from 42 percent in Madagascar to more than 90 percent in Rwanda and Malawi.

Only three countries, Rwanda, Uganda, and Malawi, had data on misconceptions about HIV transmission risk from mosquitoes and from sharing food for two time points (Table 4.2). The percentage who knew that HIV cannot be transmitted by sharing food increased among both women and men in all three countries. The percentage who knew that HIV cannot be transmitted by mosquitoes also increased among both women and men in two of the three countries (Rwanda and Uganda), but there was little change in Malawi.

4.3 Comprehensive Knowledge about HIV/AIDS

Comprehensive knowledge about HIV/AIDS was defined as knowing that HIV infection can be prevented both by limiting sex to one faithful partner and by always using a condom when having sex, and knowing that a healthy-looking person can have HIV, as well as rejecting the two most common misconceptions (country specific) about HIV transmission (Table 4.3). Comprehensive knowledge about HIV/AIDS among women and men was low generally, while men were more likely than women to have comprehensive knowledge. Only in Rwanda did the percentage of women with comprehensive knowledge about HIV/AIDS exceed 50 percent, and for men, only in Rwanda and Kenya. West Africa had the lowest levels of comprehensive knowledge compared with east Africa and southern Africa.

Table 4.3 Changes in percentage of women and men age 15–49 who know that HIV infection can be prevented by both limiting sex to one faithful partner and by always using a condom when having sex, and percentage with comprehensive knowledge* about HIV/AIDS, in selected countries in sub-Saharan Africa, 1992–2006

	Know that HIV can be prevented by limiting sex to one partner and by always using a condom		Have comprehensive knowledge about HIV/AIDS		Number	
Country	Women	Men	Women	Men	Women	Men
West Africa						
Benin 2001	42.1	44.8	7.7	11.3	6,219	2,465
Burkina Faso 2003	45.0	59.8	12.3	25.4	12,477	3,209
Cameroon 2004	62.0	74.5	22.5	32.2	10,656	4,815
Chad 2004	22.9	56.0	7.4	20.9	6,085	1,682
Cote d'Ivoire 2005	55.2	67.4	16.1	26.0	5,183	4,503
Ghana 2003	68.9	77.7	21.9	32.8	5,691	4,529
Guinea 2005	67.5	78.6	14.8	20.3	7,954	2,709
Mali 2001	31.0	44.5	8.2	13.3	12,849	3,000
Niger 2005	53.2	64.8	12.6	18.6	9,223	3,101
Nigeria 2003	42.3	59.8	15.2	26.7	7,620	2,093
Senegal 2005	72.4	70.5	20.2	25.5	14,602	3,415
East Africa						
Eritrea 2002	51.5	n/a	29.4	n/a	8,754	n/a
Ethiopia 2000	31.8	58.3	n/a	n/a	15,367	2,320
Ethiopia 2005	34.6	56.9	15.8	30.0	14,070	5,464
Kenya 2003	57.8	69.9	36.1	51.6	8,195	3,363
Rwanda 2000	54.1	68.6	25.8	25.2	10,421	2,532
Rwanda 2005	72.7	79.9	53.6	57.5	11,321	4,413
Tanzania 2004/05	74.6	72.0	47.0	43.9	10,329	2,635
Uganda 2000/01	62.5	74.9	26.8	39.3	7,246	1,879
Uganda 2006	66.4	82.0	31.3	42.0	8,531	2,385
Southern Africa						
Madagascar 2003/04	48.9	58.7	19.0	18.8	7,949	2,216
Malawi 2000	55.9	62.8	33.3	38.9	13,220	2,915
Malawi 2004	46.6	63.4	25.0	41.8	11,698	3,114
Mozambique 2003	45.2	61.0	18.0	32.1	12,418	2,490
Namibia 2000	64.8	79.5	29.8	36.9	6,755	2,766
Zambia 2001/02	66.3	66.8	31.1	37.2	7,658	1,974
Zimbabwe 2005/06	65.2	71.3	43.4	46.5	8,907	6,863

*** Individuals with a comprehensive knowledge about HIV/AIDS include those who know that HIV infection can be prevented both by limiting sex to one faithful partner and by always using a condom when having sex, and know that a healthy-looking person can have HIV, as well as reject the two most common misconceptions about HIV transmission. Note: the two most common misconceptions about HIV transmission are country specific.**

Levels of comprehensive knowledge about HIV/AIDS varied dramatically across the 23 countries studied. The percentage of women with comprehensive knowledge ranged from 7 percent in Chad to 54 percent in Rwanda. Among men, the range was from 11 percent in Benin to 58 percent in Rwanda.

Survey data on comprehensive knowledge for two time points were available only for Malawi, Rwanda, and Uganda. Among women In Rwanda, comprehensive knowledge increased from 26 percent to 54 percent, and among men from 25 percent to 58 percent. In Uganda and Malawi, comprehensive knowledge increased somewhat among men, and also among women in Uganda, but it decreased somewhat among women in Malawi.

4.4 Knowledge about Prevention of Mother-to-Child Transmission of HIV

Table 4.4 presents the percentages of women and men age 15–49 in the study who knew that HIV could be transmitted from mother to child through breastfeeding, who knew that there was a special drug that could prevent HIV transmission from mother to the child, and who knew both facts.

Table 4.4 Changes in percentage of women and men age 15–49 who know that HIV can be transmitted from mother to child through breastfeeding, percentage who know that there is a special drug that can prevent HIV transmission from mother to child through breastfeeding, and percentage who know both, in selected countries in sub-Saharan Africa, 1992–2006

	Know that HIV virus transmits through breastfeeding		Know of a special drug that prevents mother to child transmission		Know both		Number	
Country/year	Women	Men	Women	Men	Women	Men	Women	Men
West Africa								
Benin 2001	68.1	59.2	n/a	n/a	n/a	n/a	6,219	2,465
Burkina Faso 2003	49.8	47.0	n/a	n/a	n/a	n/a	12,477	3,209
Cameroon 2004	47.2	57.3	n/a	n/a	n/a	n/a	10,656	4,815
Chad 2004	35.7	42.0	n/a	n/a	n/a	n/a	6,085	1,682
Cote d'Ivoire 2005	62.1	58.0	43.7	42.5	37.2	29.6	5,183	4,503
Ghana 1998	78.6	78.7	n/a	n/a	n/a	n/a	4,843	1,382
Ghana 2003	72.6	74.8	15.9	15.9	15.1	14.0	5,691	4,529
Guinea 2005	51.6	66.3	9.7	16.0	7.9	13.1	7,954	2,709
Mali 2001	31.6	40.7	n/a	n/a	n/a	n/a	12,849	3,000
Niger 2005	52.5	64.1	15.9	31.5	13.1	26.2	9,223	3,101
Nigeria 1999	n/a	n/a	8.5	6.4	n/a	n/a	8,206	2,255
Nigeria 2003	45.9	56.4	6.1	7.5	5.2	49.6	7,620	2,093
Senegal 2005	61.2	55.0	28.1	26.3	21.5	19.1	14,602	3,415
East Africa								
Eritrea 2002	69.8	n/a	n/a	n/a	n/a	n/a	8,754	n/a
Ethiopia 2000	42.6	49.3	n/a	n/a	n/a	n/a	15,367	2,320
Ethiopia 2005	69.3	74.5	21.2	28.9	19.5	25.7	6,751	5,464
Kenya 2003	71.8	68.4	32.6	37.5	28.1	30.2	8,195	3,363
Rwanda 2000	66.5	63.0	n/a	n/a	n/a	n/a	10,421	2,532
Rwanda 2005	79.7	82.2	73.0	80.3	63.7	69.0	11,321	4,413
Tanzania 2004/05	79.1	73.9	30.8	36.4	28.7	30.2	10,329	2,635
Uganda 2000/01	46.3	43.1	n/a	n/a	n/a	n/a	7,246	1,879
Uganda 2006	73.3	62.5	64.8	63.6	52.2	42.9	8,531	2,385
Southern Africa								
Madagascar 2003/04	44.9	50.9	n/a	n/a	n/a	n/a	7,949	2,216
Malawi 2000	64.8	61.9	n/a	n/a	n/a	n/a	13,220	2,915
Malawi 2004	74.7	67.1	39.2	34.5	37.1	29.3	11,698	3,114
Mozambique 2003	50.2	50.5	30.9	41.9	26.1	31.9	12,418	2,490
Namibia 2000	70.7	63.0	n/a	n/a	n/a	n/a	6,755	2,766
Zambia 2001/02	70.7	64.4	n/a	n/a	n/a	n/a	7,658	1,974
Zimbabwe 1999	32.9	36.3	n/a	n/a	n/a	n/a	5,907	2,505
Zimbabwe 2005/06	79.9	79.9	57.1	45.7	51.6	38.9	8,907	6,863

Among women in the recent round of surveys, knowledge about HIV transmission from mother to child through breastfeeding ranged from 32 percent in Mali to 80 percent in Rwanda and Zimbabwe. Among men, it ranged from 41 percent in Mali to 82 percent in Rwanda. Among women, knowledge about special drugs to prevent mother to child transmission ranged from 6 percent in Nigeria to 73 percent in Rwanda, and among men from 8 percent in Nigeria to 80 percent in Rwanda. Among women, knowledge that HIV could be transmitted through breastfeeding and that special drugs could prevent mother-to-child transmission ranged from 5 percent in Nigeria to 64 percent in Rwanda. Among men, it varied from 13 percent in Guinea to 69 percent in Rwanda.

Data on either indicator for two time points were available only for Ghana, Nigeria, Ethiopia, Rwanda, Uganda, Malawi, and Zimbabwe. These countries varied in the extent of change in knowledge about transmission from mother to child through breastfeeding, both among women and men. Zimbabwe, Uganda, and Ethiopia showed a substantial increase (20–40 percentage points); Rwanda and Malawi a moderate increase (5–20 percentage points); whereas Ghana experienced a decline (4–6 percentage points) in knowledge about transmission from mother to child through breastfeeding among women and men.

4.5 Risk Perception of Contracting HIV

Respondents who knew about HIV/AIDS were asked about their perception of their risk of contracting HIV. Table 4.5 shows that the percentage of respondents who reported themselves at high risk of contracting HIV or who already had HIV varied considerably across the countries studied, ranging among women from 2 percent in Niger and Nigeria to 24 percent in Mali and 26 percent in Zambia, and among men from 2-3 percent in Niger and Nigeria to 25 percent in Zambia.

Table 4.5 Changes in percent distribution of women and men age 15–49 who know about HIV/AIDS by perceived risk of getting HIV/AIDS, in selected countries in sub-Saharan Africa, 1992–2006

	Perceived risk of getting HIV									
	Women					Men				
Country/year	No risk	Low risk	Moderate risk	High risk/has HIV	Number	No risk	Low risk	Moderate risk	High risk/has HIV	Number
West Africa										
Benin 1996	44.1	28.5	20.0	6.4	4,488	55.3	25.5	11.1	8.1	1,224
Burkina Faso 1998/99	35.9	44.7	7.9	9.3	5,619	21.3	57.2	13.6	7.8	2,264
Cameroon 1998	39.6	38.6	13.1	8.5	4,936	37.9	48.3	6.9	6.6	2,292
Chad 1996/97	38.3	34.9	13.4	13.3	4,470	33.3	42.8	7.3	16.6	1,906
Cote d'Ivoire 1998/99	36.0	39.8	13.0	11.1	2,938	33.7	52.1	8.1	5.8	795
Ghana 1998	53.6	22.3	4.4	5.3	4,683	58.1	22.6	4.4	5.2	1,367
Guinea 1999	34.1	39.3	10.5	16.0	6,409	64.7	26.1	4.3	4.7	1,686
Mali 1995/96	33.4	34.3	8.3	23.9	7,443	47.0	41.7	3.7	7.5	2,070
Niger 1998	72.2	18.2	7.1	2.2	4,136	74.9	18.3	4.7	2.0	2,798
Nigeria 1999	65.5	25.5	4.8	3.7	6,105	63.7	31.0	2.9	1.6	2,023
Nigeria 2003	61.3	12.7	2.9	2.0	6,577	59.9	23.7	3.9	2.9	2,031
East Africa										
Eritrea 1995	87.2	5.5	5.0	2.2	3,649	91.9	7.1	0.6	0.3	863
Eritrea 2002	74.9	14.1	7.6	3.3	8,416	n/a	n/a	n/a	n/a	n/a
Kenya 1998	32.1	34.2	23.9	9.6	7,804	29.6	47.2	18.1	5.0	3,202
Kenya 2003	35.7	39.5	15.4	9.1	8,073	33.6	51.8	9.8	4.7	3,344
Tanzania 1999	37.1	16.9	13.4	13.1	3,908	40.6	22.9	15.6	7.3	3,139
Southern Africa										
Madagascar 1997	48.0	7.9	4.9	8.6	4,867	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	53.5	11.4	3.9	4.3	6,283	41.8	27.1	5.2	4.3	1,944
Mozambique 1997	9.4	22.9	8.0	7.2	7,220	24.9	47.5	14.4	10.7	1,865
Mozambique 2003	20.5	14.3	27.8	6.1	11,879	10.7	16.1	0.0	8.5	2,435
Namibia 2000	22.7	27.8	10.3	13.6	6,626	31.9	29.8	5.2	13.3	2,751
Zambia 1996	45.2	24.3	21.1	9.4	7,986	56.6	29.9	9.9	3.4	1,722
Zambia 2001/02	31.1	17.0	26.2	25.7	7,603	37.5	19.6	17.8	25.1	1,947
Zimbabwe 2005/06	34.4	27.1	17.0	8.2	8,719	41.7	29.1	15.8	8.1	6,808

Table 4.5 also shows that, over time, there was little change in the percentage of people who perceived themselves at high risk of HIV or who already had HIV, in all countries with available data except for Zambia, where the percentage increased markedly among both women and men.

Differences between women and men in the perception of being at high risk of HIV were negligible in the southern African countries. Within west Africa, however, in Mali, Guinea, and Cote d'Ivoire women were much more likely than men to report being at a high risk of getting HIV or already having HIV, as was also the case in Kenya in east Africa.

4.6 Risk Perception of Contracting HIV, by Number of Sex Partners

Table 4.6 shows the percentage of women and men age 15–49 who believed that they had low risk or no risk of getting HIV and who had two or more sex partners in last 12 months, and those who perceived a low risk or no risk and who had three or more lifetime sexual partners. The percentage of respondents who believed that they had low risk or no risk of getting HIV and had two or more sex partners in last 12 months varied across countries. Also, higher proportions of men than women believed that they had a low risk or no risk of contracting HIV, even while having two or more sex partners in last 12 months. Among women, the percentage ranged from close to 1 percent in Chad, Niger, Nigeria, Burkina Faso, Kenya, Namibia, Zambia, and Zimbabwe to 7 percent in Cameroon. Among men, the range was from 5 percent in Eritrea to 32 percent in Cameroon.

In the four countries where data were available for two time points (Nigeria, Kenya, Mozambique, and Zambia), the proportion of men who believed that they had low risk or no risk of getting HIV and also had two or more sexual partners in last 12 months decreased substantially. Only two surveys, Tanzania 2004/05 and Zimbabwe 2005/06, provided information on both risk perception and number of lifetime sex partners. In Tanzania 18 percent of men, and in Zimbabwe 38 percent of men, reported a low risk or no risk of HIV infection, even though they also reported having three or more lifetime sexual partners.

Table 4.6 Changes in percentage of women and men age 15–49 who believe that they have a low/no risk of getting HIV and had 2+ sex partners in last 12 months, and percentage who believe that they have a low/no risk of getting HIV and have had 3+ lifetime sex partners, in selected countries in sub-Saharan Africa, 1992–2006

	Low/no risk with 2+ sex partners in the last 12 months[1]				Low/no risk with 3+ lifetime sex partners[2]			
	Women		Men		Women		Men	
Country/year	%	Number	%	Number	%	Number	%	Number
West Africa								
Benin 1996	1.6	3,385	18.3	1,065	n/a	n/a	n/a	n/a
Burkina Faso 1998/99	1.3	3,934	11.3	1,534	n/a	n/a	n/a	n/a
Cameroon 1998	7.3	4,005	32.3	1,854	n/a	n/a	n/a	n/a
Chad 1996/97	0.8	3,518	12.3	1,492	n/a	n/a	n/a	n/a
Cote d'Ivoire 1998/99	3.2	2,260	21.6	628	n/a	n/a	n/a	n/a
Ghana 1998	n/a	n/a	12.6	872	n/a	n/a	n/a	n/a
Guinea 1999	3.1	4,361	20.1	1,267	n/a	n/a	n/a	n/a
Mali 1995/96	n/a	n/a	7.8	1,654	n/a	n/a	n/a	n/a
Niger 1998	0.5	3,269	8.5	1,975	n/a	n/a	n/a	n/a
Nigeria 1999	n/a	n/a	21.2	1,400	n/a	n/a	n/a	n/a
Nigeria 2003	1.4	5,096	16.0	1,354	n/a	n/a	n/a	n/a
East Africa								
Eritrea 1995	n/a	n/a	5.3	526	n/a	n/a	n/a	n/a
Kenya 1998	1.8	5,882	15.1	2,560	n/a	n/a	n/a	n/a
Kenya 2003	1.1	5,655	11.0	2,375	n/a	n/a	n/a	n/a
Tanzania 2004/05	n/a	n/a	n/a	n/a	n/a	n/a	18.0	2,212
Southern Africa								
Madagascar 1997	3.9	3,930	n/a	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	1.7	5,008	12.0	1,656	n/a	n/a	n/a	n/a
Mozambique 1997	n/a	n/a	25.8	1,586	n/a	n/a	n/a	n/a
Mozambique 2003	1.9	9,432	8.4	2,077	n/a	n/a	n/a	n/a
Namibia 2000	1.4	4,512	12.1	2,092	n/a	n/a	n/a	n/a
Zambia 1996	2.2	6,039	19.0	1,359	n/a	n/a	n/a	n/a
Zambia 2001/02	0.9	5,584	11.1	1,557	n/a	n/a	n/a	n/a
Zimbabwe 2005/06	0.6	5,766	7.5	4,372	5.4	6,927	37.5	5,056

[1] **Based on women and men age 15–49 who have heard about HIV/AIDS and who had sex in last 12 months.**
[2] **Based on women and men age 15–49 who have heard about HIV/AIDS and who have ever had sex.**

5 Attitudes Related to HIV/AIDS

This chapter presents findings about accepting attitudes toward people living with HIV (PLHIV) and attitudes toward sex education, among women and men age 15–49. People living with HIV often suffer stigma and discrimination in their communities, which can adversely affect willingness to be tested for HIV and adherence to antiretroviral therapy.

5.1 Accepting Attitudes toward PLHIV

In the DHS surveys, respondents were asked about four aspects of acceptance of people with HIV: whether they would want to keep it secret that a family member had HIV; whether they would be willing to care for a family member or relative with HIV; whether they believed that a female teacher (some surveys did not specify the gender of the teacher) living with HIV should be allowed to continue teaching; and whether they would buy fresh vegetables from a vendor who had HIV.

Table 5.1 presents data based on responses of women and men who had heard about HIV/AIDS. The percentage who responded positively to all four indicators of acceptance ranged, among women, from 2 percent in Guinea to 46 percent in Rwanda, and among men from 6 percent in Guinea to 51 percent in Rwanda.

The percentage of respondents who did not want the HIV-positive status of a family member to remain secret varied across countries, among women from 32 percent in Senegal to 81 percent in Benin and Eritrea, and among men from 40 percent in Senegal to 78 percent in Madagascar (Table 5.1). Similarly, the percentage of respondents who would be willing to care for a family member or relative with HIV ranged, among women, from 40 percent in Benin to 94 percent in Rwanda and Malawi, and among men from 40 percent in Nigeria to 96 percent in Malawi.

The percentage of respondents who believed that a female teacher living with HIV should be allowed to continue teaching also varied across countries—among women from 20 percent in Guinea to 74 percent in Rwanda, and among men from 27 percent in Nigeria to 80 percent in Rwanda and Malawi. The proportion who would buy fresh vegetables from a vendor who had HIV ranged from 9 percent in Guinea to 69 percent in Rwanda among women, and from 18 percent in Chad to 84 percent in Malawi among men (Table 5.1).

In Ghana, Ethiopia, Rwanda, Uganda, Malawi, and Zimbabwe, the countries where data were available for more than one time point, changes in accepting attitudes toward PLHIV were similar. Among both women and men there was an increase in willingness to care for a family member or relative with HIV. Also, the proportion who would not want the HIV-positive status of a family member to remain secret declined among both women and men, with the exception of women in Uganda, where it increased slightly.

Table 5.1 Among women and men age 15–49 who have heard about HIV/AIDS, changes in percentage expressing specific attitudes toward people living with HIV, in selected countries in sub-Saharan Africa, 1992–2006

	Attitudes toward people living with HIV/AIDS								Having all four accepting attitudes toward people living with HIV		Number	
	Would not want the HIV· status of a family member to remain secret		Willing to care for a family member who has HIV		Would allow a female* teacher with HIV to continue teaching		Would buy vegetables from a vendor who has HIV					
Country/year	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
West Africa												
Benin 2001	80.7	75.9	40.1	47.5	n/a	n/a	n/a	n/a	n/a	n/a	5,940	2,407
Burkina Faso 2003	42.8	65.7	75.6	80.9	n/a	n/a	n/a	n/a	n/a	n/a	11,953	3,098
Cameroon 2004	37.8	55.1	69.3	82.3	47.9	55.7	41.2	50.0	9.0	18.5	10,423	4,777
Chad 2004	52.9	40.6	75.0	50.5	59.2	47.0	27.4	18.3	9.5	8.9	4,861	1,511
Cote d'Ivoire 2005	33.4	52.4	82.6	85.8	59.5	65.0	45.4	52.3	8.9	22.0	4,658	4,259
Ghana 1998	n/a	n/a	51.1	49.1	n/a	n/a	n/a	n/a	n/a	n/a	4,683	1,367
Ghana 2003	58.5	65.5	68.4	72.0	38.0	49.0	25.6	35.9	8.5	14.4	5,597	4,497
Guinea 2005	71.2	72.8	47.2	71.1	20.3	34.6	8.5	20.8	1.7	6.2	7,715	2,676
Mali 2001	74.3	77.1	65.4	81.8	44.7	46.6	n/a	n/a	n/a	n/a	11,608	2,947
Niger 2005	59.6	56.8	56.3	79.4	27.9	40.2	15.4	31.2	4.5	11.1	7,660	2,935
Nigeria 2003	60.9	70.2	43.8	39.9	23.0	26.8	19.6	68.9	3.3	7.8	6,577	2,031
Senegal 2005	32.0	40.3	70.9	83.4	38.8	44.5	26.4	36.1	3.9	9.3	14,113	3,345

(Cont'd)

Table 5.1 – cont'd

Country/year	Attitudes toward people living with HIV/AIDS: Would not want the HIV+ status of a family member to remain secret		Willing to care for a family member who has HIV		Would allow a female* teacher with HIV to continue teaching		Would buy vegetables from a vendor who has HIV		Having all four accepting attitudes toward people living with HIV		Number	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
East Africa												
Eritrea 2002	81.3	n/a	66.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8,416	n/a
Ethiopia 2000	78.0	87.4	45.3	50.3	n/a	n/a	n/a	n/a	n/a	n/a	13,010	2,208
Ethiopia 2005	65.2	77.1	59.0	71.6	41.5	51.8	19.9	26.1	10.7	16.7	12,643	5,273
Kenya 1998	n/a	n/a	79.3	85.2	n/a	n/a	n/a	n/a	n/a	n/a	7,804	3,202
Kenya 2003	58.8	71.5	84.1	87.5	57.0	59.7	60.1	73.5	26.5	39.5	8,073	3,344
Rwanda 2000	83.0	85.4	79.9	88.0	n/a	n/a	n/a	n/a	n/a	n/a	10,384	2,523
Rwanda 2005	77.1	73.4	93.5	95.8	74.4	79.5	68.9	79.8	46.1	51.0	11,308	4,410
Tanzania 2004/05	52.7	62.3	89.5	89.8	71.7	67.9	45.2	20.5	21.7	8.7	10,216	2,612
Uganda 2000/01	48.2	69.6	84.5	87.8	43.3	43.4	n/a	n/a	n/a	n/a	7,227	1,879
Uganda 2006	52.5	62.0	90.1	91.3	68.2	70.8	57.7	75.1	25.9	36.1	8,464	2,382
Southern Africa												
Madagascar 2003/04	52.8	78.0	55.9	54.6	n/a	n/a	n/a	n/a	n/a	n/a	6,283	1,944
Malawi 2000	n/a	n/a	93.6	95.8	n/a	n/a	n/a	n/a	n/a	n/a	13,076	2,905
Malawi 2004	64.8	47.7	n/a	n/a	66.6	79.5	66.6	83.9	n/a	n/a	11,532	3,099
Mozambique 2003	44.4	53.6	80.8	82.6	56.7	64.4	30.0	41.8	7.9	16.0	11,879	2,436
Namibia 2000	66.5	63.3	92.5	92.3	68.5	55.5	n/a	n/a	n/a	n/a	6,626	2,752
Zambia 2001/02	58.2	68.0	90.2	89.8	n/a	n/a	n/a	n/a	n/a	n/a	7,603	1,947
Zimbabwe 1999	58.1	63.6	87.5	88.4	n/a	n/a	n/a	n/a	n/a	n/a	5,698	2,482
Zimbabwe 2005/06	49.2	45.7	91.0	70.9	71.4	74.6	56.8	67.3	17.1	10.7	8,719	6,808

***Some surveys did not specify gender.**

In Uganda, the only country where data from two time points were available concerning attitudes allowing a female teacher with HIV to continue teaching, there were considerable increases (almost 25 percentage points) in the proportion of both women and men who would allow a teacher to continue teaching. Among women, the proportion rose from 44 percent to 68 percent, and among men from 43 percent to 71 percent.

5.2 Attitudes toward Sex Education

Table 5.2 presents the percentage of women and men age 15–49 who had heard of HIV/AIDS and who believed that children age 12–14 should be taught to wait until marriage to have sexual intercourse, and the percentage who believed that children age 12–14 years should be taught about condom use to prevent HIV infection. The proportion who believed that children age 12–14 should be taught to wait until marriage to have sex was over 80 percent among women and men in all countries, with the exception of women in Ethiopia (41 percent). The proportion who believed that children age 12–14 should be taught about condom use to prevent HIV infection varied considerably: among women from 29 percent in Ethiopia to 82 percent in Namibia, and among men from 45 percent in Nigeria to 81 percent in Namibia and Rwanda.

Where data for two time points were available (Rwanda, Malawi, and Zimbabwe), the patterns of change varied. In Rwanda the percentage who believed that children age 12–14 should be taught about condom use to prevent HIV infection increased, among women from 67 percent to 80 percent, and among men from 72 percent to 81 percent. In Malawi, however, the percentage declined from 55 percent to 50 percent among women, and from 66 percent to 57 percent among men. In Zimbabwe the percentage of women who believed that children should be taught about condom use increased from 37 percent to 41 percent, but among men it decreased from 50 percent to 47 percent.

Table 5.2 Among women and men age 15–49 who have heard about HIV/AIDS, changes in percentage who believe that children age 12–14 should be taught to wait till marriage to have sexual intercourse, and percentage who believe that children age 12–14 should be taught about condom use to prevent HIV infection, in selected countries in sub-Saharan Africa, 1992–2006

	Believe that children age 12–14 should be taught					
	to wait till marriage to have sex		about condom use to prevent HIV infection		Number	
Country/year	Women	Men	Women	Men	Women	Men
West Africa						
Benin 2001	n/a	n/a	68.2	68.9	5,940	2,407
Burkina Faso 2003	n/a	n/a	n/a	71.1	11,953	3,098
Cameroon 2004	n/a	n/a	60.4	72.8	10,423	4,777
Chad 2004	n/a	n/a	53.8	67.8	4,861	1,511
Cote d'Ivoire 2005	83.3	80.2	68.5	77.1	4,658	4,259
Ghana 2003	n/a	n/a	59.1	64.0	5,597	4,497
Guinea 2005	91.4	92.0	64.1	72.2	7,715	2,676
Mali 2001	n/a	n/a	69.6	66.3	11,608	2,947
Niger 2005	93.1	92.9	68.0	73.2	7,660	2,935
Nigeria 2003	n/a	n/a	40.6	44.8	6,577	2,031
Senegal 2005	95.9	91.4	52.0	54.0	14,113	3,345
East Africa						
Ethiopia 2005	41.1	94.2	28.9	78.7	12,643	5,273
Kenya 2003	n/a	n/a	58.8	62.0	8,073	3,344
Rwanda 2000	n/a	n/a	66.6	71.5	10,384	2,523
Rwanda 2005	95.2	90.8	79.6	80.9	11,308	4,410
Tanzania 2004/05	92.2	n/a	65.0	71.7	10,216	2,612
Uganda 2000/01	n/a	n/a	64.6	57.8	7,227	1,879
Southern Africa						
Madagascar 2003/04	n/a	n/a	52.3	68.5	6,283	1,944
Malawi 2000	n/a	n/a	55.1	65.8	13,076	2,905
Malawi 2004	n/a	n/a	50.2	56.5	11,532	3,099
Mozambique 2003	n/a	n/a	65.9	69.3	11,879	2,436
Namibia 2000	n/a	n/a	82.0	81.2	6,626	2,752
Zambia 2001/02	n/a	n/a	55.8	67.4	7,603	1,947
Zimbabwe 1999	n/a	n/a	37.3	50.0	5,698	2,482
Zimbabwe 2005/06	95.4	95.8	40.6	46.7	8,719	6,808

6 Sexual Behavior

This chapter presents indicators related to sexual behavior among adult women and men. The sexual behavior indicators discussed include: median age at first sex, multiple sexual partners (lifetime and recent), higher-risk sex, extramarital sex, paid sex among men, ever having used condoms, condom use at last sex, consistent condom use, condom use at last higher-risk sex, and alcohol use at last sexual encounter.

6.1 Median Age at First Sex

Table 6.1 presents the median age at first sexual intercourse among women and men age 20–24. Median age at first sex varied across countries and differed among women and men. For the most recent surveys, the median age at first sex ranged from 15.8 years in Niger to 21.5 years in Rwanda among women, and from 16.6 years in Kenya to 22.0 years in Niger among men.

Comparing the more recent surveys with the earlier round shows a mixed pattern of changes in median age at first sex. Among women, the greatest change occurred in Rwanda, where the median age at first sex rose by 1.5 years. Among men, the greatest change was in Niger, where the median age rose by 1.7 years. In most other countries the medians changed little.

Table 6.1 Changes in median age at first sex among women and men age 20–24, in selected countries in sub-Saharan Africa, DHS 1992–2006

	Median age at first sex			
	Women		Men	
Country/year	Median age	Number	Median age	Number
West Africa				
Benin 1996	17.2	1,020	17.6	295
Benin 2001	17.2	1,215	17.3	409
Burkina Faso 1998/99	17.3	1,159	20.0	395
Burkina Faso 2003	17.5	2,274	19.2	563
Cameroon 1998	16.3	1,128	17.0	528
Cameroon 2004	16.7	2,252	18.0	953
Chad 1996/97	16.0	1,369	18.4	373
Chad 2004	15.9	1,072	18.8	267
Cote d'Ivoire 1998/99	16.2	577	17.5	158
Cote d'Ivoire 2005	16.5	1,128	17.7	938
Ghana 1998	17.5	900	19.5	245
Ghana 2003	18.4	1,012	19.6	684
Guinea 1999	16.0	1,086	17.5	298
Guinea 2005	16.4	1,152	17.7	482
Mali 1995/96	15.9	1,594	18.7	286
Mali 2001	15.9	2,339	18.6	463
Niger 1998	16.2	1,364	20.3	501
Niger 2005	15.8	1,651	22.0	491
Nigeria 1999	18.1	1,521	19.6	319
Nigeria 2003	17.6	1,494	20.3	427

(Cont'd)

Table 6.1 – cont'd

	Median age at first sex			
	Women		Men	
Country/year	Median age	Number	Median age	Number
Senegal 1997	19.3	1,664	19.8	824
Senegal 2005	19.6	2,844	19.1	645
East Africa				
Eritrea 1995	17.9	823	n/a	n/a
Eritrea 2002	18.3	1,454	n/a	n/a
Ethiopia 2000	18.1	2,860	21.6	408
Ethiopia 2005	18.2	2,547	n/a	n/a
Kenya 1998	17.3	1,548	16.2	589
Kenya 2003	18.1	1,692	16.6	681
Rwanda 2000	20.0	1,907	20.1	433
Rwanda 2005	21.5	2,354	21.1	946
Tanzania 1999	16.9	811	17.5	540
Tanzania 2004/05	17.1	2,007	18.3	493
Uganda 2000/01	16.7	1,504	18.8	321
Uganda 2006	16.9	1,710	18.0	402
Southern Africa				
Madagascar 1997	17.0	1,325	n/a	n/a
Madagascar 2003/04	17.3	1,391	17.8	416
Malawi 2000	17.1	2,957	17.7	598
Malawi 2004	17.4	2,870	18.1	587
Mozambique 1997	16.0	1,664	17.2	333
Mozambique 2003	16.0	2,456	16.9	404
Namibia 1992	18.6	1,119	n/a	n/a
Namibia 2000	18.2	1,339	16.7	610
Zambia 1996	16.6	1,830	16.0	404
Zambia 2001/02	17.0	1,664	17.0	346
Zimbabwe 1999	18.9	1,294	19.5	506
Zimbabwe 2005/06	18.8	1,952	19.7	1,459

6.2 Multiple Sexual Partnerships

The DHS surveys include questions on respondents' sexual partnerships during their lifetime and during the 12 months preceding the survey. Table 6.2 presents percent distributions of women and men age 15–49 by number of lifetime sex partners, and the percentage having two or more sex partners in last 12 months.

Table 6.2 Changes in percent distribution of women and men age 15–49 by number of lifetime sex partners, and change in percentage having 2+ sex partners in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	Number of lifetime sex partners										Had 2+ sex partners in last 12 months[1]			
	Women					Men					Women		Men	
	0	1	2	3+		0	1	2	3+					
Country/year	%	%	%	%	Number	%	%	%	%	Number	%	Number	%	Number
West Africa														
Benin 1996	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.6	4,064	26.3	1,105
Benin 2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.6	4,617	28.2	1,957
Burkina Faso 1998/99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.9	4,389	15.7	1,554
Burkina Faso 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.4	8,168	23.4	2,014
Cameroon 1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11.5	4,441	40.7	1,879
Cameroon 2004	12.9	31.2	17.9	37.8	10,656	17.8	8.9	7.9	65.3	4,815	7.6	8,060	40.4	3,660
Chad 1996/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.3	5,770	18.5	1,609
Chad 2004	13.2	66.1	15.6	5.1	6,085	21.3	17.8	13.4	47.5	1,682	1.1	4,512	23.4	1,232
Cote d'Ivoire 1998/99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.8	2,320	30.5	630
Cote d'Ivoire 2005	9.2	31.7	23.2	34.3	5,183	12.3	8.0	9.5	66.7	4,503	4.5	4,116	30.5	3,497
Ghana 1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16.4	876
Ghana 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.6	3,863	15.5	2,906
Guinea 1999	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.6	4,597	23.2	1,292
Guinea 2005	9.3	55.3	22.6	11.5	7,954	14.5	10.1	13.4	58.6	2,709	3.0	5,345	33.3	2,014
Mali 1995/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.3	1,694
Mali 2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.4	10,840	22.7	2,259
Niger 1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.6	6,318	11.2	2,154
Niger 2005	9.5	70.9	16.3	2.8	9,223	26.4	31.2	20.3	21.2	3,101	0.8	7,658	18.5	2,067
Nigeria 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.0	5,855	22.3	1,373
Senegal 2005	26.6	68.7	2.7	0.7	14,602	29.3	15.6	14.4	37.1	3,415	1.8	9,238	22.9	1,983

(Cont'd)

Table 6.2 – cont'd

Country/year	Number of lifetime sex partners										Had 2+ sex partners in last 12 months[1]			
	Women					Men					Women		Men	
	0	1	2	3+		0	1	2	3+					
	%	%	%	%	Number	%	%	%	%	Number	%	Number	%	Number
East Africa														
Eritrea 1995	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.5	591
Ethiopia 2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.6	10,007	10.7	1,419
Ethiopia 2005	24.0	54.9	14.9	5.8	6,751	36.9	29.4	14.0	19.2	5,464	0.2	4,354	4.1	3,121
Kenya 1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.9	5,924	23.1	2,566
Kenya 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.5	5,710	16.5	2,380
Rwanda 2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.5	5,301	4.2	1,427
Rwanda 2005	31.0	49.2	14.2	5.5	11,321	30.9	26.5	17.6	24.9	4,413	0.6	5,887	5.1	2,399
Tanzania 2004/05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.3	8,038	30.1	1,975
Uganda 2000/01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.1	5,594	24.6	1,376
Uganda 2006	14.7	38.4	23.0	23.4	8,531	18.8	11.1	12.6	55.9	2,385	2.4	6,266	28.7	1,703
Southern Africa														
Madagascar 1997	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8.2	5,619	n/a	n/a
Madagascar 2003/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.3	6,201	20.0	1,851
Malawi 2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.0	10,360	18.3	2,303
Malawi 2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.1	9,087	11.8	2,402
Mozambique 1997	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	39.8	1,650
Mozambique 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.2	9,824	35.5	2,117
Namibia 2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.9	4,568	21.5	2,094
Zambia 1996	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.7	6,056	26.2	1,364
Zambia 2001/02	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.8	5,613	26.8	1,568
Zimbabwe 1999	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.4	4,132	18.8	1,711
Zimbabwe 2005/06	20.7	52.2	16.9	9.9	8,907	26.1	14.1	13.4	45.0	6,863	1.3	5,879	14.1	4,382

[1] **Based on women and men age 15–49 who had sex in last 12 months.**

Across all countries studied, a much higher percentage of men than women had two or more sexual partners in last 12 months, and had three or more lifetime partners (Table 6.2). The percentage of women with two or more partners was less than 5 percent in the majority of countries, and over time this level either remained fairly constant or declined (Figure 6.1a). Among men, the percentage declined in five countries in east Africa and southern Africa (Ethiopia, Kenya, Malawi, Mozambique, and Zimbabwe). However, the percentage reporting multiple partners increased in several west African countries (Burkina Faso, Chad, Guinea, Mali, and Niger), and remained high in the others (Figure 6.1b).

Figure 6.1a Changes in percentage of women age 15–49 who had 2+ sexual partners in last 12 months, 1996–2006

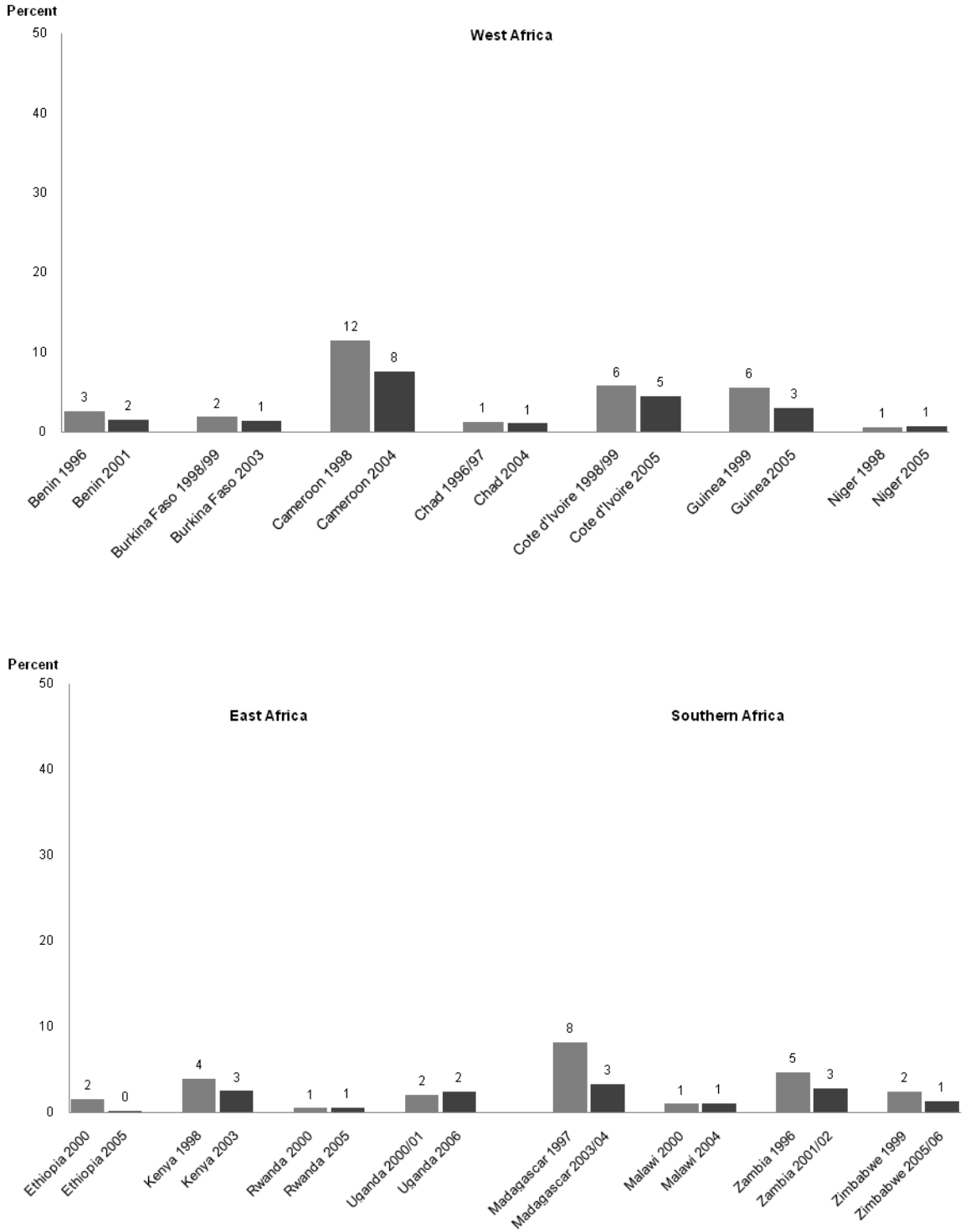
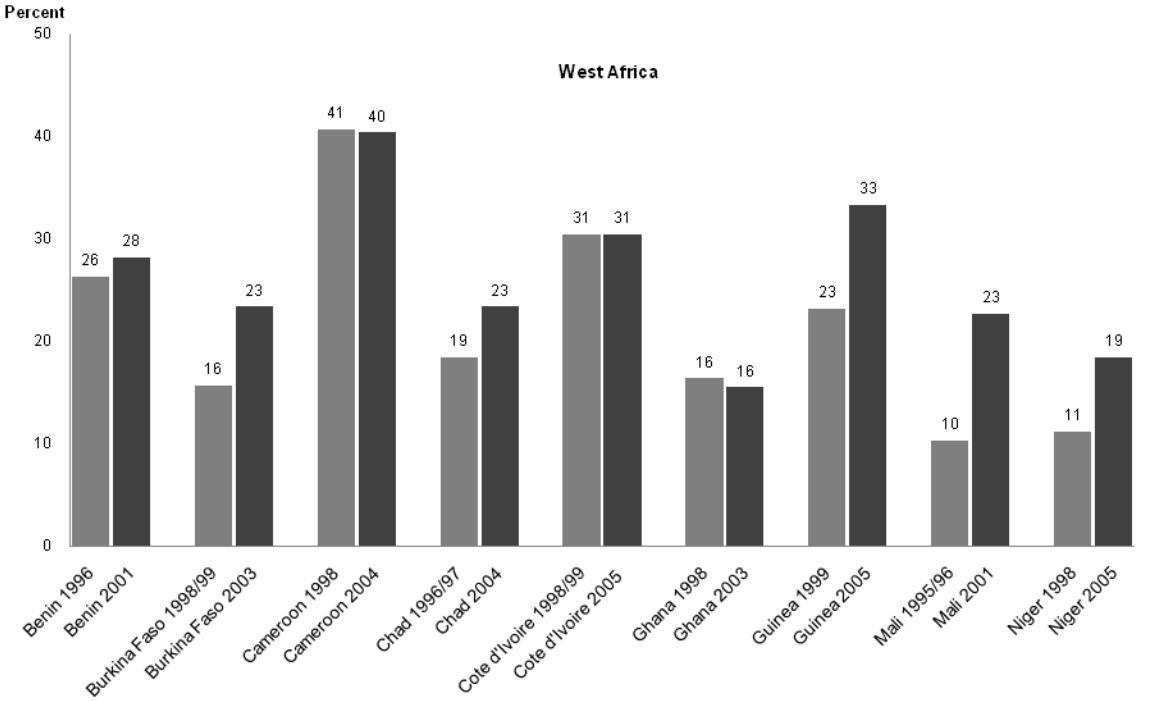
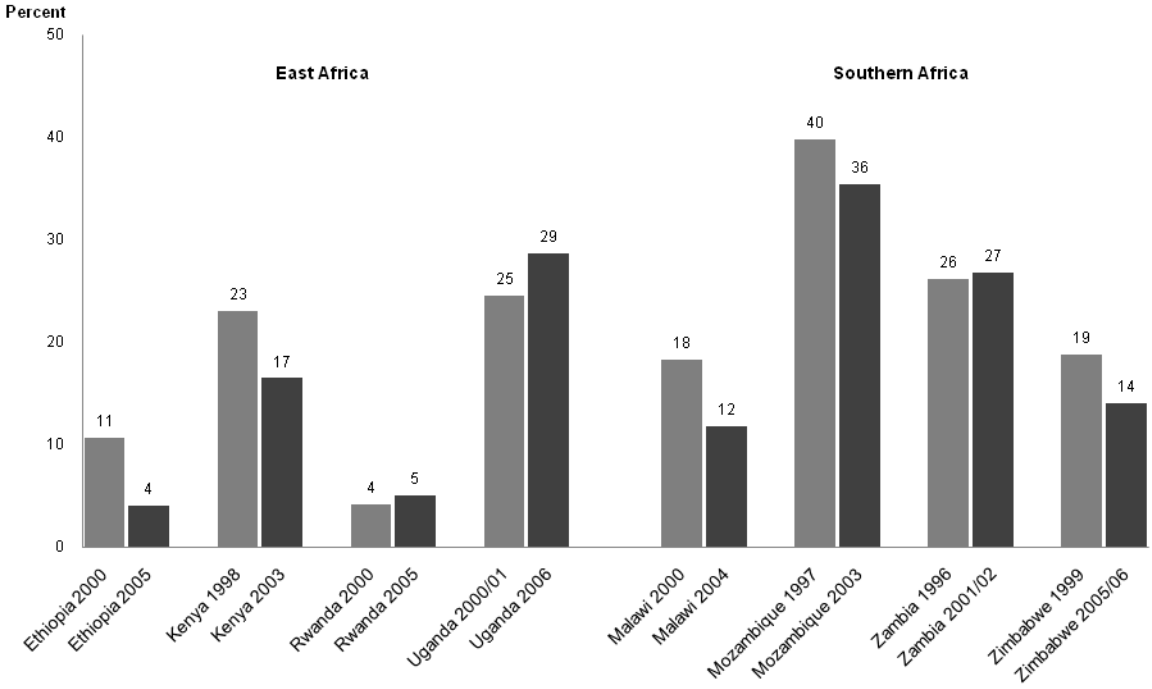


Figure 6.1b Changes in percentage of men age 15–49 who had 2+ sexual partners in last 12 months, 1995–2006





6.3 Higher-Risk Sex

Table 6.3 presents the percentage of women and men age 15–49 who had higher-risk sex (that is, sex with someone other than a marital or cohabiting partner) in the 12 months preceding the survey, among those who reported having had sex in last 12 months. In all countries studied, a larger percentage of men than women reported having higher-risk sex in last 12 months. The proportion of respondents who reported higher-risk sex varied widely in the recent round of surveys, among women from less than 1 percent in Niger to 55 percent in Namibia, and was substantially higher among men, from 9 percent in Ethiopia and Niger to 62 percent in Namibia and Cameroon.

Table 6.3 Changes in percentage of women and men age 15–49 who had higher-risk sex in last 12 months, percentage who had extramarital sex in last 12 months, and percentage who paid for sex in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	Had higher-risk sex in last 12 months[1]				Had extramarital sex in last 12 months[2]				Paid for sex in last 12 months[3]	
	Women		Men		Women		Men		Men	
Country/year	%	Number	%	Number	%	Number	%	Number	%	Number
West Africa										
Benin 1996	13.6	4,064	50.2	1,105	1.0	3,546	33.1	822	2.1	1,105
Benin 2001	16.3	4,618	50.5	1,957	1.5	3,848	27.0	1,313	0.6	1,957
Burkina Faso 1998/99	8.3	4,389	35.2	1,554	0.8	4,056	8.7	1,103	0.9	1,554
Burkina Faso 2003	10.3	8,168	38.8	2,014	1.2	7,364	13.7	1,418	0.3	2,014
Cameroon 1998	28.3	4,441	64.4	1,880	5.7	3,375	38.1	1,080	2.7	1,880
Cameroon 2004	28.7	8,060	61.9	3,660	14.1	6,570	38.7	2,214	4.5	3,660
Chad 1996/97	7.3	5,770	32.8	1,609	0.7	5,386	15.1	1,273	3.0	1,609
Chad 2004	3.9	4,512	33.5	1,232	1.5	4,292	14.9	942	2.2	1,232
Cote d'Ivoire 1998/99	31.9	2,320	63.9	630	2.2	1,615	30.7	329	1.2	630
Cote d'Ivoire 2005	33.2	4,116	57.7	3,497	4.8	2,834	24.4	1,904	n/a	n/a
Ghana 2003	20.8	3,863	38.3	2,906	3.7	3,116	15.7	2,109	2.4	2,906
Guinea 1999	12.9	4,597	57.0	1,292	4.8	4,206	29.7	789	0.5	1,292
Guinea 2005	15.6	5,345	53.6	2,014	4.8	4,692	26.8	1,267	0.5	2,014
Mali 1995/96	7.2	8,412	27.9	1,694	0.0	7,803	7.6	1,321	0.8	1,694
Mali 2001	7.7	10,840	33.5	2,259	2.0	10,108	12.7	1,701	0.3	2,259
Niger 1998	2.9	6,318	20.2	2,154	0.1	6,136	6.5	1,838	3.3	2,154
Niger 2005	0.7	7,658	8.8	2,067	0.1	7,529	1.9	1,904	2.1	2,067
Nigeria 1999	13.7	5,910	28.2	1,526	0.0	5,100	0.0	1,097	6.8	1,526
Nigeria 2003	13.9	5,855	39.1	1,373	0.9	4,989	14.6	970	4.4	1,373
Senegal 2005	5.9	9,238	42.7	1,983	3.8	8,913	21.4	1,442	0.6	1,983
East Africa										
Eritrea 1995	3.9	3,348	14.6	591	0.0	3,217	3.4	523	2.5	591
Ethiopia 2000	4.5	10,007	19.9	1,419	1.3	9,349	4.9	1,169	4.4	1,419
Ethiopia 2005	2.7	4,354	8.5	3,121	0.5	4,142	0.8	2,840	0.7	3,121
Kenya 1998	21.9	5,924	49.0	2,566	1.6	4,702	17.2	1,581	0.9	2,566
Kenya 2003	17.6	5,710	39.6	2,380	2.3	4,693	11.1	1,597	4.1	2,380

(Cont'd)

Table 6.3 – cont'd

Country/year	Had higher-risk sex in last 12 months[1]				Had extramarital sex in last 12 months[2]				Paid for sex in last 12 months[3]	
	Women		Men		Women		Men		Men	
	%	Number	%	Number	%	Number	%	Number	%	Number
Rwanda 2000	6.4	5,301	13.0	1,427	0.4	4,814	1.7	1,246	1.4	1,427
Rwanda 2005	8.1	5,887	13.6	2,399	0.5	5,279	3.0	2,114	0.4	2,399
Tanzania 2004/05	19.0	8,038	45.2	1,975	3.4	6,599	22.4	1,374	2.8	1,975
Uganda 2000/01	13.8	5,594	29.1	1,376	2.4	4,735	12.3	1,096	1.7	1,376
Uganda 2006	15.9	6,266	36.2	1,704	1.3	5,142	19.1	1,324	4.1	1,704
Southern Africa										
Madagascar 2003/04	16.8	6,201	38.1	1,851	1.4	5,079	14.3	1,321	5.0	1,851
Malawi 2000	8.9	10,361	36.1	2,303	0.6	9,061	14.8	1,705	10.2	2,303
Malawi 2004	8.3	9,087	26.9	2,402	0.8	8,004	8.3	1,894	6.5	2,402
Mozambique 2003	21.8	9,825	52.1	2,117	3.8	7,664	28.1	1,398	15.5	2,117
Namibia 2000	54.6	4,568	62.0	2,094	18.4	2,438	20.5	861	2.1	2,094
Zambia 1996	23.2	6,056	52.8	1,364	1.5	4,722	20.9	814	3.0	1,364
Zambia 2001/02	17.5	5,613	45.4	1,568	1.8	4,496	21.6	1,076	13.2	1,568
Zimbabwe 1999	13.6	4,132	42.6	1,711	1.1	3,520	14.9	1,142	10.2	1,711
Zimbabwe 2005/06	11.4	5,879	35.7	4,382	0.6	5,018	10.8	3,102	5.8	4,382

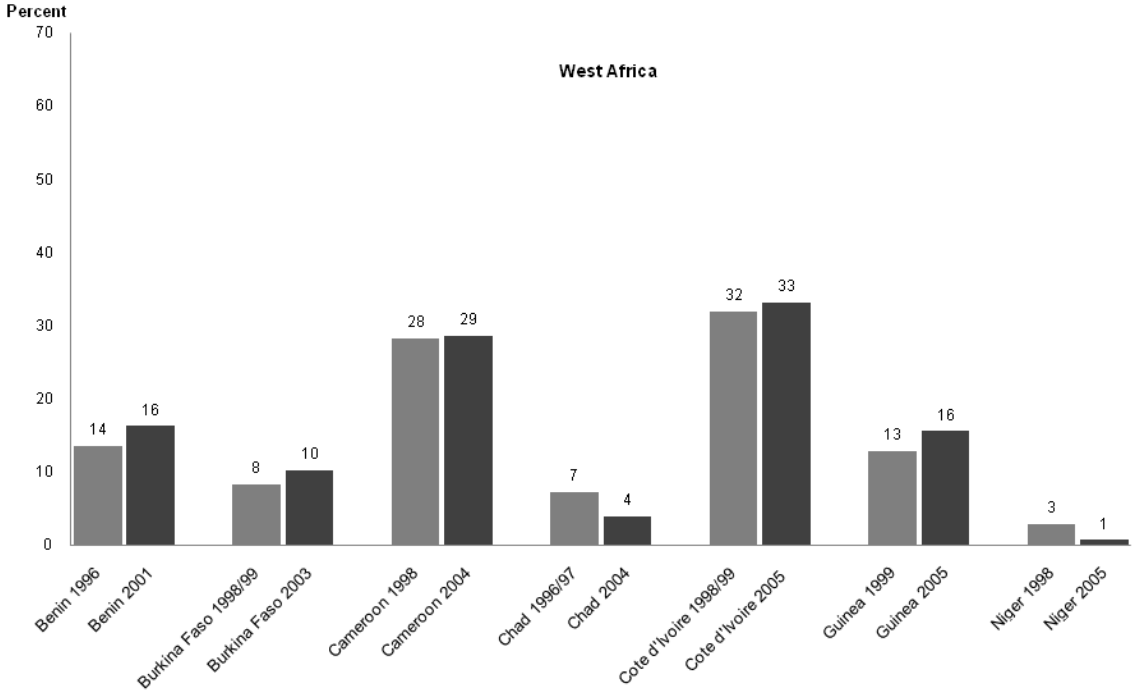
[1] Higher-risk sex is defined as sex with someone other than a marital or cohabiting partner and is based on women and men age 15–49 who had sex in last 12 months.

[2] Extramarital sex is defined as sex with someone other than a marital or cohabiting partner and is based on women and men age 15–49 who were currently in union and had sex in past 12 months.

[3] Based on men age 15–49 who had sex in last 12 months.

Comparing the two survey rounds, there was no clear direction for changes in the proportion of women and men reporting higher-risk sex. In slightly more than one-half of the countries, the percentage reporting higher-risk sex declined by a few percentage points, but in the rest of the countries it increased slightly or remained unchanged (Figures 6.2a and 6.2b). Most noticeably, Burkina Faso, Mali, Nigeria, and Uganda observed a substantial increase in the proportion of men reporting higher-risk sex.

Figure 6.2a Changes in percentage of women age 15–49 who had higher-risk sex in last 12 months, 1996–2006



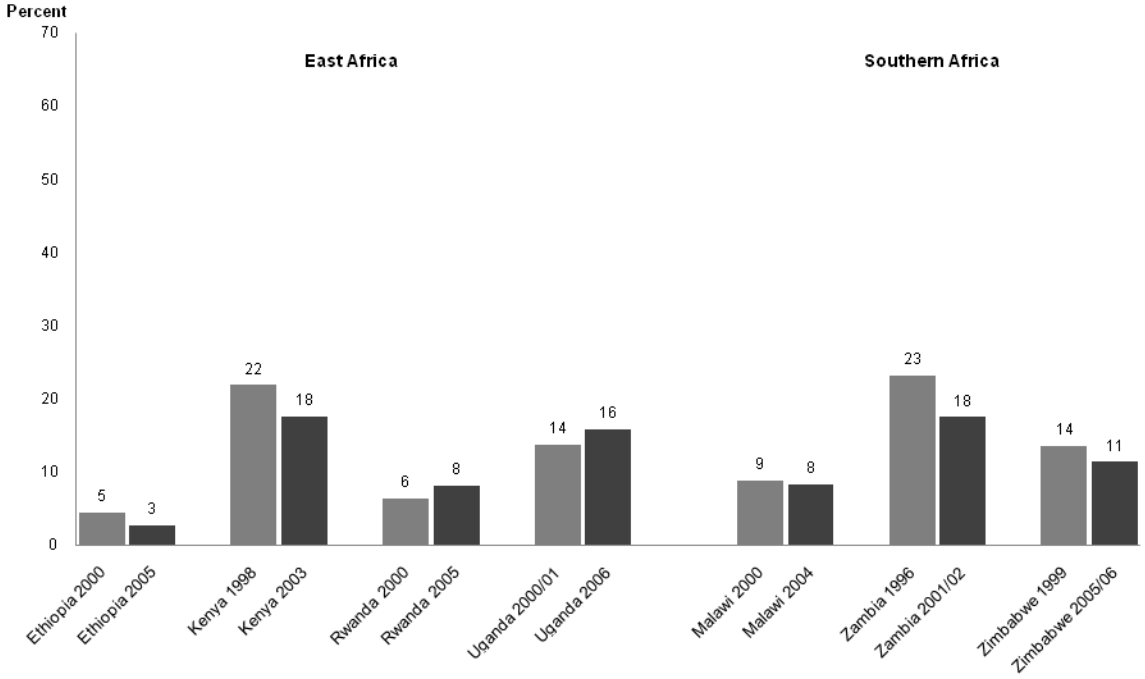
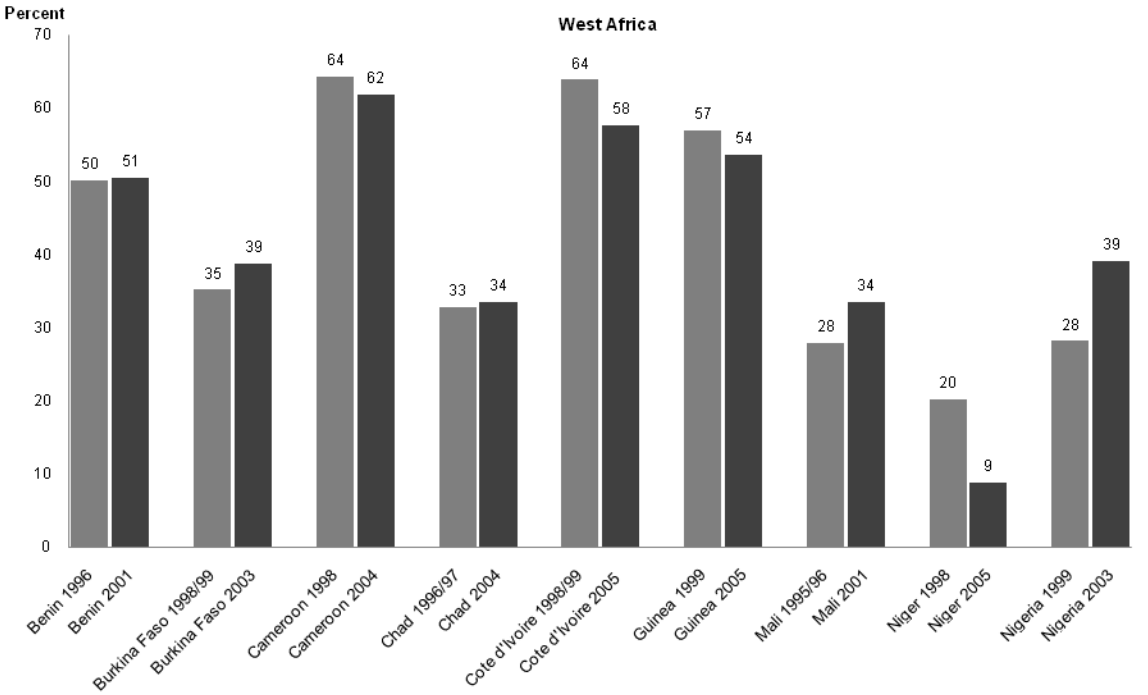
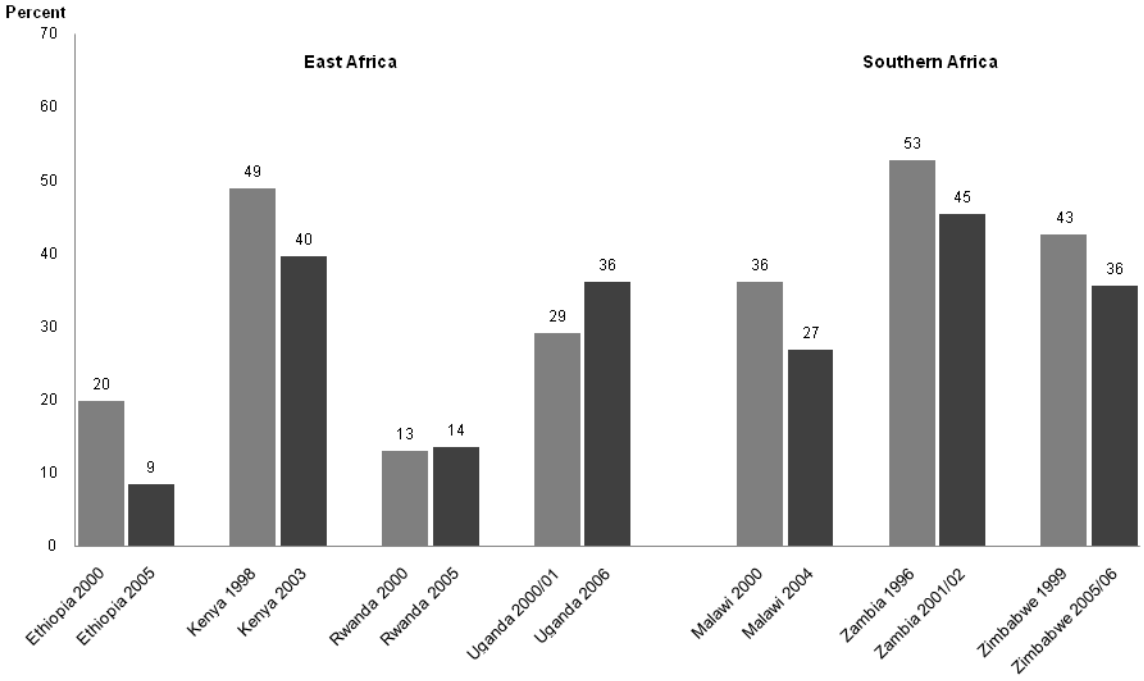


Figure 6.2b Changes in percentage of men age 15–49 who had higher-risk sex in last 12 months, 1995–2006





6.4 Extramarital Sex

Extramarital sex, for women and men currently in union, is defined as sex with someone other than a marital or cohabiting partner in last 12 months. The percentage of women and men in union who reported having extramarital sex varied greatly across countries. In the more recent surveys, among women it ranged from less than 1 percent in Niger, Nigeria, Ethiopia, Rwanda, Malawi, and Zimbabwe to 14 percent in Cameroon and 18 percent in Namibia, and among men from less than 2 percent in Ethiopia and Niger to 39 percent in Cameroon (Table 6.3). In all of the countries, the reported level of extramarital sex was substantially higher among men than among women.

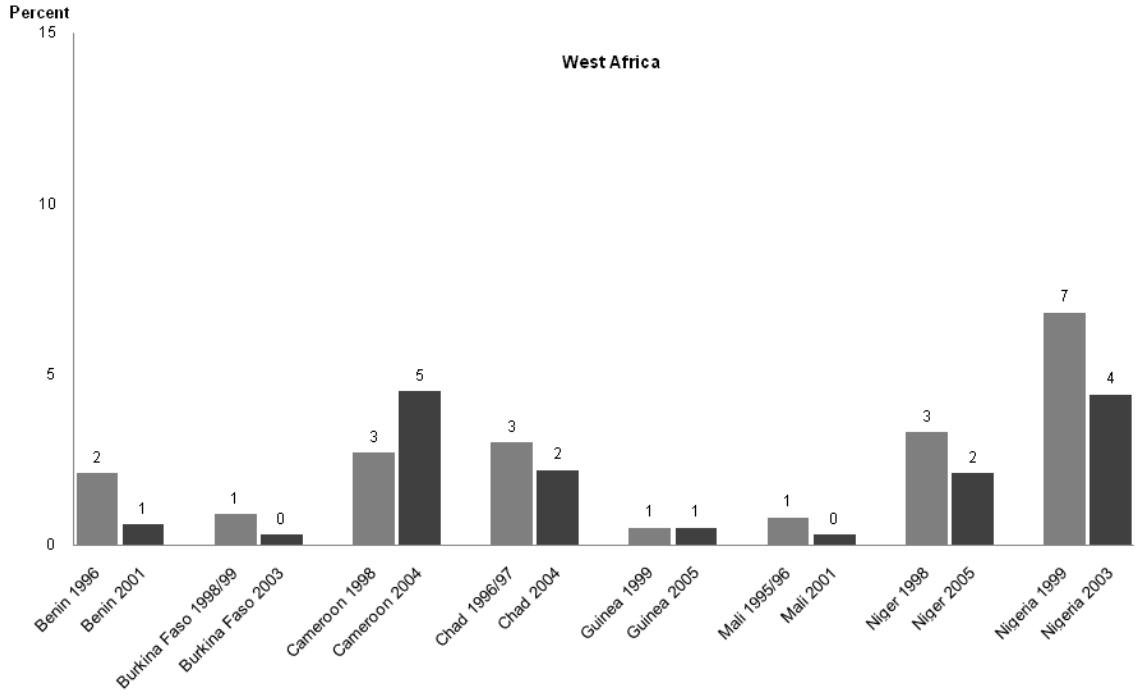
In 10 of the 16 countries with data on two time points, the percentage of women reporting extramarital sex increased slightly in recent years, and increased most in Cameroon. In contrast, among men the percentage reporting extramarital sex declined in the majority of countries, although it increased noticeably in Burkina Faso, Mali, Nigeria, and Uganda. Reasons for particularly large increases in extramarital sex among women in Cameroon and men in Nigeria are unclear.

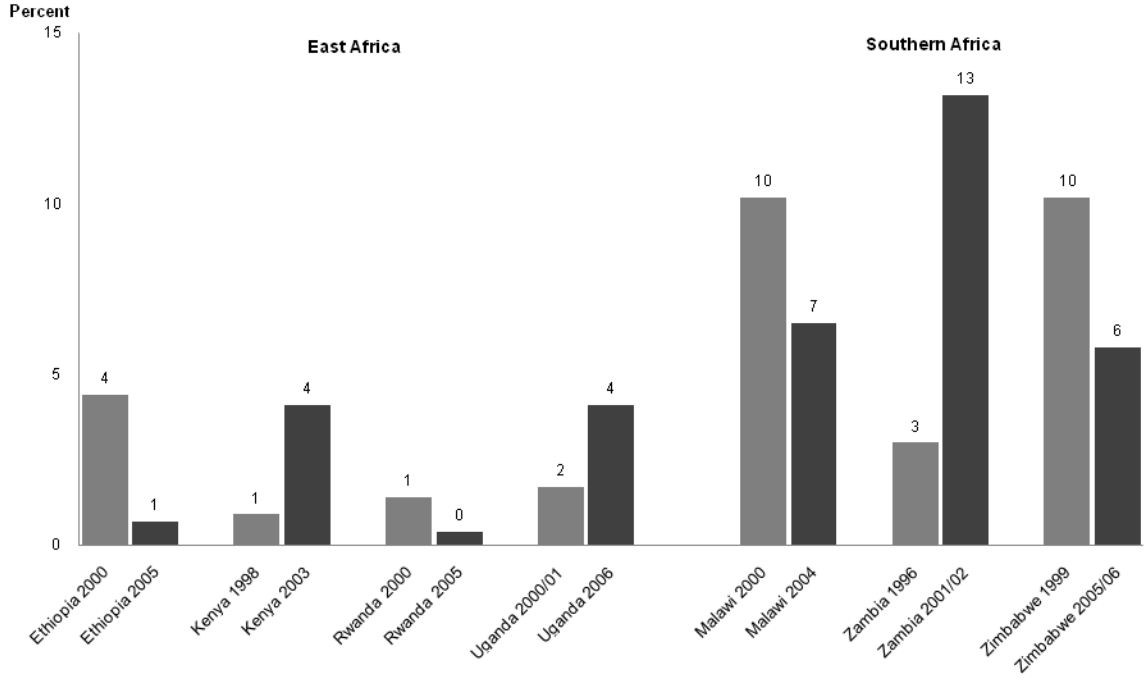
6.5 Paid Sex among Men

The percentage of men age 15–49 who paid for sex in last 12 months varied, from less than 1 percent in Benin, Burkina Faso, Guinea, Mali, Senegal, Ethiopia, and Rwanda to 13 percent in Zambia and 16 percent in Mozambique. Overall, countries in southern Africa had the highest levels of paid sex among men compared with east Africa or west Africa (Table 6.3).

Based on available data for four countries (Cameroon, Kenya, Uganda, and Zambia) at two time points, some experienced notable increases in the proportion of men who paid for sex, whereas others experienced a decline or no change (Figure 6.3).

Figure 6.3 Changes in percentage of men age 15–49 who had paid sex in last 12 months, 1995–2006





6.6 Ever Use of Condoms and Condom Use at Last Sex

Among respondents who ever had sex, the proportion who ever used a condom varied greatly, from less than 1 percent in Niger to 37 percent in Cameroon among women, and from 10 percent in Niger to 68 percent in Zimbabwe among men, in the recent round of surveys (Table 6.4). The percentage of women who used a condom during their most recent sexual encounter in last 12 months ranged from less than 1 percent in Niger to 28 percent in Namibia. Among men, the range was from 4–5 percent in Niger, Madagascar, and Ethiopia to 48 percent in Namibia. In all countries, the percentages reporting ever having used a condom and having used a condom in last 12 months were higher among men than among women.

The percentage of women and men who reported ever using a condom increased in most countries. Regarding condom use in last 12 months, the percentage remained stable among women, except for moderate increases in Burkina Faso, Cameroon, Cote d'Ivoire, Ghana, Mozambique, and Zambia (Figure 6.4a). The majority of these increases were in west Africa. Among men, condom use in last 12 months increased in nearly all west African countries studied. In east and southern Africa, condom use increased marginally in Tanzania and Uganda, and substantially in Mozambique, but remained steady in the other countries. In Kenya and Zimbabwe condom use at last sex in last 12 months declined among men (Figure 6.4b).

Table 6.4 Changes in percentage of women and men age 15–49 who ever used a condom, percentage who used a condom at last sex in last 12 months, percentage who used a condom consistently in last 12 months, and percentage who used a condom at last higher-risk sex in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	Ever used condom[1]				Used condom at last sex in last 12 months[2]				Used condom consistently in last 12 months[3]				Used condom at last higher-risk sex in last 12 months[4]			
	Women		Men		Women		Men		Women		Men		Women		Men	
Country/year	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
West Africa																
Benin 1996	6.9	4,925	30.9	1,228	2.1	4,064	10.2	1,105	1.0	4,064	2.3	1,105	n/a	n/a	n/a	n/a
Benin 2001	10.6	5,608	40.1	2,164	3.9	4,618	16.0	1,957	3.9	4,618	14.0	1,957	16.2	751	31.3	989
Burkina Faso 1998/99	7.8	5,665	37.7	1,773	5.2	4,389	23.9	1,554	2.2	4,389	6.0	1,554	n/a	n/a	n/a	n/a
Burkina Faso 2003	11.6	10,911	45.6	2,375	8.6	8,168	31.2	2,014	8.6	8,168	29.1	2,014	52.9	844	69.1	781
Cameroon 1998	24.6	5,019	52.4	2,006	5.9	4,441	17.1	1,880	2.2	4,441	3.2	1,880	n/a	n/a	n/a	n/a
Cameroon 2004	36.6	9,280	n/a	n/a	14.9	8,060	32.2	3,660	14.3	8,060	27.7	3,660	40.5	2,310	54.7	2,266
Chad 1996/97	1.1	6,596	12.1	1,716	0.9	5,770	6.9	1,609	0.4	5,770	1.3	1,609	n/a	n/a	n/a	n/a
Chad 2004	3.1	5,284	18.0	1,324	1.6	4,512	10.1	1,232	1.6	4,512	9.1	1,232	13.7	174	30.6	412
Cote d'Ivoire 1998/99	25.7	2,743	59.2	691	8.3	2,320	28.2	630	1.8	2,320	3.3	630	n/a	n/a	n/a	n/a
Cote d'Ivoire 2005	n/a	n/a	n/a	n/a	13.9	4,116	29.3	3,497	8.2	4,116	19.6	3,497	33.6	1,366	51.5	2,018
Ghana 1998	16.5	4,183	43.1	1,014	5.9	3,495	17.4	876	5.9	3,495	17.4	876	n/a	n/a	n/a	n/a
Ghana 2003	21.6	4,807	54.1	3,376	8.6	3,863	20.0	2,906	8.4	3,863	19.4	2,906	28.1	802	44.8	1,114
Guinea 1999	4.0	6,144	30.9	1,501	2.7	4,597	16.0	1,292	1.2	4,597	2.4	1,292	n/a	n/a	n/a	n/a
Guinea 2005	6.0	7,213	35.8	2,315	4.6	5,345	20.0	2,014	4.5	5,345	17.9	2,014	25.2	834	39.5	1,079
Mali 1995/96	3.5	9,004	24.0	1,800	1.5	8,412	11.1	1,694	0.7	8,412	2.4	1,694	n/a	n/a	n/a	n/a
Mali 2001	3.3	11,810	25.2	2,447	1.6	10,840	10.1	2,259	1.6	10,840	9.4	2,259	14.5	837	33.3	756
Niger 1998	0.8	6,806	11.8	2,383	0.8	6,318	6.6	2,154	0.5	6,318	1.6	2,154	n/a	n/a	n/a	n/a
Niger 2005	0.5	8,342	10.1	2,283	0.4	7,658	4.0	2,067	0.2	7,658	3.3	2,067	20.4	52	45.3	183
Nigeria 1999	8.3	6,872	29.3	1,712	4.9	5,910	15.1	1,526	4.9	5,910	15.1	1,526	n/a	n/a	n/a	n/a
Nigeria 2003	11.8	6,530	36.2	1,535	4.8	5,855	18.4	1,373	4.7	5,855	16.5	1,373	23.8	813	46.9	537
Senegal 1997	6.6	6,652	46.1	2,696	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Senegal 2005	7.1	10,716	47.3	2,414	3.3	9,238	26.1	1,983	3.1	9,238	24.3	1,983	37.5	549	61.9	847

(Cont'd)

Table 6.4 – cont'd

Country/year	Ever used condom[1]				Used condom at last sex in last 12 months[2]				Used condom consistently in last 12 months[3]				Used condom at last higher-risk sex in last 12 months[4]			
	Women		Men		Women		Men		Women		Men		Women		Men	
	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
East Africa																
Eritrea 1995	2.1	4,067	18.7	640	1.1	3,348	9.6	591	1.1	3,348	1.6	591	n/a	n/a	n/a	n/a
Eritrea 2002	3.3	6,815	n/a	n/a	1.7	5,320	n/a	n/a	1.7	5,320	n/a	n/a	n/a	n/a	n/a	n/a
Ethiopia 2000	1.5	11,860	7.7	1,558	1.0	10,00	5.6	1,419	1.0	10,007	5.1	1,419	13.6	454	30.6	282
Ethiopia 2005	1.2	10,748	10.8	3,450	1.0	4,354	4.9	3,121	1.0	4,354	4.9	3,121	23.5	119	51.2	264
Kenya 1998	11.1	6,639	46.2	2,788	5.5	5,924	21.4	2,566	2.3	5,924	5.0	2,566	n/a	n/a	n/a	n/a
Kenya 2003	12.3	6,806	49.9	2,825	5.5	5,710	17.8	2,380	5.4	5,710	16.0	2,380	23.9	1,004	46.5	942
Rwanda 2000	2.7	7,361	13.6	1,748	1.4	5,301	7.1	1,427	1.4	5,301	7.0	1,427	14.9	340	51.3	186
Rwanda 2005	3.8	7,816	18.3	3,053	2.7	5,887	5.9	2,399	2.7	5,887	5.8	2,399	19.7	475	40.9	326
Tanzania 1999	12.3	3,533	34.6	2,757	7.9	3,209	17.8	2,602	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tanzania 2004/05	12.4	8,979	51.5	2,222	8.3	8,038	20.8	1,975	7.9	8,038	17.4	1,975	32.9	1,528	51.0	893
Uganda 2000/01	15.2	6,399	40.5	1,560	6.9	5,594	15.5	1,376	6.9	5,594	14.8	1,376	38.2	771	60.2	401
Uganda 2006	20.8	7,281	47.9	1,938	7.9	6,266	17.7	1,704	5.0	6,266	12.5	1,704	34.9	998	57.5	617
Southern Africa																
Madagascar 1997	5.0	6,206	n/a	n/a	1.3	5,619	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Madagascar 2003/04	7.6	7,095	15.8	1,915	1.8	6,201	4.4	1,851	1.8	6,201	3.6	1,851	4.6	1,043	13.1	705
Malawi 2000	9.4	11,845	40.7	2,609	4.7	10,36	14.9	2,303	4.7	10,361	14.1	2,303	28.6	921	39.5	832
Malawi 2004	9.6	10,397	46.5	2,716	5.2	9,087	15.7	2,402	5.2	9,087	14.7	2,402	30.1	755	47.1	646
Mozambique 1997	2.9	8,181	16.7	1,825	1.2	7,140	6.9	1,650	1.2	7,140	6.9	1,650	n/a	n/a	n/a	n/a
Mozambique 2003	11.9	11,712	31.7	2,264	6.3	9,825	14.4	2,117	6.1	9,825	12.2	2,117	25.0	2,144	33.1	1,103
Namibia 1992	6.8	4,399	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Namibia 2000	33.0	5,775	66.9	2,474	28.4	4,568	47.9	2,094	28.1	4,568	45.7	2,094	42.7	2,493	67.8	1,298
Zambia 1996	19.3	7,077	45.6	1,528	8.3	6,056	21.6	1,364	4.0	6,056	4.7	1,364	n/a	n/a	n/a	n/a
Zambia 2001/02	23.7	6,751	56.1	1,772	11.8	5,613	21.0	1,568	11.6	5,613	18.2	1,568	33.1	985	44.0	712
Zimbabwe 1999	22.1	4,685	67.0	1,866	9.1	4,132	28.7	1,711	8.9	4,132	27.8	1,711	42.8	561	70.3	728
Zimbabwe 2005/06	25.3	7,060	67.9	5,070	8.3	5,879	25.4	4,382	8.1	5,879	18.9	4,382	45.6	673	69.6	1,564

[1] Based on women and men age 15–49 who ever had sex.
[2] Based on women and men age 15–49 who had sex in last 12 months.
[3] Consistent use of condom refers to the use of a condom at last sex with all sexual partners (up to three) in last 12 months.
[4] Based on women and men age 15–49 who had higher-risk sex (i.e., sex with a non-marital, no-cohabiting partner) in last 12 months.

Figure 6.4a Changes in percentage of women age 15–49 who used a condom at last sex in last 12 months, 1995–2006

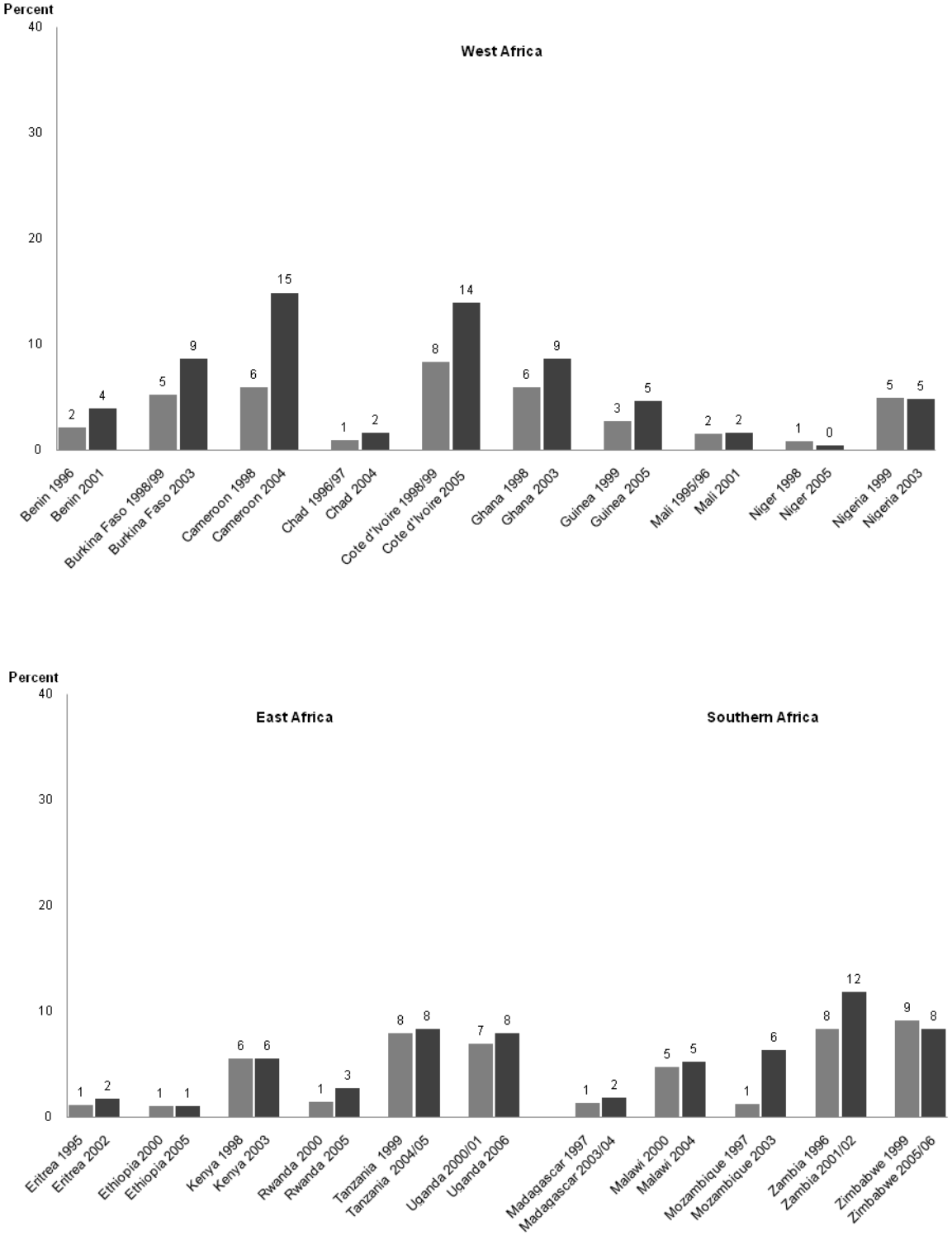
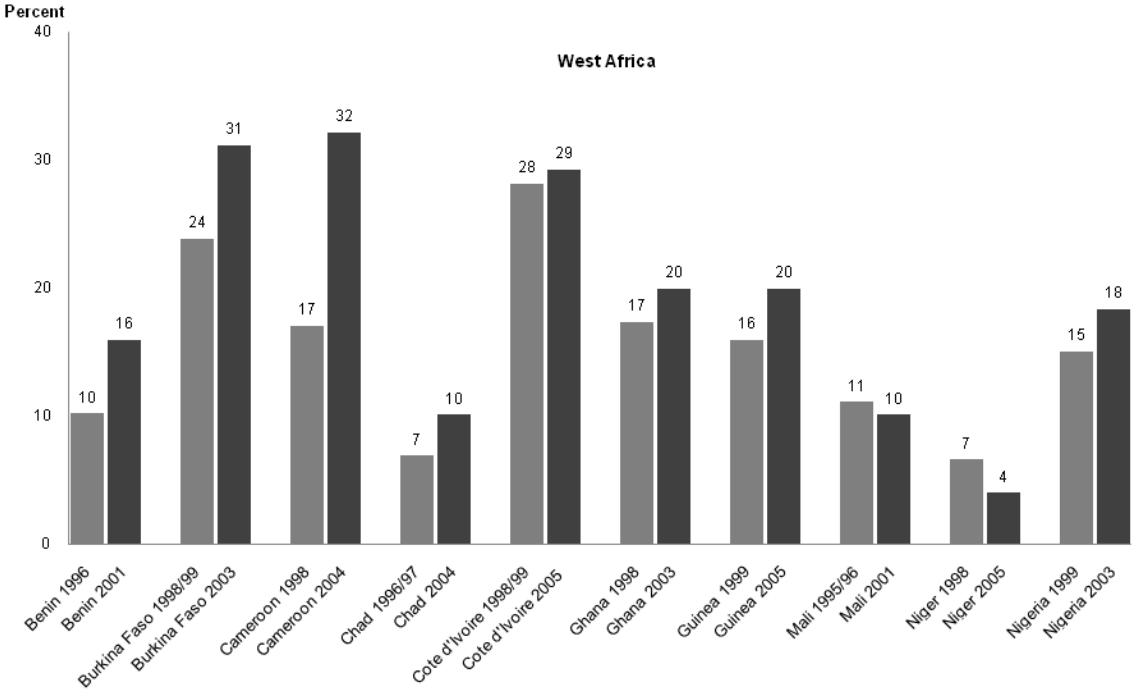
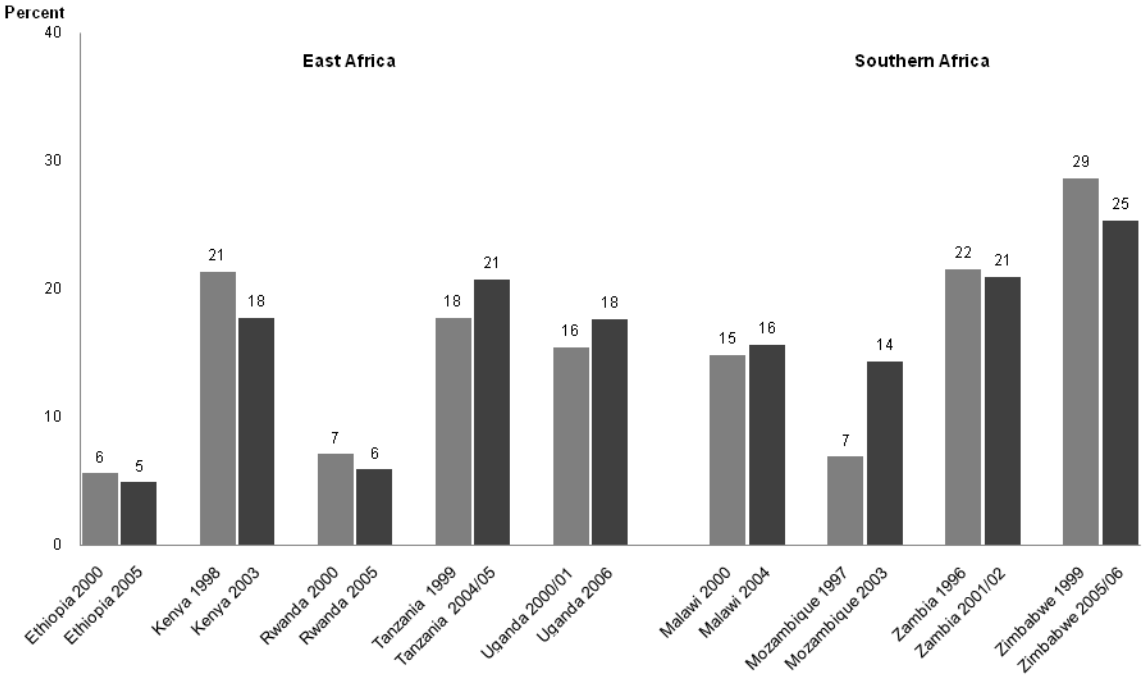


Figure 6.4b Changes in percentage of men age 15–49 who used a condom at last sex in last 12 months, 1995–2006





6.7 Consistent Condom Use

Consistent condom use among women in last 12 months ranged from less than 1 percent in Niger to 28 percent in Namibia, and among men from 3 percent in Niger and Madagascar to 46 percent in Namibia (Table 6.4). In west Africa consistent condom use increased in the vast majority of countries among both women and men. In west Africa the largest increases were in Benin, Burkina Faso, Cameroon, Cote d'Ivoire, and Guinea. In east Africa and southern Africa, consistent condom use rose only in Kenya, Mozambique, and Zambia, among both women and men. Among men in Zimbabwe, consistent condom use decreased substantially, from 28 percent in 1999 to 19 percent in 2005–06.

6.8 Condom Use at Higher-Risk Sex

Among women and men who reported having higher-risk sex in last 12 months, the proportion reporting condom use during their last higher-risk sex varied considerably, both by sex and by country. Overall, men were much more likely than women to use a condom during higher-risk sex. In the recent round of surveys, the percentage of women reporting condom use at last higher-risk sex ranged from 5 percent in Madagascar to 53 percent in Burkina Faso, and among men from 13 percent in Madagascar to 70 percent in Zimbabwe (Table 6.4).

In the five countries where data were available for two points in time (Ethiopia, Rwanda, Uganda, Malawi, and Zimbabwe) the pattern of change in condom use at last higher-risk sex was mixed. Among women, there was a marked increase in condom use at last higher-risk sex in Ethiopia (from 14 to 24 percent) and Rwanda (from 15 to 20 percent). There was a slight increase in Malawi and Zimbabwe, but a slight decline in Uganda (Figure 6.5a). Among men, condom use at last higher-risk sex increased in Ethiopia (from 31 to 51 percent) and Malawi (from 40 to 47 percent), remained unchanged in Zimbabwe, declined substantially in Rwanda (from 51 to 41 percent), and declined to a lesser extent in Uganda (from 60 to 58 percent) (Figure 6.5b).

Figure 6.5a Changes in percentage of women age 15–49 who used a condom at last higher-risk sex in last 12 months, 1999–2006

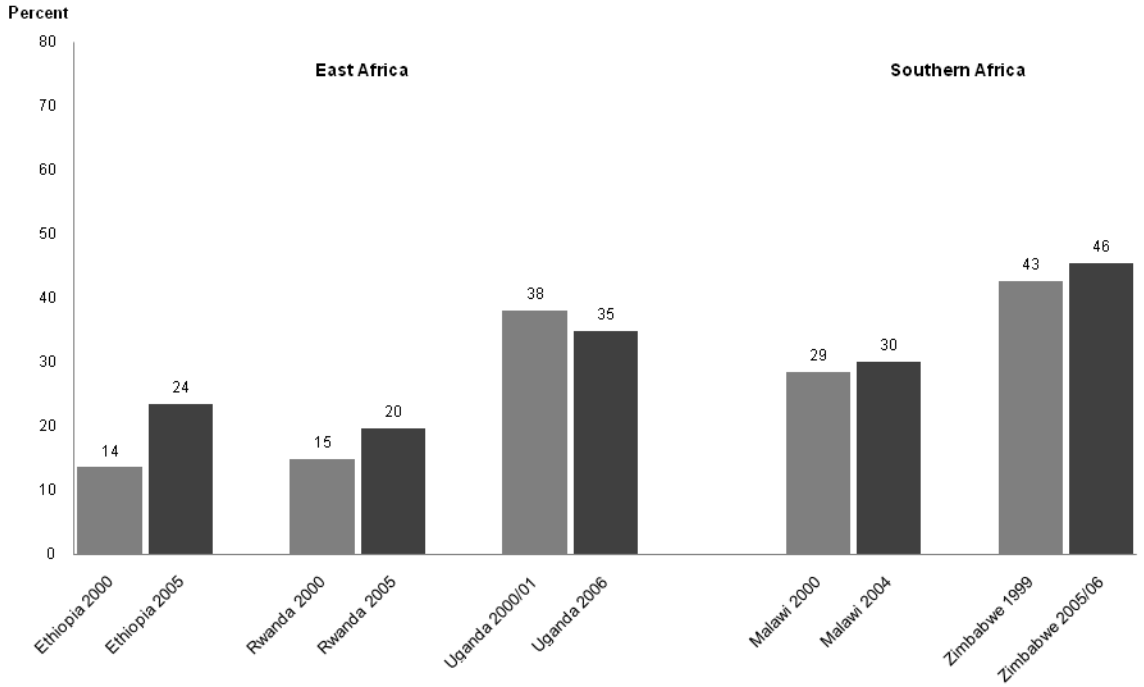
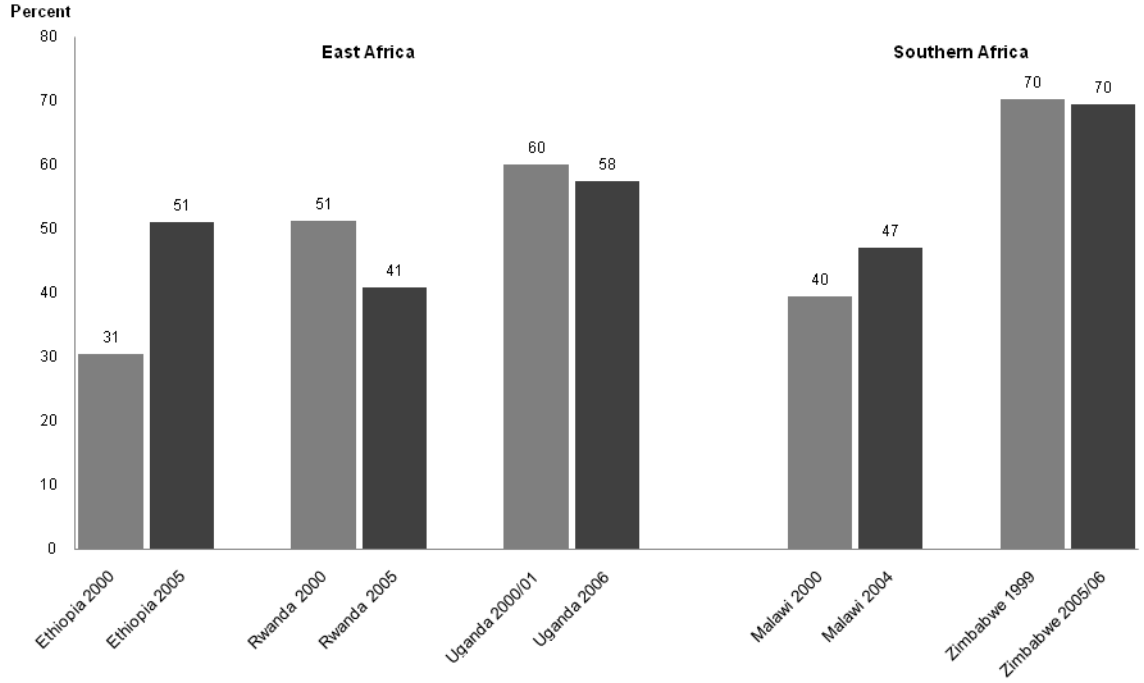


Figure 6.5b Changes in percentage of men age 15–49 who used a condom at last higher-risk sex in last 12 months, 1999–2006



6.9 Alcohol Use

Alcohol consumption tends to be associated with risky sexual behavior. Sexual intercourse when one or both partners are under the influence of alcohol is more likely to be unplanned than otherwise, and the partners are less likely to use condoms.

Table 6.5 presents the percentage of women and men age 15–49 who never used alcohol, ever used alcohol, and used alcohol recently. Among women the percentage who recently consumed alcohol ranged from 4–6 percent in Malawi, Kenya, and Zimbabwe to 32 percent in Rwanda. Among men the percentage was considerably higher, ranging from 24 percent in Nigeria to 59 percent in Rwanda. There were wide intra-regional differences in alcohol use.

Alcohol use by both partners at last sex in last 12 months varied across countries, from 1 percent or less in Guinea, Niger, Senegal, Ethiopia, and Rwanda to 10 percent in Uganda among women. Rates among men were similar.

Table 6.5 Percentage of women and men age 15–49 who used alcohol, and percentage who used alcohol at last sex in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	Alcohol use[1]								Alcohol use by partners at last sex in last 12 months[2]							
	Women				Men				Women				Men			
Country/year	Never used	In the past[3]	Recently[4]	Number	Never used	In the past	Recently	Number	Neither used	Either	Both	Number	Neither used	Either	Both	Number
West Africa																
Benin 2001	61.4	12.2	24.6	6,219	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Burkina Faso 2003	65.4	8.3	26.1	12,477	11.6	56.8	31.4	3,209	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cameroon 2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	80.7	12.6	6.5	8,060	75.1	17.4	7.4	3,660
Cote d'Ivoire 2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	95.1	1.2	3.4	4,116	88.7	3.7	7.5	3,497
Ghana 2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	90.4	8.1	1.5	3,863	84.3	14.3	1.4	2,906
Guinea 2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	97.9	1.7	0.3	5,345	96.9	2.3	0.3	2,014
Niger 2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	99.6	0.0	0.0	7,658	99.2	0.3	0.2	2,067
Nigeria 2003	86.4	4.4	8.9	7,620	70.2	5.8	24.0	2,093	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Senegal 2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	99.5	0.4	0.0	9,238	99.3	0.5	0.1	1,983
East Africa																
Ethiopia 2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	96.8	3.0	0.1	4,354	98.5	1.2	0.3	3,121
Kenya 2003	88.3	6.6	5.0	8,195	50.7	19.7	29.5	3,363	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rwanda 2000	42.1	26.0	31.8	10,421	27.9	19.4	52.3	2,532	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rwanda 2005	n/a	n/a	n/a	n/a	25.1	15.6	59.2	4,413	92.2	6.8	0.6	5,887	90.9	7.6	1.3	2,399
Tanzania 2004/05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	86.3	13.7	n/a	8,038	n/a	n/a	n/a	n/a
Uganda 2000/01	48.3	27.7	23.8	7,246	39.5	16.1	44.0	1,879	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Uganda 2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	76.0	14.0	9.8	6,266	81.9	9.9	8.1	1,703
Southern Africa																
Madagascar 2003/04	49.9	32.3	17.7	7,949	31.6	15.2	53.0	2,216	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malawi 2000	92.1	3.9	3.9	13,220	70.5	4.4	25.1	2,915	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mozambique 2003	81.3	5.8	12.6	12,418	56.5	8.6	34.9	2,490	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Namibia 2000	64.0	10.3	24.8	6,755	36.7	22.6	40.2	2,766	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Zambia 2001/02	76.6	13.9	9.2	7,658	37.9	16.6	45.3	1,974	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Zimbabwe 1999	86.7	7.5	5.7	5,907	53.2	14.2	32.4	2,505	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Zimbabwe 2005/06	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	89.4	9.2	1.3	5,879	89.8	9.0	0.7	4,382

[1] Information on alcohol use was collected differently across countries. Some countries asked about alcohol use in last month, while others asked about last 3 months.
[2] Based on women and men age 15–49 who had sex in last 12 months, restricted to the last partner in last 12 months.
[3] In the past refers to alcohol use one (three) or more months ago.
[4] Recently refers to alcohol use in last one (three) months.

7 Sexual Behavior of Youth

This chapter presents a number of indicators that relate to the sexual behavior of youth, including age at sexual debut, sexual abstinence, higher-risk sex, forced sex, inter-generational sex, multiple sexual partnerships, and condom use.

7.1 Sex before Age 15

Table 7.1 presents the percentage of women and men age 15–19 who had sex before age 15 in the two rounds of DHS surveys studied. In the recent round, among women this indicator ranged from 5 percent in Rwanda and Zimbabwe to 28 percent in Mozambique, and among men from 2 percent in Ethiopia to 31 percent in Mozambique, Kenya, and Namibia. In west Africa, generally a smaller percentage of young men than young women reported having sex before age 15. The reverse was observed in east Africa and southern Africa.

Changes in the proportion of youth reporting sex before age 15 were uneven across countries. Among both women and men age 15–19, the percentage having sex before age 15 declined in more than half of the countries. However, among women there were modest increases in some countries, including Benin, Mali, Nigeria, Rwanda, Namibia, and Zimbabwe (Figure 7.1a), and among men in Chad, Cote d'Ivoire, Rwanda, and Mozambique (Figure 7.1b).

Table 7.1 Changes in percentage of women and men age 15–19 who had sex before age 15, percentage of women and men age 15–24 who never had sex (primary abstinence), and percentage of women and men age 15–24 who ever had sex but not in last 12 months (secondary abstinence), in selected countries in sub-Saharan Africa, 1992–2006

	Had sex before age 15				Primary abstinence [1]				Secondary abstinence [2]			
	Women		Men		Women		Men		Women		Men	
Country/year	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
West Africa												
Benin 1996	13.5	1,075	n/a	n/a	57.8	971	17.6	215	15.6	410	12.9	177
Benin 2001	16.0	1,233	23.8	496	48.6	1,250	35.8	798	15.2	642	17.3	512
Burkina Faso 1998/99	12.0	1,444	7.6	599	73.6	1,054	60.5	898	9.5	279	14.9	355
Burkina Faso 2003	7.3	2,776	4.7	877	69.1	2,246	61.2	1,272	14.9	695	17.8	494
Cameroon 1998	26.0	1,282	17.8	539	42.6	1,121	36.4	897	9.8	643	9.1	570
Cameroon 2004	18.0	2,685	11.5	1,224	58.1	2,318	46.8	1,756	18.7	972	15.1	934
Chad 1996/97	21.9	1,716	7.9	490	85.2	989	59.2	671	7.3	147	11.1	274
Chad 2004	19.0	1,361	10.7	406	92.4	849	60.5	567	15.2	65	13.7	224
Cote d'Ivoire 1998/99	22.1	775	13.8	180	37.4	785	32.2	302	10.3	492	9.7	204
Cote d'Ivoire 2005	20.4	1,232	16.7	898	33.4	1,388	31.9	1,653	13.2	925	17.6	1,126
Ghana 1998	7.3	910	3.7	330	62.6	1,022	68.8	502	18.3	383	22.1	157
Ghana 2003	7.4	1,148	3.9	1,107	60.6	1,418	67.2	1,615	24.0	559	27.1	530
Guinea 1999	27.3	1,321	19.8	392	67.1	887	38.4	622	16.9	292	15.6	383
Guinea 2005	19.7	1,648	17.9	664	58.7	1,250	38.2	980	13.7	516	14.4	606
Mali 1995/96	23.7	1,883	14.7	441	59.7	1,145	54.4	624	9.1	462	18.0	285
Mali 2001	26.0	2,565	10.6	668	63.4	1,599	52.2	1,015	20.5	586	25.6	485
Niger 1998	28.0	1,714	10.0	759	92.6	804	71.8	1,019	30.1	60	27.2	288
Niger 2005	25.7	1,718	5.3	620	96.9	845	78.0	933	38.9	26	54.2	205
Nigeria 1999	16.2	1,775	8.3	511	67.5	1,841	64.3	760	12.8	598	13.0	271
Nigeria 2003	20.3	1,716	7.9	453	61.7	1,685	62.0	809	17.5	646	24.4	307
Senegal 1997	9.6	1,937	n/a	n/a	87.5	1,995	33.4	757	25.1	250	n/a	n/a
Senegal 2005	9.1	3,556	12.7	926	95.7	3,407	64.7	1,321	51.3	147	40.8	467

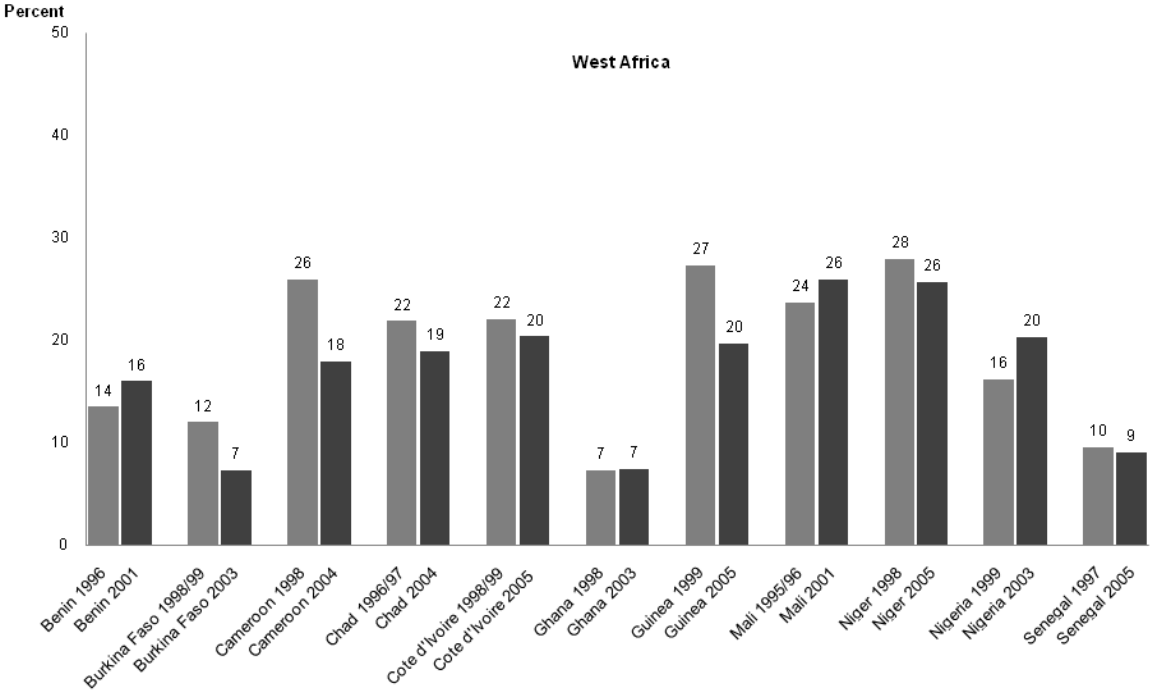
(Cont'd)

Table 7.1 – cont'd

Country/year	Had sex before age 15				Primary abstinence [1]				Secondary abstinence [2]			
	Women		Men		Women		Men		Women		Men	
	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
East Africa												
Eritrea 1995	18.5	1,129	n/a	n/a	98.4	884	87.8	331	52.6	14	20.9	40
Eritrea 2002	8.8	2,001	n/a	n/a	96.0	1,778	n/a	n/a	56.7	71	n/a	n/a
Ethiopia 2000	13.5	3,710	5.1	600	96.4	3,366	77.8	891	33.8	123	30.2	198
Ethiopia 2005	11.1	3,266	1.7	1,335	95.7	3,165	87.6	2,081	64.5	136	39.7	257
Kenya 1998	15.0	1,851	31.7	811	58.3	2,084	33.7	1,261	22.9	868	14.8	836
Kenya 2003	14.5	1,856	30.9	856	63.4	2,090	37.3	1,379	41.3	765	35.3	865
Rwanda 2000	3.0	2,617	9.3	762	89.7	3,221	70.5	1,059	65.3	333	69.7	313
Rwanda 2005	5.2	2,585	15.3	1,102	86.2	3,762	67.0	1,863	66.1	521	73.7	615
Tanzania 1999	14.5	909	23.9	790	56.9	846	35.6	1,124	10.4	364	11.1	724
Tanzania 2004/05	11.4	2,245	13.0	637	62.2	2,096	41.0	951	23.3	793	26.9	562
Uganda 2000/01	14.2	1,615	15.5	441	62.7	1,324	52.8	588	27.4	494	34.0	278
Uganda 2006	11.8	1,936	13.9	595	65.7	1,876	54.4	810	29.4	644	39.6	370
Southern Africa												
Madagascar 1997	19.4	1,553	n/a	n/a	57.1	1,369	n/a	n/a	12.5	587	n/a	n/a
Madagascar 2003/04	16.0	1,528	7.7	416	57.6	1,391	46.4	621	24.5	589	6.9	333
Malawi 2000	16.5	2,867	29.1	660	62.1	2,176	30.3	982	29.9	825	29.6	685
Malawi 2004	14.1	2,392	18.0	650	67.9	1,869	40.1	937	34.1	600	34.8	561
Mozambique 1997	28.6	1,836	23.5	382	51.4	1,157	28.8	509	11.0	562	14.2	362
Mozambique 2003	27.7	2,454	31.3	673	39.2	1,774	26.5	828	11.0	1,079	9.0	609
Namibia 1992	7.7	1,259	n/a	n/a	48.2	1,932	n/a	n/a	10.7	1,001	n/a	n/a
Namibia 2000	9.8	1,499	31.3	694	37.8	2,375	23.0	1,186	26.7	1,478	23.9	913
Zambia 1996	21.7	2,003	39.3	460	50.1	1,860	27.0	732	28.0	928	21.7	534
Zambia 2001/02	17.5	1,812	27.2	459	50.3	1,732	28.2	688	37.0	861	28.5	494
Zimbabwe 1999	3.2	1,447	6.3	713	79.6	1,482	56.9	1,094	26.7	302	20.5	472
Zimbabwe 2005/06	4.9	2,152	5.2	1,899	81.1	2,195	57.6	2,988	33.8	414	33.7	1,266

[1] **Based on women and men age 15–24 who never married.**
[2] **Based on women and men age 15–24 who never married and ever had sex.**

Figure 7.1a Changes in percentage of women age 15–19 who had sex before age 15, 1992–2006



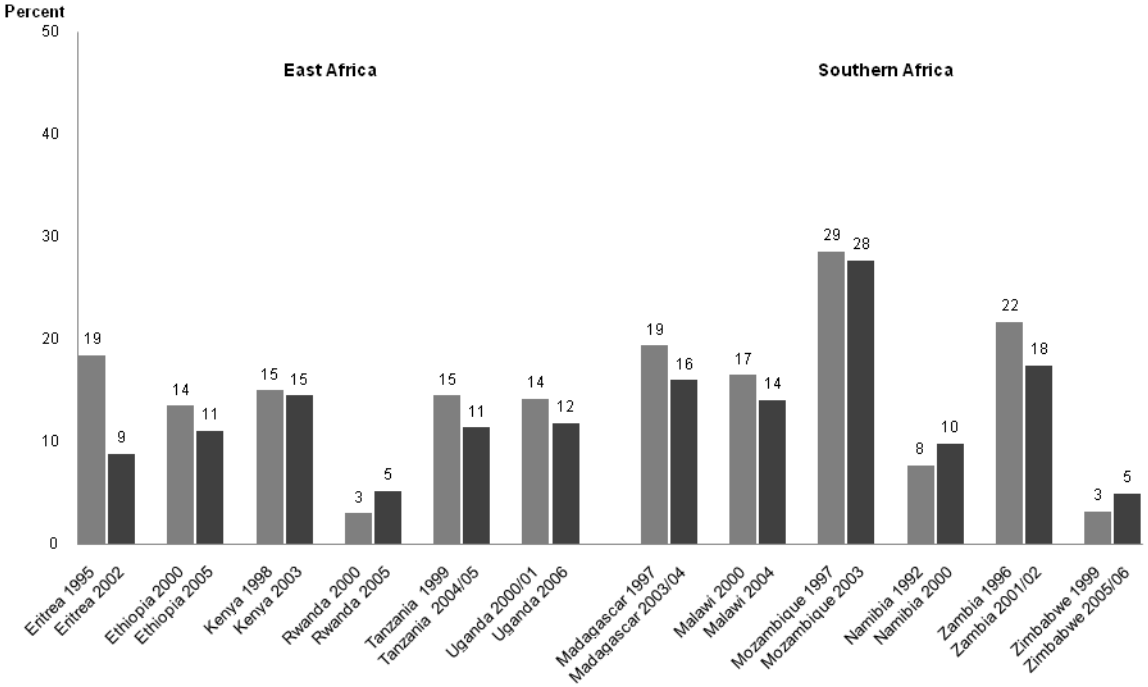
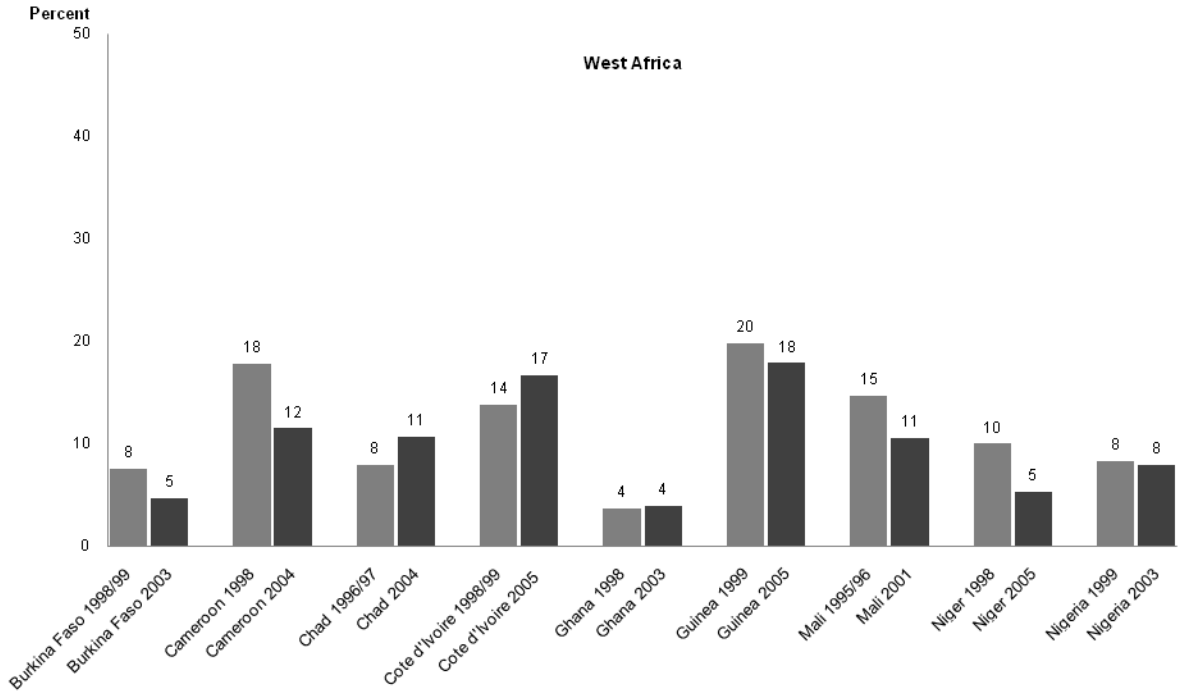
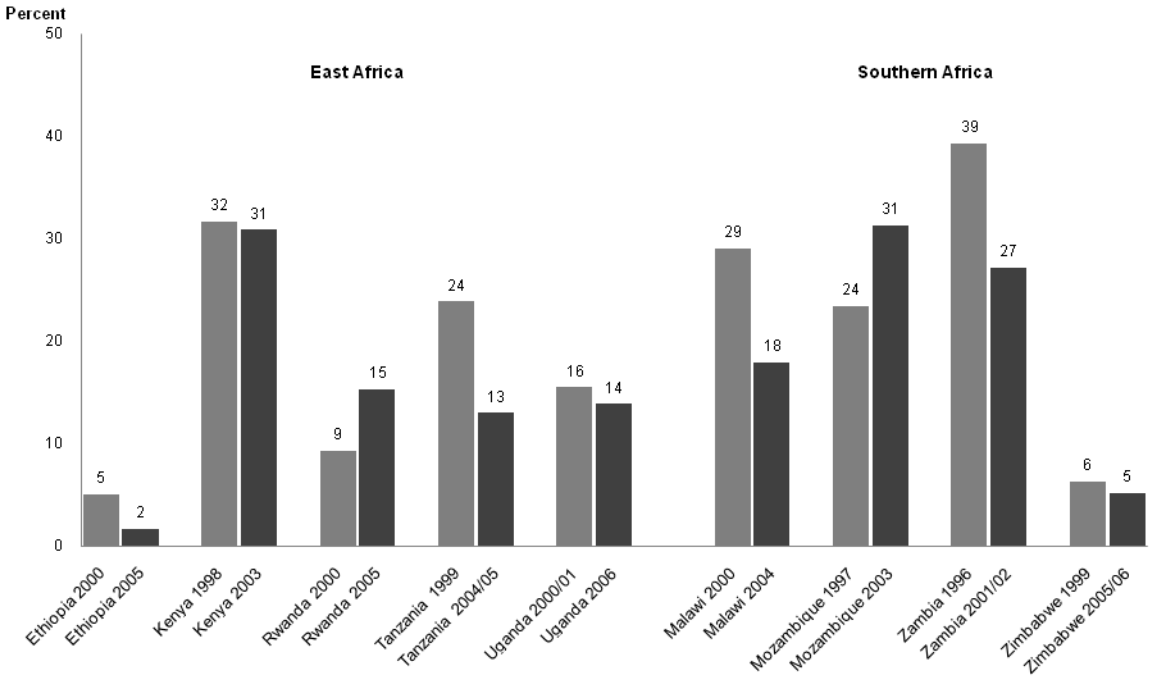


Figure 7.1b Changes in percentage of men age 15–19 who had sex before age 15, 1995–2006





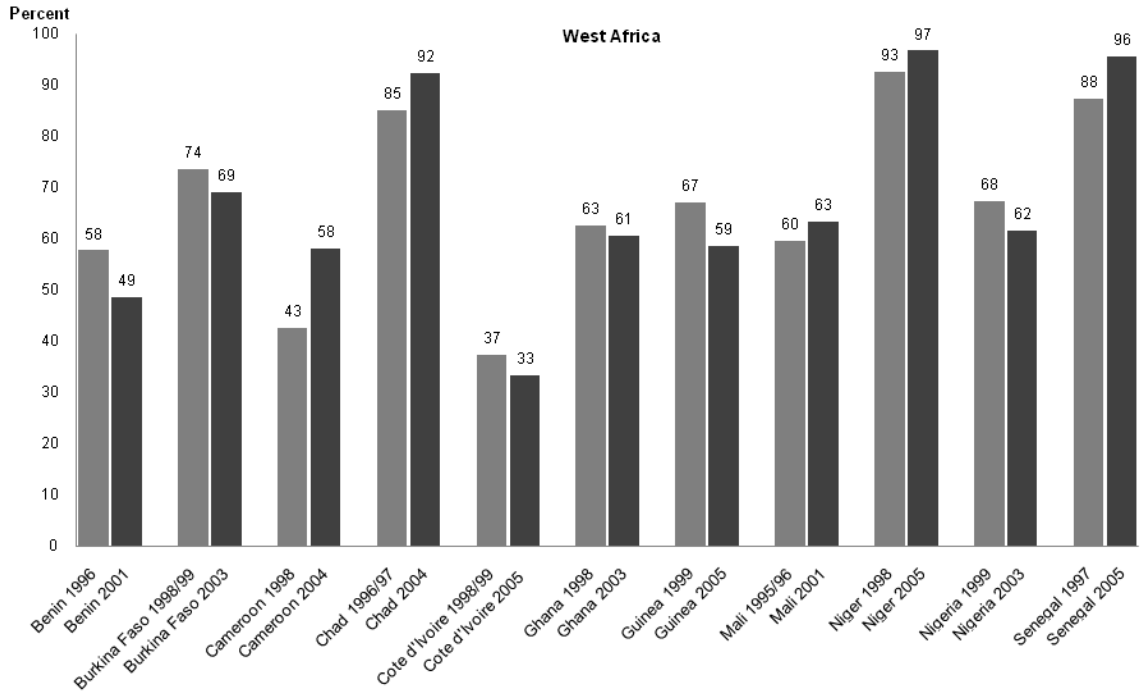
7.2 Primary and Secondary Abstinence

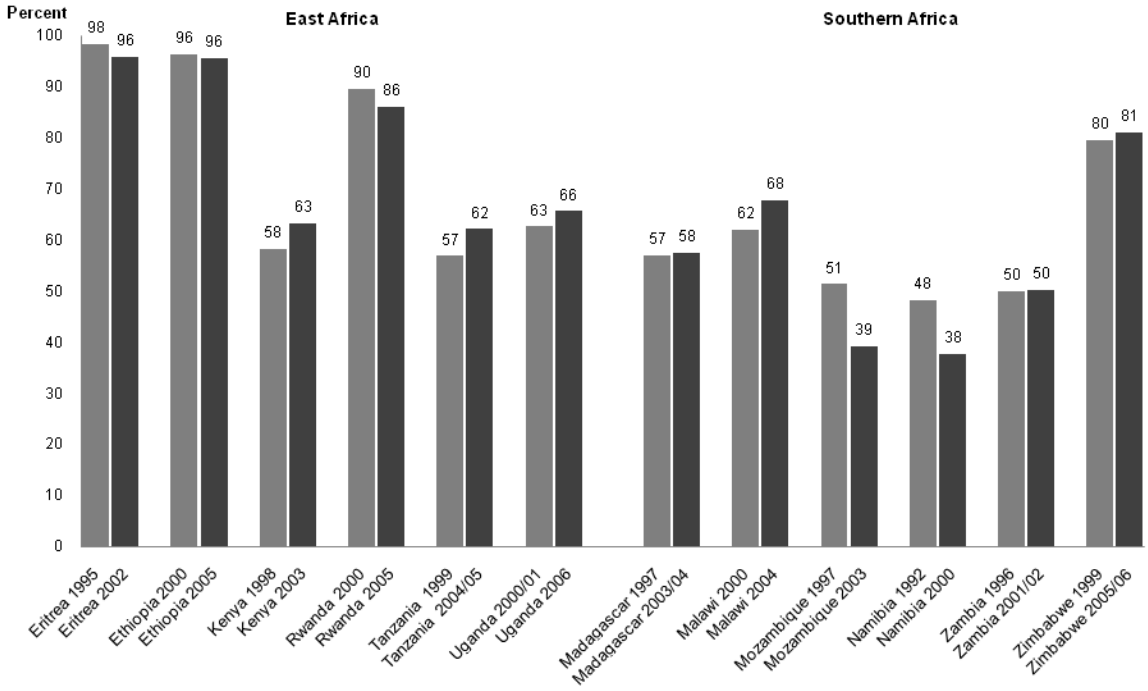
Table 7.1 also presents the percentage of never-married women and men age 15–24 who never had sex (primary abstinence), and the percentage who ever had sex but not in last 12 months (secondary abstinence). The percentage of young women and men who practiced primary abstinence varied greatly across countries. Among young women, primary abstinence ranged from 33 percent in Cote d'Ivoire to 97 percent in Niger, and among young men from 23 percent in Namibia to 88 percent in Ethiopia, in the recent round of surveys. Primary abstinence was more common among young women than among young men, with the exception of Ghana where it was the reverse, and Cote d'Ivoire and Nigeria where young women and men were about equally likely to practice primary abstinence.

Changes in primary abstinence varied across regions. In about half the countries in west Africa, the proportion of young women reporting primary abstinence declined, while it increased in the other half. In east Africa, in three countries the levels increased among women but declined slightly in the other three; whereas in southern Africa levels remained steady in three countries, declined in two, and increased in one (Figure7.2a). Among young men the changes were similar (Figure 7.2b).

Secondary abstinence also varied greatly across countries. In the recent round of surveys, among young women the proportion reporting secondary abstinence ranged from 11 percent in Mozambique to 66 percent in Rwanda (Figure 7.3a), and among young men from 7 percent in Madagascar to 74 percent in Rwanda (Figure 7.3b). In general, similar proportions of young women and men practiced secondary abstinence, with a few exceptions in east Africa. In the overwhelming majority of countries, secondary abstinence increased among both young women and men.

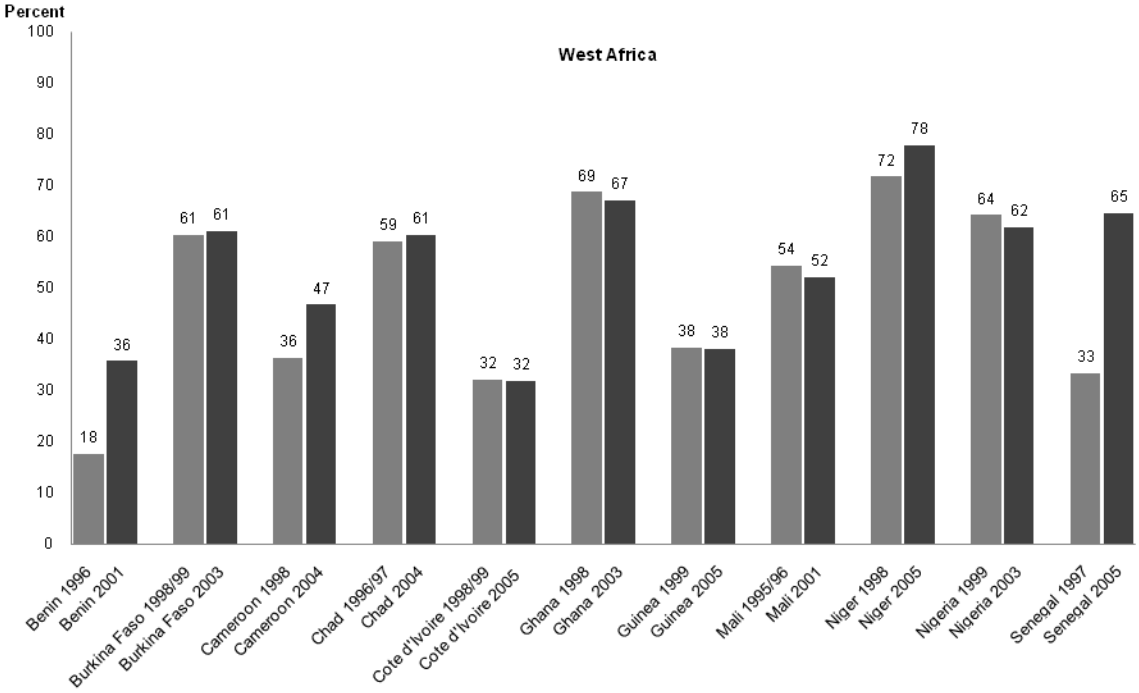
Figure 7.2a Changes in percentage of women age 15–24 in primary abstinence*, 1992–2006

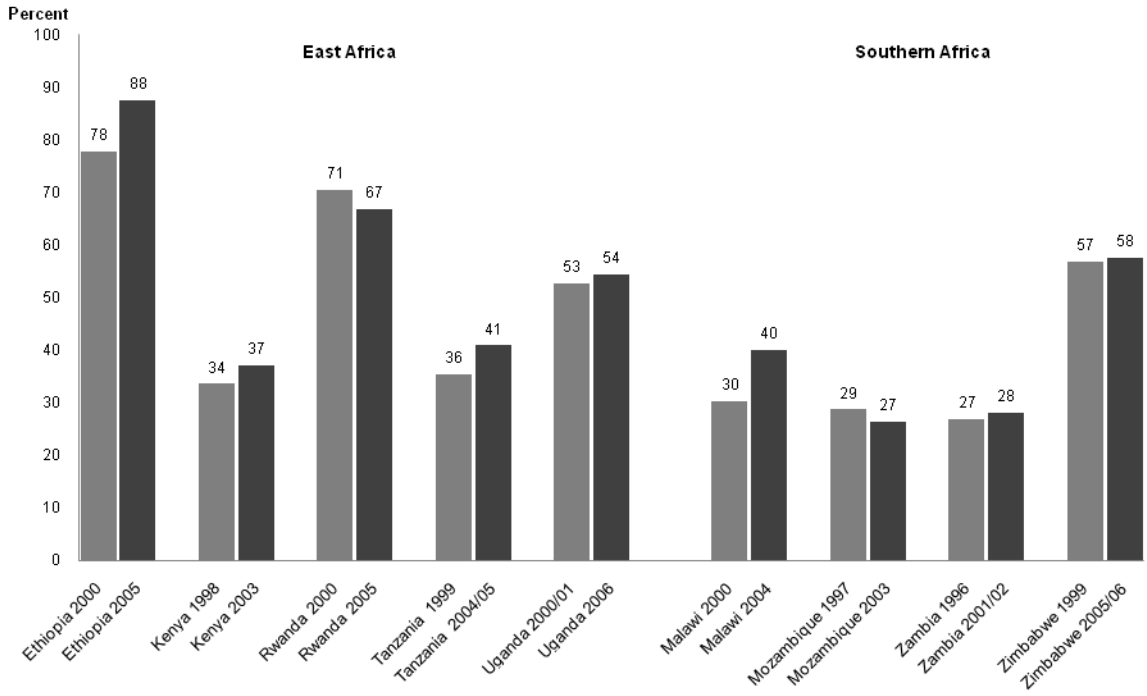




*Primary abstinence is defined as never had sex among never married women age 15-24

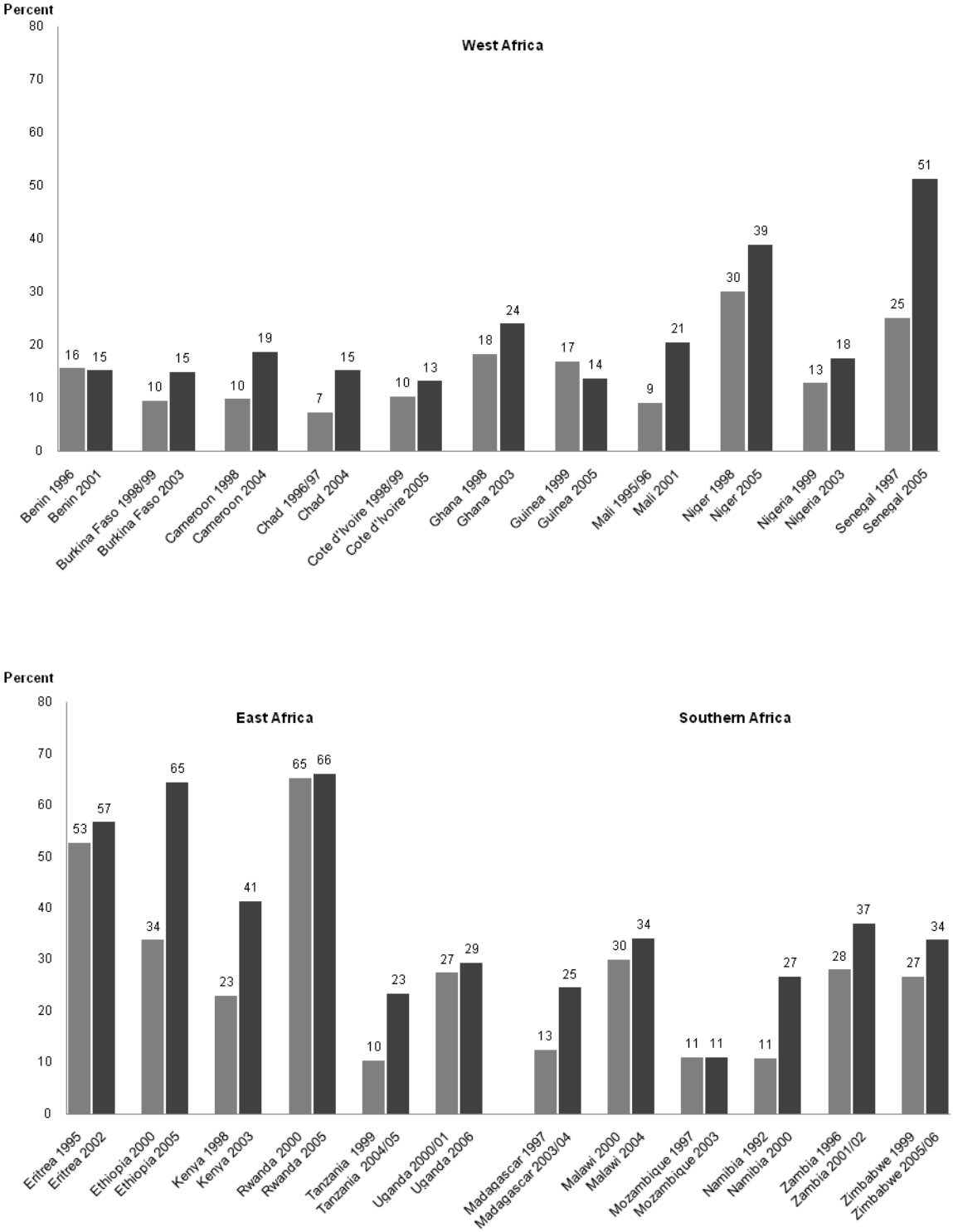
Figure 7.2b Changes in percentage of men age 15–24 in primary abstinence*, 1995–2006





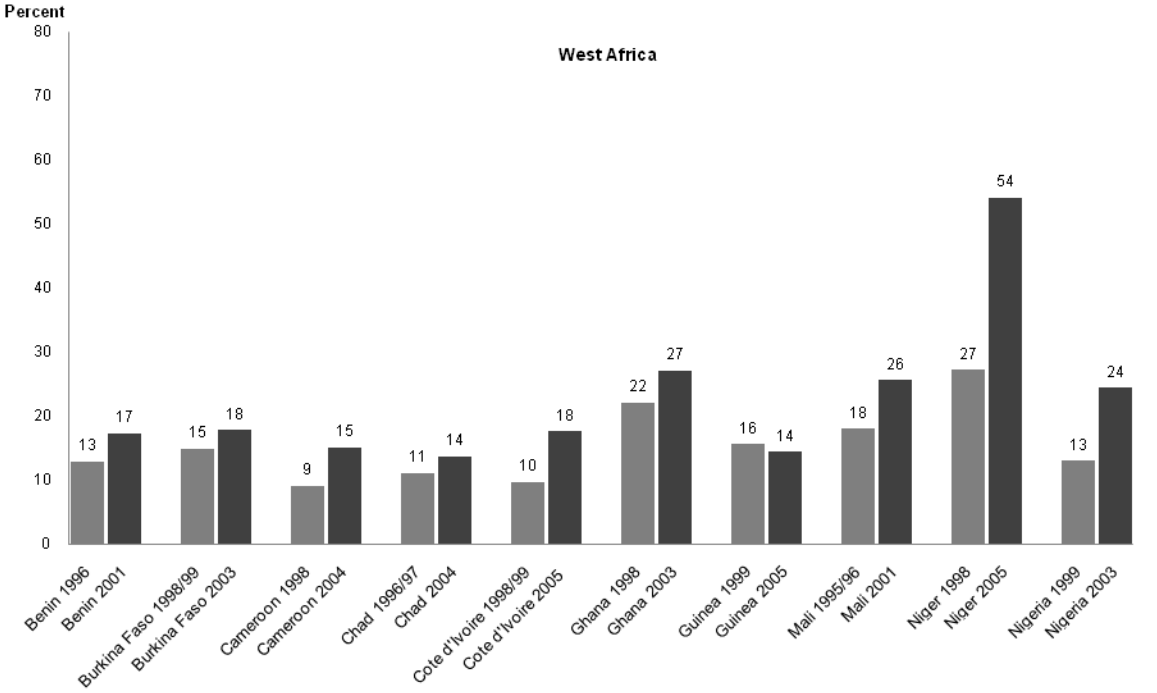
*Primary abstinence is defined as never had sex among never married men age 15-24

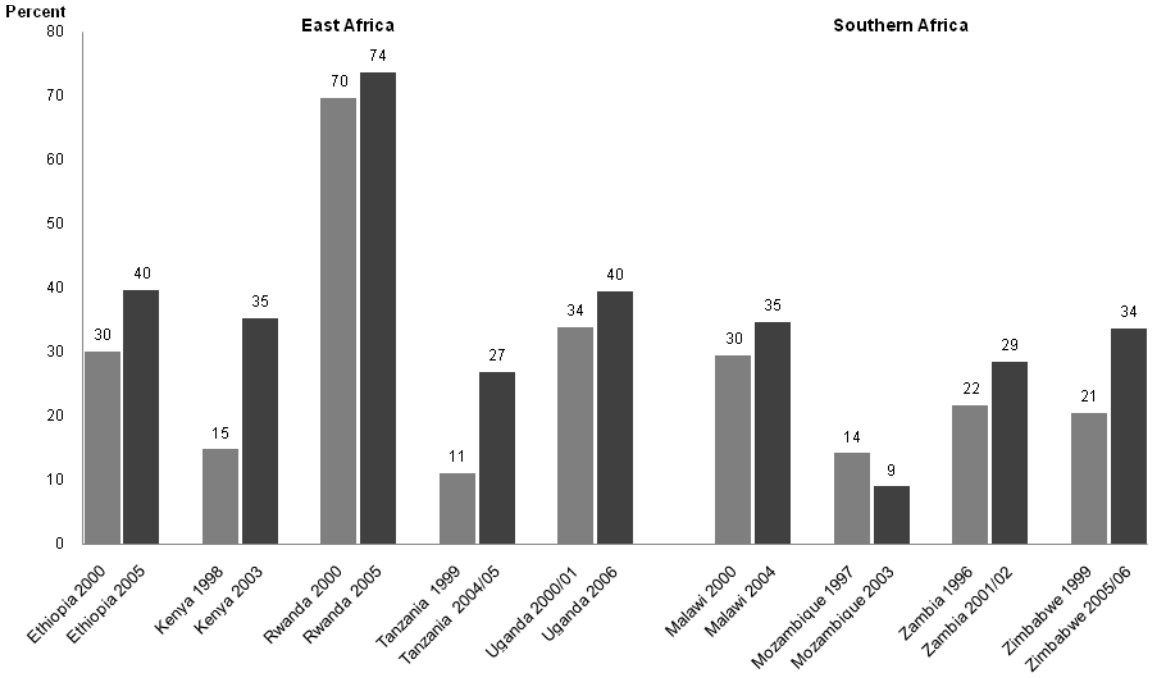
Figure 7.3a Changes in percentage of women age 15–24 in secondary abstinence*, 1992–2006



*Secondary abstinence is defined as no sex in last 12 months among never married women age 15-24 who have ever had sex

Figure 7.3b Changes in percentage of men age 15–24 in secondary abstinence*, 1995–2006





*Secondary abstinence is defined as no sex in last 12 months among never married men age 15-24 who have ever had sex

7.3 Condom Use at First Sex

Table 7.2 presents the percentage of women and men age 15–24 who used a condom at first sexual intercourse. The percentage of youth who used condoms the first time they had sex was low in general, but varied across countries. Condom use at first sex among young women ranged from 10 percent in Ethiopia to 48 percent in Uganda, and similarly among young men from 10 percent in Chad and Mozambique to 47 percent in Zimbabwe. Data were not available to assess changes over time for countries in the study.

Table 7.2 Percentage of women and men age 15–24 who used a condom at first sex, percentage of women age 15–19 who had higher-risk sex with a partner who was 10 or more years older, and percentage of women age 15–24 who were forced at first sex, and percentage of women age 15–24 who were forced at sex in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

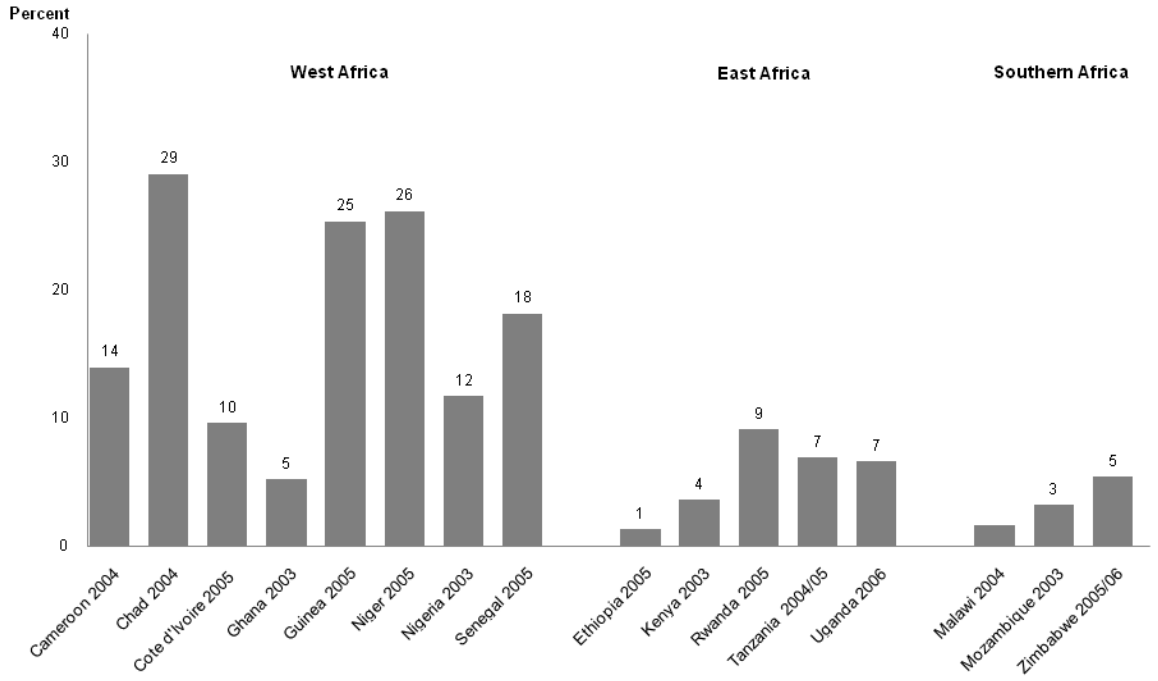
	Condom use at first sex[1]				Women with a higher-risk sex partner 10 or more years older[2]		Women who were			
	Women		Men				forced at first sex[3]		forced at sex in last 12 months[4]	
Country/year	%	Number	%	Number	%	Number	%	Number	%	Number
West Africa										
Cameroon 2004	35.3	972	29.3	934	14.0	720	n/a	n/a	n/a	n/a
Chad 2004	14.6	65	9.9	224	29.1	61	n/a	n/a	n/a	n/a
Cote d'Ivoire 2005	45.0	925	43.2	1,126	9.6	882	6.5	3,206	1.8	2,802
Ghana 2003	33.8	559	40.1	530	5.2	262	n/a	n/a	n/a	n/a
Guinea 2005	19.1	516	10.7	606	25.4	386	9.9	2,065	2.6	1,591
Niger 2005	11.1	26	23.7	205	26.2	7	5.8	2,547	0.5	2,355
Nigeria 2003	17.6	646	20.2	307	11.7	280	n/a	n/a	n/a	n/a
Senegal 2005	19.0	147	17.0	467	18.2	128	18.1	2,987	3.4	2,604
East Africa										
Ethiopia 2005	10.0	136	31.9	257	1.3	30	n/a	n/a	n/a	n/a
Kenya 2003	20.3	765	14.8	865	3.6	289	n/a	n/a	6.9	1,826
Rwanda 2005	17.4	521	13.3	615	9.1	80	17.4	1,697	3.0	1,287
Tanzania 2004/05	31.8	793	21.3	562	6.9	400	n/a	n/a	n/a	n/a
Uganda 2006	47.7	644	32.1	370	6.6	308	5.7	2,414	0.9	2,131
Southern Africa										
Malawi 2004	39.9	600	32.1	561	1.6	302	26.7	3,991	5.2	3,595
Mozambique 2003	22.4	1,079	10.2	609	3.2	772	n/a	n/a	n/a	n/a
Zambia 2001/02	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8.2	2,150
Zimbabwe 2005/06	42.2	414	46.8	1,266	5.4	150	18.2	2,320	1.0	2,039

[1] Based on women and men age 15–24 who never married and ever had sex.
[2] Based on women age 15–19 who had higher-risk sex (i.e., had sex with a non-marital or non-cohabiting partner) in last 12 months.
[3] Based on women age 15–24 who ever had sex.
Note: some of the percentages are based on small Ns.

7.4 Sex with an Older Partner

Table 7.2 also shows the percentage of young women (age 15–19) engaging in higher-risk sex in last 12 month with a partner who was 10 or more years older. Sex with an older partner ranged from 1 percent in Ethiopia to 29 percent in Chad. By region, levels were higher in west Africa compared with east Africa and southern Africa (Figure 7.4).

Figure 7.4 Percentage of women age 15–19 who had higher-risk sex with a partner 10 or more years older in last 12 months, 2003–2006



7.5 Forced Sex

Table 7.2 also presents the percentage of women age 15–24 who were forced at first sex, and the percentage forced at last sex in last 12 months. The percentage of young women forced at first sex ranged from 6 percent in Niger and Uganda to 27 percent in Malawi. Young women forced to have sex in last 12 months ranged from less than 1 percent in Niger and Uganda to 8 percent in Zambia.

7.6 Multiple Sexual Partnerships

Table 7.3 shows the percentage of women and men age 15–24 having three or more lifetime sex partners, and the percentage having two or more sex partners in last 12 months. The proportion of young women who had three or more lifetime sex partners varied from less than 1 percent in Niger, Senegal, and Ethiopia to 28 percent in Cote d'Ivoire. The proportion was substantially higher among young men, ranging from 5 percent in Ethiopia to 48 percent in Cote d'Ivoire. Overall, young men were many times more likely than young women to report three or more lifetime sexual partners.

Table 7.3 Changes in percentage of women and men age 15–24 having 3+ lifetime sex partners, and percentage having 2+ sex partners in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	3+ lifetime sex partners[1]				2+ sex partners in last 12 months[2]			
	Women		Men		Women		Men	
Country/year	%	Number	%	Number	%	Number	%	Number
West Africa								
Benin 1996	n/a	n/a	n/a	n/a	4.5	1,308	47.3	229
Benin 2001	n/a	n/a	n/a	n/a	2.5	1,557	34.6	522
Burkina Faso 1998/99	n/a	n/a	n/a	n/a	3.9	1,527	37.0	383
Burkina Faso 2003	n/a	n/a	n/a	n/a	2.7	2,869	23.2	558
Cameroon 1998	n/a	n/a	n/a	n/a	14.4	1,755	56.5	682
Cameroon 2004	26.2	4,936	40.9	2,177	10.4	3,145	41.4	1,180
Chad 1996/97	n/a	n/a	n/a	n/a	1.5	2,080	43.3	420
Chad 2004	1.9	2,433	28.4	673	1.7	1,489	27.6	294
Cote d'Ivoire 1998/99	n/a	n/a	n/a	n/a	9.6	941	43.8	219
Cote d'Ivoire 2005	27.5	2,360	48.3	1,836	6.2	1,701	32.6	1,100
Ghana 1998	n/a	n/a	n/a	n/a	n/a	n/a	25.4	187
Ghana 2003	n/a	n/a	n/a	n/a	3.6	1,048	17.8	549
Guinea 1999	n/a	n/a	n/a	n/a	6.9	1,382	38.6	384
Guinea 2005	7.1	2,800	38.7	1,146	4.1	1,591	33.4	659
Mali 1995/96	n/a	n/a	n/a	n/a	n/a	n/a	29.0	326
Mali 2001	n/a	n/a	n/a	n/a	2.7	3,537	22.0	472
Niger 1998	n/a	n/a	n/a	n/a	0.8	2,204	33.1	428
Niger 2005	0.4	3,369	8.5	1,110	0.6	2,355	10.1	261
Nigeria 1999	n/a	n/a	n/a	n/a	n/a	n/a	41.1	297
Nigeria 2003	n/a	n/a	n/a	n/a	3.6	1,987	24.7	301
Senegal 2005	0.2	6,400	18.9	1,571	1.9	2,604	21.0	472

(Cont'd)

Table 7.3 – cont'd

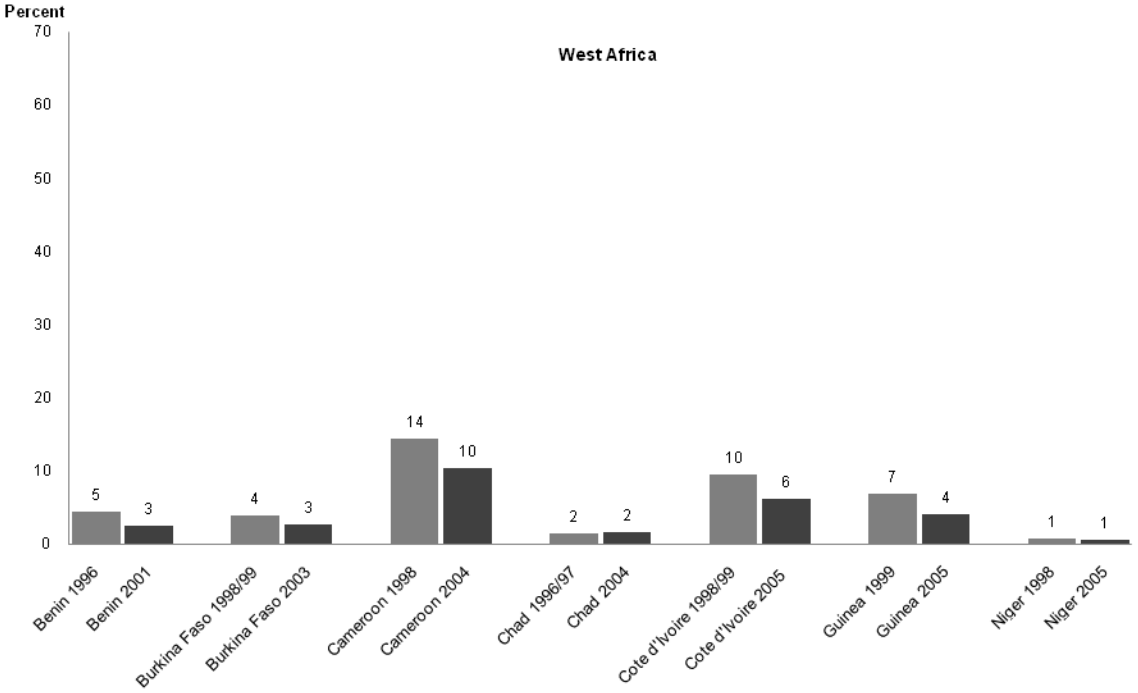
Country/year	3+ lifetime sex partners[1]				2+ sex partners in last 12 months[2]			
	Women		Men		Women		Men	
	%	Number	%	Number	%	Number	%	Number
East Africa								
Eritrea 1995	n/a	n/a	n/a	n/a	n/a	n/a	25.6	78
Ethiopia 2000	n/a	n/a	n/a	n/a	2.6	2,894	18.6	235
Ethiopia 2005	0.8	5,813	4.5	2,399	0.5	1,212	4.8	446
Kenya 1998	n/a	n/a	n/a	n/a	5.9	1,953	46.2	840
Kenya 2003	n/a	n/a	n/a	n/a	3.1	1,826	24.2	717
Rwanda 2000	n/a	n/a	n/a	n/a	1.1	1,301	6.0	228
Rwanda 2005	1.5	4,938	7.6	2,048	1.0	1,287	4.4	343
Tanzania 2004/05	n/a	n/a	35.0	1,130	5.0	2,624	33.2	585
Uganda 2000/01	n/a	n/a	n/a	n/a	2.5	2,091	23.9	355
Uganda 2006	12.9	3,646	27.8	997	3.0	2,131	22.7	408
Southern Africa								
Madagascar 1997	n/a	n/a	n/a	n/a	13.7	1,961	n/a	n/a
Madagascar 2003/04	n/a	n/a	n/a	n/a	5.3	1,883	29.6	519
Malawi 2000	n/a	n/a	n/a	n/a	1.5	3,979	19.7	752
Malawi 2004	n/a	n/a	n/a	n/a	1.7	3,595	13.2	658
Mozambique 1997	n/a	n/a	n/a	n/a	n/a	n/a	59.8	498
Mozambique 2003	n/a	n/a	n/a	n/a	8.1	3,638	39.1	795
Namibia 2000	n/a	n/a	n/a	n/a	4.4	1,514	23.9	804
Zambia 1996	n/a	n/a	n/a	n/a	7.1	2,491	46.4	548
Zambia 2001/02	n/a	n/a	n/a	n/a	3.9	2,150	30.3	468
Zimbabwe 1999	n/a	n/a	n/a	n/a	3.6	1,417	26.3	499
Zimbabwe 2005/06	4.9	4,104	24.1	3,358	1.8	2,039	19.8	1,195

[1] Based on women and men age 15–24 who ever had sex.
[2] Based on women and men age 15–24 who had sex in last 12 months.

The proportion of youth who had more than two sex partners in last 12 months also varied substantially across countries. Among young women the percentage ranged from 1 percent or less in several countries, including Niger, Ethiopia, and Rwanda, to 10 percent in Cameroon. Young men were substantially more likely to have had two or more sex partners in last 12 months, ranging from 4–5 percent in Rwanda and Ethiopia to 41 percent in Cameroon.

Over time, the percentage of young people reporting multiple sex partners declined in most countries, among both young women and young men. The declines were generally more marked for men than for women (Figures 7.5a and 7.5b).

Figure 7.5a Changes in percentage of women age 15–24 who had two or more sexual partners in last 12 months, 1996–2005



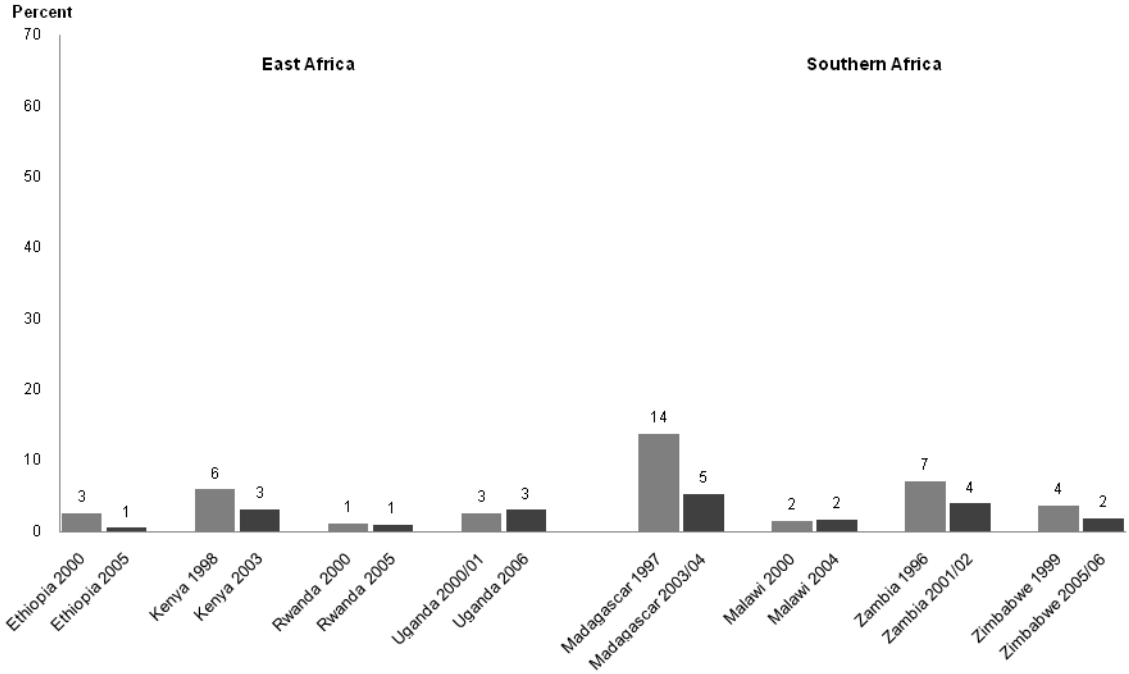
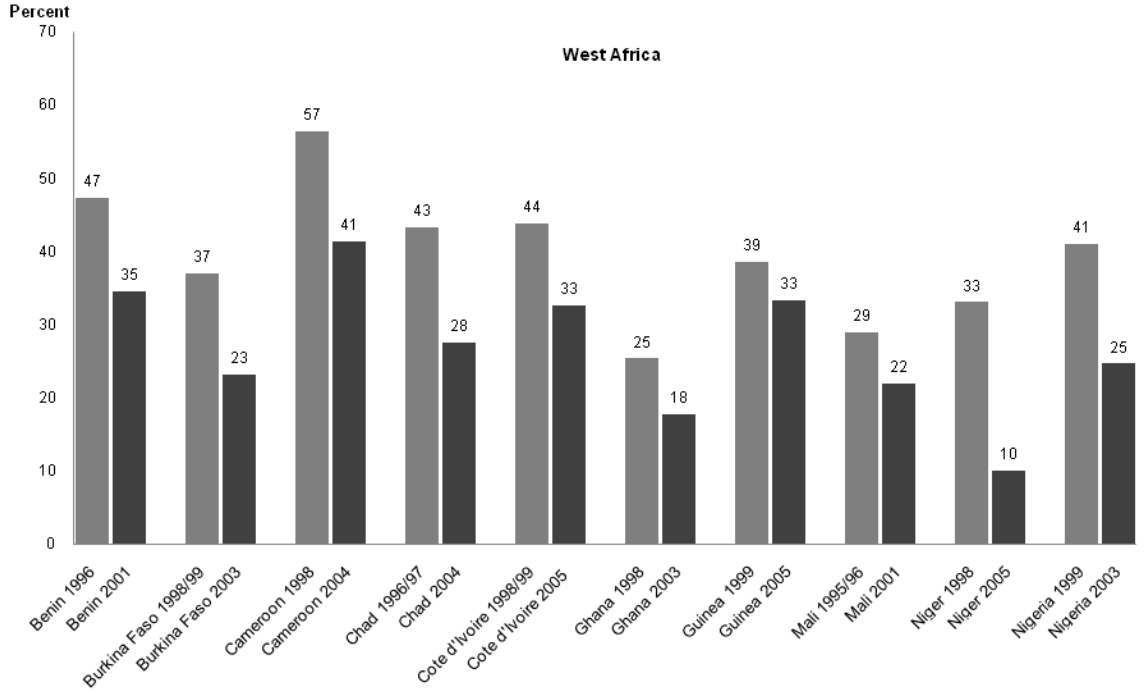
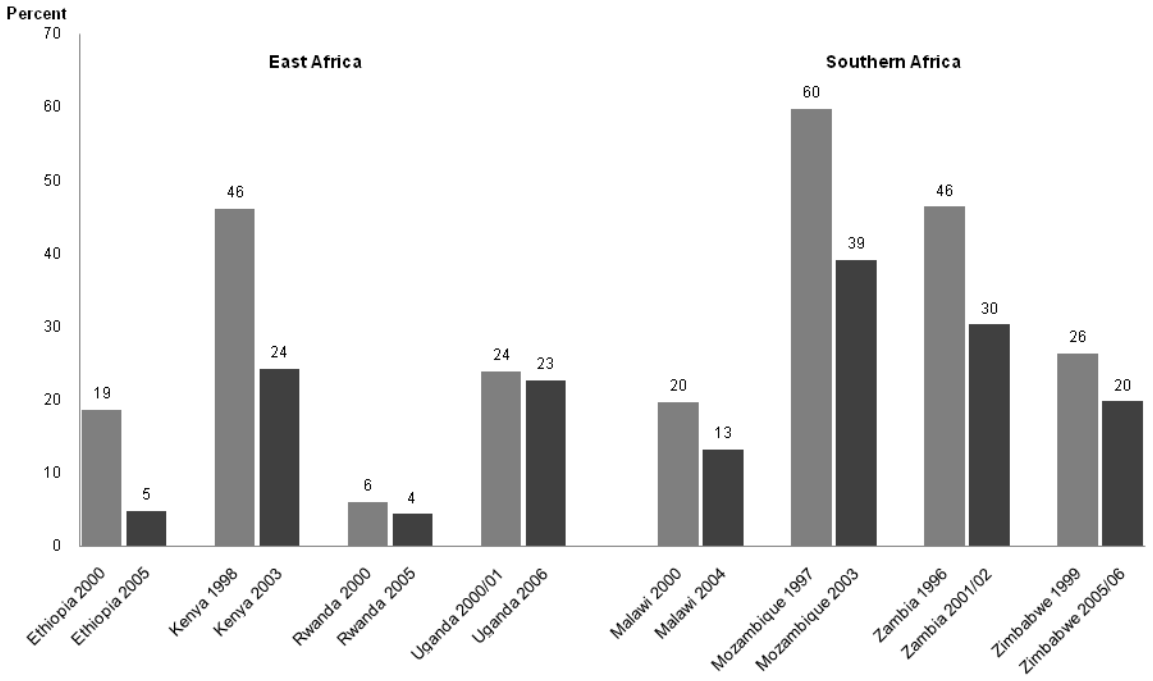


Figure 7.5b Changes in percentage of men age 15–24 who had two or more sexual partners in last 12 months, 1995–2006





8 Other Modes of HIV Transmission

This chapter presents data on the prevalence of male circumcision, use of injections for health care needs, and prevalence of STIs. These practices have all been shown to be related to HIV transmission risk.

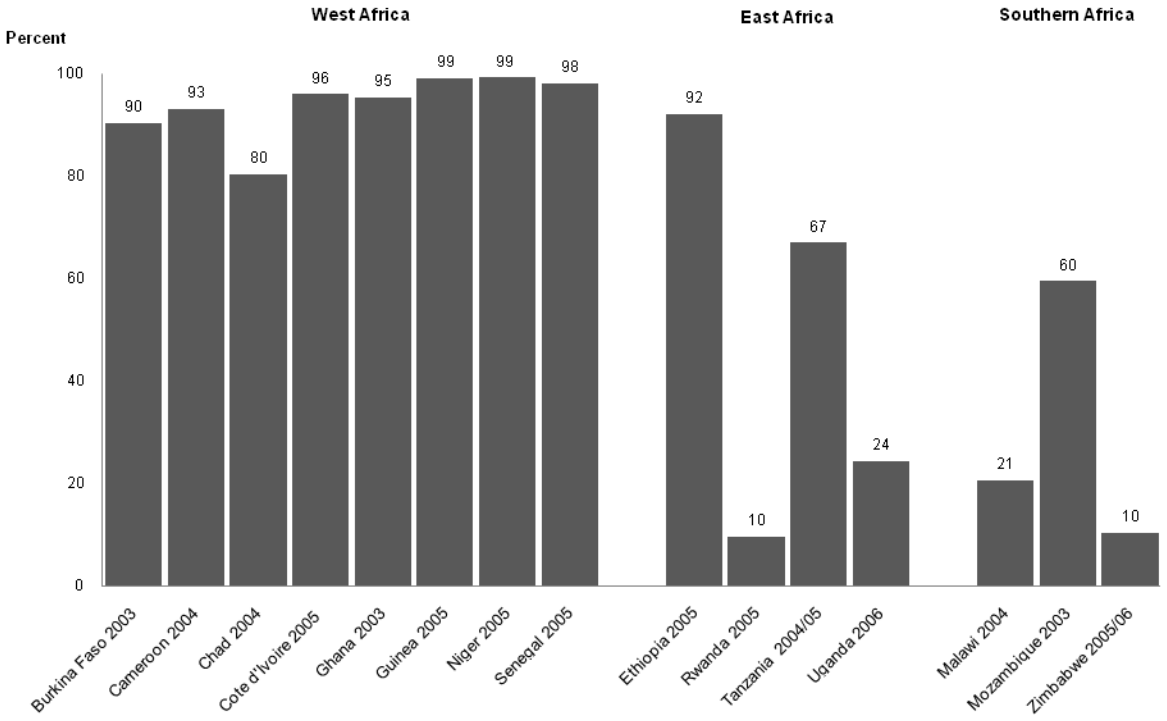
8.1 Male Circumcision

Table 8.1 and Figure 8.1 present the percentage of men age 15–49 who reported being circumcised. This percentage varied greatly across countries, from 10 percent in Rwanda and Zimbabwe to over 95 percent in Cote d'Ivoire, Ghana, Guinea, Niger, and Senegal. Circumcision was most common in west Africa. East Africa showed wide inter-regional variation, from 10 percent in Rwanda to 92 percent in Ethiopia. Data were not available to assess changes in prevalence of circumcision over time for the countries in this study.

Table 8.1 Percentage of men age 15–49 who are circumcised, in selected countries in sub-Saharan Africa, 1992–2006

Country/year	Circumcised men	
	%	Number
West Africa		
Burkina Faso 2003	90.3	3,209
Cameroon 2004	93.1	4,815
Chad 2004	80.4	1,682
Cote d'Ivoire 2005	96.0	4,503
Ghana 2003	95.4	4,529
Guinea 2005	99.1	2,709
Niger 2005	99.4	3,101
Senegal 2005	98.2	3,415
East Africa		
Ethiopia 2005	92.2	5,464
Rwanda 2005	9.7	4,413
Tanzania 2004/05	67.0	2,635
Uganda 2006	24.4	2,385
Southern Africa		
Malawi 2004	20.6	3,114
Mozambique 2003	59.5	2,490
Zimbabwe 2005/06	10.3	6,863

Figure 8.1 Percentage of men age 15–49 who are circumcised, 2003–2006



8.2 Injections by a Health Care Professional

To measure the potential risk of transmitting HIV through medical injections, respondents in the DHS surveys were asked if they had received an injection from a health care professional in the recent past, and the number of injections received. (The recent past was defined variously, from 3 to 12 months, depending on the country. See footnote in Table 8.2 for details.)

Table 8.2 presents the percentage of women and men age 15–49 who reported receiving injections in the recent past by a health care professional. The percentage of women who reported receiving four or more injections ranged from 1 percent in Niger to 19 percent in Uganda, and among men the range was from less than 1 percent in Malawi to 14 percent in Uganda.

In Malawi, the only country with injection data for two time points, results showed an increase in women receiving one to three injections (from 16 percent to 25 percent) and receiving four or more injections (from less than 1 percent to 5 percent). The percentage did not change for men.

Table 8.2 Changes in percent distribution of women and men age 15–49 by number of injections in recent months[1] by a health care professional, in selected countries in sub-Saharan Africa, 1992–2006

	Number of injections by a health care professional							
	Women				Men			
Country/year	0	1–3	4+	Number	0	1–3	4+	Number
West Africa								
Burkina Faso 2003	88.5	9.9	1.6	12,477	n/a	n/a	n/a	n/a
Guinea 2005	80.4	11.2	8.4	7,954	n/a	n/a	n/a	n/a
Niger 2005	88.9	10.0	1.1	9,223	n/a	n/a	n/a	n/a
Senegal 2005	73.0	20.4	6.5	14,602	n/a	n/a	n/a	n/a
East Africa								
Ethiopia 2005	74.3	16.3	9.4	14,070	81.1	11.0	7.9	5,464
Rwanda 2005	88.5	10.0	1.5	11,321	90.5	8.0	1.3	4,413
Tanzania 2004/05	79.4	15.4	5.1	10,329	85.7	9.3	5.0	2,635
Uganda 2006	56.0	24.9	19.0	8,531	67.6	18.5	14.0	2,385
Southern Africa								
Malawi 2000	83.2	16.3	0.5	13,220	94.0	5.3	0.7	2,915
Malawi 2004	70.3	24.7	5.0	11,698	93.7	5.5	0.6	3,114
Zimbabwe 2005/06	85.9	12.3	1.8	8,907	93.5	4.8	1.6	6,863

[1] The time frame for this question varied across countries. It was last 3 months in Burkina Faso 2003, Niger 2005, and Malawi 2000; 6 months in Guinea 2005, Senegal 2005, Rwanda 2005, Tanzania 2004/05, and Zimbabwe 2005/06; and last 12 months in Ethiopia 2005, Uganda 2006, and Malawi 2004.

8.3 Prevalence of STI or STI Symptoms

In the DHS surveys, respondents who ever had sex were asked if they had been diagnosed with an STI or had symptoms of STIs in the 12 months preceding the survey. Table 8.3 presents the percentage of women and men age 15–49 who had STIs or symptoms of STIs (genital sore or ulcer or abnormal genital discharge) in last 12 months, among those who ever had sex. The proportion of women who had an STI or STI symptoms ranged from 2 percent in Ethiopia to 32 percent in Guinea. Among men the range was from 1 percent in Eritrea to 13 percent in Uganda.

Table 8.3 Among women and men age 15–49 who ever had sex, changes in percentage who had sexually transmitted infections (STI) or symptoms of an STI* in last 12 months, in selected countries in sub-Saharan Africa, 1992–2006

	Had STI or STI symptoms in the last 12 months			
	Women		Men	
Country/year	%	Number	%	Number
West Africa				
Benin 1996	n/a	4,925	5.2	1,228
Benin 2001	2.9	5,608	4.4	2,164
Burkina Faso 1998/99	n/a	5,665	2.9	1,773
Burkina Faso 2003	4.6	10,911	4.0	2,375
Cameroon 1998	n/a	5,019	12.2	2,006
Cameroon 2004	12.1	9,280	9.2	3,959
Chad 1996/97	n/a	6,596	2.9	1,716
Chad 2004	5.9	5,284	4.3	1,324
Cote d'Ivoire 1998/99	n/a	2,743	4.0	691
Cote d'Ivoire 2005	20.1	4,707	8.2	3,951
Ghana 2003	8.3	4,807	4.3	3,376
Guinea 1999	n/a	6,144	9.0	1,501
Guinea 2005	31.5	7,213	8.1	2,315
Mali 1995/96	n/a	9,004	4.0	1,800
Mali 2001	24.6	11,810	7.3	2,447
Niger 1998	n/a	6,806	2.8	2,383
Niger 2005	2.9	8,342	3.7	2,283
Nigeria 1999	n/a	6,872	5.4	1,712
Nigeria 2003	4.5	6,530	4.5	1,535
Senegal 2005	11.9	10,716	3.8	2,414
East Africa				
Eritrea 1995	n/a	n/a	0.7	640
Ethiopia 2000	n/a	n/a	3.2	1,558
Ethiopia 2005	2.0	10,748	1.5	3,450
Kenya 1998	n/a	6,639	6.1	2,788
Kenya 2003	4.4	6,806	3.1	2,825
Rwanda 2000	2.8	7,361	2.1	1,748
Rwanda 2005	5.0	7,816	2.7	3,053
Tanzania 2004/05	5.1	8,979	5.6	2,222
Uganda 2000/01	16.6	6,399	5.5	1,560
Uganda 2006	22.1	7,281	12.8	1,938

(Cont'd)

Table 8.3 – cont'd

Country/year	Had STI or STI symptoms in the last 12 months			
	Women		Men	
	%	Number	%	Number
Southern Africa				
Madagascar 2003/04	2.9	7,095	4.6	1,915
Malawi 2000	11.0	11,845	8.7	2,609
Malawi 2004	8.4	10,397	5.6	2,716
Mozambique 2003	7.8	11,712	8.2	2,264
Namibia 2000	n/a	n/a	2.0	2,474
Zambia 1996	n/a	7,077	8.1	1,528
Zambia 2001/02	5.9	6,751	8.7	1,772
Zimbabwe 1999	8.7	4,685	6.8	1,866
Zimbabwe 2005/06	10.6	7,060	7.5	5,070

*** This indicator is coded as yes if the response was yes to any one of the following three questions: (1) had diagnosed STI in last 12 months, (2) had a genital sore or ulcer in last 12 months, (3) had bad smelling, abnormal genital discharge in last 12 months.**

The prevalence of STIs or STI symptoms increased among women in all countries with data available for two surveys, except Malawi (Figure 8.2a). Among men, there was no clear overall pattern of change. In many countries prevalence remained steady, while in Cameroon, Kenya, and Malawi it declined somewhat, and in Cote d'Ivoire, Mali, and Uganda prevalence of STIs or STI symptoms increased (Figure 8.2b).

Figure 8.2a Changes in percentage of women age 15–49 reporting STI or STI symptoms in last 12 months, 1995–2006

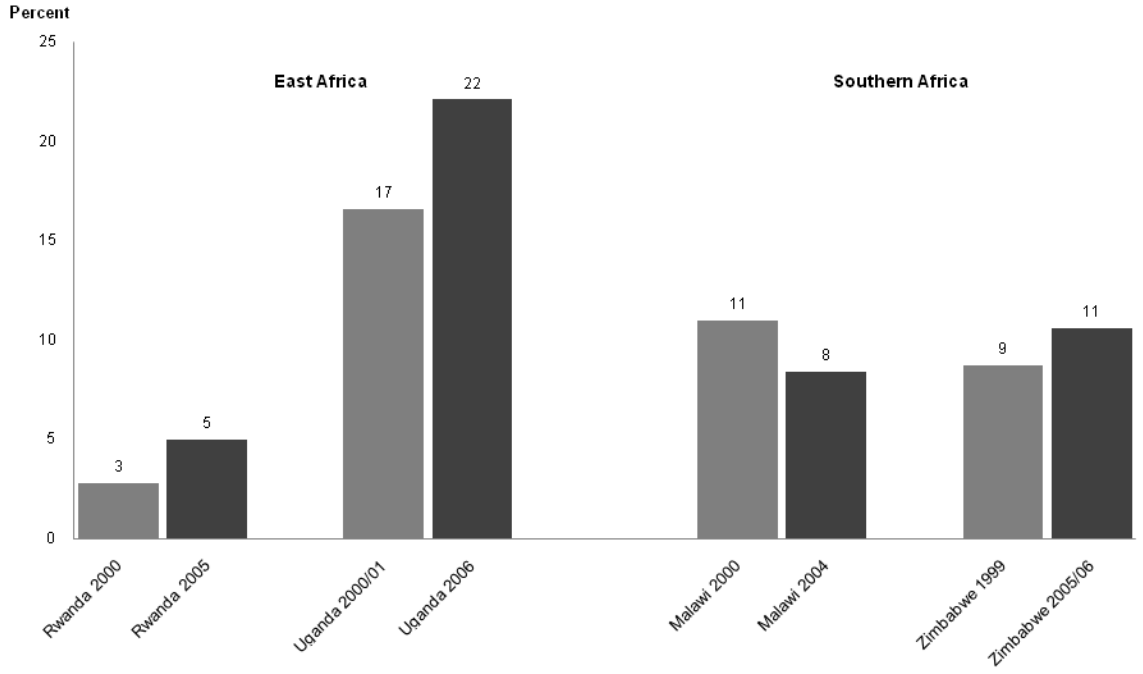
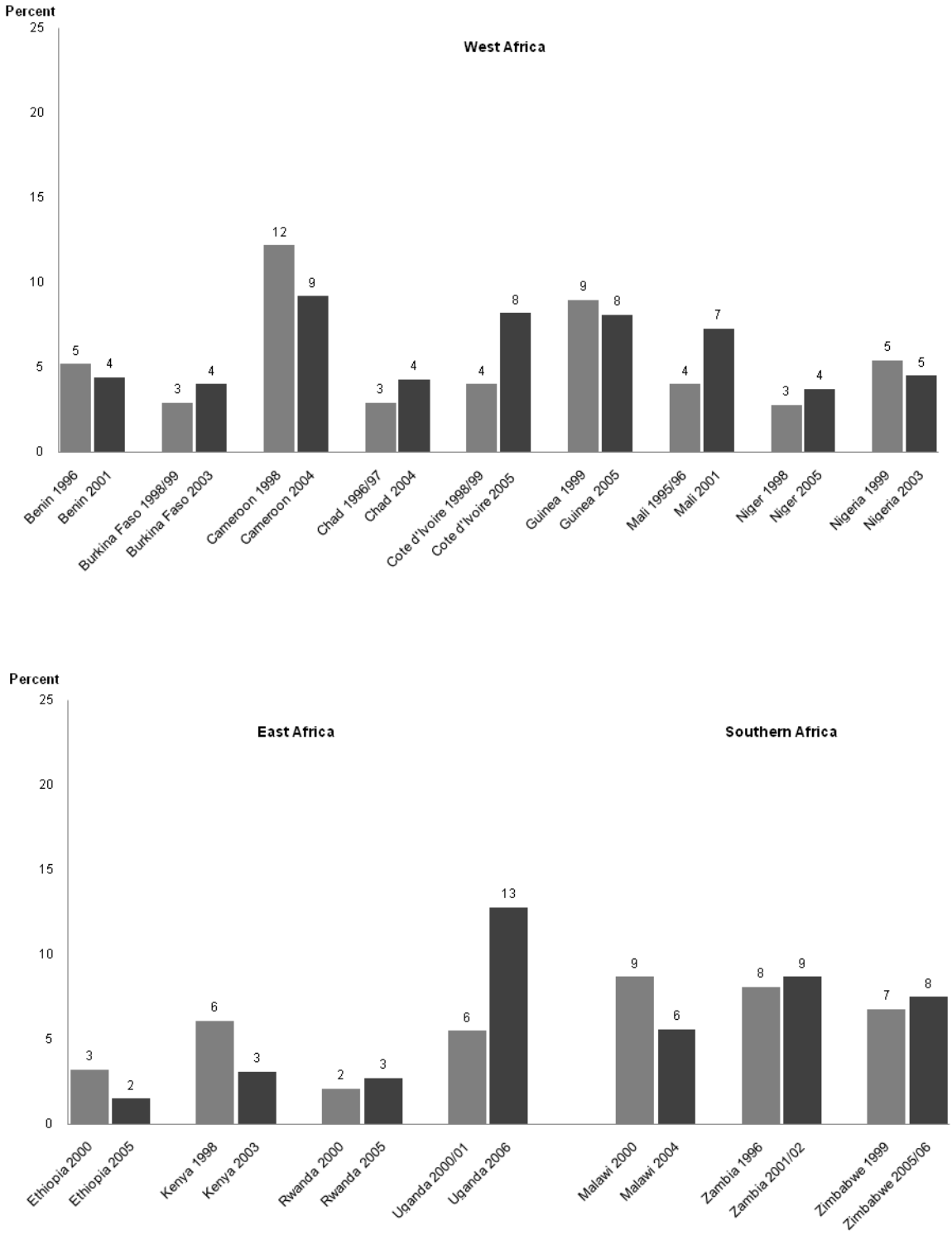


Figure 8.2b Changes in percentage of men age 15–49 reporting STI or STI symptoms in last 12 months, 1995–2006



9 Voluntary Counseling and Testing

To assess the awareness and coverage of HIV testing services, DHS respondents were asked whether they were ever tested for HIV. If they were tested, they were asked whether they received the results of their last test and where they were tested. If they were never tested, they were asked if they knew a place where they could go for testing.

Table 9.1 presents the percentage of women and men age 15–49 who knew where to get tested for HIV, the percentage who ever got tested for HIV and received their test results, and the percentage who got tested for HIV and received the test results in last 12 months.

9.1 Knowledge of HIV Testing Services

The percentage of women who knew where to get tested for HIV ranged from 12–13 percent in Mali, Chad, and Madagascar to 81–82 percent in Malawi and Uganda, and among men from 14 percent in Madagascar to 86–87 percent in Rwanda, Malawi, and Uganda (Table 9.1). Levels of knowledge about where to get tested were lower in west Africa than in east Africa or southern Africa. Also in west Africa, the differences between women and men in this knowledge were more pronounced.

For countries with information for two time points, there were sizeable increases in knowledge of where to get tested for HIV, among both women and men (Figures 9.1a and 9.1b). For example, in Uganda levels of such knowledge increased among women from 35 percent to 82 percent, and among men from 54 percent to 87 percent, comparing the 2000/01 and 2006 surveys.

Table 9.1 Changes in percentage of women and men age 15–49 who know where to get tested for HIV, percentage ever tested for HIV and received test results, and percentage tested for HIV in last 12 months and received test results, in selected countries in sub-Saharan Africa, 1992–2006

Country/year	Know where to get tested for HIV		Ever tested for HIV and received test results		Tested for HIV in last 12 months and received test results		Number	
	Women	Men	Women	Men	Women	Men	Women	Men
West Africa								
Benin 2001	18.9	36.8	n/a	n/a	n/a	n/a	6,219	2,465
Burkina Faso 2003	n/a	35.6	n/a	6.3	n/a	2.3	n/a	3,209
Cameroon 2004	n/a	n/a	19.2	13.9	4.8	6.7	10,656	4,815
Chad 2004	13.0	32.9	1.1	3.7	0.5	1.7	6,085	1,682
Cote d'Ivoire 2005	19.8	37.8	10.9	7.9	3.7	3.2	5,183	4,503
Ghana 2003	54.1	61.0	7.4	7.5	2.3	3.2	5,691	4,529
Guinea 2005	18.1	44.3	2.1	6.0	1.1	2.9	7,954	2,709
Mali 2001	11.8	30.4	n/a	n/a	n/a	n/a	12,849	3,000
Niger 2005	14.6	40.8	1.9	3.9	0.9	1.6	9,223	3,101
Nigeria 2003	33.3	58.8	6.4	6.0	3.0	2.7	7,620	2,093
Senegal 2005	37.7	45.9	2.8	4.2	1.0	1.5	14,602	3,415
East Africa								
Ethiopia 2005	31.3	47.4	3.3	4.9	1.6	2.3	6,751	5,464
Kenya 1998	47.6	50.3	n/a	n/a	n/a	n/a	7,881	3,224
Kenya 2003	63.3	70.8	13.1	14.3	6.7	7.6	8,195	3,363
Rwanda 2000	68.5	54.9	n/a	n/a	n/a	n/a	10,421	2,532
Rwanda 2005	72.7	86.3	21.4	20.1	11.6	11.0	11,321	4,413
Tanzania 2004/05	56.5	74.9	12.1	12.3	6.2	6.5	10,329	2,635
Uganda 2000/01	34.5	53.6	7.6	11.3	n/a	n/a	7,246	1,879
Uganda 2006	82.0	87.1	24.8	20.7	12.0	10.4	8,531	2,385
Southern Africa								
Madagascar 2003/04	13.3	14.4	0.9	0.9	0.4	0.5	7,949	2,216
Malawi 2000	70.0	80.0	n/a	n/a	n/a	n/a	13,220	2,915
Malawi 2004	81.0	87.1	12.9	15.1	6.5	7.7	11,698	3,114
Mozambique 2003	30.5	38.1	3.7	3.6	2.4	2.7	12,418	2,490
Namibia 2000	79.2	75.5	21.9	22.5	n/a	n/a	6,755	2,766
Zambia 2001/02	64.4	72.2	n/a	n/a	n/a	n/a	7,658	1,974
Zimbabwe 1999	42.9	30.4	n/a	n/a	n/a	n/a	5,907	2,505
Zimbabwe 2005/06	74.7	74.3	21.7	16.4	6.6	6.7	8,907	6,863

Figure 9.1a Changes in percentage of women age 15–49 with knowledge of where to get tested for HIV, 1998–2006

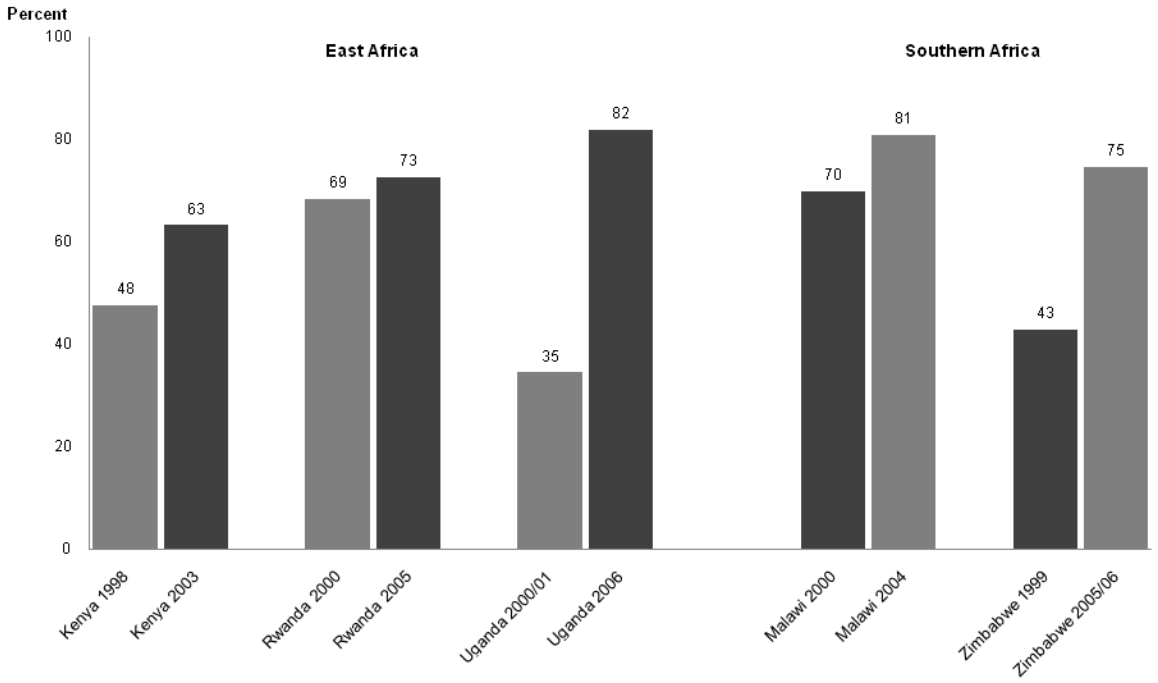
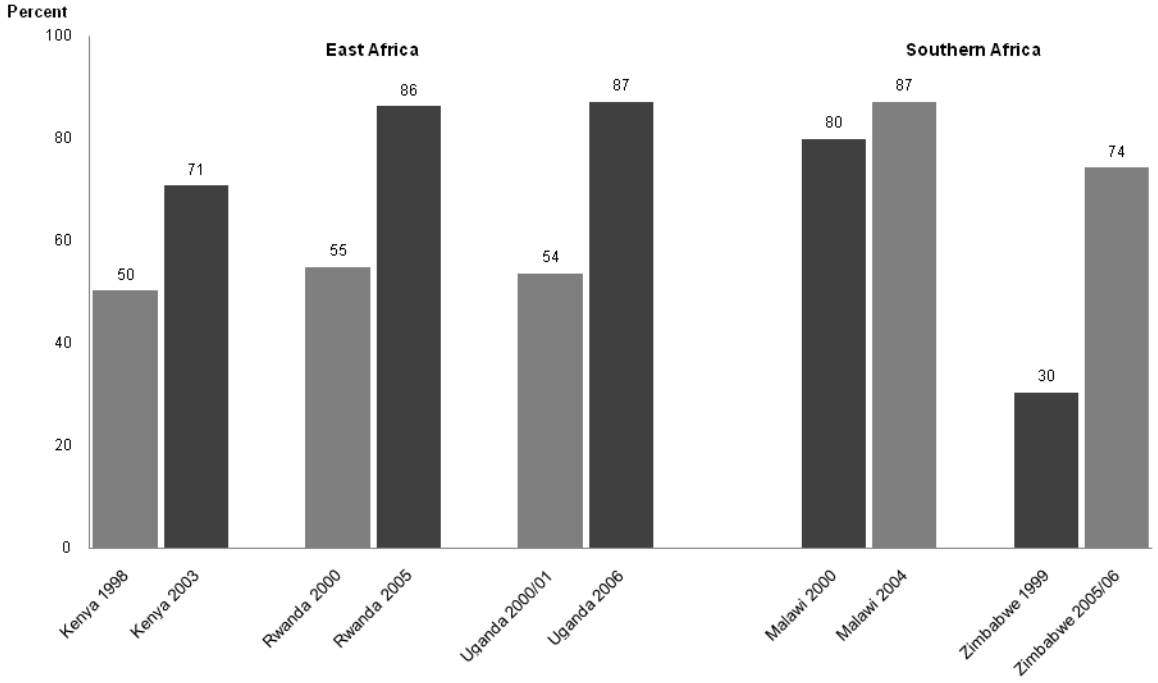


Figure 9.1b Changes in percentage of men age 15–49 with knowledge of where to get tested for HIV, 1998–2006



9.2 Knowledge of HIV Status

The percentage of respondents who were ever tested for HIV and received test results generally was low, with substantial variation across countries (Table 9.1). Among women the range was from 1 percent or less in Chad and Madagascar to 25 percent in Uganda, and among men from less than 1 percent in Madagascar to 23 percent in Namibia (Figures 9.2a and 9.2b).

In Uganda, the only country with available data from two surveys, the percentage of respondents who were ever tested for HIV and received results increased substantially among both women and men. Still, in 2006 only about one man in every five and one woman in every four had ever been tested and received results (Figure 9.3).

Table 9.1 also shows that less than 10 percent of women and men in all countries except Rwanda and Uganda were tested for HIV and received results in last 12 months. The percentage tested in last 12 months ranged among women from less than 1 percent in Chad, Niger, and Madagascar to 12 percent in Uganda and Rwanda, and similarly among men, ranged from less than 1 percent in Madagascar to 11 percent in Rwanda.

Figure 9.2a Percentage of women age 15–49 ever tested for HIV and received test results, 2000–2006

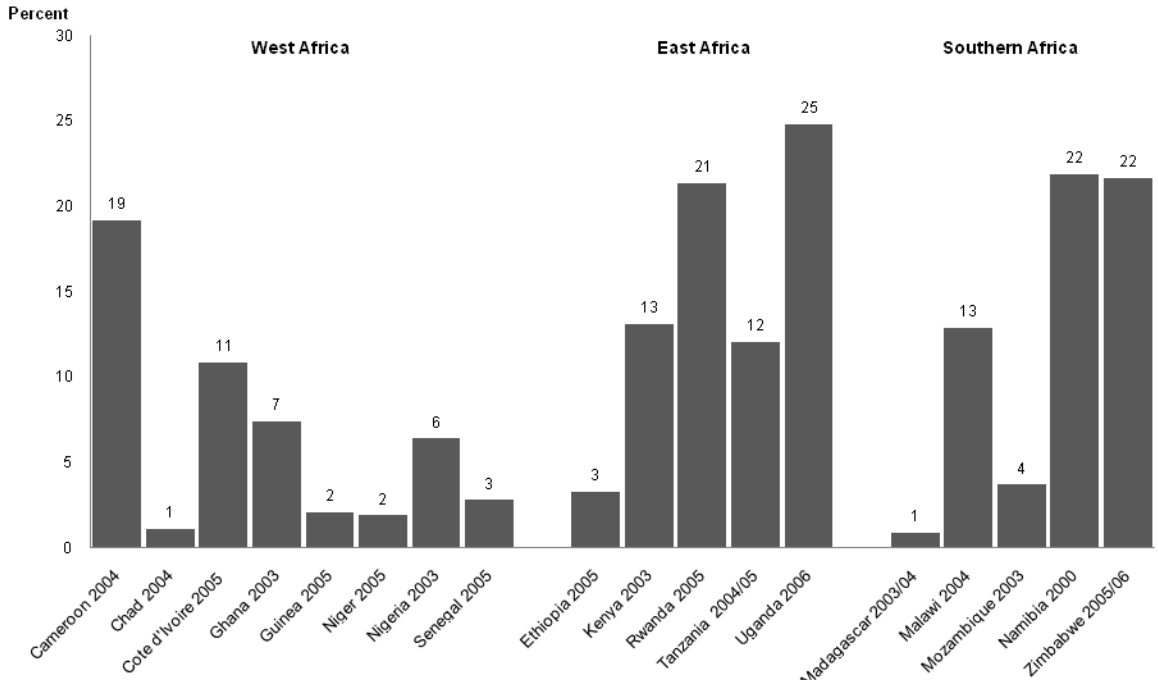


Figure 9.2b Percentage of men age 15–49 ever tested for HIV and received test results, 2000–2006

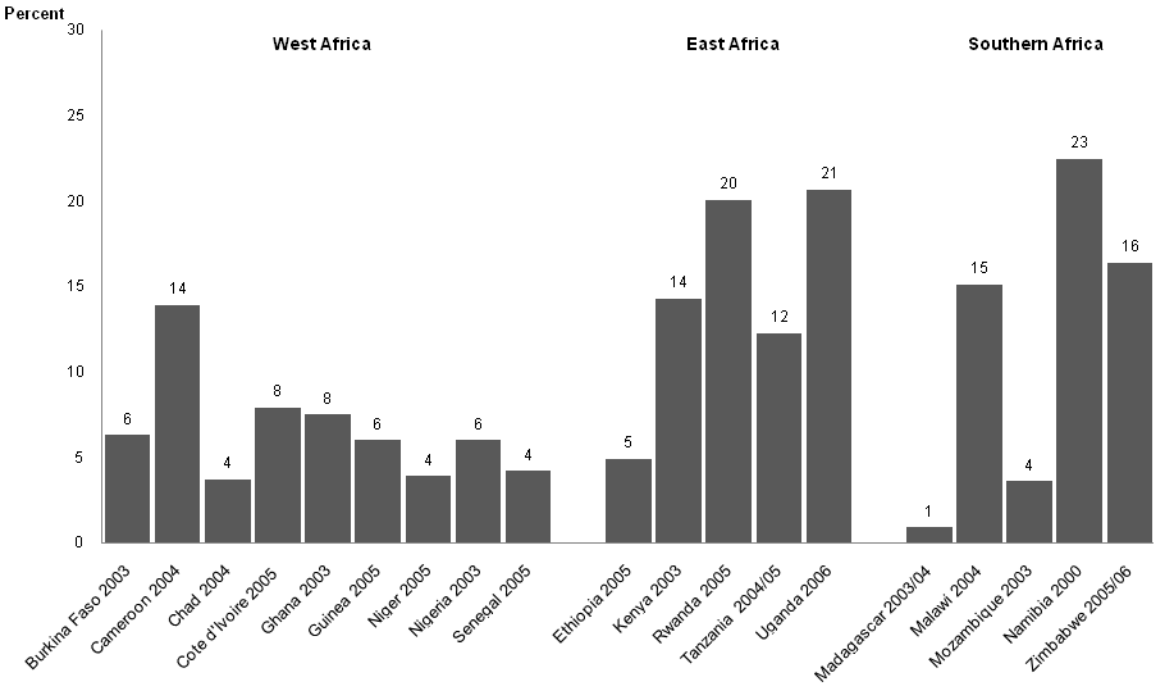
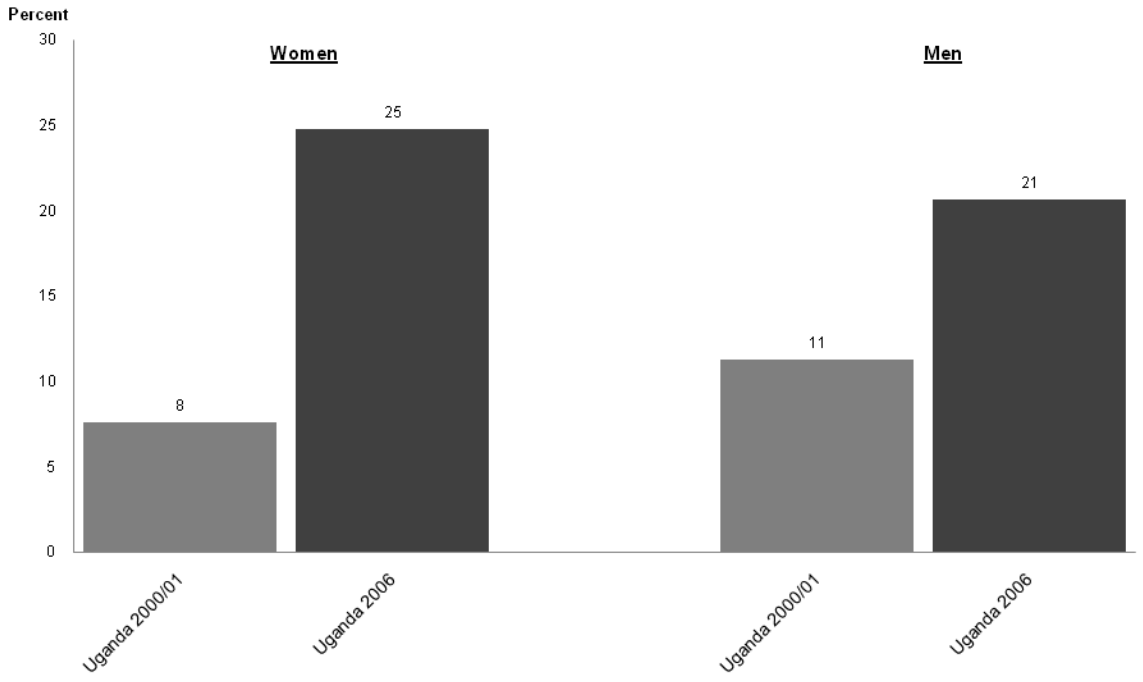


Figure 9.3 Changes in percentage of women and men age 15–49 ever tested for HIV and received test results, Uganda 2000–2006



10 Gender Relations

This chapter presents indicators of men's and women's attitudes toward negotiating safer sex with husbands, spousal communication about HIV/AIDS, and women's participation in major household decisions. Women's status relative to men, ability to negotiate safer sex, and participation in household decision-making can affect their vulnerability to HIV infection and their ability to take preventive action.

10.1 Attitudes toward Negotiating Safer Sex with Husbands

Table 10.1 presents the percentage of women and men age 15–49 who believe that a wife is justified in refusing to have sex with her husband if she knows that her husband has an STI, and the percentage who believe that a wife is justified in refusing sex if she knows that her husband had sex with other women. The table also shows the percentage who believe that a wife is justified in asking her husband to use a condom if he has an STI, and the percentage who believe that a woman can negotiate safer sex.

Attitudes toward negotiating safer sex with husbands varied greatly across countries. Among women, the belief that a wife was justified in refusing to have sex with her husband if she knew that the husband had an STI ranged from 45 percent in Mali to 91 percent in Rwanda, and among men from 71 percent in Zambia to 96 percent in Rwanda. In general, a higher proportion of men than women believed that a wife was justified in refusing sex with her husband if she knew that the husband had an STI. In the four countries where data from two consecutive surveys were available, there was a substantial increase in Malawi and Zimbabwe among both women and men having this belief. Among women, the percentage increased in Rwanda but declined in Uganda, while among men it remained stable in both countries (Figures 10.1a and 10.1b).

The percentage of women and men who believed that a wife was justified in refusing to have sex with her husband if she knew that he had sex with other women also varied widely across countries. Among women, the percentage ranged from 32 percent in Mali to 87 percent in Madagascar, and among men from 44 percent in Mali to 90 percent in Zambia.

Among the four countries with two data points, the proportions of women and men reporting that a wife was justified in refusing sex with her husband if she knew that he had sex with other women increased substantially in three countries (Rwanda, Malawi, and Zimbabwe), but declined slightly in Uganda (Figures 10.1a and 10.1b).

Table 10.1 Changes in percentage of women and men age 15–49 who believe that a wife is justified in refusing to have sex with her husband if she knows that the husband has an STI, percentage who believe that a wife is justified in refusing to have sex with her husband if she knows that her husband has sex with other women, percentage who believe that a wife is justified to ask her husband to use a condom if he has an STI, and percentage who believe that a woman can negotiate safer sex, in selected countries in sub-Saharan Africa, 1992–2006

	A wife is justified in refusing to have sex with her husband if she knows that he has an STI		A wife is justified in refusing to have sex with her husband if she knows that he has sex with other women		A wife is justified to ask her husband to use a condom if he has an STI		Woman's ability to negotiate safer sex[1]		Number	
Country/year	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
West Africa										
Benin 2001	87.7	89.2	57.6	54.6	n/a	n/a	n/a	n/a	6,219	2,465
Burkina Faso 2003	78.4	85.8	63.8	66.7	n/a	n/a	n/a	n/a	12,477	3,209
Cameroon 2004	77.2	78.3	62.6	63.2	66.8	74.1	81.4	81.3	10,656	4,815
Chad 2004	72.2	72.3	63.1	59.0	35.7	54.3	76.1	74.7	6,085	1,682
Cote d'Ivoire 2005	69.9	87.5	n/a	n/a	69.8	89.4	80.3	92.7	5,183	4,503
Ghana 2003	86.2	90.6	79.0	82.7	n/a	91.5	n/a	96.8	5,691	4,529
Guinea 2005	73.2	n/a	42.7	n/a	57.9	n/a	80.1	n/a	7,954	n/a
Mali 2001	45.2	73.8	31.7	43.9	n/a	n/a	n/a	n/a	12,849	3,000
Niger 2005	74.7	n/a	52.9	n/a	61.8	n/a	82.4	n/a	9,223	n/a
Nigeria 2003	83.5	91.2	68.2	73.0	72.8	80.6	89.1	94.8	7,620	2,093
Senegal 2005	81.7	n/a	62.9	n/a	77.3	n/a	89.8	n/a	14,602	n/a
East Africa										
Ethiopia 2005	81.3	85.2	82.1	82.8	41.6	64.6	84.5	89.1	14,070	5,464
Kenya 2003	87.1	92.5	78.8	77.4	78.3	80.7	93.8	95.7	8,195	3,363
Rwanda 2000	87.0	93.4	68.6	73.5	n/a	n/a	n/a	n/a	10,421	2,532
Rwanda 2005	91.3	95.8	83.7	87.2	86.0	95.3	95.5	99.0	11,321	4,413
Tanzania 2004/05	87.8	89.7	73.0	77.2	74.8	82.6	93.9	96.1	10,329	2,635
Uganda 2000/01	91.2	89.7	76.4	77.8	n/a	n/a	n/a	n/a	7,246	1,879
Uganda 2006	80.4	87.0	73.9	75.0	n/a	n/a	n/a	n/a	8,531	2,385
Southern Africa										
Madagascar 2003/04	86.7	90.2	86.8	86.6	n/a	n/a	n/a	n/a	7,949	2,216
Malawi 2000	60.9	55.7	56.7	50.1	n/a	n/a	n/a	n/a	13,220	2,915
Malawi 2004	73.9	81.4	71.1	73.5	81.4	79.8	91.3	93.2	11,698	3,114
Mozambique 2003	79.7	81.9	53.3	52.1	70.9	80.1	89.1	94.2	12,418	2,490
Namibia 2000	81.5	77.0	76.8	71.2	n/a	n/a	n/a	n/a	6,755	2,766
Zambia 2001/02	85.6	70.7	72.9	90.4	n/a	n/a	n/a	n/a	7,658	1,974
Zimbabwe 1999	71.2	35.8	63.5	33.1	n/a	n/a	n/a	n/a	5,907	2,505
Zimbabwe 2005/06	79.4	77.4	71.2	72.2	82.8	85.5	91.9	93.1	8,907	6,863

[1] A women can negotiate safer sex if she can refuse sex or request condom use if she knows that her husband has an STI.

Figure 10.1a Changes in percentages of women age 15–49 who believe that a wife can refuse sex if she knows that her husband has an STI or if he has sex with other women, 1999–2006

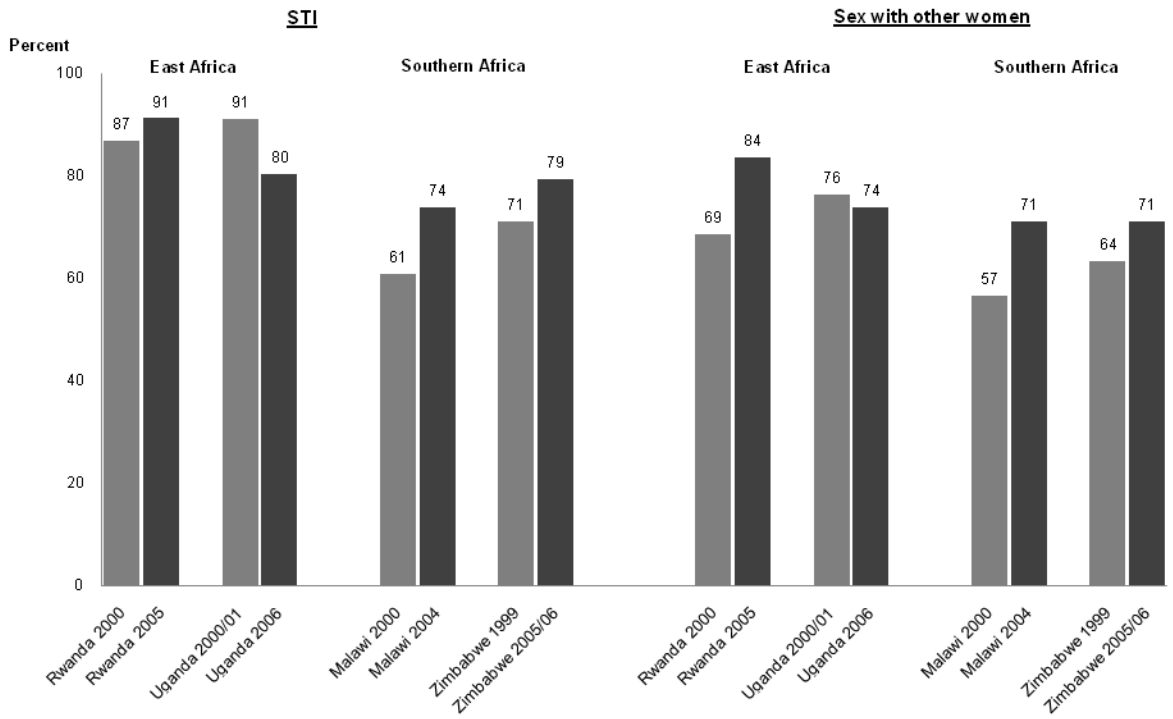
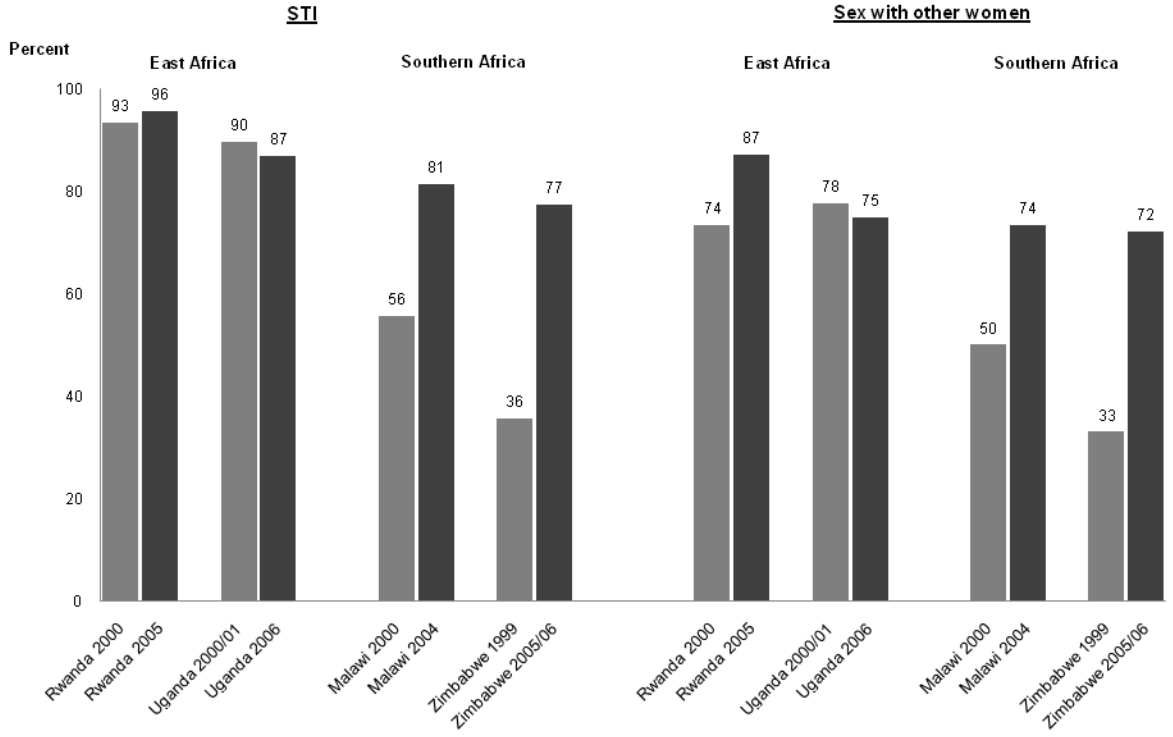


Figure 10.1b Changes in percentages of men age 15–49 who believe that a wife can refuse sex if she knows that her husband has an STI or if he has sex with other women, 1999–2006



The percentage of women who believed that a wife was justified in asking her husband to use a condom if he had an STI ranged from 36 percent in Chad to 86 percent in Rwanda. Among men the range was from 54 percent in Chad to 95 percent in Rwanda. For the most part, men were more likely than women to have this belief.

Table 10.1 also shows the percentages of women and men who believed that a woman could negotiate safer sex, i.e., she could refuse sex or request condom use if she knew that her husband had an STI. The percentage of women with this belief ranged from 76 percent in Chad to 96 percent in Rwanda, while the range among men was from 75 percent in Chad to 99 percent in Rwanda. In general, men were more likely than women to respond that a woman can negotiate safer sex if she knows that her husband has an STI.

10.2 Discussing HIV/AIDS with Sexual Partners

Table 10.2 presents the percentage of respondents who said that they never discussed HIV/AIDS with any of their sexual partners, among women and men age 15–49 currently in union. The results varied widely across countries. Among women the range was from 22 percent in Rwanda to 69 percent in Mali, and among men from 12 percent in Malawi to 57 percent in Mali. In the great majority of countries, a higher proportion of women than men responded that they never discussed HIV/AIDS with any of their sexual partners. In several countries women were more than twice as likely as men to never have discussed HIV/AIDS with any of their sexual partners.

Only two countries, Rwanda and Malawi, had data on discussion about HIV/AIDS for two time points. In Rwanda there was a substantial decline in the percentage who never discussed HIV/AIDS with any of their sexual partners—among women from 33 percent to 22 percent, and among men from 21 percent to 16 percent. Malawi also showed a slight decline among men (from 14 percent to 12 percent), while the percentage remained fairly stable among women.

Table 10.2 Among women and men age 15–49 who are currently in union, changes in percentage who never discussed HIV/AIDS with any of their sexual partners, in selected countries in sub-Saharan Africa, 1992–2006

	Never discussed HIV/AIDS with any partner			
	Women		Men	
Country/year	%	Number	%	Number
West Africa				
Benin 2001	65.7	4,563	43.2	1,378
Burkina Faso 2003	60.4	9,655	34.3	1,636
Cameroon 2004	38.2	7,166	15.3	2,271
Chad 2004	51.0	4,663	40.0	977
Ghana 2003	37.8	3,549	23.5	2,228
Mali 2001	69.2	10,723	57.0	1,723
Nigeria 2003	48.8	5,336	40.7	1,006
East Africa				
Eritrea 2002	58.8	5,733	n/a	n/a
Ethiopia 2000	60.4	9,789	47.9	1,179
Kenya 2003	33.4	4,919	13.8	1,615
Rwanda 2000	33.3	5,053	21.0	1,249
Rwanda 2005	21.9	5,510	15.9	2,126
Uganda 2000/01	37.0	4,881	15.4	1,108
Southern Africa				
Madagascar 2003/04	34.5	5,140	40.3	1,331
Malawi 2000	26.8	9,452	13.6	1,745
Malawi 2004	29.4	8,312	12.2	1,936
Mozambique 2003	45.6	8,736	38.9	1,466
Namibia 2000	27.0	2,610	22.7	887
Zambia 2001/02	31.8	4,694	12.5	1,087
Zimbabwe 1999	36.5	3,609	16.2	1,152

10.3 Participation in Household Decision-Making

Table 10.3 presents the percentage of women age 15–49 who participated in making various household decisions. Participation in decision-making on health care and large household purchases varied widely across countries. On health care, the range was from 16–20 percent in Mali, Burkino Faso, and Senegal to more than 80 percent in Zimbabwe, Madagascar, and Eritrea. For both health care decision-making and decision-making about large household purchases, the percentages were somewhat higher in east Africa and southern Africa than in west Africa.

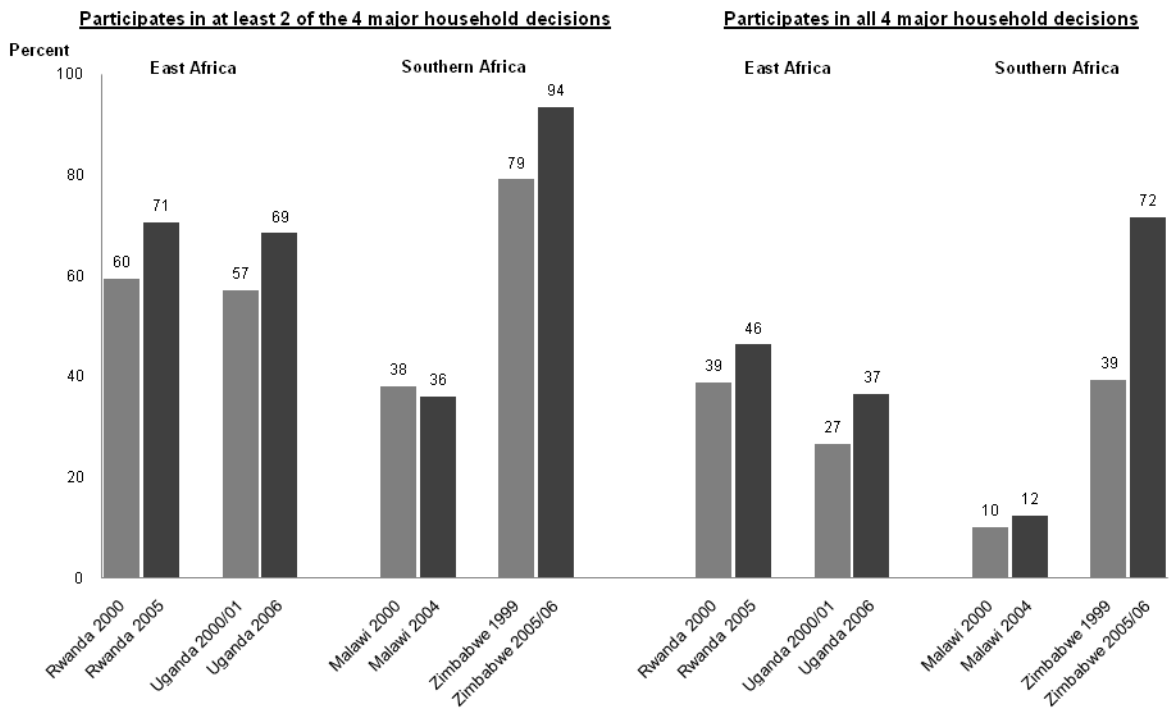
Levels of decision-making on household purchases for daily needs were somewhat higher than the levels of the other indicators of women's participation. In west Africa, for example, the percentage ranged from 19 percent in Niger to 61 percent in Ghana; in east Africa, it ranged from 49 percent in Tanzania to 83 percent in Ethiopia; and in southern Africa the range was from 33 percent in Malawi to 92 percent in Madagascar. Regarding the percentage of women who participated in decisions to visit family, the percentage who participated in two or more decisions, and those who participated in all four decisions, levels were generally higher in east Africa and southern Africa than in west Africa.

Table 10.3 Changes in percentage of women age 15–49 who participate in making various household decisions, in selected countries in sub-Saharan Africa, 1992–2006

Country/year	Decision on own health care	Decision on making large household purchases	Decision on making household purchases for daily needs	Decision to visit family or relatives	2 or more of the 4 household decisions	All 4 household decisions	Number
West Africa							
Benin 2001	33.2	30.8	59.0	47.6	51.5	16.7	4,563
Burkina Faso 2003	19.3	23.5	38.5	32.0	30.3	9.8	9,655
Cameroon 2004	34.9	35.8	51.1	48.6	48.0	22.7	7,166
Ghana 2003	57.6	51.0	61.1	58.8	62.4	39.1	3,549
Guinea 2005	44.5	45.2	53.2	53.4	53.7	34.2	6,292
Mali 2001	16.4	16.3	26.6	28.7	23.5	7.9	10,723
Niger 2005	24.1	13.4	18.7	22.9	19.8	8.1	7,941
Nigeria 2003	23.1	19.5	32.8	38.1	29.5	13.4	5,336
Senegal 2005	19.7	15.8	24.9	29.2	23.0	9.2	9,866
East Africa							
Eritrea 2002	87.5	54.3	64.9	71.7	75.3	48.5	5,733
Ethiopia 2005	65.8	57.1	82.9	78.4	83.5	43.5	9,066
Kenya 2003	54.1	36.0	59.7	58.0	61.8	24.4	4,919
Rwanda 2000	50.2	49.0	55.4	69.3	59.5	38.8	5,053
Rwanda 2005	59.5	57.6	66.9	74.2	70.6	46.4	5,510
Tanzania 2004/05	59.1	34.0	49.4	49.2	53.4	24.7	6,950
Uganda 2000/01	61.3	37.8	45.6	56.0	57.2	26.6	4,881
Uganda 2006	60.6	50.8	65.2	63.7	68.5	36.6	5,337
Southern Africa							
Madagascar 2003/04	84.8	82.0	91.7	85.8	91.8	71.3	5,140
Malawi 2000	27.6	17.0	32.4	62.1	38.1	10.2	9,452
Malawi 2004	27.7	17.9	32.6	60.1	36.0	12.4	8,312
Mozambique 2003	61.6	36.9	57.4	63.4	63.7	27.2	8,736
Zambia 2001/02	41.0	36.4	n/a	42.5	37.9	n/a	4,694
Zimbabwe 1999	61.8	58.2	78.0	74.1	79.2	39.3	3,609
Zimbabwe 2005/06	81.7	90.3	88.0	89.2	93.5	71.6	5,143

In three countries with data available for two time points (Rwanda, Uganda, and Zimbabwe), both the percentage of women who participated in at least two of the four decisions and the percentage who participated in all four decisions increased considerably. In the fourth country with data (Malawi) it changed little (Figure 10.2).

Figure 10.2 Changes in women's participation in major household decisions*, 1999–2006



*The 4 major household decisions include: 1. own health care; 2. making large household purchases; 3. making household purchases for daily needs; 4. visit family or relatives

11 Summary and Conclusions

This report summarizes levels and recent changes in key indicators of HIV-related knowledge, attitudes, and behaviors of adult women and men age 15–49 in 23 countries in sub-Saharan Africa. Data come from the two most recent rounds of population-based, nationally representative DHS surveys conducted between 1992 and 2006.

11.1 Key Findings

The results show that in most countries in sub-Saharan Africa education levels and exposure to the mass media have improved in recent years, yet men remain more educated than women and better exposed to the media. People are increasingly mobile and more likely to live in urban areas. There have been improvements in women's participation in household decision-making and in their ability to negotiate safer sex.

Knowledge about HIV prevention methods has increased in recent years in most countries studied. However, many men and women still lack knowledge of specific prevention methods: abstinence, partner faithfulness, and condom use. The level of comprehensive knowledge about HIV/AIDS has increased, but in most countries, especially in west Africa, levels remain very low.

Although men generally are more knowledgeable than women about HIV prevention methods, higher percentages of women than men know that HIV can spread from mother to child through breast milk. Few adults know about drugs that can prevent mother-to-child HIV transmission.

The study results suggest that many people continue to have discriminatory attitudes toward people living with HIV. While the majority of adults report that they would care for an infected family member, only a minority would want others to know if someone in their own family were infected. Levels of acceptance of HIV-infected female teachers or vegetable vendors are also low, though improving.

An overwhelming majority of adults agree that children age 12–14 should be taught to abstain from sex until they get married. In most countries, however, only about half of women and a slightly higher percentage of men say they would want children age 12–14 to be taught about condom use.

In all countries a large majority of people perceive themselves to be at no risk or low risk of becoming infected with HIV. Nonetheless, many adults, particularly men, report being at no risk or low risk of HIV infection, even though they have had multiple lifetime sexual partners. The proportion of people who consider themselves to be at high risk or who already have HIV shows no correlation to HIV prevalence in the country.

Age at sexual debut remains low, with considerable proportions of men and women having first sex before age 15. In recent years, the median age at first sex has remained generally unchanged in most countries. Men are much more likely than women to report multiple sexual partners in their lifetime, as well as in the year before the survey. Men are also much more likely than women to report non-spousal sex. In most countries women have become less likely to report multiple partners, but among men there is no clear pattern of change. The highest levels of paid sex among men were in southern Africa, where the prevalence of HIV is higher than in the other two regions.

Among never-married youth age 15–24, no clear pattern of change appears in the practice of primary abstinence across countries, but secondary abstinence has increased in most countries. Results

also show that over time fewer youth report having multiple sex partners. Many young women report being forced at first sex and having sex with non-spousal partners 10 years or older than themselves.

Overall, condom use has increased somewhat but remains very low in most sub-Saharan countries. Less than one woman in every six and one man in every three report using a condom at last sex in the year before the survey. Levels of consistent condom use are even lower.

Although the percentage of respondents who know where to get tested for HIV is substantial in many countries in east Africa and southern Africa, the percentage who have ever been tested for HIV and received test results is quite low in most countries studied, at below 25 percent. For countries with data from both the earlier and more recent surveys, sizeable increases in the knowledge of where to get tested for HIV have occurred among both women and men.

11.2 Limitations

It is important to keep the following limitations of this study in mind when interpreting the findings. First, the DHS surveys exclude non-household population groups, such as those living on the street or in institutions (e.g., prisons, boarding schools, military barracks, refugee camps, and brothels). To the extent that these non-household populations have riskier behaviors than the household population, the prevalence of those behaviors is likely to be underestimated in this report. However, given that the proportion of such non-household populations in the total population tends to be small, the effect of excluding institutional and homeless populations on the national estimates obtained from a household-based sample is likely to be small (Mishra et al. 2008).

Second, the analysis is based on reported information on sexual behavior, and findings may be biased. In a given social context, men and women may misreport such behaviors, and the extent of misreporting may vary by sex, educational level, economic status, and area of residence (Hewett et al. 2004; Mensch et al. 2003). For example, young men tend to overreport some sexual behaviors and underreport others (Smith 1992, Mensch et al. 2003), while young women tend to underreport sexual experiences (Buvé et al. 2001). The extent of misreporting may also vary across countries and over time within a country. The study results may be biased to the extent that such misreporting occurs in the surveys.

Another limitation is that the study lacks longitudinal data to allow a more in-depth analysis of trends in HIV/AIDS-related indicators. Instead, analysis is based on two cross-sectional surveys in each country with independently drawn samples, which only allows assessing changes between the two surveys. Moreover, in several countries, data on some indicators are not available for both time points. The analysis is unable to link any changes observed in specific knowledge and behavior indicators to specific program efforts or policy interventions in the countries.

It is also noteworthy that some of the observed variations in the levels and changes in HIV/AIDS-related knowledge and behaviors may be because the surveys included in this analysis were conducted in different years and because the inter-survey periods varied across countries.

11.3 Implications

Despite these limitations, the study provides a comprehensive comparative look at the levels and direction of many important HIV/AIDS-related indicators in a large number of sub-Saharan countries. The study shows improvements in some HIV/AIDS-related knowledge and attitudes but also highlights persistent high levels of sexual risk-taking and very low levels of condom use for HIV prevention, as well as little voluntary counseling and testing coverage. These findings make a case for strengthening

prevention programs in sub-Saharan Africa to continue a range of efforts to promote safer sexual behavior.

The study also highlights large differentials between women and men in a number of HIV-related indicators, and wide variations among countries in the levels of and recent changes in HIV-related knowledge, attitudes, and behaviors. Such differences suggest the need for policies and programs to be gender and context specific in their approach to HIV prevention, treatment, and care. The data provided in this report are intended as a source of strategic information on key HIV-related indicators that can assist program managers and policymakers in devising tailored and effective responses to the HIV/AIDS epidemic in sub-Saharan Africa.

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