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HIV/AIDS
Epidemiological
Surveillance Update
for the
WHO African Region
2002
Country Profiles



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List of abbreviations

AFRO	WHO African Regional Office
AIDS	Acquired Immune Deficiency Syndrome
BSS	Behavioural Surveillance Survey
CDC	Centers for Disease Control and Prevention
DHS	Demographic and Health Survey
EPP	Epidemic Projection Package
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
HMIM	Health Management Information System
HSV-2	Herpes Simplex Virus type 2
LQA	Lot Quality Assurance sampling
PSI	Population Studies International
PSS	Probability Proportionate to Size Sampling
RPR	Rapid Plasma Reagin; a test for syphilis
SBS	Social Behaviour Survey
STI	Sexually Transmitted Infection
TPHA	Treponema Pallidum Haemagglutination Assay; a test for syphilis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
YAS	Young Adult Survey
VCT	Voluntary Counselling and Testing
VDRL	Venereal Disease Research Laboratory; a test for syphilis
WHO	World Health Organization



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1 Introduction

Part two of the report *HIV/AIDS Epidemiological Surveillance Update for the WHO African Region* consists of country profiles summarizing the epidemiology of HIV infection in each of the 46 Member States of the WHO African Region. This report contains an update of the information presented in the *HIV Surveillance Report for Africa, 2000*.¹ Brief descriptions of the recent data are provided, with a focus on young people. The report describes the current HIV/AIDS situation and trends in each of the countries and highlights the diversity observed in the HIV/AIDS epidemics that exist within these countries. It is expected that national governments and other in-country stakeholders, United Nations agencies, and international development partners will use the information presented as a technical support tool for advocacy. It is hoped that this report will contribute to the strengthening and scaling-up of interventions for the prevention and care of HIV/AIDS and STI, and of systems for surveillance, monitoring and evaluation. It is also envisaged that the country profiles will facilitate the sharing of experiences in the evolution of HIV/AIDS epidemics and experiences with surveillance systems, and provide an opportunity for Member States in the Region to learn from each other.

Part two presents information on the HIV/AIDS epidemic based on the principles of second generation HIV surveillance, an improved method for monitoring the HIV/AIDS epidemic. Second generation HIV surveillance integrates biological surveillance (HIV surveillance and AIDS case reporting) with risk surveillance (behavioural and STI surveillance) and looks at new methodologies and better ways of using HIV epidemiological data. Second generation surveillance provides information on levels of and trends in HIV prevalence, the groups of persons infected and the persons at risk of or vulnerable to HIV infection, and thus serves as a tool for monitoring the impact of the epidemic and the effectiveness of interventions.

Key components of second generation HIV surveillance include:

- Sentinel HIV surveillance among women attending antenatal care clinics in both urban and rural settings;
- Cross-sectional surveys of behaviour in the general population;
- Cross-sectional surveys of behaviour among young people;
- HIV and behavioural surveillance in subpopulations engaging in high-risk behaviour;
- Data on morbidity and mortality attributable to HIV/AIDS;
- Surveillance of STI and other biological markers of risk;
- HIV and AIDS case reporting;
- Tracking of HIV prevalence among blood donors.

The preparation of the country profiles involved a critical review of relevant documents, such as country HIV/AIDS/STI surveillance reports, reports on national surveys of HIV prevalence and sexual behaviour, reports of country support missions, use of various databases (such as the WHO/AFRO database of HIV surveillance, the United States Census Bureau database of HIV surveillance and the ORC Macro Inc. database of behavioural information) and a search and review of the scientific literature.

The key indicators used to describe the current HIV and STI situations and trends are presented in Box 1.

BOX 1: KEY INDICATORS USED

- HIV prevalence: This refers to the proportion of persons (mostly pregnant women) who tested positive for HIV among all persons tested, for individual surveillance sites. For adults, the age range 15–49 years is used; for young pregnant women the age range used is 15–24 years.
- Median HIV prevalence: As a summary measure, the median value of HIV prevalence from all sentinel sites (mostly antenatal clinics) is used.
- STI prevalence: Individual prevalence rates for key STI (syphilis, gonorrhoea, chlamydia and trichomoniasis) have been used, where the information is available. Commonly, the proportion of pregnant women found to be positive for syphilis by RPR or RPR/TPHA test is given.
- Median age at first sexual intercourse: Median age at first sexual intercourse is the age at which 50% of males and females have had sexual intercourse. In the case of young persons aged 15–24 years, it is the age at which 50% have had penetrative sexual intercourse.
- Proportion of respondents who have had sexual intercourse with at least one non-marital, non-cohabiting (non-regular) partner in the last year: This indicator provides an estimate of the proportion of individuals, among those interviewed, which engages in high-risk sexual behaviour.
- Proportion of respondents who used a condom at the last sexual intercourse with a non-marital, non-cohabiting (non-regular) partner during the last year: This indicator provides an estimate of the level of condom use in high-risk sexual acts.

The indicators listed are a combination of both biological and behavioural indicators. In assessing the overall adult HIV prevalence rates in countries, median HIV prevalence was used, and not the weighted mean. This is because a calculation of the weighted mean should take into consideration the distribution of the population by urban, semi-urban and rural areas, and the extent to which countries have done this varies.

Each country HIV profile consists of a brief description of surveillance systems for HIV/AIDS/STI and risk behaviours, current status of and trends in HIV/AIDS, including sexual behaviours, and recommendations for consolidating or improving the surveillance systems depending on the situation in the country. The emphasis is on actual data generated by the surveillance systems and not on estimates. Some countries provide national estimates as part of their national surveillance report while most countries only present new estimates in collaboration with UNAIDS and WHO, using a software package called the Epidemic Projection Package (EPP).

Because of the uniqueness of young people with regard to the dynamics of HIV infection, a section has been devoted to **young people** in each of the country profiles. This section gives an analytical review of HIV/STI status and trends among young people, and the behaviours of young people in relation to HIV/AIDS. The focus on young people reflects not only the demographic importance of this population, but also the fact that more than 50% of new HIV infections in the region occur among people aged 15–24 years. Young people have substantial potential to introduce changes in attitudes and behaviour much more rapidly than people in the older age groups. This being true, it is envisaged that the long-term impact of such changes among young people could alter the course of the epidemic in the Region. The purpose of the focus on young people in this surveillance report is to direct the attention of all governments in the Region to the potential that young people have to reverse the HIV/AIDS epidemic, if interventions among young people are strengthened and scaled-up.

¹ HIV Surveillance Report for Africa, 2000, WHO Regional Office for Africa, November 2001
http://www.afro.who.int/aids/surveillance/resources/hiv_surveillance_report_2000.pdf

SOUTHERN AFRICA



ANGOLA

Total population (2002)	13,184,000
Young people aged 15–24 years	2,528,000
Adults aged 15–49 years	5,719,000
Population in capital city (Luanda) (2000)	20.8%
Population, other urban (2001)	14.1%
Population, rural (2001)	65.1%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

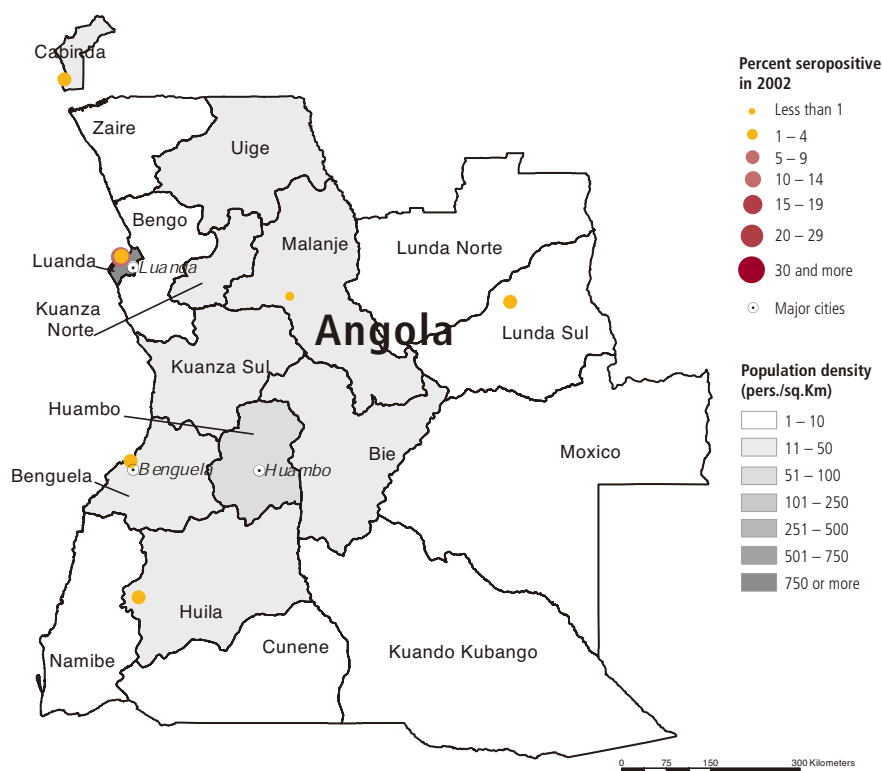
HIV: There has been little surveillance carried out among women attending antenatal care clinics during the past decade, but efforts have been made to improve the system in the past two years. In 2002, the number of sites was increased from the two used in 2001 to ten: one site in each of the five provinces and five additional sites in Luanda province. A minimum of 500 pregnant women were enrolled from each of the sites in 2002. In 2002, tuberculosis patients from the provinces of Benguela, Malange and Cabinda were tested for HIV. Studies were conducted among tuberculosis patients in Luanda in 1998, 1999 and 2001. In 2001, studies were also conducted among military personnel, miners and sex workers in Luanda.

Other STIs: In 2002, women attending the antenatal care clinics included in the sentinel surveillance system were tested for syphilis and hepatitis B infection.

Sexual behaviour: Some data on sexual behaviour were collected from women attending five antenatal care clinics in Luanda province in 2002. A KABP survey conducted in the provinces of Luanda, Namibe and Benguela in 1997 generated some data on behaviour among young people aged 15–24 years.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics in six provinces was 2.4%. HIV prevalence was highest in Luanda province (3.2%), and lowest in Malange province (0.8%) in 2002 (Figure 2). Given the limited amount of data available, it is difficult to ascertain a trend. Figure 3 shows data on pregnant women, female sex workers, and tuberculosis patients from Luanda. HIV prevalence among women attending antenatal care clinics in Cabinda province was between 6% and 8% during 1992–1996, and decreased to 2.9% in 2002. Among 864 sex workers aged 15–45 years, HIV prevalence was 32.8% in 2001. Among the 1000 military personnel tested in Luanda in 2001, HIV prevalence was 3.2%.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by Province, Angola, 2002

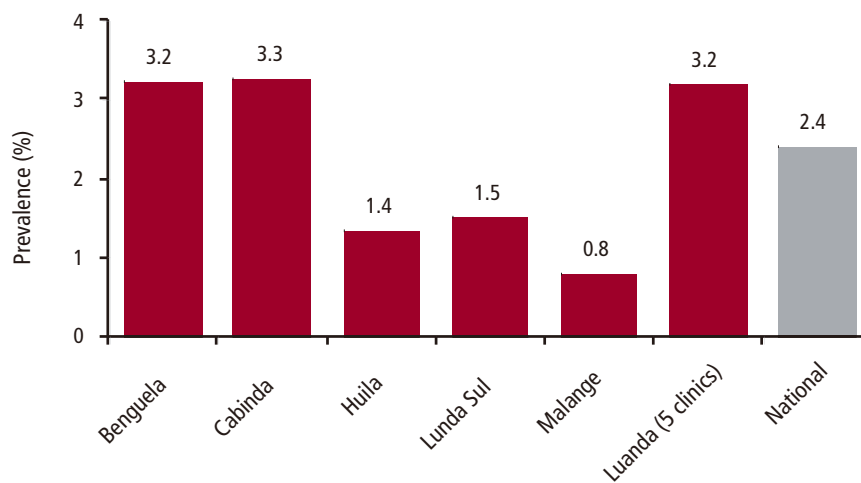
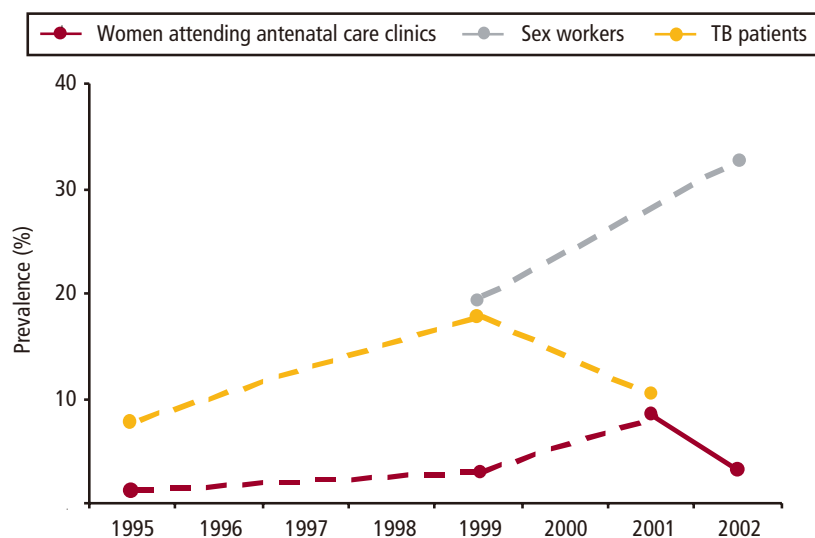


Figure 3

Median HIV prevalence among selected populations, Luanda, Angola, 2002



OTHER STIs

In 2002, the median seroprevalence of syphilis among women attending antenatal care clinics in the six provinces was 5.2%, ranging from 4.7% in Benguela province to 13.2% in Lunda-Sul. The median prevalence of hepatitis B infection was 8.9%. The highest prevalence of hepatitis B infection was found in Cabinda province (11.5%) and the lowest was found in Luanda province (8.4%).

SEXUAL BEHAVIOUR

The 2002 survey of pregnant women generated some information on sexual behaviours. This survey, however, did not collect data on the commonly used UNAIDS/WHO behavioural indicators. About 45% of the pregnant women surveyed in 2002 in Luanda province said that they had ever used a condom and 11% of these women reported having used a condom at last sex with any partner.

YOUNG PEOPLE

Sexual behaviour

Age at first sex: According to the 1997 KABP survey of young people aged 15-25 years in the general population, the median age at first sex was 14.7 years. The 2002 survey among pregnant women indicated that 69.4% of the pregnant women surveyed had first had sex at age 15-19 years while 12.5% of them reported that they had first had sex at age 10-14 years.

Multiple and non-regular sexual relationships: In 1997, 28.4% of the young men surveyed reported having had multiple sexual relationships and at least one non-regular sexual partner in the last year. According to the survey of pregnant women in Luanda province in 2002, about 10% of young pregnant women aged 15-24 years reported having had more than one sexual partner in the last two years.

Condom use: In 1997, 37% of the young people surveyed who reported having had non-regular sexual relationships in the last year had used a condom at last sex with a non-regular sexual partner.

CONCLUSIONS AND RECOMMENDATIONS

- Data from the 10 antenatal sites used in 2002 provide a better picture of the spread of HIV in the country than previously available. HIV prevalence in Luanda appears to be about twice as high as in most of the provinces, and 2.4% of pregnant women were infected overall. Trends are difficult to assess because of limited data, but it appears that the rate of HIV infection has slightly increased during the 1990s.
- While risky sexual behaviours are fairly common, condom use is relatively low.
- To strengthen surveillance it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be continued and geographic coverage should be improved. Periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** The monitoring of trends in the prevalence of syphilis among women attending antenatal care clinics should be continued and complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of repeated DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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BOTSWANA

Total population (2002)	1,770,000
Young people aged 15–24 years	401,000
Adults aged 15–49 years	900,000
Population in capital city (Gaborone) (2000)	14.5%
Population, other urban (2001)	34.9%
Population, rural (2001)	50.6%
Pregnant women using antenatal care	96.8%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

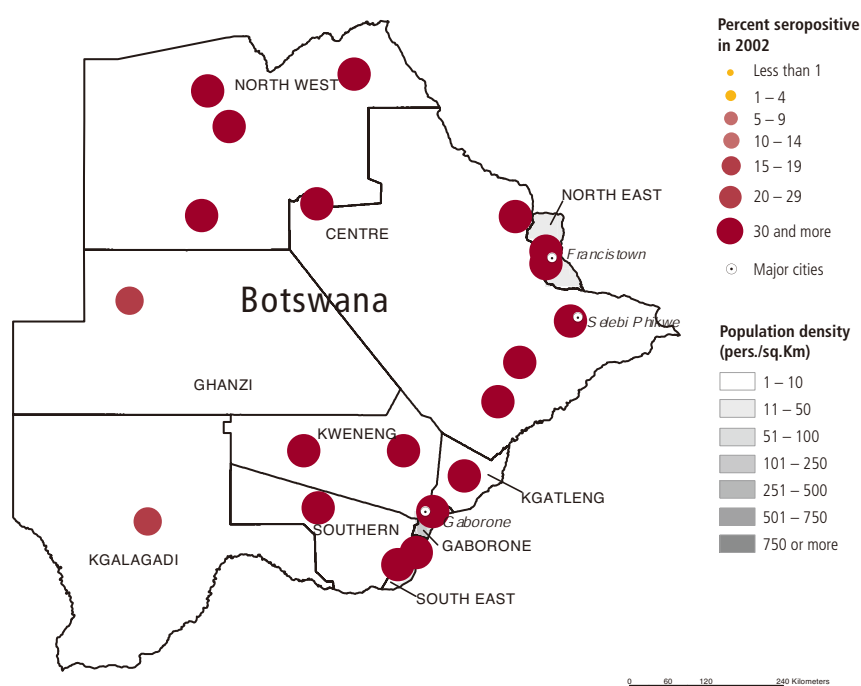
HIV: In 2000, the surveillance protocol was revised so as to conduct sentinel surveillance among women attending antenatal care clinics once a year and include at least one antenatal care clinic from each of the 22 health districts. In the past, surveys were conducted annually in Gaborone and Francistown and biannually at other sites. Each sentinel site includes a hospital and nearby smaller health facilities with high antenatal attendance in the same district. The sample size is 300 women from each site, with the exception of sites in Gaborone and Francistown, where oversampling is done and 800 pregnant women are enrolled from each site. From 1992 until 2001, STI patients were used as another sentinel population. In recent years, data from the Tebelopele VCT centres have also been analysed to complement antenatal care clinic-based data.

Other STIs: Data on STI prevalence were generated in 2002 from testing for syphilis among the pregnant women attending 22 antenatal care clinics. The specimens which gave positive results with the RPR test were taken as positive for syphilis without any further confirmation by TPHA or equivalent tests. The routine report system provides additional information on numbers of STI cases.

Sexual behaviour: The main source of data on behaviour in the country is the nationwide Botswana AIDS Impact Survey (BAIS) conducted in 2001. The last survey on young people was conducted in 1996.

Figure 1

Sentinel surveillance in pregnant women, 2002

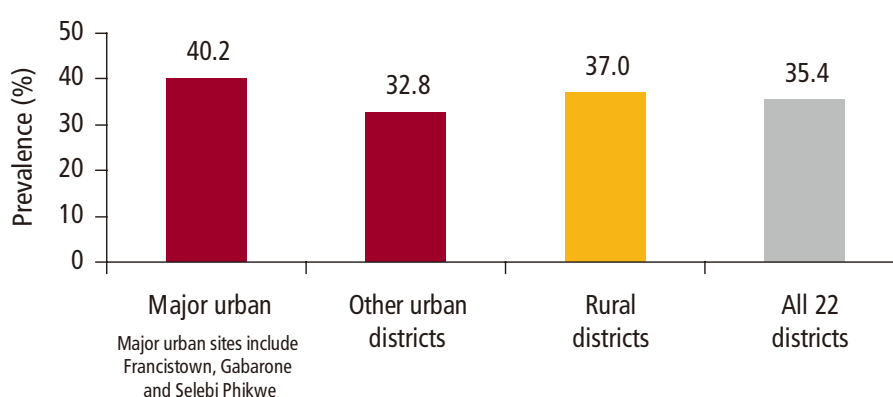


HIV

In 2002, the median HIV prevalence in women attending antenatal care clinics for all 22 districts was very high (35.4%). There was little difference between the major urban areas (the capital city Gaborone, Francistown and Selebi/Phikwe), other urban areas and the 12 rural districts (Figure 2). Only one district, Gantsi in the Kalahari, had a HIV prevalence of <25% (18.8%), while prevalence was highest in Selebi/Phikwe, where nearly half of all pregnant women were infected (48.1%).

Figure 2

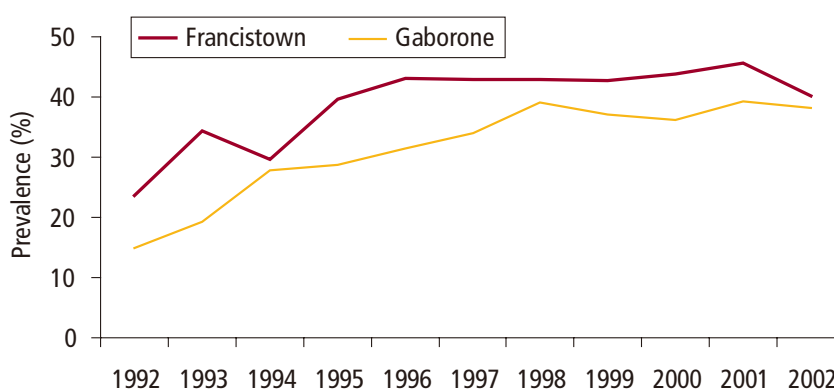
Median HIV prevalence among women attending antenatal care clinics, by location, Botswana, 2002



HIV prevalence has been >30% at most antenatal care clinics since the mid 1990s. Comparison of prevalence in the 22 districts between 2001 and 2002 shows that there was a decrease in 13 districts, an increase in eight districts and no change in one district. HIV infection trends in Gaborone and Francistown are illustrated in Figure 3. During the past five years, HIV prevalence levels have remained at around 40%.

Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics in Gaborone and Francistown, Botswana, 1992–2002



HIV prevalence among STI patients also indicate high levels of infection, ranging from 24.3% in Francistown to 73.9% in Gaborone, in 2001. During 2000-2002, 16,784 women and 14,146 men were tested in the Tebelopele VCT centres (13 centres in 2002). In 2002, HIV prevalence was 39.1% among women and 28.7% among men. Female prevalence peaked at 50.6% at age 30-34 years, while male prevalence reached a high of 48.7% at age 35-39 years.

OTHER STIs

Median syphilis seroprevalence among women attending antenatal care clinics was 2.4%, and ranged from 0.0% in Boeti to 7.3% in Kgalagadi.

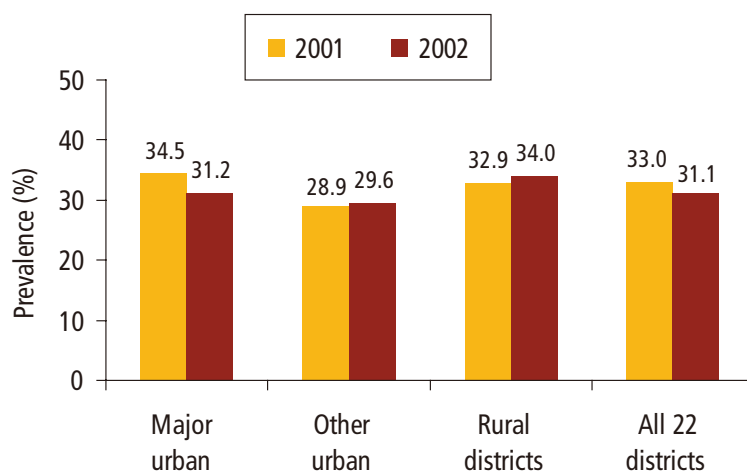
The total number of STI cases reported annually was between 200,000 and 208,000 from 1995 to 1999 (the most recent year with available data). Among women attending family planning clinics in 2002, chlamydial infection was the most prevalent infection accounting for about 13% of all STIs, followed by trichomoniasis. In a study of the etiology of genital ulcerations, HSV-2 was detected in 59% of cases, 2% were due to syphilis, 1% were chancroid and in 38% of cases no agent was identified.

SEXUAL BEHAVIOUR

According to the BAIS in 2001, 25% of men and 11% of women reported having had more than one sexual partner in the last year. The survey indicated that condom use was relatively high among both men and women. Nearly 80% of men and 70% of women who reported having had sex with a non-spousal non-cohabiting sexual partner(s) in the last year used a condom at last sex.

Figure 4

Median HIV prevalence among young women aged 15–24 years attending antenatal care clinics, by location, Botswana, 2001–2002



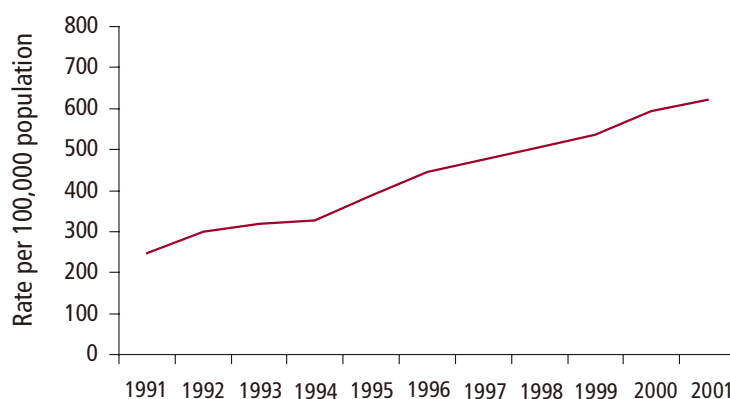
MORBIDITY AND MORTALITY

From 1995 to 1999, the crude mortality rate in Botswana increased by 72.3%, with an annual increase of approximately 15%. Between 1998 and 1999, nearly one in every five deaths was attributed to HIV/AIDS.

The total number of tuberculosis cases registered during 2001 was 10,248 (which corresponds to a tuberculosis notification rate of 620 per 100,000 population) and 86% of these were cases of pulmonary tuberculosis (Figure 5). Notification rates were highest among women aged 25–34 years and in men aged 35–44 years.

Figure 5

Trend in new cases of tuberculosis per 100,000 population, Botswana, 1991–2001



YOUNG PEOPLE

HIV: The prevalence of HIV among young women aged 15-24 years attending antenatal care clinics in Botswana is high, which indicates a high incidence of HIV infection. Figure 4 shows the median HIV prevalence among antenatal care clinic attendees aged 15-24 years in 2001 and 2002. About one-fifth of women aged 15-19 years were infected. HIV prevalence was already 35.1% among women who came to the clinic with their first pregnancy.

Sexual behaviour

Age at first sex: In 2001, the BAIS showed that 20% of the young people surveyed reported having had first sex by the age of 17 years, with 3.0% of young men and 2% of young women reporting having had sex at or before age 15 years.

Premarital sex: A high proportion (57%) of young people surveyed in 2000 reported being sexually active. The 1998 DHS found that 18% of young women and 53% of young men had engaged in premarital sex in the last year.

Condom use: Use of condoms is reportedly high among young people. Among respondents aged 15-24 years who reported having had sex with a non-marital non-cohabiting partner in the last year in 2001, 88% of the young men and 75% of the young women used a condom at last sex.

CONCLUSIONS AND RECOMMENDATIONS

- Extremely high levels of HIV prevalence have been maintained in the HIV/AIDS epidemic in Botswana since the mid 1990s. High prevalence rates are distributed throughout the country, including most rural districts. Prevalence rates among young pregnant women are also very high and there is little evidence of a decline. HIV/AIDS is contributing to a reversal of age-specific mortality patterns, with increasing proportions of younger people dying.
- Only limited data on sexual behaviour are available. A recent survey suggests that moderately high levels of multiple partnerships, premarital sex and high levels of condom use, particularly among young people, are likely to have an impact on the spread of HIV.

- To strengthen surveillance, it can be recommended that:
 - **HIV:** The new HIV sentinel surveillance system among women attending antenatal care clinics is operating well and should be consolidated.
 - **Other STIs:** Strengthening of STI surveillance, including the generation of better data on the etiology of STIs, is important.
 - **Sexual behaviour:** A more intense and focused system for monitoring sexual behaviours among young people should be developed.

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LESOTHO

Total population (2002)	1,800,000
Young people aged 15–24 years	425,000
Adults aged 15–49 years	855,000
Population in capital city (Maseru) (2001)	12.2%
Population, other urban (2001)	16.6%
Population, rural (2001)	71.2%
Pregnant women using antenatal care	87.6%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

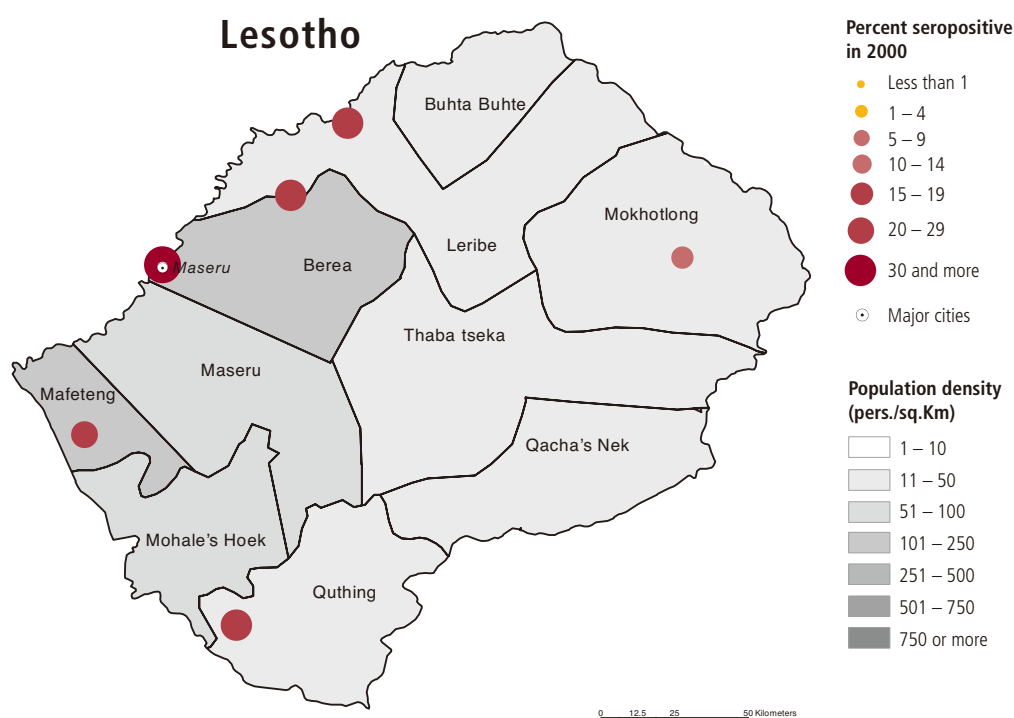
HIV: The most recent sentinel survey among women attending antenatal care clinics was conducted in 2000 at six sites, including five sites in the lowlands and an additional site in the mountainous area. Sentinel surveys were carried out among women attending antenatal care clinics annually from 1991 to 1996. No surveys were conducted from 1997 to 1999, or in 2001 and 2002. Data on HIV prevalence among STI patients are available for the years when surveys were conducted among women attending antenatal care clinics. No studies have been conducted in other special groups.

Other STIs: The vertical syndromic data collection system for major STI syndromes was introduced in 1995. Syphilis seroprevalence data are available from routine screening services, such as antenatal care clinics, blood transfusion services, and pre-employment health check-ups. The VDRL test alone is used to diagnose syphilis in these settings.

Sexual behaviour: In 2001, a BSS was conducted among young people, miners, taxi drivers and assistants, female sex workers, military personnel and low-income migrant women. In 1998, a study of sociocultural factors was conducted in four districts in the country and included a question on age at first sex.

Figure 1

Sentinel surveillance in pregnant women, 2000

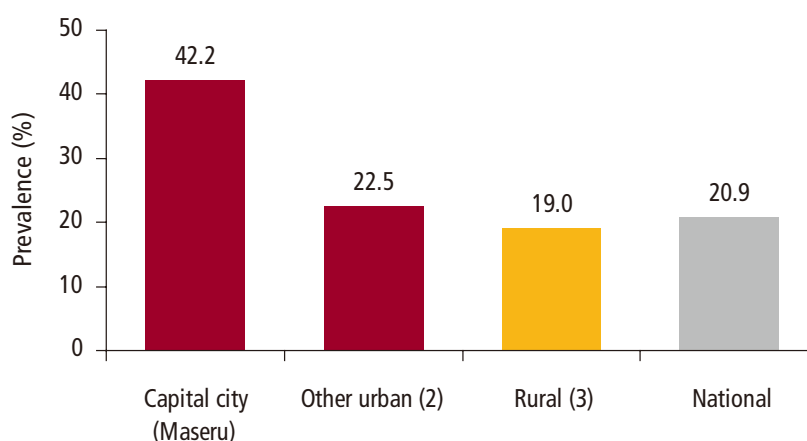


HIV

In 2000, the median HIV prevalence at five antenatal care clinic sentinel sites in Lesotho was 20.9% (Figure 2). Prevalence at the antenatal care clinic in Queen Elizabeth II Hospital in the capital city, Maseru, was 42.2%. Prevalence rates at the four sites in the lowlands outside of Maseru ranged from 19.0% to 26.0%, while prevalence in Mokhotlong, (the only site located in the mountains) was 12.3%. A comparison of HIV prevalence for five sites in the lowlands, including Maseru, shows little change between 1996 and 2000; in 1996, the median HIV prevalence was 21.3%.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Lesotho, 2000



HIV prevalence among STI clinic attendees was also high. In 2000, the median prevalence at the six sites in the same health facilities as the antenatal care clinics was 49.3%. HIV prevalence among STI clinic attendees tested in Maseru in 2000 was 65.2%.

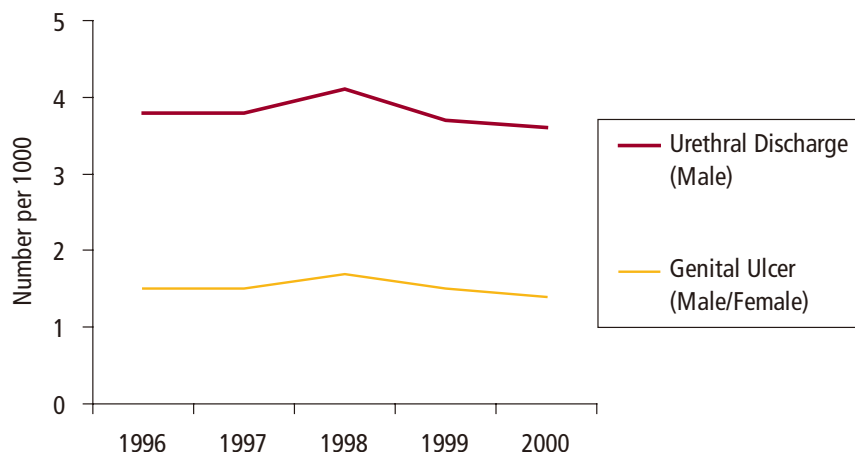
OTHER STIs

Syphilis seroprevalence among women attending antenatal care clinics ranged from 0.2% in remote area (Mokhotlong) to 6.0% in a major urban area (Maseru). In 2000, syphilis seroprevalence among young blood donors from high schools and universities/colleges was 0.3% and 0.0% respectively. A community-based STI study in a rural area in 1995 showed a high prevalence of STIs: gonorrhoea, chlamydia infections and syphilis were found in 6.9%, 29.0% and 11.0% of women and 1.7%, 27.0% and 10.9% of men.

In 2000, 85,468 STI cases were reported, a number which was very similar to that reported in previous years. Based on these data, the incidence of male urethral discharge was 3.6 per 1000 men aged 15–49 years, while the incidence of genital ulcers was 1.6 and 1.1 per 1000 men and women aged 15–49 years respectively (Figure 3).

Figure 3

Trend in the incidence of STI syndromes, Lesotho, 1996-2000

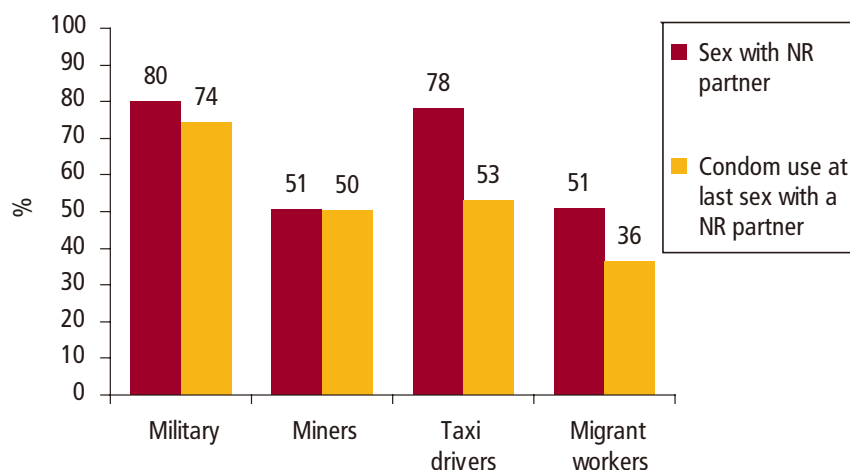


SEXUAL BEHAVIOUR

In the 2001 BSS, high proportions of people in the vulnerable populations surveyed reported having had sex with a non-regular sexual partner in the last year: 80% of military personnel, 51% of miners, 78% of taxi drivers and 51% of the low-income migrant women (Figure 4).

Figure 4

Respondents with a non-regular (NR) partner in the last year, and respondents with a NR partner who used a condom at last sex, Lesotho, 2001



In the same survey there were, however, significant differences in condom use among the various groups surveyed. Of those reporting non-regular sexual relationships in the last year, 74% of military personnel, 50% of miners, 53% of taxi drivers and assistants, and 36% of the low-income migrant women had used a condom at last sex. Among surveyed sex workers, less than two-thirds (59%) had used a condom with a paying partner. Consistent use (100%) of condoms with clients among sex workers was relatively low (36%).

YOUNG PEOPLE

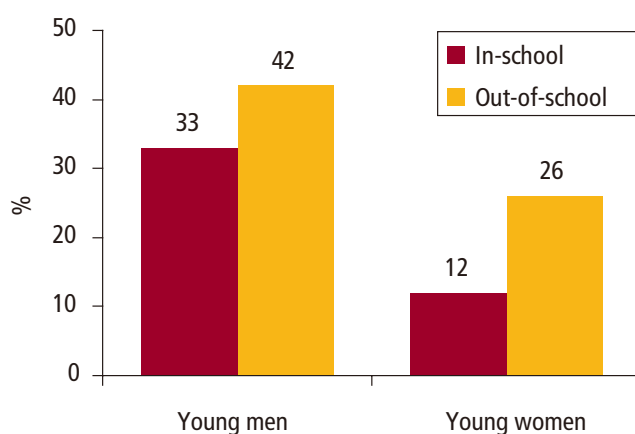
Sexual behaviour

Premarital sex: In 2001, a survey among in-school young people aged 15–19 years reported that 33% of young men and 12% of young women had had premarital sex in the last year. Among out-of-school young people aged 15–19 years, 42% of young men and 26% of young women had had premarital sex in the last year (Figure 5).

Condom use: Young people attending school were more likely to have used condoms during premarital sex than out-of-school youth. Among young people surveyed reporting premarital sex in the last year in 2001, 65% of those in school and 47% of those out of school had used a condom at last premarital sex.

Figure 5

Young people aged 15–19 years reporting premarital sex in the last year, Lesotho, 2001



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence in Lesotho is very high, and rates are extremely high in Maseru.
- There are significantly high proportions of young people and other groups at increased risk of HIV infection who are engaging in higher-risk sex. Self-reported condom use appears to be fairly high, although over-reporting may be a problem.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be continued with surveys conducted regularly.
 - **Other STIs:** Syphilis surveillance as part of HIV surveillance in antenatal care clinics should be continued. STI case reporting should continue but should be complemented by the setting-up of a few sites to closely monitor STI prevalence levels and trends.
 - **Sexual behaviour:** The BSS was based on a large number of population groups in 2001. To increase the number of observations in a specific group over time, and enhance the data quality, it may be appropriate to reduce the number of population groups surveyed and to focus on young people.

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MALAWI

Total population (2002)	11,871,000
Young people aged 15–24 years	2,314,000
Adults aged 15–49 years	5,194,000
Population in capital city (Lilongwe) (2001)	4.5%
Population, other urban (2001)	10.6%
Population, rural (2001)	84.9%
Pregnant women using antenatal care (1992)	89.7%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

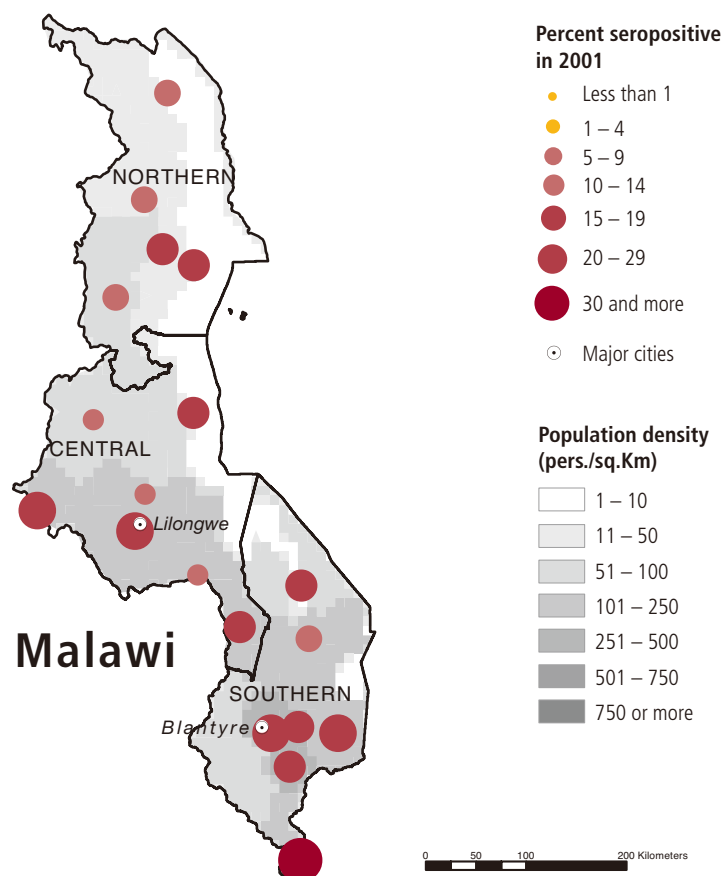
HIV: In 1992, the antenatal care clinic-based HIV surveillance system expanded to include sites in the rural areas, and since 1994 the same 19 sites have been included every year. The goal is to enrol 150, 500 and 600 pregnant women from each of the rural, semi-urban and urban sites respectively. The latest survey was conducted in 2001; no surveys were conducted in 2000 and 2002. Information on HIV prevalence among STI patients for 1989 to 1996 is available because STI patients were used as an additional sentinel population.

Other STIs: Data on STI prevalence are available from testing for syphilis, using VDRL confirmed by TPHA test, among women attending antenatal care clinics during HIV sentinel surveillance.

Sexual behaviour: The main source of data on behaviour is the DHS conducted in 2000.

Figure 1

Sentinel surveillance in pregnant women, 2001

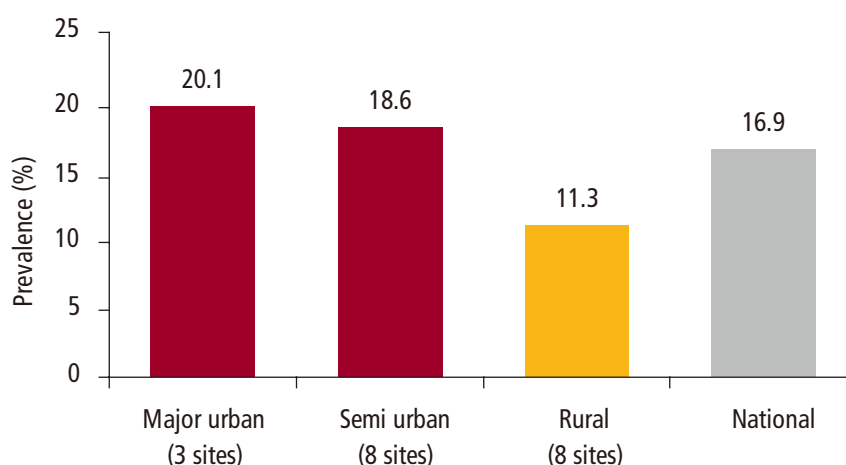


HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics in Malawi was 16.9% (Figure 2). As in almost all surveillance rounds, HIV prevalence was highest in the biggest city, Blantyre, and lowest in the rural sites. Prevalence rates were higher among attendees at semi-urban antenatal care clinics than at the more rural clinics.

Figure 2

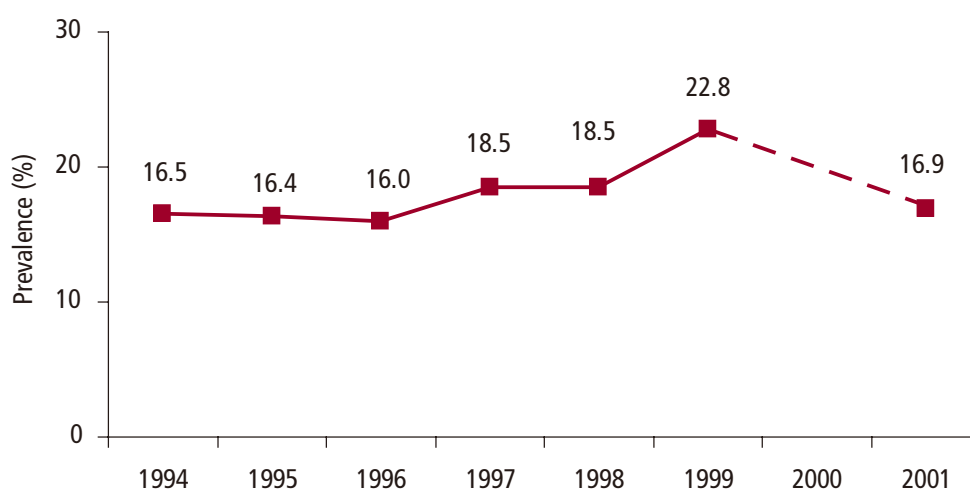
Median HIV prevalence among women attending antenatal care clinics, by location, Malawi, 2001



Data for all years between 1994 and 2001 from the same 19 clinics show that HIV prevalence was lower in 2001 than in 1999 (Figure 3). This may present a decline, although 2001 levels are similar to those observed during 1994–1998, and 1999 is the only outlier.

Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics at 19 sites, Malawi, 1994–2001



OTHER STIs

Syphilis seroprevalence among women attending antenatal care clinics was 3.9% in 2001, a decrease in prevalence from 4.2% in 1998. In 2001, the lowest seroprevalence was found in people aged 15–19 years (2.6%), followed by people aged 20–24 years (3.9%). Seroprevalence was highest in the southern region (5.3%), followed by the north (3.1%) and central (2.0%) regions.

Baseline syphilis seroprevalences among the 1994 and 1998 cohorts of male sugar estate workers were 5.2% and 9.9% respectively. In Thyolo, gonorrhoea was the most common cause of male urethral discharge and was detected in 80% of symptomatic cases. However, a high prevalence of trichomoniasis was also reported in men with and without symptoms of urethritis (20.8% and 12.2% respectively).

SEXUAL BEHAVIOUR

In the 2000 DHS, 9% of women and 33% of men reported having had sex with a non-marital non-cohabiting partner in the last year. Seven percent of men reported having had sex with a sex worker in the last year.

Among those who had had sex with a non-marital non-cohabiting sexual partner(s) in the last year, 39% of men and 29% of women used a condom at last higher-risk sex. Forty-one percent of men who reported having had sex with sex worker(s) said that they used a condom at last sex with a sex worker. Condom use in sex with non-cohabiting partners in 2000 was 29% among women, and 39% among men, that is, an increase among women and almost no change among men when compared to the results of the 1996 DHS (20% and 38% for women and men respectively).

YOUNG PEOPLE

HIV: In 2001, the rate of HIV prevalence among all young women aged 15–24 years attending antenatal care clinics was 17.2%. At the urban sites (Blantyre, Lilongwe and Mzuzu), HIV prevalence was 20.2%, compared with 20.1% at semi-urban sites and 9.2% at rural sites. HIV prevalence in 2001 was the lowest it has been for the past seven years and was considerably lower than the peak prevalence in 1999 (Figure 4).

Sexual behaviour

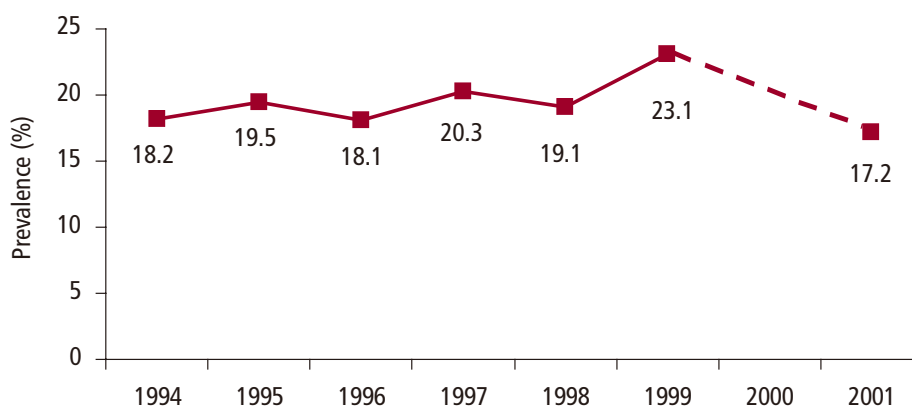
Age at first sex: In the 2000 DHS, the median age at first sex was 17.0 years for young women and 16.5 years for young men.

Premarital sex: In 2000, 27% and 49% of young women and men respectively had had premarital sex in the last year.

Condom use: Among those young people who reported having had premarital sex in the last year, 32% of young women and 38% of young men had used a condom at last premarital sex.

Figure 4

Trend in median HIV prevalence among young women aged 15–24 years attending antenatal care clinics, Malawi, 1994–2001

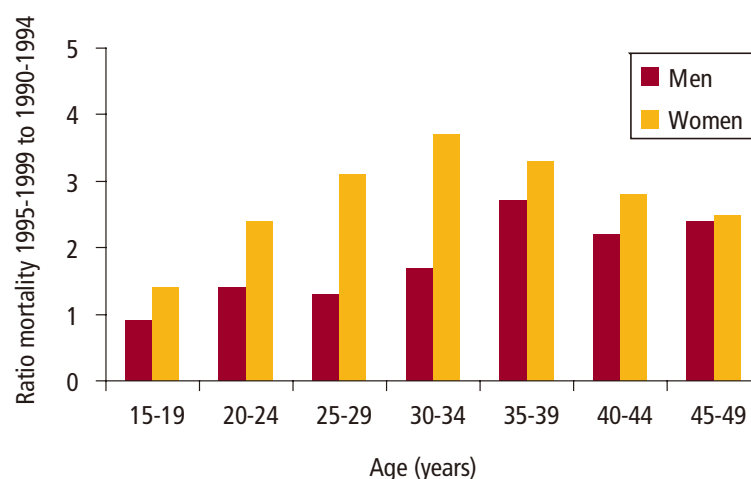


MORBIDITY AND MORTALITY

The two national DHS surveys conducted in 1992 and 2000 showed large increases in adult mortality in Malawi during the 1990s. Both male and female mortality among people aged 15–49 years increased from about 6 per 1000 during 1986–1992 to 11 per 1000 person years during 1994–2000. The changes in the age patterns of mortality are very much as one would expect for mortality attributable to AIDS (Figure 5). Maternal mortality increased from 620 to 1120 per 100,000 live births, and the increase was more pronounced in the urban areas, which is also likely to be associated with HIV/AIDS.

Figure 5

Relative increase in age-specific mortality rates, Malawi, 1995–1999 to 1990–1994



The ratio is 1 if there is no increase.

CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence rates among women attending antenatal care clinics have remained at high levels of between 15% and 20% during 1995–2001. Rural prevalence rates are somewhat lower than urban rates. HIV prevalence among young women and among all women were lower in 2001 than in 1999; subsequent years will indicate whether or not this represents a true decline.
- Significantly high proportions of both all adults and young people are engaging in high-risk sexual behaviours, especially men. Condom use in higher-risk sex among both adults and youth is relatively low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Consistency in the use of sites has been good since 1995 and should be sustained, but there is a need to conduct annual sentinel surveillance. Expansion to include smaller rural clinics should be considered.
 - **Other STIs:** Monitoring of trends in the prevalence of syphilis among women attending antenatal care clinics should continue and should be complemented with the setting-up of a few selected sites for monitoring other STIs.
 - **Sexual behaviour:** The use of DHS to monitor trends in behaviour should continue, and can be complemented by conducting surveys of behaviour among selected populations at higher risk of HIV infection, such as sex workers and their partners.

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MOZAMBIQUE

Total population (2002)	18,537,000
Young people aged 15–24 years	3,673,000
Adults aged 15–49 years	8,508,000
Population in capital city (Maputo) (2001)	6.1%
Population, other urban (2001)	27.2%
Population, rural (2001)	66.7%
Pregnant women using antenatal care (1997)	71.4%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

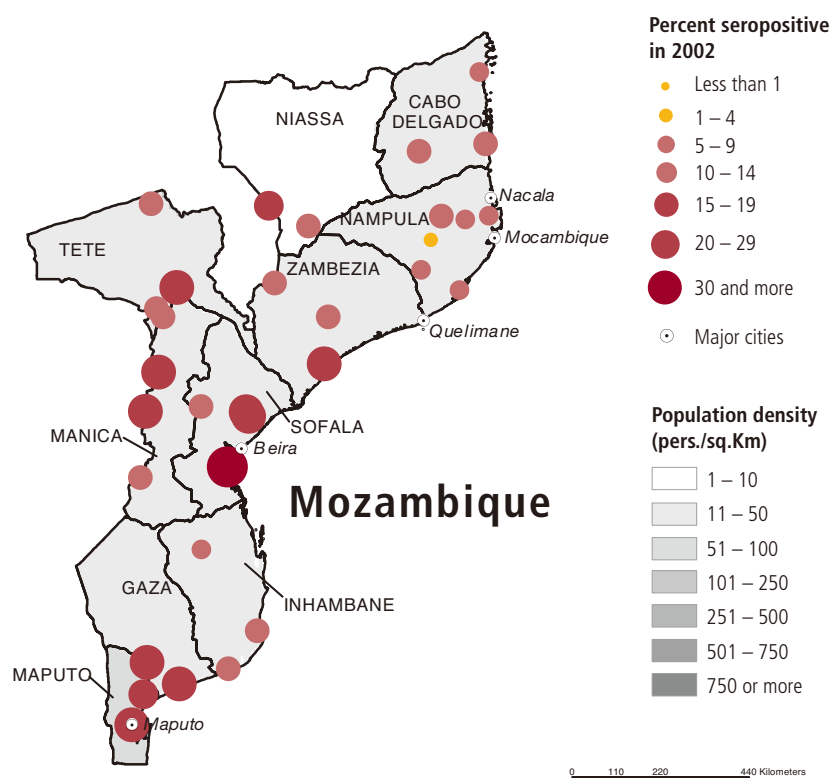
HIV: Sentinel surveillance among women attending antenatal care clinics was established at 5 sites in provincial towns in 1992, and was expanded in 2001–2002 to include 36 sites distributed throughout all of the 11 provinces. Prior to 2000, there was inconsistency in the choice of sites used, making it difficult to monitor trends in HIV prevalence over time. In 2002, more than 10,000 women attending antenatal care clinics were tested, with at least 300 pregnant women enrolled per site. STI patients were used as another sentinel group until 1998.

Other STIs: In 1998 and 2000, all HIV sentinel sites reported results of syphilis testing of women attending antenatal care clinics. Syndromic STI case reporting is conducted.

Sexual behaviour: The main sources of data on sexual behaviour are a nationwide KABP survey conducted in 1996, the 1997/1998 DHS, and a BSS conducted among young people in 2001 and 2002.

Figure 1

Sentinel surveillance in pregnant women, 2002

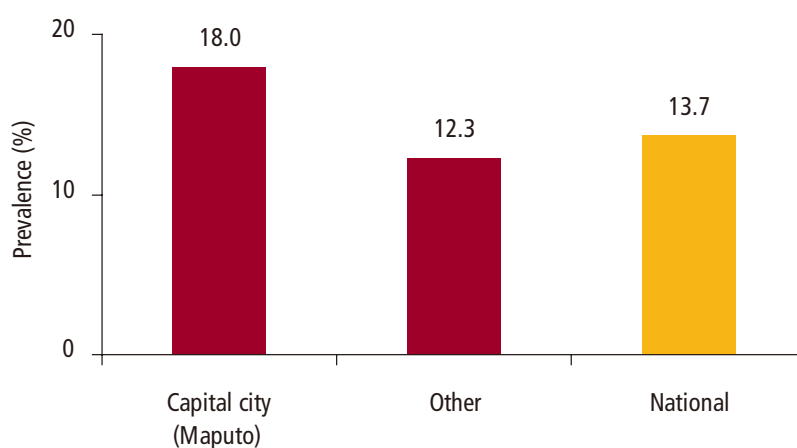


HIV

In 2002, the median HIV prevalence among pregnant women at 36 sites was 13.7% (Figure 2). The highest prevalence rate was reported among women attending antenatal care clinics in Mabote, in Inhambane province, and the lowest rate, 3.7%, was found in Mavago in Niassa province. Median HIV prevalence for the three sites in Maputo was 18.0%.

Figure 2

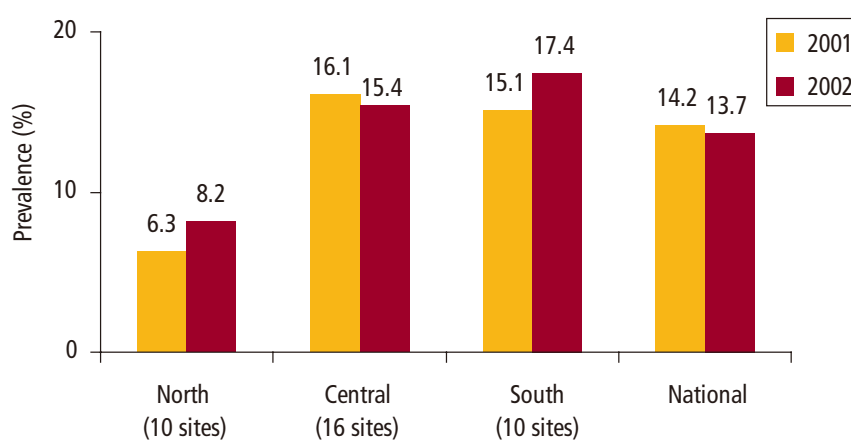
Median HIV prevalence among women attending antenatal care clinics, by location, Mozambique, 2002



Comparison of the median prevalence among pregnant women at the same 36 antenatal care clinics in the three regions shows that little change occurred between 2001 and 2002 (Figure 3). For 2000–2001, a direct comparison of 20 clinics shows a modest increase in all three regions, with an overall increase of 1.1%.

Figure 3

Median HIV prevalence among women attending antenatal care clinics, by location, Mozambique, 2001–2002



HIV prevalence among STI clinic attendees in Maputo increased from 2.0% in 1992 to 7.6% in 1995, and to 9.0% in 1998. Median HIV prevalence among STI attendees at two sites outside Maputo in 1998 was much higher (36.8%).

OTHER STIs

In 2000, the seroprevalence of syphilis among women attending antenatal care clinics in Maputo was 17.0%. In 1998, seroprevalence among women at these sites in Maputo was 4.5%.

In total, 220,153 STI episodes were reported by public health facilities in 1998. The reported STI incidence rates were 726 per 100,000 population in 1995 and 1301 per 100,000 population in 1998.

SEXUAL BEHAVIOUR

According to the 1996 national KABP survey, 37% of men and 14% of women had had sex with non-regular sexual partner(s) in the last year. Twenty-eight percent of those who reported having had sex with non-regular sexual partners in the last year said that they had used a condom at last sex with a non-regular sexual partner. Women were less likely to use condoms than males in non-regular sexual relationships (19% versus 28%). The 1997/1998 DHS found low use of condoms among both men and women. Of the persons who reported being sexually active in the last year, only 1% of women and 6% of men had used a condom with any partner (spouse, cohabiting or non-spousal non-cohabiting partner).

YOUNG PEOPLE

HIV: In 2002, median HIV prevalence among young pregnant women aged 15–24 years at 36 antenatal care clinics was 13.1%, with prevalence at three sites in Maputo city being slightly higher (Figure 4). Rates also varied by region, with lower prevalence in the North region (8.7%) than in the South (14.7%) and Central regions (15.7%).

Sexual behaviour

Age at first sex: In the 1997 DHS, the median age at first sex for young women was 16.3 years and 16.0 years for young men. According to the 2000 youth survey, age at first sex for women was 15.4 years and for men was 16.1 years.

Premarital sex: In 2001, 52% of young people reported having one or more sexual partner(s) in the last six months, and 64% did so in 2002. In the 1997 DHS, 43% of women and 61% of men reported having premarital sex in the last year (Figure 5).

Condom use: According to the 1997 DHS, 6% of young women and 13% of young men who had had premarital sex in the last year reported using a condom at last premarital sex.

Figure 4

Median HIV prevalence among women aged 15–24 years attending antenatal care clinics, by location, Mozambique, 2002

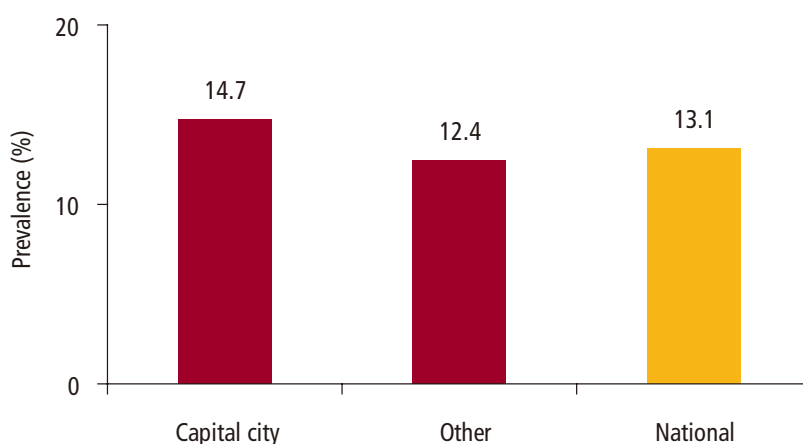
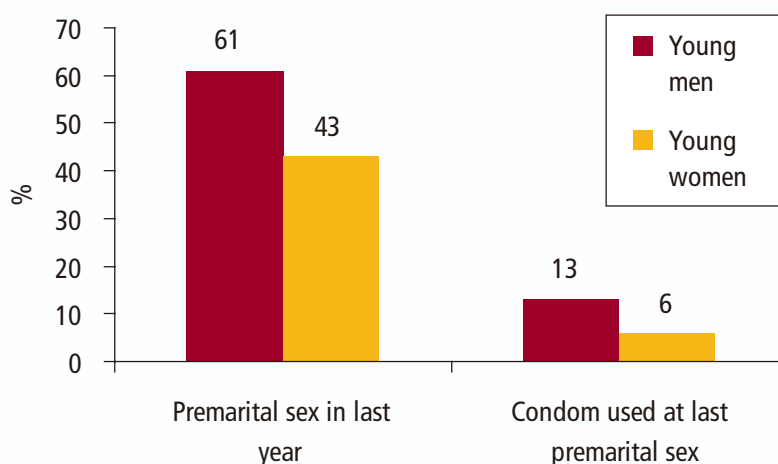


Figure 5

Young people aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Mozambique, 1997



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence among women attending antenatal care clinics in both urban and rural areas are high, with national prevalence among women aged 15–24 years at 13.1%, indicating a high rate of HIV incidence among young people in Mozambique.
- Significant proportions of both adults and young people are engaging in high-risk sexual behaviours, such as non-regular sexual relationships and premarital sex. And condom use in higher-risk sex continues to be relatively low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The coverage of sites is good; however, vigorous supervision of sentinel surveillance activities must be undertaken to ensure that good quality information is obtained from the large number of sites. Antenatal care clinic-based surveillance data can be complemented with special studies in selected groups at higher risk of HIV infection.
 - **Other STIs:** Monitoring of syphilis trends among women attending antenatal care clinics should be continued and complemented with the monitoring of other STIs at selected sites.
 - **Sexual behaviour:** The use of DHS and special surveys to monitor sexual behaviours among selected groups at increased risk of HIV infection should continue, and surveys should be repeated regularly.

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NAMIBIA

Total population (2002)	1,961,000
Young people aged 15–24 years	380,000
Adults aged 15–49 years	907,000
Population in capital city (Windhoek) (2001)	12.7%
Population, other urban (2001)	19.3%
Population, rural (2001)	68.6%
Pregnant women using antenatal care (200)	90.6%

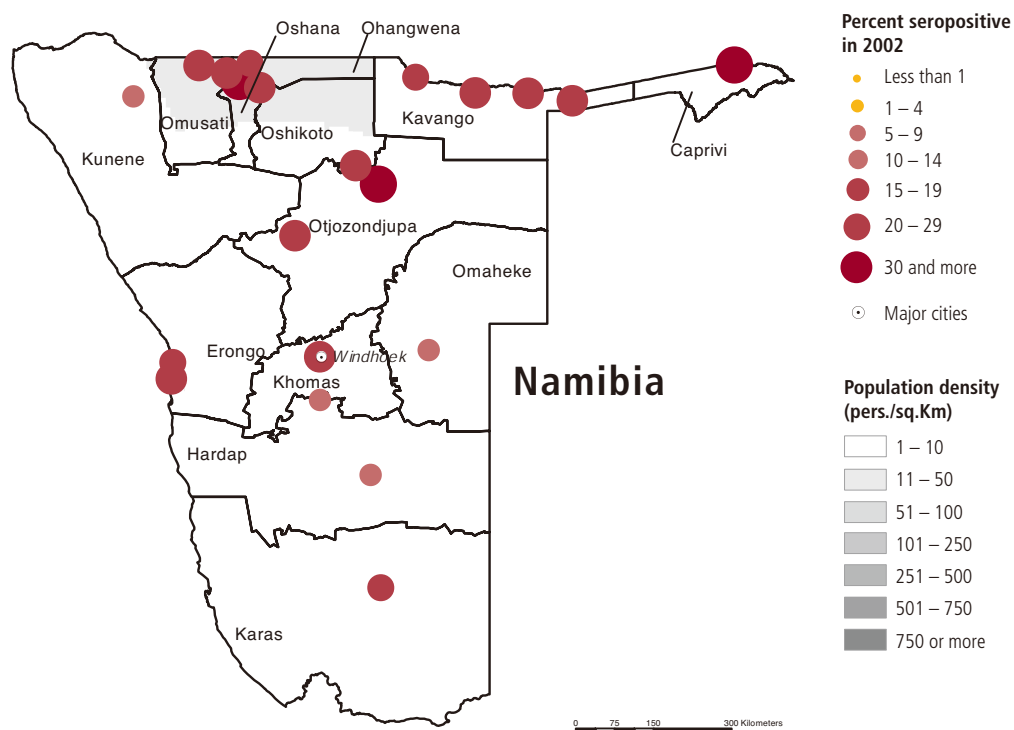
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: In 2002, 21 antenatal care clinics and 4227 pregnant women were included in the round of sentinel surveillance. Sentinel surveys are conducted once every two years. The surveillance system has consistently used the same twelve sites since 1994, with new sites being added over time. Since 1996, STI clinic attendees have been used as an additional sentinel population. In 2002, the sentinel survey included STI patients from 13 sites.

Other STIs: The assessment of syphilis seroprevalence among women attending antenatal care clinics was implemented and reported in 2001. A system of national case-reporting on STI syndromes also exists.

Figure 1

Sentinel surveillance in pregnant women, 2002

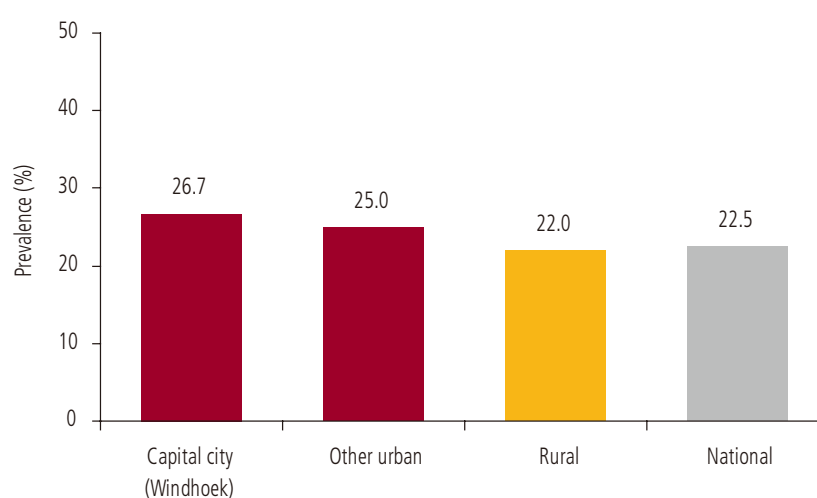


HIV

Median HIV prevalence among women attending antenatal care clinics at 21 sites in 2002 was 22.5%, ranging from 9.4% in Opuwo, to 42.5% in Katima Mulilo (located in the Caprivi strip in the far eastern part of Namibia). In the capital city, Windhoek, prevalence was 26.7% (Figure 2). Most rural antenatal care clinics are located in small urban settlements, but have broad catchment areas, with women travelling long distances from rural areas to attend the clinics. After weighting for the population size of each of the regions, HIV prevalence among pregnant women was 23.3%.

Figure 2

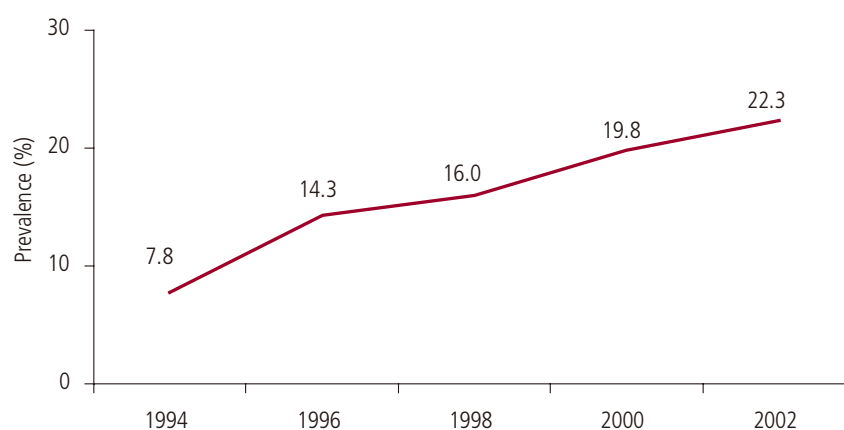
Median HIV prevalence among women attending antenatal care clinics, by location, Namibia, 2002



The trend in HIV prevalence can best be assessed by looking at the 12 sites for which biennial data have been available since 1994. An almost linear increase can be observed in the median prevalence from 7.8% in 1994 to 22.3% in 2002 (Figure 3).

Figure 3

Trend in median HIV prevalence among attendees at 12 antenatal care clinics, Namibia, 1994–2002



Among 1296 STI patients at 13 clinics in 2002, the HIV prevalence rate was 38.6%, very similar to the prevalence in 1998 (38.2%) and 1996 (35.1%).

OTHER STIs

The median prevalence of syphilis among women attending antenatal care clinics as measured by the RPR test was 6.1% in 2001, ranging from a low of 4.7% in Kavango to 27.9% in Hardap region. In 2001, the annual total number of reported episodes of male urethritis was 16,514 and the reported number of episodes of genital ulcer was 16,263.

MORBIDITY AND MORTALITY

Reports from health facilities show an increase in the number of admissions attributable to HIV/AIDS during the 1990s. In 2001, 6881 admissions were reported, a total which was slightly lower than that of the preceding year, probably due to changes in the coding system. More than 3000 deaths occurred in hospitals during 2001, and more than half of those deaths were of people aged 15–49 years. Mortality in this age group had been increased rapidly during the 1990s. AIDS is also the leading cause of death among all ages combined, causing 22% of all deaths.

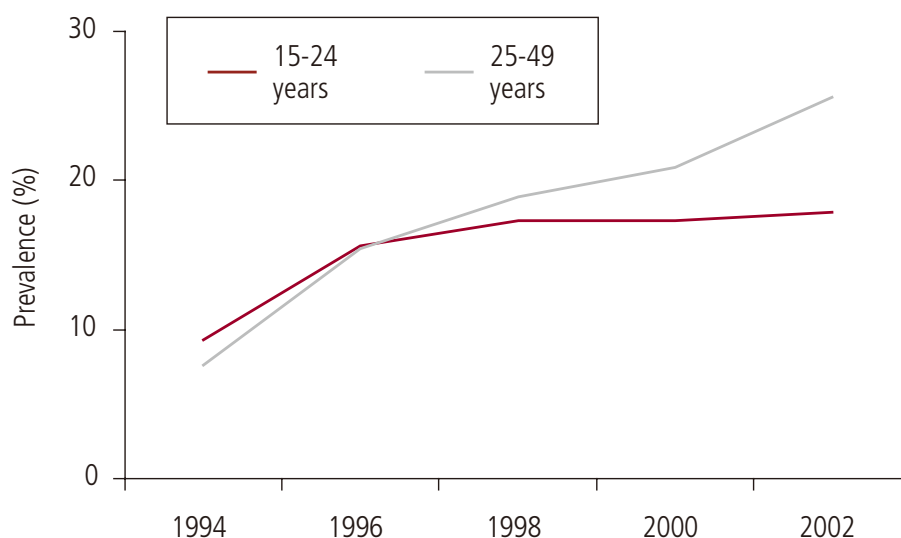
YOUNG PEOPLE

HIV: HIV prevalence rates among young women aged 15–24 years attending antenatal care clinics were 17.4% and 17.9% in 2000 and 2002 respectively (Figure 4). HIV prevalence rates among women aged 15–19 years attending antenatal care clinics almost doubled from 6% in 1994 to 11% in 1996, then increased slightly to 12% in 1998. There was no change in 2000 and infection rates decreased to 11% in 2001. HIV prevalence rates among pregnant women aged 15–19 years have remained stable at around 11% since 1996. Among pregnant women aged 20–24 years, HIV prevalence increased from 11% in 1994 to 18% in 1996, 20% in 1998 and in 2000, and 22% in 2002.

Other STIs: A facility-based prevalence study conducted in northern Namibia showed that the prevalence of gonorrhoea, chlamydia, trichomoniasis and syphilis infection among young men and women aged 16–29 years in rural areas was 15%, 9%, 9% and 6% respectively. The prevalence of gonorrhoea among female teenagers (aged 16–19 years) was 13% and chlamydial infection was 10%.

Figure 4

Trend in median prevalence among women aged 15–24 years and 25–49 years attending antenatal care clinics, Namibia, 1994–2002



CONCLUSIONS AND RECOMMENDATIONS

- Namibia continues to have a high HIV prevalence of slightly above 20% among women attending antenatal care clinics, but there is an indication that rates have been stabilizing among young people over the last few years. However, HIV prevalence rates among young women attending antenatal care clinics are still high; indicating high HIV incidence rates among young people.
- Information on sexual behaviour among adults and young people is not available.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The sentinel surveillance among women attending antenatal care clinics is functioning well and should be continued. The system could be complemented by special studies in selected groups at increased risk of HIV.
 - **Other STIs:** Surveillance of syphilis among women attending antenatal care clinics should be strengthened and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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SOUTH AFRICA

Total population (2002)	44,759,000
Young people aged 15–24 years	9,356,000
Adults aged 15–49 years	24,146,000
Population in capital cities* (2000)	11.4%
Population, other urban (2001)	46.2%
Population, rural (2001)	42.4%
Pregnant women using antenatal care (1998)	94.2%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Sentinel surveillance among women attending antenatal care clinics has been repeated annually and consistently in all nine provinces since 1990. Probability proportionate to size (PSS) sampling is used to select the sentinel sites, with each public health facility in the province acting as a sampling unit and more than 400 sites participating in surveillance each year. Each site enrolls a minimum of 40 pregnant women. From 1997, the same sites have been consistently selected for surveillance rounds. Voluntary anonymous procedures are used in recruiting and pregnant women who wish to know their HIV serostatus are referred to counselling and testing services. In 2002, a national population-based HIV sero-behavioural survey was conducted in the country. In 1997 and 1998, special studies were conducted among sex workers in KwaZulu Natal.

Other STIs: Use of RPR to test for syphilis among women attending antenatal care clinics has been an integral part of the national sentinel surveillance system since 1997. STI cases are reported via an integrated disease surveillance system. Complementary syndromic STI case reporting is conducted in selected sentinel sites. Some special studies have generated data on STIs.

Sexual behaviour: The main recent sources of data are the 2002 national sero-behavioural survey, the 1998 DHS, and a review of studies of behaviour among young people (with youth defined as persons aged 14–35 years).

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV prevalence among pregnant women in South Africa is represented by Province.

* Pretoria is the administrative capital, Cape Town is the legislative capital and Bloemfontein is the judicial capital.

HIV

In 2002, HIV prevalence among women attending antenatal care clinics was 26.5%, with a broad range from 12.4% in the Western Cape to 36.5% in KwaZulu-Natal province (Figure 2). The national trend shows rapid growth during the 1990s and slower growth at sustained high levels of prevalence in recent years (Figure 3). It is worth noting that the surveillance system was expanded in 1998, which may explain the irregularity in the curve between 1997 and 1998. Figure 3 also shows the trends in KwaZulu-Natal, which has the earliest and most severe epidemic of all provinces, and in the Western Cape, which reports the lowest prevalence of all provinces, but where the epidemic is currently experiencing its most rapid growth.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by province, South Africa, 2002

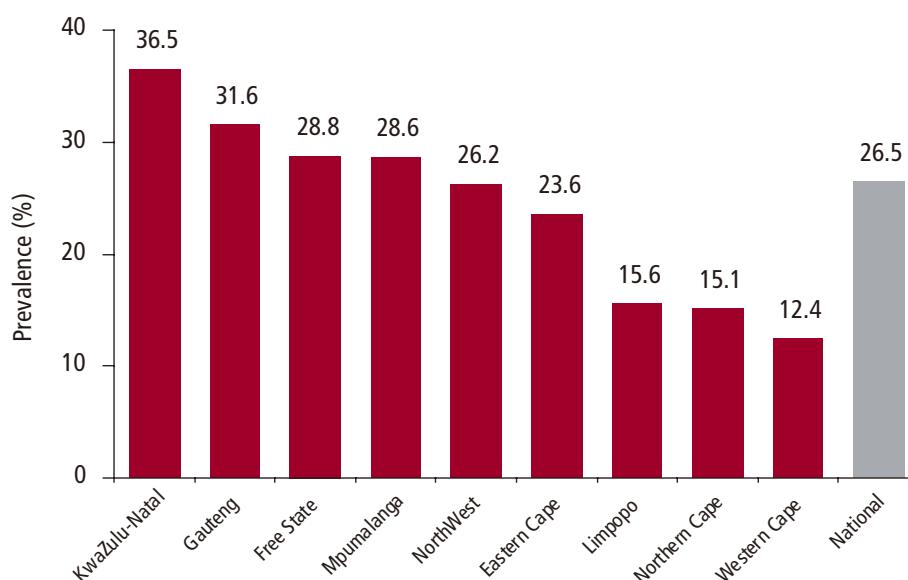
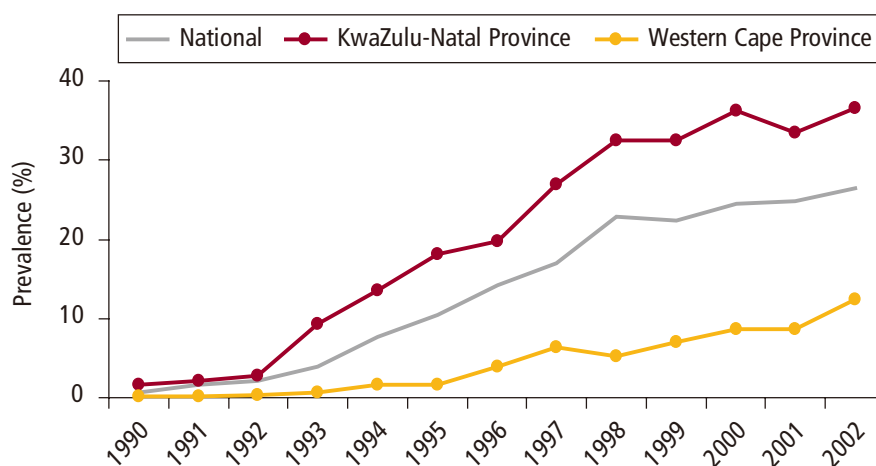


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, South Africa, 1990–2002



In 2002, a national population based serosurvey was conducted, with collection of a saliva sample for HIV testing. It had relatively high non-response rates of 29% at household level and 38% at individual level. HIV prevalence among the general population aged two years and above was 11.4%, with more females infected than males (12.8% versus 9.5%). HIV prevalence among children was unexpectedly high (5.6%) and will need further investigation. HIV prevalence among pregnant women in the survey was close to the prevalence reported by antenatal care clinics.

In 1997 and 1998, HIV prevalence among sex workers in KwaZulu-Natal was high, with rates of 50% and 61% respectively. There is an increasing trend in HIV infection rates in male STI patients tested in Johannesburg, from 1% in 1988 to 19% in 1994.

OTHER STIs

The syphilis seroprevalence rate among women attending antenatal care clinics declined considerably from 1997 to 2001 and was 3.2% in 2002.

Several studies have reported high levels of STI prevalence. In 1998, the prevalence of gonorrhoea and chlamydial infection among antenatal care clinic attendees in Cape Town was 6% and 11% respectively. Similar prevalence rates of gonorrhoea (7%) and chlamydial infection (12%) were also found in Mapumalanga province. A study conducted in 1997 found a high prevalence of STIs among female sex workers in an inner city area of Johannesburg. The prevalence of gonorrhoea, chlamydial infection, trichomoniasis and syphilis seropositivity was 35%, 11%, 20% and 29% respectively.

SEXUAL BEHAVIOUR

According to the national sero-behavioural survey in 2002, 4% of women and 14% of men reported having had more than one sexual partner in the last year. Among those who reported having multiple sexual relationships in the last year, 20% and 49% of those with two and three sexual partners respectively, had used a condom at last sex. In the 1998 DHS, 16% of women reported having used a condom at last sex with non-marital non-cohabiting partners.

YOUNG PEOPLE

HIV: Figure 4 presents the trend in HIV prevalence among 15–19 and 15–24 year old women. (The latter figure has been calculated assuming that 38% of all pregnancies under 25 years are in the 15–19 year old age group). Since 1998, HIV prevalence among young women aged 15–24 years has stayed at levels of between 22% and 24%. There is a very modest decline in HIV prevalence among pregnant women aged <20 years, prevalence now being slightly less than 15%. According to the 2002 survey, HIV prevalence among young people aged 15–24 years was 9.3%. Females were twice as likely to be infected than males of the same age (12.0% versus 6.1%).

Other STIs: National data on STI prevalence among young people are not available, except for syphilis seroprevalence (2.4% in 2002). A community-based study conducted in 1999 reported that the prevalence of infection with gonorrhoea, chlamydia, syphilis and HSV-2 among young people aged 14–24 years residing near the mining community of Carletonville was 2.9%, 4.8%, 1.8% and 20.0% respectively for men, and 10.9%, 14.6%, 4.5% and 64.6% respectively for women.

Sexual behaviour

Age at first sex: According to the 2002 sero-behavioural survey, the median age of sexual debut was 18 years for both sexes. In the 1998 DHS, median age at first sex was 17.8 years for young women.

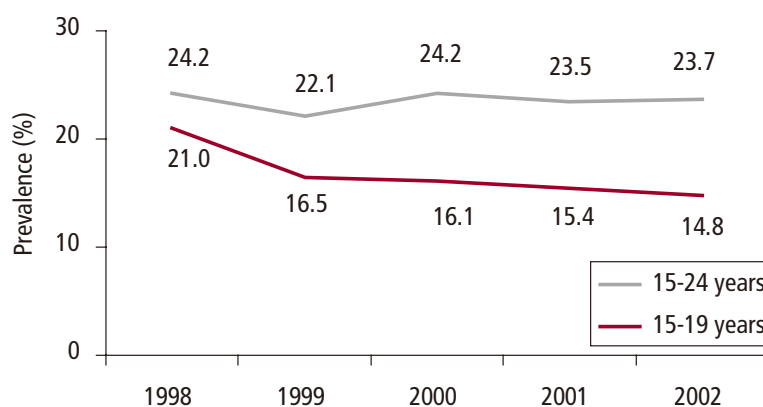
Premarital sex: A high proportion (57%) of young people surveyed in 2000 reported being sexually active. The 1998 DHS found that 18% of young women and 53% of young men had engaged in premarital sex in the last year.

Multiple partners: A recent review of published and unpublished papers (2003), concluded that 1–5% of young women and 10–25% of young men had more than four partners per year. The review also highlighted extensive levels of sexual mixing and high rates of new partner acquisition in bars, shebeens and other establishments where alcohol is served.

Condom use: In 2002, high levels of condom use were reported by both young men (57%) and young women (46%). Of those who had had multiple sexual relationships in the last year, 60% with two sexual partners and 49% with three sexual partners reported having used a condom at last sex. In the recent review of published and unpublished papers (2003), between 50% and 60% of sexually-active young people reported never having used condoms. In the 1998 DHS, only 20% of the single women who reported having had premarital sex had used a condom at last sex.

Figure 4

Trend in HIV prevalence among women aged 15–24 and 15–19 years attending antenatal care clinics, South Africa, 1998–2002

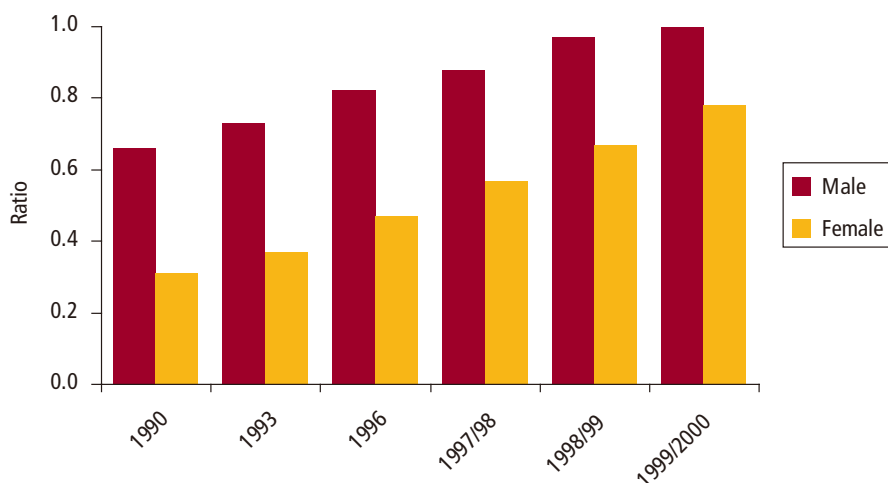


MORBIDITY AND MORTALITY

From 1990 to 1999/2000, the ratio of total deaths among persons aged 15–49 years as compared to total deaths among persons aged ≥ 50 years increased (Figure 5). The larger this ratio is, the larger the proportion of deaths among young people as compared to older people. These changes in the age patterns of mortality are very much as one would expect for mortality attributable to AIDS. A 2001 study on the impact of HIV/AIDS on adult mortality estimated that 40% of the deaths of adults aged 15–49 years that occurred in the year 2000 were due to HIV/AIDS, and that about 20% of all adult deaths in that year were due to AIDS.

Figure 5

Ratio of deaths at age 15–49 years to deaths at age ≥ 50 years, for reported deaths, by year of occurrence and sex, South Africa 1990–1999/2000



CONCLUSIONS AND RECOMMENDATIONS

- With more than a quarter of pregnant women being infected with HIV, South Africa is experiencing a severe HIV/AIDS epidemic which has not shown signs of a decline, although the rate of growth has slowed down in recent years. In several of the provinces with lower rates of HIV prevalence, the epidemic is now growing fastest. While higher-risk sexual behaviours are fairly common, condom use is relatively low.
- HIV/AIDS is contributing to a reversal of age-specific mortality patterns, with increasing proportions of younger people dying.
- There are some favourable signs. HIV prevalence among young women has declined slightly, as has syphilis prevalence, and self-reported condom use has increased considerably, with young people more likely to use condoms than adults.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The current antenatal care clinic-based surveillance system should be sustained and the unexpected findings of the population-based survey, which indicated a relatively high HIV prevalence among children need further study. Efforts to measure the impact of HIV/AIDS on adult mortality in South Africa are commended and should be continued.
 - **Other STIs:** RPR testing and reporting of syphilis as well as the reporting of STI cases should continue.
 - **Sexual behaviour:** Nationwide general population household-based surveys provide data on trends in behaviour if repeated at periodic intervals, preferably every three to five years. These general population-based surveys can be complemented by tracking behaviours in young people and populations at higher risk of HIV infection.

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SWAZILAND

Total population (2002)	1,069,000
Young people aged 15–24 years	241,000
Adults aged 15–49 years	495,000
Population in capital city (Mbabane) (2001)	8.5%
Population, other urban (2001)	18.2%
Population, rural (2001)	73.3%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

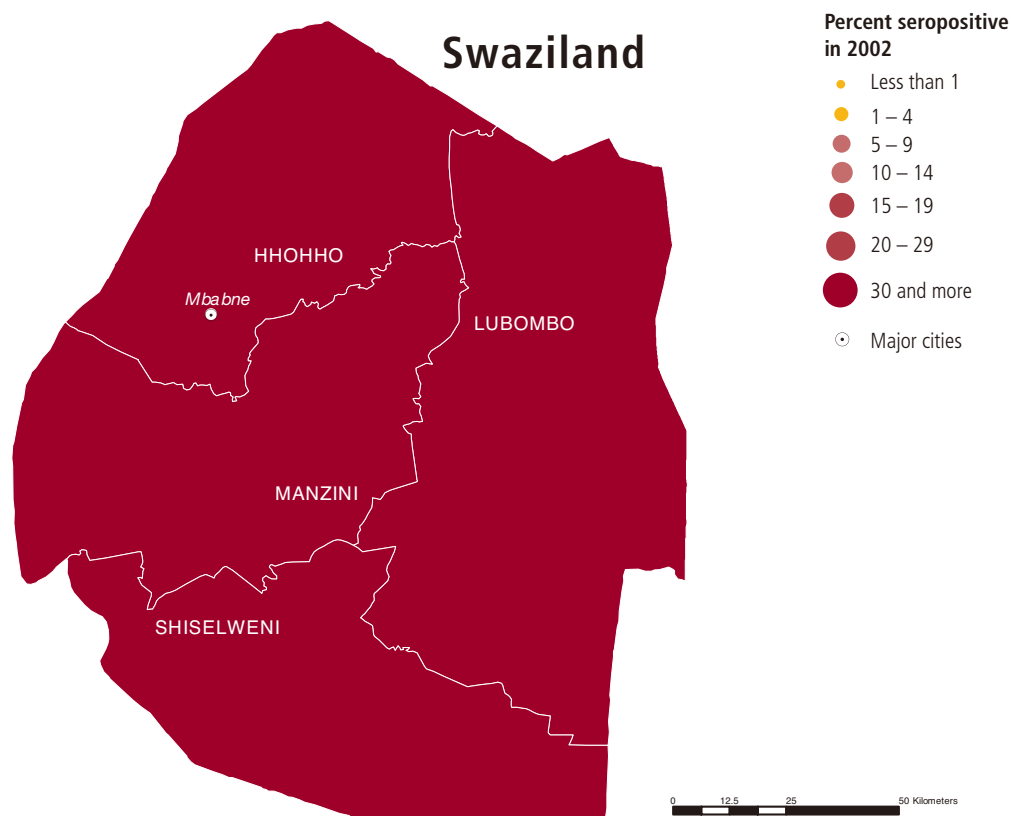
HIV: The HIV sentinel surveillance system includes sites in all four regions and is conducted every two years. In 2002, four clinics, two urban and two rural, were selected in each region, with the exception of one region where three rural and two urban sites were used. This represents a reduction from the 25 clinics used in previous years. Results are reported by location only. Until 2000, STI and tuberculosis patients were used as additional sentinel populations.

Other STIs: Since 1992, all antenatal care clinics included in the sentinel surveillance system have reported results of RPR testing for syphilis among attendees.

Sexual behaviour: The main sources of information on sexual behaviour is the BSS conducted in 2001–2002 in three regions (Manzini, Lubombo and Hhoho) among ten groups at increased risk of HIV infection.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV prevalence among pregnant women in Swaziland is represented by Province.

HIV

In 2002, HIV prevalence was 38.6% among pregnant women at 17 antenatal care clinics in Swaziland. In the eight urban and nine rural clinics all prevalence rates were high: 40.6% and 35.9% respectively. HIV prevalence exceeded 30% in all four regions (Figure 2). The trend in HIV prevalence shows a sharp increase between 1992 and 1996 and a continuing but more gradual increase since 1998 (Figure 3).

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Swaziland, 2002

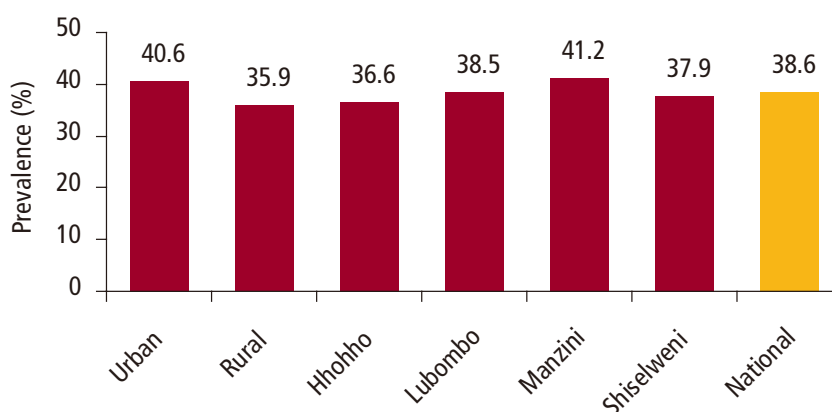
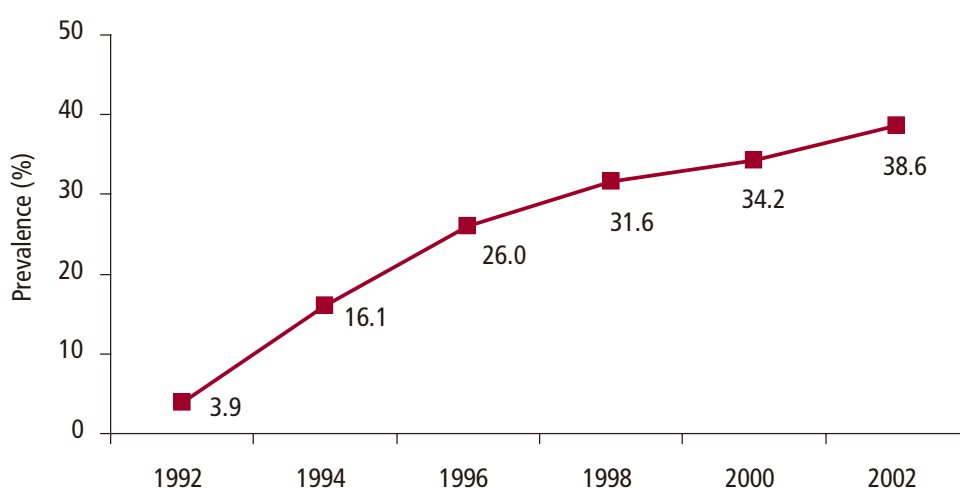


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, Swaziland, 1992–2002



HIV prevalence rates among STI patients increased from 11.1% in 1992 to 36.6% in 1996 and 50.2% in 2000. An increasing trend was also observed among tuberculosis patients. HIV prevalence among tuberculosis patients increased from 19.4% in 1992 to 58.1% in 1998 and to 78.6% in 2000.

OTHER STIs

In 2002, 4.2% of antenatal care clinic attendees tested positive for syphilis by RPR. This was lower than in the previous years. The regional variation was limited, ranging from 3.2% in Shiselweni to 4.7% in Hhohho. Prevalence exceeded 5% in the women aged 20–24 and 25–29 years.

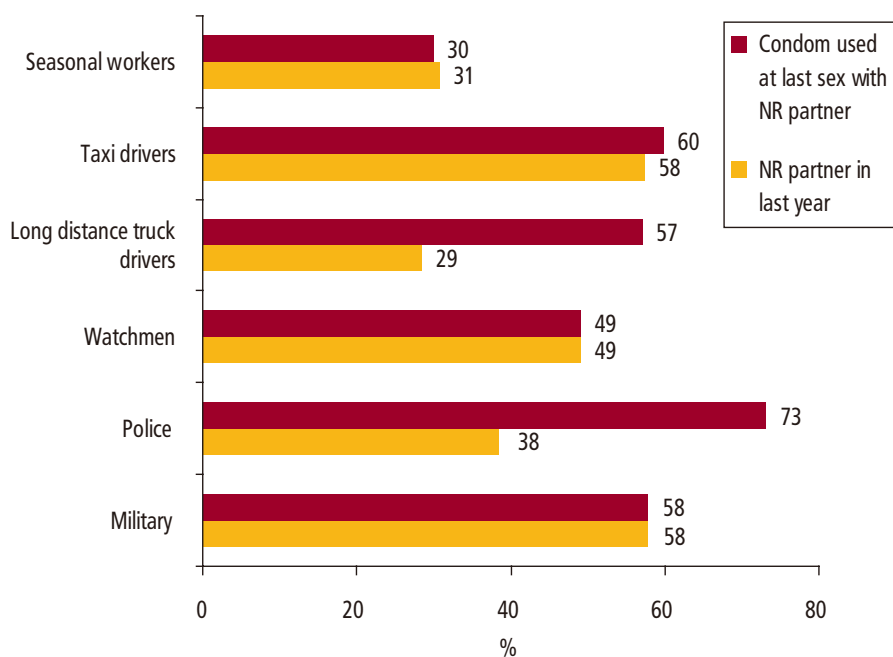
SEXUAL BEHAVIOUR

In the BSS of 2001–2002, non-regular sexual relationships were fairly common across all the vulnerable populations surveyed, ranging from 29% among long distance truck drivers to nearly 60% of the military respondents. In all of the ten groups surveyed, <5% of respondents said they had visited sex workers in the last year.

Condom use at last sex with a non-regular sexual partner was highest among policemen (73%) and lowest among seasonal workers (30%) (Figure 4). Condom use among sex workers was higher with paying clients (90%) than with non-paying clients (60%). Consistent use (100%) of condoms among sex workers with paying clients was reported by 74% of respondents.

Figure 4

Respondents with a non-regular (NR) partner in the last year, and respondents with NR partner who used a condom at last sex, Swaziland, 2002



YOUNG PEOPLE

HIV: HIV prevalence is high among young women attending antenatal care clinics. In 2002, HIV prevalence among all 1836 young antenatal care clinic attendees aged 15–24 years was 39.4%. Among 15–19-year-olds (who constituted 47% of all young pregnant women aged 15–24 years in 2002), 32.5% were infected with HIV. Prevalence among pregnant women aged 15–16 years already exceeded 20%. HIV prevalence among women aged 15–24 years has been increasing, as documented by age-specific data (Figure 5).

Sexual behaviour

Premarital sex: Only 16% of in-school young people reported having had premarital sex in the last year, while nearly half (49%) of out-of-school young people in the three regions reported having had sex with non-commercial partners (non-marital non-cohabiting) in the last year.

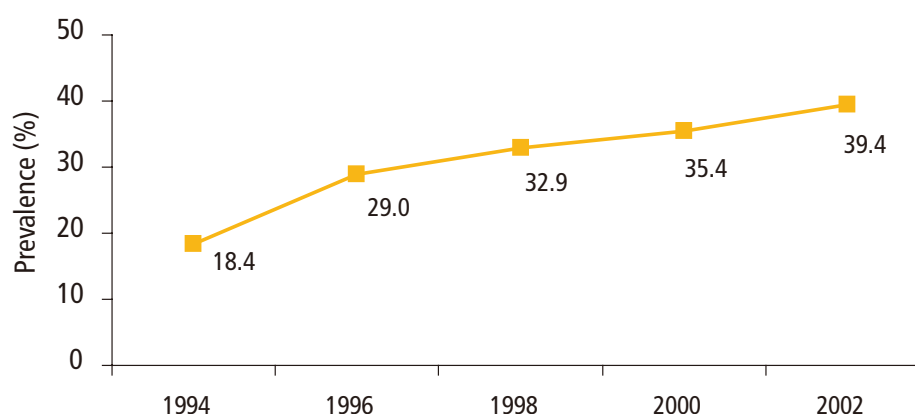
Multiple sexual relationships: About 33% of the in-school young people who were sexually active in the last year reported having had more than one sexual partner.

Non-regular sexual relationships: Among students in tertiary schools, 48% of the young men and 40% of the young women reported having had sex with non-regular sexual partner(s) in the last year.

Condom use: In-school young people were more likely to use a condom at first sex and in premarital sex than out-of-school. Seventy-five percent of sexually active in-school young people reported using a condom at first sex while only 37% of sexually active out-of-school young people reported doing so. Among those who reported having had premarital sex in the last year, 85% of the in-school as compared to 50% of out-of-school youth used a condom at the last premarital sex.

Figure 5

Trend in median HIV prevalence among young women aged 15–24 years attending antenatal care clinics, Swaziland, 1994–2002



CONCLUSIONS AND RECOMMENDATIONS

- Swaziland is experiencing a severe HIV/AIDS epidemic, with 38.6% of pregnant women attending antenatal care clinics being infected with HIV. HIV prevalence among young women aged 15–24 years is also very high, even in women aged <20 years, which indicates that HIV incidence is very high among young people.
- Data from the BSS suggest that multiple partnerships are very common. Surprisingly, self-reported condom use rates were substantial in most groups of respondents, which should have an impact on the spread of HIV.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics is functioning well and should be continued and complemented with special studies among groups at increased risk of HIV infection.
 - **Other STIs:** Monitoring of trends in the prevalence of syphilis among women attending antenatal care clinics should be continued and complemented with the monitoring of other STIs at selected sites.
 - **Sexual behaviour:** Repeated BSS should be surveys conducted among a few populations among the ten already surveyed. The next BSS should include a data quality evaluation component to minimize the influence of bias in the assessment of trends.

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ZAMBIA

Total population (2002)	10,698,000
Young people aged 15–24 years	2,281,000
Adults aged 15–49 years	4,741,000
Population in capital city (Lusaka) (2001)	16.1%
Population, other urban (2001)	23.7%
Population, rural (2001)	60.2%
Pregnant women using antenatal care (1996)	95.6%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

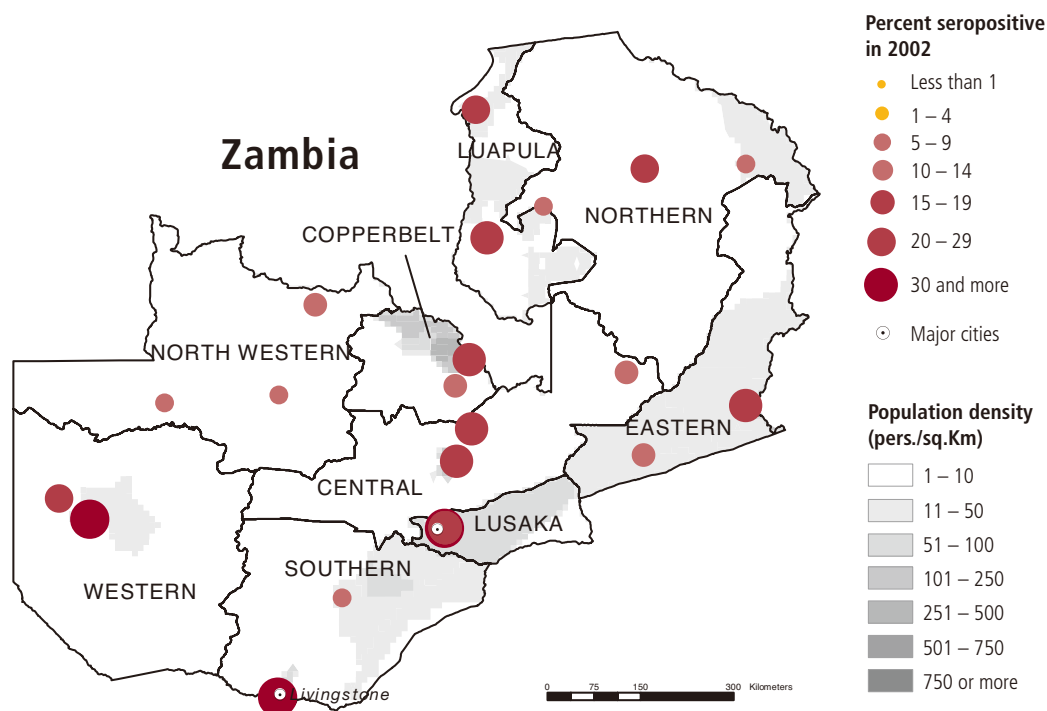
HIV: Since 1994, sentinel surveillance among women attending antenatal care clinics has been repeated every four years. In 2001/2002, 24 sentinel sites were used with a minimum of two sites (one rural and one urban) in each of the nine provinces with the exception of Central, Luapula and Lusaka provinces which have more than two sites each. Twenty-two of the sites used in 2002 had been previously used in 1998. In 2001/2002, the goal was to enrol about 500 pregnant women in four months, with oversampling at a few urban sites. A DHS with an HIV testing component was conducted in 2001/2002. Earlier, in 1995/1996 and 1998, small-scale population based serosurveys were conducted in the catchment area of selected sentinel sites (Chelston in Lusaka and in Kapiri Mposhi). In 1997/1998, HIV prevalence among the general population and sex workers was assessed in Ndola, eastern Zambia, as part of the UNAIDS four-city study.

Other STIs: Women attending antenatal care clinics were tested for syphilis using RPR in 1998 and 2001/2002, with data compiled and analysed. The 2001/2002 DHS included a syphilis testing component. Data on STI prevalence are also available from the UNAIDS study conducted in Ndola in 1997/1998.

Sexual behaviour: The main recent sources of information on sexual behaviour are the two Sexual Behaviour Surveys (SBS) conducted in 1998 and 2000, and the DHS conducted in 1996 and 2001/2002.

Figure 1

Sentinel surveillance in pregnant women, 2002

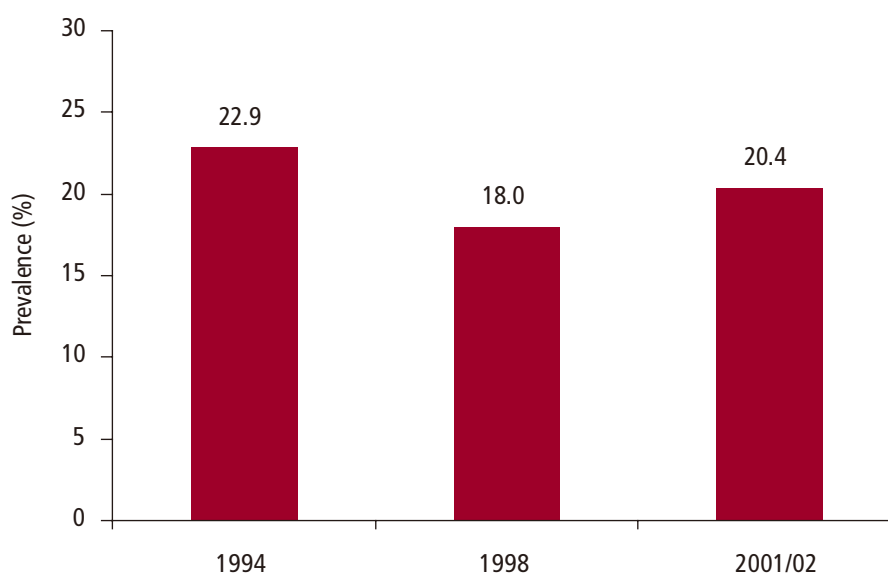


HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at all the 24 sites was 20.4%, ranging from 6.3% at Kasaba in Luapula province, to 31.8% at Mongu in Western province. The median HIV prevalence among women attending antenatal care clinics at four sites in Lusaka was 26.9%. The median HIV prevalence at the other eight urban sites was 27.7%. Generally, HIV prevalence tends to be higher in urban areas than in rural areas. The median HIV prevalence at 12 rural sites was 9.9%. A comparison of the median HIV prevalence at 22 sites used in 1994, 1998 and 2001/2002 shows that HIV prevalence has remained high with no signs of a decline (Figure 2). Subsequent surveys will give more conclusive information on the trend in HIV infection in the country. A similar trend can be found in the urban areas of Lusaka and Ndola, where median HIV prevalence has remained at around 25% since 1990.

Figure 2

Median HIV prevalence among women attending antenatal care clinics at 22 sites, Zambia, 1994–2001/2002



In the 2001/2002 DHS, overall HIV prevalence among adults aged 15–49 years was 16%. Women were more likely to be HIV-positive than men (18% versus 13%). Similarly, in the 1997/1998 UNAIDS four-city study in Ndola, HIV prevalence was higher in women (31.9%) than in men (23.2%). The 1995/1996 population-based serosurvey in Chelston-Lusaka and Kapiri Mposhi found a prevalence of 16.7% among adults aged 15–49 years in the rural areas, compared to 26.5% among adults in urban areas. Again in 2001/2002, HIV prevalence in urban areas was almost twice as high as that in rural areas (23% versus 11%). In the 2001/2002 DHS, prevalence rates in Lusaka, Copperbelt and Southern provinces exceeded the national average of 16%. The lowest rates were observed in the Northern and North-western provinces.

HIV prevalence among sex workers tested in Ndola during the UNAIDS four-city 1997/1998 study was 68.7%.

OTHER STIs

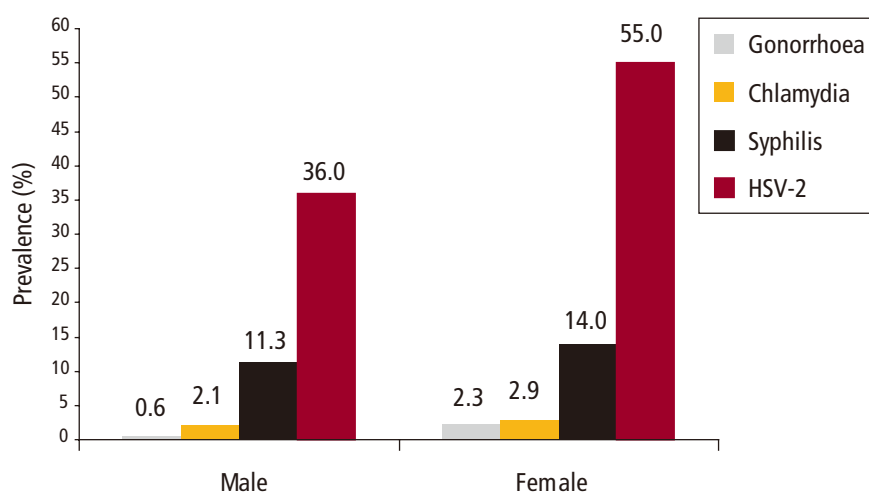
In 2001/2002, seroprevalence of syphilis among women attending antenatal care clinics at 24 sites was 20.7%, that is, much the same as the 1998 rate of 20.9%. No difference was observed in syphilis prevalence rates in urban and rural areas. There were important differences according to women's education, with the lowest syphilis prevalence rate of 4.9% being observed among pregnant women with college and university education and the highest rate of 13.7% recorded among pregnant women who had not attained primary education.

The 2001/2002 DHS also showed high rates of syphilis seroprevalence; the prevalence rate was 9% among the general population according to testing by RPR.

The 1997/1998 UNAIDS four-city study also found a high prevalence of syphilis among the general population in Ndola: 11.3% in men and 14.0% in women (Figure 3). The study also found high prevalence rates of HSV-2, with women more likely to be infected than men (55% among women versus 36% among men). The rates of chlamydial infection were 2.1% and 2.9% among men and women respectively; rates of infection with gonorrhoea were 0.6% and 2.3% among men and women respectively. The prevalence of trichomoniasis was 34.3% among women.

Figure 3

Prevalence of gonorrhoea, chlamydia, syphilis and HSV-2 in the general population, Ndola, Zambia, 1997/1998



SEXUAL BEHAVIOUR

According to the 2000 SBS, 16% of women and 29% of men reported having had sex with a non-marital non-cohabiting partner in the last year. In the 1996 SBS, 21% of men reported having had sex with a sex worker in the last year. In the 2001/2002 DHS, 13% and 34% of women and men respectively had had premarital sex in the last year.

Among women reporting having had sex with a non-marital non-cohabiting partner in the last year, 20%, 18%, 33% and 33% had used a condom at the last sex with a non-marital non-cohabiting sexual partner in the various behavioural surveys of 1996, 1998, 2000 and 2001/2002 respectively. For men having had non-marital non-cohabiting sexual relationships in the last year, the proportion of those who had used a condom at last sex with a non-marital non-cohabiting partner was 40%, 30%, 39%, 44% in 1996, 1998, 2000 and 2001/2002 respectively.

MORBIDITY AND MORTALITY

Estimates of adult mortality based on the 1996 and 2001/2002 DHS data reveal an increase in adult mortality in this period. Overall adult mortality rates increased from 10.9 per 1000 in 1996 to 14.1 per 1000 in 2001/2002, implying an increase in mortality of approximately 25%. The age-specific mortality pattern points to AIDS as the principle cause of these increases. Peak mortality among women occurred at age 35–39 years and among men at age 35–44 years.

YOUNG PEOPLE

HIV: In 2001/2002, HIV prevalence among young women aged 15–24 years attending antenatal care clinics at 24 sites was 18.8% compared to the 17.8% recorded in 1998. Among women aged 15–19 years attending antenatal care clinics, HIV prevalence increased from 10.8% in 1998 to 12.6% in 2001/2002, portraying a different picture to that observed between 1994 and 1998, when there seemed to be a declining trend in HIV prevalence in this age group. HIV prevalence in this age group was 14.8% in 1994. In the UNAIDS four-city study in Ndola, women were more likely to be infected with HIV than men of the same age. HIV prevalence among 15–24-year-old women was 28.6% versus 8.5% among men of the same age. The 2001/2002 DHS also highlights gender differences in HIV prevalence among young people (Figure 4).

Other STIs: Young women were more likely to have STIs than men of the same age both in the 2001/2002 DHS and the 1997/1998 UNAIDS four-city study in Ndola. In the 2001/2002 DHS, seroprevalence rate of syphilis was 5.6% among young women aged 15–24 years and 3.6% among young men of the same age. In the UNAIDS study in Ndola, the prevalence of HSV-2 infection was 40.2% among young women aged 15–24 years as compared to 17.6% among men of the same age, and seroprevalence rates of syphilis were 13.5% and 6.4% for women and men respectively.

Sexual behaviour

Age at first sex: The median age at first sex for young women was 16.9, 16.3 and 17.0 years in 1996, 1998 and 2000 respectively, and for young men was 16.2, 17.2 and 17.0 years in 1996, 1998 and 2000 respectively.

Premarital sex: In the 2000 SBS, 31% of young women and 36% of young men reported having had premarital sex in the last year (Figure 5). According to the 2001/2002 DHS, 35% of young women and 53% of young men reported having had premarital sex in the last year.

Condom use: The proportion of young unmarried women who reported having had premarital sex and who used a condom at last premarital sex in the last year was 21% in 1996, 36% in 2000 and 34% in 2001/2002. For young men, condom use at last premarital sex was 36% in 1996, 38% in 2000 and 42% in 2001/2002.

Figure 4

HIV prevalence among young people, by age and gender, Zambia, 2001/2002

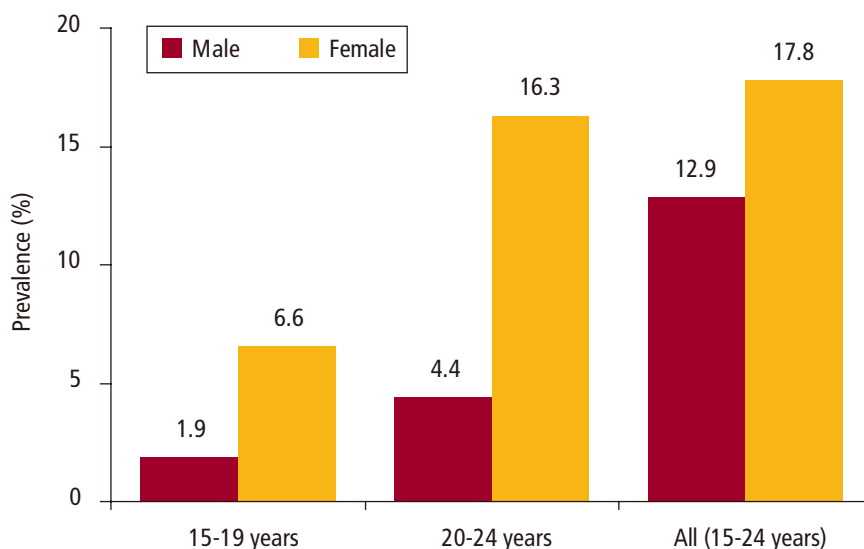
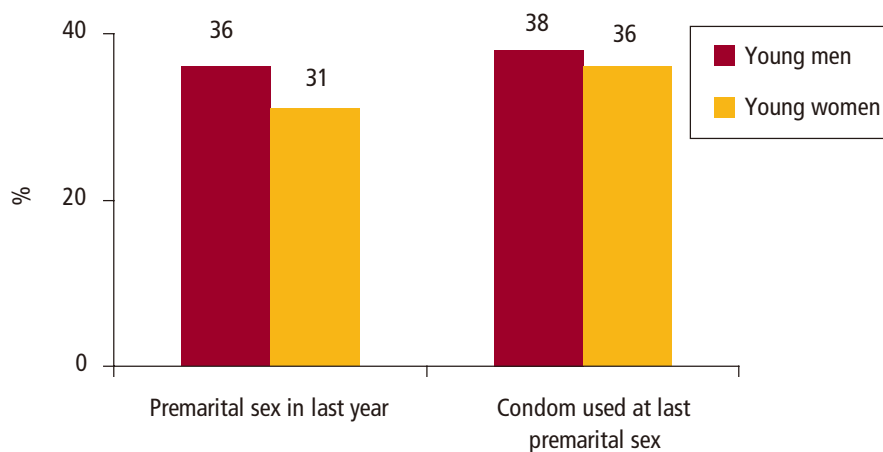


Figure 5

Young people, aged 15–24 years reporting premarital sex in the last year and those reporting premarital sex who used a condom at last premarital sex, Zambia, 2000



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence rates in Zambia continue to be high at about 16% in the general population and 20% among women attending antenatal care clinics, with no signs of a decline between 1994 and 2001/2002. Prevalence rates remain high in younger age groups, which indicates a high incidence of HIV infection among young people in the country.
- The high prevalence among pregnant women was close to that in the general adult population, indicating that HIV sentinel surveillance among pregnant women is still a powerful tool in making national estimates of adult HIV prevalence.

- Multiple sexual relationships and premarital sex remain fairly common among adults and young people. But condom use in Zambia at higher-risk sex is relatively low, although recent surveys suggest a modest increase, particularly and encouragingly among young people.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be conducted preferably every two years. This will facilitate interpretation of trends in HIV infection. Population based serosurveys with HIV testing components continue to complement antenatal care clinic-based sentinel information.
 - **Other STIs:** Inclusion of syphilis testing in antenatal care clinic-based surveillance and the DHS should be sustained and should be complemented with regular STI surveillance in a few selected sites .
 - **Sexual behaviour:** The DHS and SBS should continue to form the basis for monitoring sexual behaviour trends in the country and should be complemented by surveillance in groups at increased risk of HIV infection.

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ZIMBABWE

Total population (2002)	12,835,000
Young people aged 15–24 years	3,063,000
Adults aged 15–49 years	6,100,000
Population in capital city (Harare) (2001)	14.5%
Population, other urban (2001)	21.5%
Population, rural (2001)	64.0%
Pregnant women using antenatal care (1999)	93.1%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Sentinel surveillance among women attending antenatal care clinics improved in 2000 with the participation of 19 sites, including at least one site in every province. In the large cities (Harare, Chitungwiza and Bulawayo), a predetermined sample size of 550 women per site is required while in other areas the sample size is 330 women per site. Selection of sites takes into account the location: rural, urban, growth points (formally designated rural centres targeted for intensified development assistance, commercial farming and mining areas. During the 1990s, a large number of sites was used for surveillance, but only few of these were used consistently. In 2001, a nationwide population-based sero-behavioural survey (YAS) was conducted among young adults aged 15–29 years. Studies monitoring HIV prevalence among STI patients were incorporated into the HIV sentinel surveillance system until 1997.

Other STIs: Seroprevalence of syphilis among women attending the 19 antenatal care clinics was reported in 2000 and 2001. STI case reporting based on syndromes is also conducted.

Sexual behaviour: Recent sources of information on sexual behaviour include the 1999 DHS, the Young Adult Serosurvey (YAS) conducted in 2001, and a number of studies on condom use, which were conducted by PSI.

Figure 1

Sentinel surveillance in pregnant women, 2001

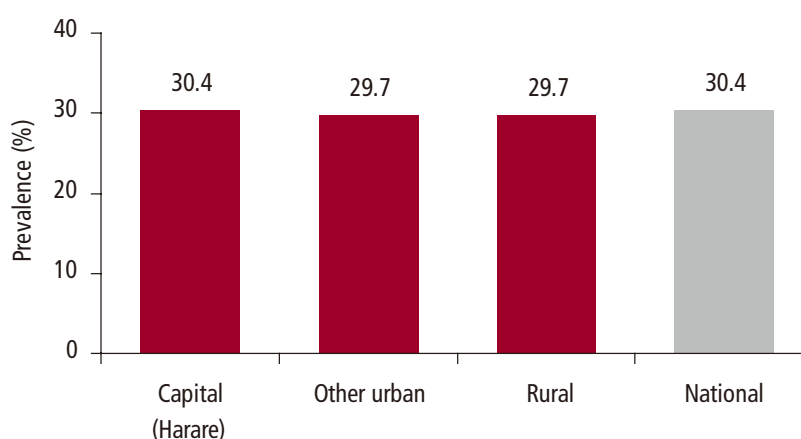


HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics at all 19 sites was 30.4%, with a range of 19.2% to 45.3%. There was little difference between Harare, other urban areas (including Bulawayo and Chitungwiza cities), and rural clinics (including commercial farms, growth points, mining areas and rural areas) (Figure 2). The median HIV prevalence at the five rural district hospitals or clinics was 22.7%.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Zimbabwe, 2001

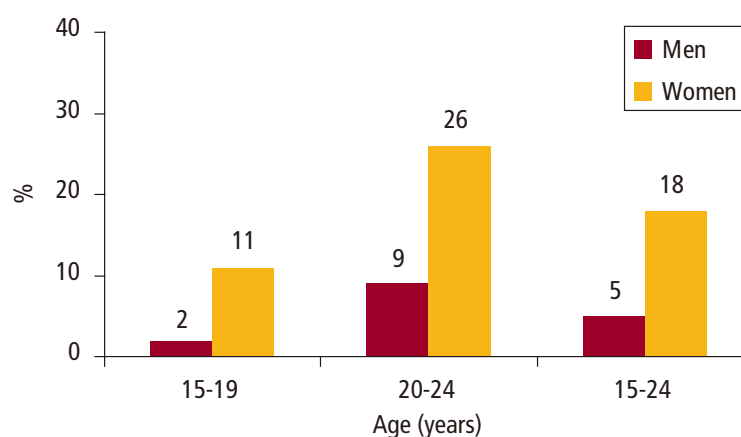


A comparison of the median prevalence in 1997, 2000 and 2001 shows that little change occurred during this period. The median HIV prevalence at the 13 clinics that reported in all three years was 29.3% in 1997, 33.5% in 2000 and 30.4% in 2001.

According to the YAS conducted in 2001, women aged 15–29 years were twice as likely to be infected with HIV than men of the same age (Figure 3). HIV prevalence was 22% among women and 11% among men. Prevalence increased with age among women. Peak infection of 35% was among women aged 25–29 years. HIV prevalence was similar for women living in urban areas (23%) and in rural areas (21%). Among men, HIV prevalence was higher in urban areas (12%) than it was in rural areas (9%). For women, prevalence was higher among women of low socioeconomic class than among women in the high socioeconomic class (24% versus 18%). Generally, the prevalence rate was highest among women with less than secondary school education (26%). Among men, the highest prevalence rate was found among those with a secondary school education or more (12%).

Figure 3

HIV prevalence among men and women, Young Adult Survey, Zimbabwe, 2001



OTHER STIs

In 2001, 1.8% (ranging from 0.0% to 4.9%) of women attending antenatal care clinics had a positive result for the RPR test for syphilis. The proportion of women who had ever had syphilis, as shown by a positive TPHA test, was 3.9%, compared to 5.1% in 2000. In 2001, 2.7% of the attendees at 19 antenatal care clinics had genital ulcer disease.

Overall prevalence rates of gonorrhoea, chlamydial infection, trichomoniasis and syphilis among asymptomatic women attending for antenatal care, family planning and child health services in Harare were 1.8%, 3.9%, 15.4% and 3.9% respectively. High HSV-2 seroprevalence was found in a cohort of male factory workers (35.7% in HIV-negative participants and 85% in HIV-positive participants at the baseline assessment) and the annual estimated HSV-2 incidence was 6.0%, based on type-specific serology. The prevalence of active syphilis was 2.3% and the seroincidence was estimated at 0.25 per 100 person years of follow-up.

SEXUAL BEHAVIOUR

According to the 1999 DHS, 14% of women and 41% of men reported having had sex with non-marital non-cohabiting partners in the last year. About 5% of men, in the 1999 DHS, reported having had sex with sex worker(s) in the last year. Of the women and men who reported having had sex with a non-marital non-cohabiting sexual partner in the last year, 43% and 70% respectively used a condom at last higher-risk sex. Notably, ever-use of condoms remained the same between 1994 and 1999, with one-quarter of women and two-thirds of men ever having used a condom, but the number of condoms distributed went up from 26 million in 1994 to 60 million in 1999 (with 56 million distributed in 2001).

A special analysis based on 1997 data showed that a sizeable proportion of men and women (about half of men and one-third of women) engaging in non-marital sexual relationships reported consistent condom use. In another more recent study in 1999, most men with casual partners or who had visited commercial sex workers always used condoms with these partners.

YOUNG PEOPLE

HIV: Median HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 25.2% in 2001. Median prevalence in urban areas (30.1%) was somewhat higher than that in rural areas (23.7%). All rates were lower than had been observed in 2000 when median prevalence was 32.2%, including two sites with very high prevalence (28.8% if those two sites are excluded). According to the 2001 YAS, HIV prevalence among women aged 15–24 years was 18% as compared to 5% among young men of the same age (Figure 3). HIV infection rates among men aged <20 years were very low.

Sexual behaviour

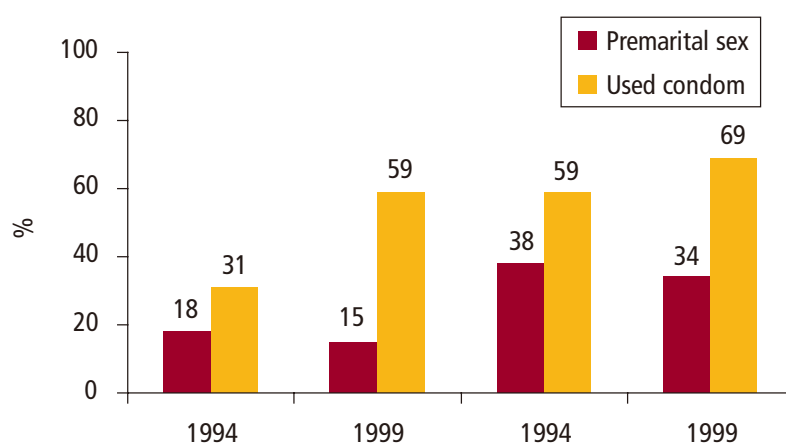
Age at first sex: Among young women, the median age at first sex was 18.5 years in 1988 and in 1994, and about 19 years in 1999, thus showing little change. The median age at first sex for young men remained at 19.0 years between the 1994 and 1999 DHS. Young women often have older male sexual partners. In the 2001 YAS, 36% of women's first sexual partners were 1–4 years older, 33% were 5–9 years older and 11% were 10 or more years older.

Premarital sex: According to the three DHS surveys, the prevalence of premarital sexual activity remained roughly unchanged during the 1990s (Figure 4). In 1999, 15% and 34% of young women and men, respectively, aged 15–24 years had had premarital sex in the year before the survey. According to YAS, 55% and 50% of women aged 15–24 years and men of the same age were already sexually active. Among women, 72% reported having their first sexual intercourse before marriage; the highest proportion was in women aged 15–19 years (77%). A similar pattern was observed among men aged 15–24 years, with 99% reporting having their first sexual experience before marriage.

Condom use: Between 1988 and 1999, condom use in premarital sex was particularly low among young women in comparison to young men, although it was increasing. Among young women who reported having had premarital sex in the last year, condom use at last premarital sex was 31% in 1994 and 39% in 1999, while for young men, condom use increased from 59% in 1988 to 69% in 1999.

Figure 4

Young people aged 15–24 years reporting premarital sex in the last year and those reporting premarital sex who used a condom at last premarital sex, Zimbabwe, 1994–1999



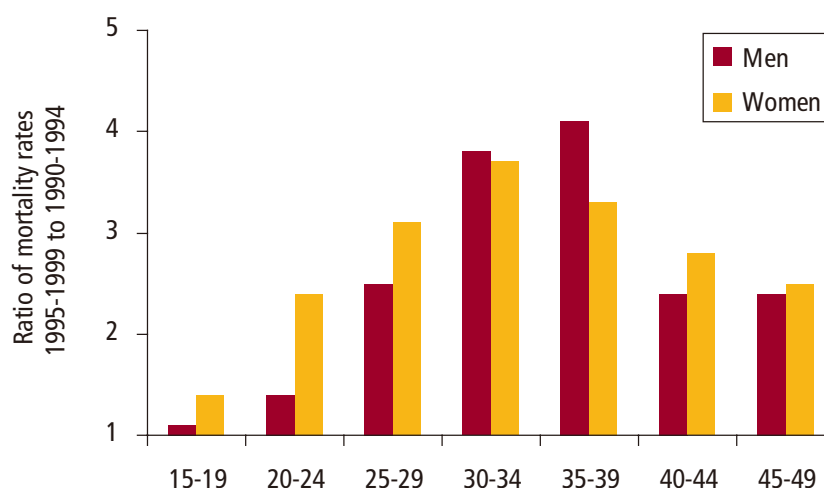
MORBIDITY AND MORTALITY

Empirical estimates of adult mortality based on 1994 and 1999 DHS data demonstrate a massive increase in adult mortality risks in the 1990s. In some age groups, the mortality rate has tripled. The age-specific mortality pattern of the increases in mortality points to HIV/AIDS as the principle cause (Figure 5). Peak mortality occurs among women aged 30–34 years and among men aged 35–40 years.

Decades of gains in child survival were reversed during the 1990s. Mortality in children aged <5 years in Zimbabwe increased from 77 to 102 per 1000 live births in 1990–1994 and 1995–1999 respectively and this is attributed at least in part to HIV/AIDS.

Figure 5

Relative increase in age-specific mortality rates, Zimbabwe, 1995–1999 to 1990–1994



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence among women attending antenatal care clinics in Zimbabwe is close to 30% and there is no evidence of a general decline. Results of the YAS 2001 show a somewhat lower prevalence in the general population, which may be due to better representation of rural populations in the survey.
- There are high proportions of adults and young adults engaging in high risk behaviours — multiple sexual relationships, premarital sex and extramarital sex among adults — and the surveys show little change in sexual behaviour among adults and young people over time.
- HIV/AIDS has contributed to a reversal in health gains and has also been a factor in increasing mortality rates in the country.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The improvements in antenatal clinic sentinel surveillance made since 2000 should be sustained. Population-based serosurveys such as the YAS conducted in 2001 complement antenatal clinic-based data and they should be implemented every three to five years.
 - **Other STIs:** Monitoring of levels of and trends in the prevalence of syphilis among women attending antenatal care clinics is useful and should be continued. Setting up a few sentinel sites to monitor other STIs would strengthen the system.
 - **Sexual behaviour:** Large population-based surveys have been valuable in monitoring trends in sexual behaviour among both adults and young people and should continue to be used and complemented by behavioural surveillance among groups at increased risk of HIV infection.

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EASTERN AFRICA



BURUNDI

Total population (2002)	6,602,000
Young people aged 15–24 years	1,446,000
Adults aged 15–49 years	2,946,000
Population in capital city (Bujumbura) (2001)	5.3%
Population, other urban (2001)	4.0%
Population, rural (2001)	90.7%
Pregnant women using antenatal care (1988)	79.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

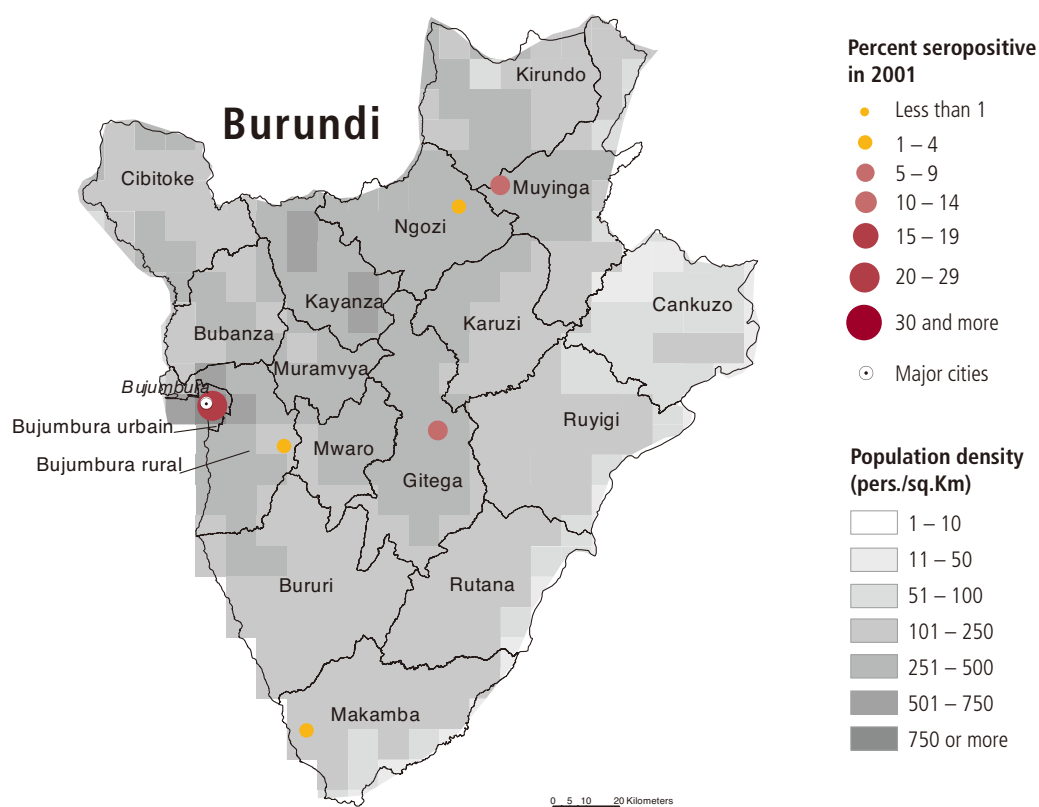
HIV: In 2001, HIV sentinel surveillance among women attending antenatal care clinics was conducted at seven sites in seven out of the 17 provinces in the country. These sites have been used consistently for the last three years, and four of them are located in rural areas. At least 250 pregnant women were enrolled from each site, with the exception of one site in Bujumbura where oversampling was carried out and 500 pregnant women were enrolled. The first national adult population-based serosurvey was conducted in 1989 and repeated in 2002. Prevalence of HIV infection among blood donors and persons seeking voluntary counselling and testing are also reported.

Other STIs: Since 1995, all antenatal care clinics used as sentinel sites have reported the results of syphilis testing among women attending antenatal care clinics.

Sexual behaviour: The main source of data on sexual behaviour is the nationwide behavioural survey conducted in 2000.

Figure 1

Sentinel surveillance in pregnant women, 2001

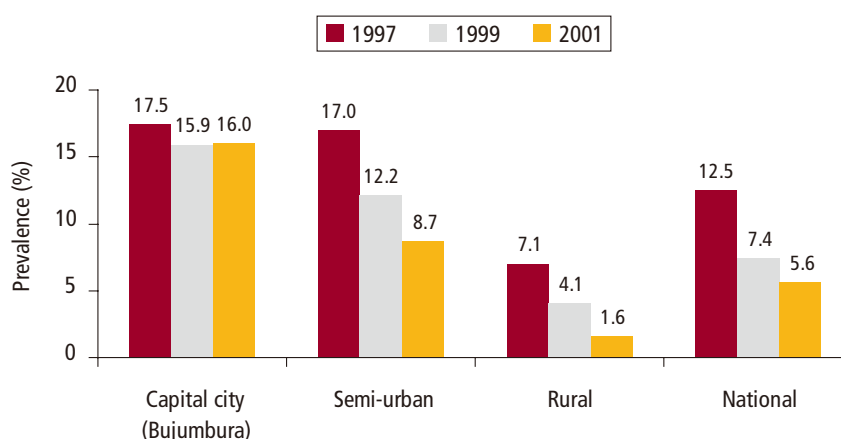


HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics at seven sites was 5.6%. Between 1997 and 2001, median HIV prevalence rates in the capital city, Bujumbura, have fluctuated (Figure 2). HIV prevalence among women attending antenatal care clinics in Bujumbura decreased from 19.8% in 1998 to 15.9% in 1999, and to 13.9% in 2000 and then increased to 16.0% in 2001. The patterns of prevalence are similar in semi-urban and rural areas, although prevalence in rural areas has remained lower than that in urban and semi-urban areas. In 2001, median HIV prevalence in rural areas was 1.6%, with a range of 1.1% in Ijenda to 3.5% in Muramvya. Median HIV prevalence among women attending antenatal care clinics at two sites in semi-urban areas was 8.7% in 2001, with the rate at one of these sites, Rumonge, being 12.8%.

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics, by location, Burundi, 1997-2001



In 2002, HIV prevalence in the general population was 5.4%. There were significant differences between urban and rural rates (Figure 3 and Figure 4). HIV prevalence rates in the urban, semi-urban and rural areas were 9.4%, 10.5% and 2.5% respectively. The difference between the urban and semi-urban rates was not significant. A comparison of population-based HIV prevalence rates in 1989 and 2002 shows that prevalence in rural areas has increased while prevalence in urban areas has remained stable. In 1989, the HIV prevalence rate for urban areas was 11.0% while that for rural areas was 0.7%. The 2002 survey found that women in urban and semi-urban areas were more likely to be infected with HIV than men; 13.0% versus 5.5% in urban areas, and 13.7% versus 6.8% in semi-urban areas. Approximately the same proportion of women and men in rural areas were infected: 2.9% women and 2.1% men. The difference was not significant.

Prevalence among blood donors has been decreasing since 1990, when the rate was 7.3%, and reached 0.2% in 2001. Median HIV prevalence among persons attending VCT clinics was 15.8% in 2001.

Figure 3

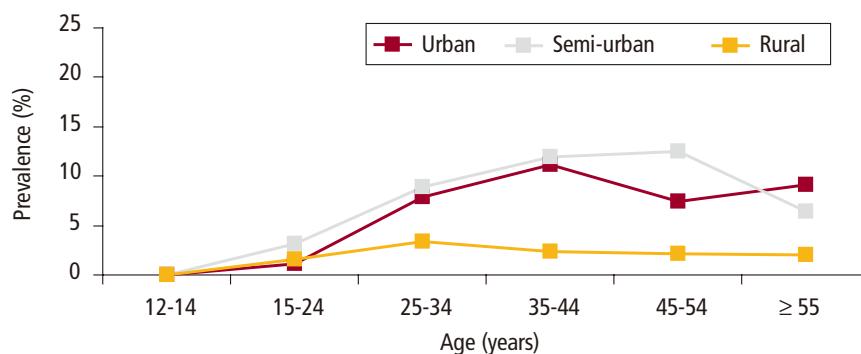
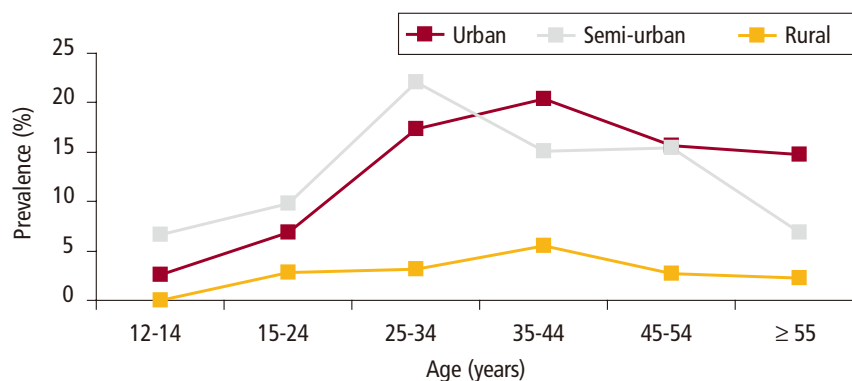
HIV prevalence among men, by age and location, Burundi, 2002

Figure 4

HIV prevalence among women, by age and location, Burundi, 2002**OTHER STIs**

Median syphilis seroprevalence among women attending antenatal care clinics was 4.2% in 2001, ranging from 0.0% in Muramvya and Ijenda to 5.4% in Kiremba. Rates of syphilis seroprevalence among women attending antenatal care clinics in Bujumbura fluctuated between 2.7% in 1998, 0.6% in 1999, 0.8% in 2000 and 4.6% in 2001. Median syphilis prevalence rates in areas outside Bujumbura varied between 2.3% in 1997, 2.8% in 1998, 2.2% in 1999, 2.2% and 3.8% in 2001.

SEXUAL BEHAVIOUR

According to the 2000 behavioural survey, 22% of adults reported having had sex with a non-regular sexual partner in the last year. Among those who reported having had non-regular sexual relationships, 43% had used a condom at last sex with a non-regular sexual partner. Among the 43% of persons who reported having ever used a condom, only 5% said that they had used condoms with sex workers.

YOUNG PEOPLE

HIV: A decline in HIV prevalence has been observed among young women aged 15–24 years attending antenatal care clinics (Figure 5). The HIV prevalence declined from 20.9% in 1991, to 17.3% in 1995, and 9.8% in 2001 among young women in urban sites. According to the 2001 population-based serosurvey, HIV prevalence rates among both women and men aged 15–24 years were 6.6%, 4.0% and 2.2% in the semi-urban, urban and rural areas respectively. As expected, the survey showed very low prevalence rates among people aged <15 years.

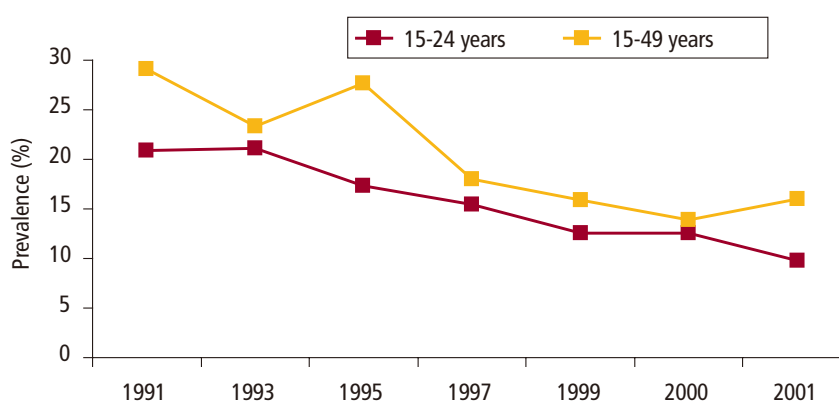
Other STIs: The median syphilis seroprevalence among young women aged 15–24 years attending antenatal care clinics was 3% in 2001.

Sexual behaviour

Age at first sex: According to the 2000 survey of behaviour, 18% of young people aged 15–19 years reported being sexually active in the last year.

Figure 5

Trend in median HIV prevalence among women aged 15-24 years and 15-49 years attending antenatal care clinics, Bujumbura, Burundi, 1991-2001



CONCLUSIONS AND RECOMMENDATIONS

- Burundi has a generalized epidemic with relatively high HIV prevalence rates which exceed 10% in urban areas.
- Over the past years, a decline in HIV prevalence has been observed among young people. Prevalence rates in the general population and in pregnant women attending antenatal care clinics are <5%.
- Although information on sexual behaviours is limited, there is evidence that use of condoms in higher-risk sex is not widespread.
- To strengthen HIV surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should continue to be undertaken regularly with the same sites used consistently. Some additional sites might be useful.
 - **Other STIs:** Monitoring of trends in the prevalence of syphilis is valuable and the system should be complemented by the establishment of a few sites to monitor other STIs.
 - **Sexual behaviour:** Behavioural surveillance should be repeated regularly to generate information on trends in behaviour, and should be complemented with regular surveys among groups at increased risk of HIV infection.

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ERITREA

Total population (2002)	3,991,000
Young people aged 15–24 years	806,000
Adults aged 15–49 years	1,844,000
Population in capital city (Asmara) (2001)	13.2%
Population, other urban (2001)	5.9%
Population, rural (2000)	80.9%
Pregnant women using antenatal care (1995)	48.9%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

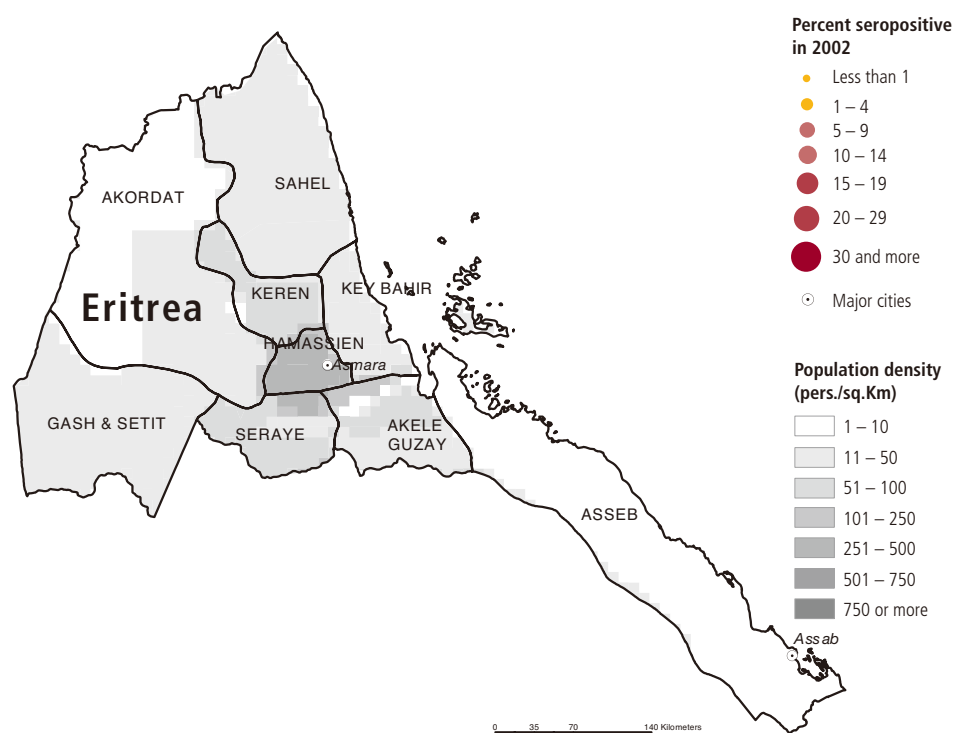
HIV: The first round of sentinel surveillance was conducted in 1999 among women attending antenatal care clinics at 14 sites located in urban areas in four zones (Northern Red Sea, Anseba, Maekel and Debub). The calculation of size of the sample of pregnant women enrolled was based on the population of the zone. No surveys were conducted in 2000, 2001 and 2002, as the system was disrupted by war. In 2001, a nationwide survey was conducted among selected groups, including women attending antenatal care clinics, the general population, female bar attendants, military personnel and students. In 1997, prevalence studies were conducted among women attending antenatal care clinics and sex workers in selected areas

Other STIs: The sites used for HIV sentinel surveillance among women attending antenatal care clinics in 1999 also reported results of testing for syphilis. Some studies of STI prevalence were conducted among sex workers in 1997 and 1999.

Sexual behaviour: There is limited information on sexual behaviours available in the country. A nationwide survey in 2001 among selected groups at high risk of HIV infection generated some data on sexual behaviour.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

According to the nationwide survey in 2001, the median HIV prevalence among women attending antenatal care clinics was 2.9%. In 1999, HIV prevalence among women attending antenatal care clinics at 14 sites was 4.2%. In 1999, HIV prevalence rates in the four zones ranged from 2.4%–6.5%.

The 2001 survey suggested that the prevalence of HIV infection among the general population was 2.4%. The same survey found HIV prevalence rates of 22.8%, 4.6% and 0.1% among female bar workers, military personnel and students respectively. In 1997, 35% of the sex workers tested in the six zones of the country were HIV-positive. In 1999, HIV prevalence among STI clinic attendees at 14 sites in four urban areas in the Northern Red Sea, Anseba, Maekel and Debub zones was 14.6%.

OTHER STIs

In 1999, the seroprevalence of syphilis among women attending antenatal care clinics in 14 sites was 1.7%. Studies conducted in 1997 and 1999 found syphilis prevalence rates among sex workers to be 4.5% and 7.8% respectively.

SEXUAL BEHAVIOUR

The nationwide survey in 2001 showed that 56% of women thought that their husbands or partners had sexual partners other than themselves. Only 30% of all respondents reported ever having used a condom. Sixty-three percent and 50% of bar workers and military personnel respectively reported ever having used a condom.

YOUNG PEOPLE

HIV: According to the 1999 HIV sentinel surveillance survey; HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 5.1%. Further analysis indicated that HIV prevalence among attendees aged 15–19 years was 3.7%.

Other STIs: In 1999, the seroprevalence of syphilis among young women aged 15–24 years attending antenatal care clinics was 1.9%.

Sexual behaviour

Condom use: In the 2001 survey, 58% of the young people aged 15–24 years reported having ever used condoms. Young people were more likely to report ever using condoms than adults. The average age at which a condom was first used was 23 years, that is, four years after the initiation of sexual activity.

CONCLUSIONS AND RECOMMENDATIONS

- At <5%, HIV prevalence rates in Eritrea are relatively low. As the surveillance system was established recently and was interrupted by war, data are not available to ascertain trends over time.
- The HIV prevalence of 5.1% among young women aged 15–24 years attending antenatal care clinics suggests that there is a relatively high incidence of HIV among young people in Eritrea.
- Data on sexual behaviour are limited.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** HIV sentinel surveillance among women attending antenatal care clinics should be re-established and should be complemented with regular surveys among groups at increased risk of HIV infection.

- **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
- **Sexual behaviour:** The system that has been initiated to collect behavioural information should be strengthened and maintained, and should collect data on behavioural indicators in addition to knowledge and attitude indicators, particularly among young people.

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ETHIOPIA

Total population (2002)	68,961,000
Young people aged 15–24 years	13,500,000
Adults aged 15–49 years	30,844,000
Population in capital city (Addis Ababa) (2001)	4.3%
Population, other urban (2001)	11.6%
Population, rural (2001)	84.1%
Pregnant women using antenatal care (2000)	26.7%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

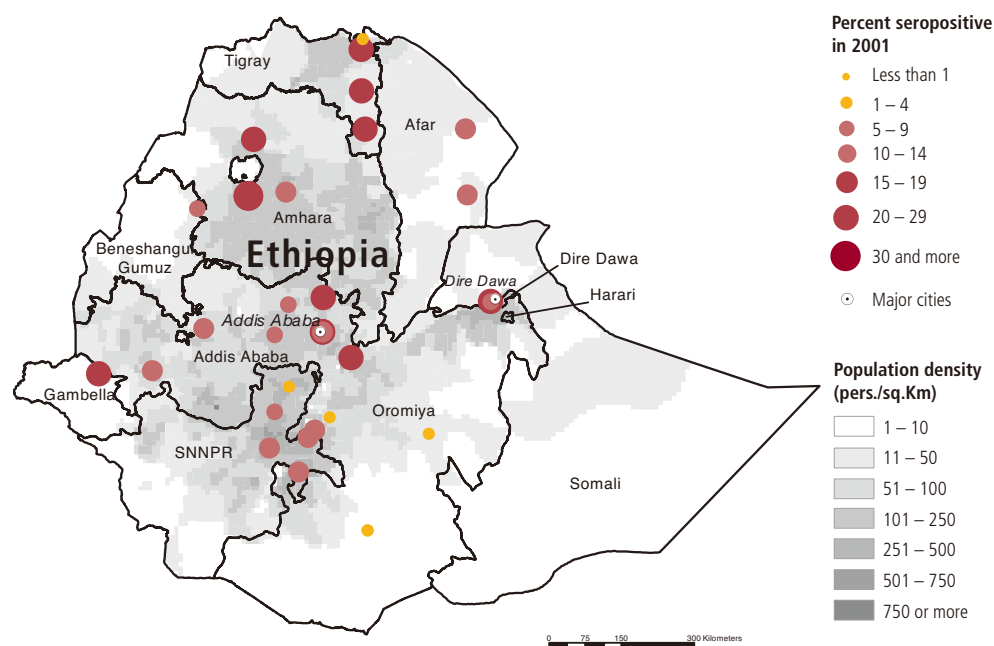
HIV: HIV sentinel surveillance among women attending antenatal care clinics has improved since 1999; surveys are conducted annually and 34 sites were used in 2001. At least 350 pregnant women were enrolled from each site. Data on HIV prevalence among women attending antenatal care clinics in Addis Ababa were also available for 2002. In 2000, a special HIV prevalence study was conducted among 72,000 male army recruits drawn from four regions (Tigray, Amhara, Oromia and Southern Nations, Nationalities and People’s Region — SNNR). A cohort study carried out from 1997 to 1999 among factory workers in Akaki and Wonji areas also generated data on HIV prevalence.

Other STIs: The syndromic STI case reporting system has operated in Addis Ababa since 1998. This approach is to be expanded to other regions where etiologic case reporting is still the norm. Since 1995, testing for syphilis among pregnant women attending antenatal care clinics has been included as an integral part of the HIV sentinel surveillance system, although results are not reported. The cohort study among factory workers in Akaki and Wonji also generated data on STIs. Other special studies have produced information on STI prevalence in the country.

Sexual behaviour: The main recent sources of information on sexual behaviour are the DHS conducted in 2000, a BSS conducted in 2001–2002 among groups at increased risk of HIV infection, and repeated studies of behaviour conducted between 1997 and 1999 in a cohort of factory workers in Akaki and Wonji.

Figure 1

Sentinel surveillance in pregnant women, 2001



HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics at 34 sites was 11.2%, with significant variation observed between prevalence rates in the capital, other urban areas and rural areas (Figure 2). Bahir-Dar, an urban area, had the highest median HIV prevalence rate of 21.7% while Attat, a rural area, had the lowest HIV prevalence of 1.5%. Twenty out of the 34 sites reported a prevalence rate exceeding 10% in 2001. However, there were seven sites with rates of <5%. HIV infection rates among women attending antenatal care clinics in this country have remained relatively stable at >10% since 1997. Data from the same 10 clinics illustrate this trend (Figure 3). Time trends among women attending four clinics in Addis Ababa show that median HIV prevalence was 18.6% in 1996, 15.2% in 2000 and 15.1% in 2002.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Ethiopia, 2001

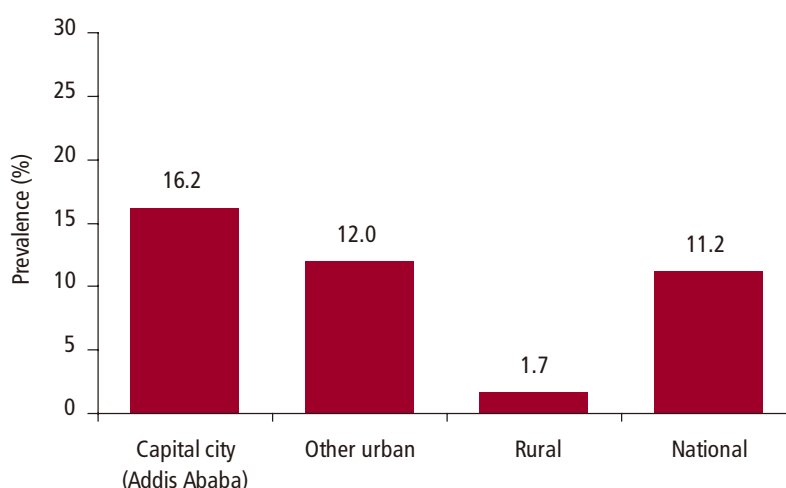
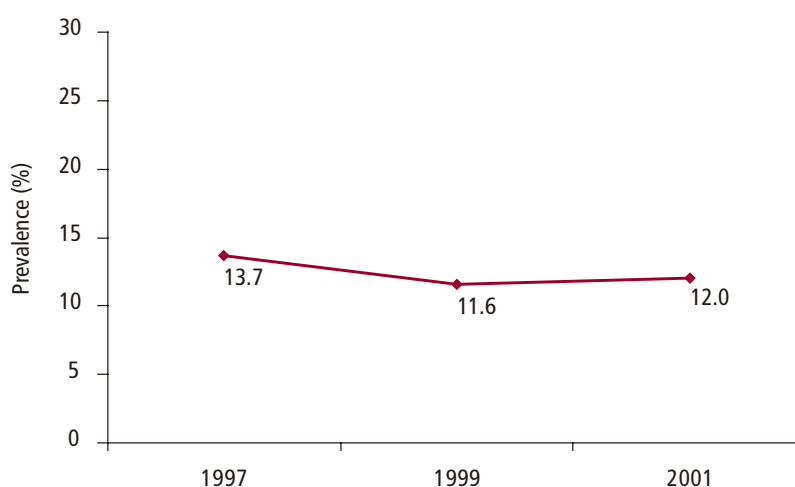


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, at 10 sites, Ethiopia, 1997-2001



In 2000, overall HIV prevalence among rural military recruits was 3.8%, compared to 7.2% among urban recruits. The cohort study among factory workers in Akaki and Wonji showed a modest decline in HIV prevalence from 7.1% in 1997 and 8.3% in 1998 to 5.2% in 1999. In 1998, HIV prevalence among sex workers tested at 22 sites was 17%.

OTHER STIs

Syphilis seroprevalence rates among women attending antenatal care clinics have remained below 5% over the last 10 years. Syphilis prevalence rates were reported to be 3.6% in 1997 and 2.4% in 2000, while seroprevalence of syphilis among women attending antenatal care clinics at the 34 sentinel sites used in 2001 was 2.2%.

In 1998, the prevalence of syphilis among sex workers in Addis Ababa was 35%. The seroprevalence of syphilis among factory workers in Wonji and Akaki was 17.9% in 1997, 31.8% in 1998 and 22.7% in 1999. In 1996/1997, a study among adults in Addis Ababa found a high prevalence of HSV-2 (50%) among both men and women

SEXUAL BEHAVIOUR

According to the DHS in 2000, 5% of women and 17% of men reported having had sex with a non-marital non-cohabiting sexual partner in the last year.

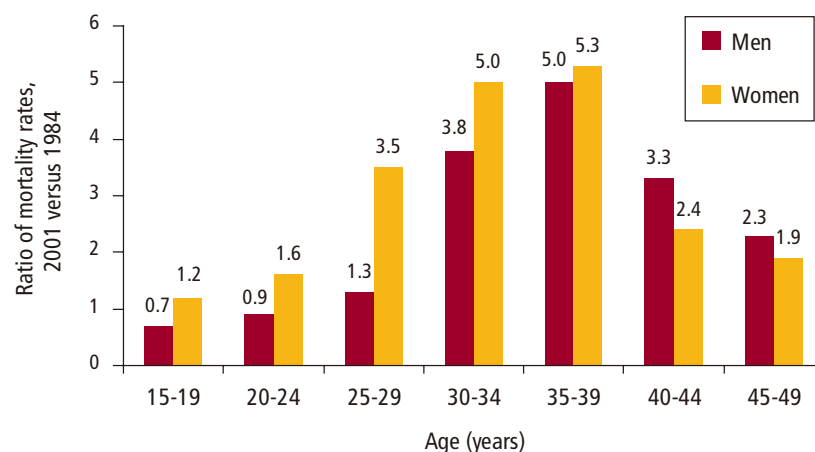
The 2000 DHS also found that 14% of women and 30% of men who reported having had sex with a non-spousal non-cohabiting sexual partner in the last year had used a condom at last sex with a non-spousal non-cohabiting partner. According to the 2001 BSS, slightly more than one out of five married respondents who had had multiple partners in the last year did not always use a condom. According to the studies of factory workers in Akaki and Wonji, the proportions of factory workers reporting sex with a sex worker declined from 53% in 1997 to 5% in 1998 and 4% in 1999. The proportions of those reporting casual sex in the last year also declined from 16% in 1997 to 9% in 1999.

MORBIDITY AND MORTALITY

A study in Addis Ababa showed that between 1987 and 2001 the number of deceased persons aged 5–14 years who were buried remained constant, while there was an annual increase in the number of buried persons aged 25–49 years. The ratio of all-cause mortality in people aged 25–49 years compared to those aged 5–14 years increased by 8.5% per year. A study comparing the number of burials occurring in Addis Ababa in 1984 and in 2001 also found increases over time (Figure 4). Between 1984 and 2001, mortality rates increased by 5 times among men and by 5.3 times among women aged 35–39 years. Age-specific mortality differences were pronounced in women aged 25–39 years and in men aged 30–44 years. The probability of a person aged 15 years dying before age 60 was 41.9% in 2001 versus 23.1% in 1984 for men, and 35.2% in 2001 versus 17.4% in 1984 for women. The age-specific pattern of this increase in mortality suggests that HIV/AIDS is the principal cause.

Figure 4

Relative increase in age-specific mortality rates, by sex, Addis Ababa, Ethiopia, 2001 versus 1984



YOUNG PEOPLE

HIV: In 2001, the median HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 12.1%. HIV prevalence declined between 1996 and 2000 and has since remained stable. Median HIV prevalence in the same four clinics declined from 21.8% in 1996 to 15.2% in 2000, and 15.8% in 2002. HIV prevalence among rural military recruits aged 18–24 years in 2000 was 3.3% while HIV prevalence among urban military recruits of the same age was 6.3% in 1999.

Other STIs: There has been a noticeable decline in the seroprevalence of syphilis from 7.6% in 1995 to 1.3% in 2001 among young women aged 15–24 years in the inner-city area. Overall prevalence of gonorrhoea and/or chlamydial infections among in-school and out-of-school youth in Addis Abba was 1.7% in 2000. The prevalence was higher among out-of-school youth (2.9%) than in-school youth (0.4%). A higher prevalence was detected among sexually-active young women than sexually-active young men (13.5% versus 1.5%).

Sexual behaviour

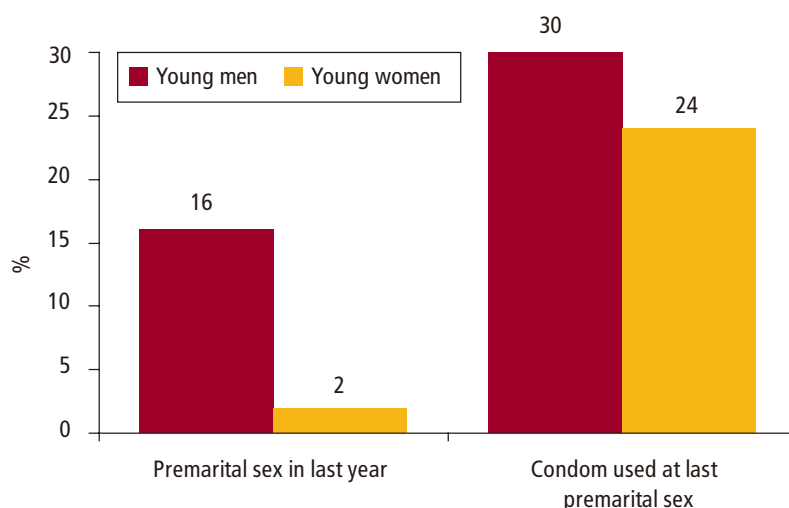
Age at first sex: According to the DHS in 2000, the median age at first sex was 19 years for young women and 22.1 years for young men.

Premarital sex: In the DHS of 2000, 2% of young women and 16% of young men reported having had premarital sex in the last years.

Condom use: Among the youth who reported having premarital sex in the last years, according to the 2000 DHS, 24% of women and 30% of men reported using a condom at last premarital sex (Figure 5).

Figure 5

Young people aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Ethiopia, 2000



CONCLUSIONS AND RECOMMENDATIONS

- Overall, HIV prevalence in Ethiopia shows a trend towards stabilization at >10% among women attending antenatal care clinics, although there are significant variations in HIV prevalence within the country.
- Declining HIV prevalence rates have been observed among young women attending antenatal care clinics in Addis Ababa. However, these rates remain high, suggesting a high incidence of HIV infection among young people in the country.
- Ethiopia is experiencing a high prevalence of HSV-2 and a relatively low prevalence of syphilis.
- High-risk sexual behaviours are common among both adults and young people. However, condom use is low among both adults and young people engaging in higher-risk sex.
- The increasing mortality of people in the age group 25–49 years in Ethiopia gives cause for concern.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Improvement in the coverage and rural representation of sentinel surveillance among women attending antenatal care clinics should be sustained. Special studies among selected groups at increased risk of HIV infection should continue to be implemented as they provide information which complements antenatal care clinic-based surveillance data.
 - **Other STIs:** Testing for syphilis among pregnant women attending antenatal care clinics should be continued and this should be supplemented by testing for other STIs at a few selected sites.
 - **Sexual behaviour:** The use of DHS and BSS to monitor trends in behaviour among the general population and among groups at increased risk of HIV infection should be continued.

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KENYA

Total population (2002)	31,540,000
Young people aged 15–24 years	7,428,000
Adults aged 15–49 years	15,616,000
Population in capital city (Nairobi) (2001)	7.5%
Population, other urban (2001)	26.9%
Population, rural (2001)	65.6%
Pregnant women using antenatal care (2000)	76.1%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

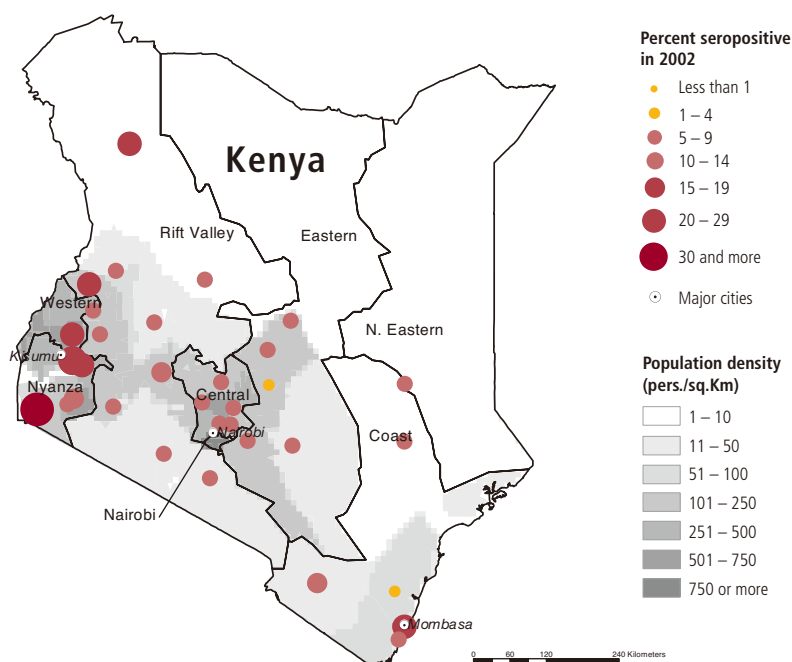
HIV: In 2002, 34 antenatal care clinic sites participated in the HIV sentinel surveillance system. These sites were distributed all over the country and more than half of them were in rural areas. A minimum sample of 250–400 pregnant women was enrolled from each site. Sentinel surveillance is repeated annually, although only certain sites have been used consistently since the system was established in the late 1980s. In 1997/1998, a population-based study was conducted in Kisumu as part of the UNAIDS four-city study. Between 1985 and 1998, STI patients were used as an additional sentinel population, although surveys among this group were not conducted regularly and sites were not used consistently. The 1997/1998 UNAIDS study in Kisumu also included sex workers.

Other STIs: In 2000, a survey of STI prevalence was conducted among workers in sugar and paper processing companies in western Kenya. The 1997/1998 UNAIDS study in Kisumu also generated information on STIs. At the national level, STI cases are reported through an integrated management information system.

Sexual behaviour: The main sources of data are the DHS conducted in 1998, a BSS conducted among youth, taxi drivers and touts, and sex workers in Mombasa in 1998, and another conducted among sex workers and company workers in western Kenya in 2000. The UNAIDS study in Kisumu in 1997/1998 also generated information on sexual behaviours.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 34 sites was 6.5%, while the prevalence was 14.3% in urban areas and 6.3% outside urban areas. In 2002, the highest prevalence rate of 35% was reported in Suba, while in Bamba, Kalulumo and Kilifi the rate was 4%. In 2001, the median HIV prevalence among women attending antenatal care clinics at 37 sites was 11.2%, ranging from 4.0% in Mosoriot to 30.9% in Suba. In the last few years, some sites have reported HIV prevalence rates of 20% or more among women attending antenatal care clinics ; these sites are Busia, Chuliambo in Kisumu, Mbale (Vihiga district), Meru, Nakuru and Thika. HIV prevalence among women attending antenatal care clinics in Nairobi declined from 24.6% in 1995 to 14.7% in 1999, and to 14.4% in 2001. In Mombasa, a tourist town, HIV prevalence rates among women attending antenatal care clinics fluctuated between 12.2% and 16.3%, and was 14.2% in 2002 (Figure 2). HIV prevalence rates in Kisumu (near the border with Uganda) has been fluctuating with the highest prevalence measured in 2000 (35.0%) (Figure 3).

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics in Mombasa, Kenya, 1990-2002

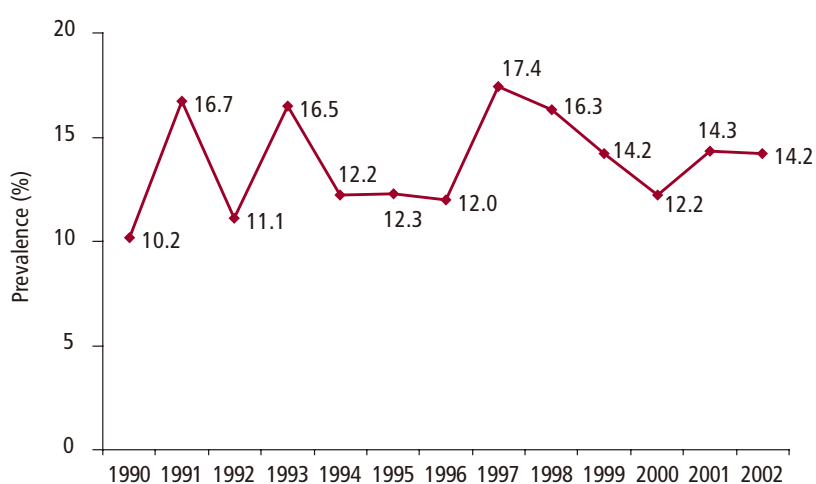
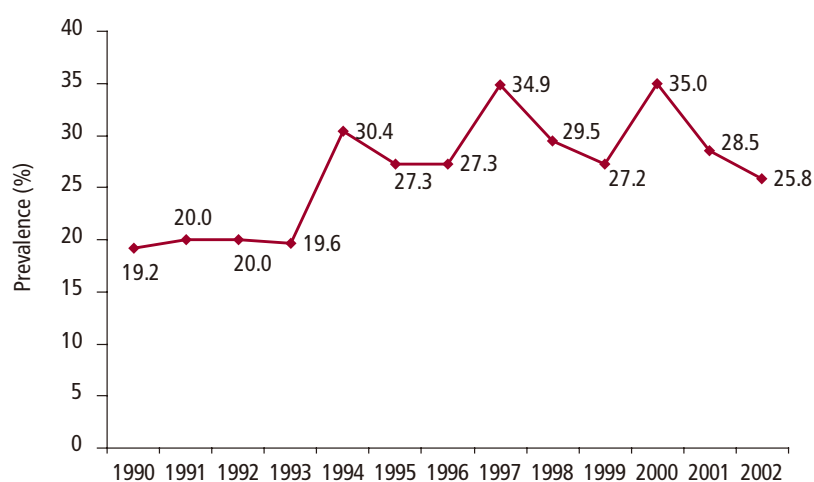


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics in Kisumu, Kenya, 1990-2002



According to the UNAIDS study in Kisumu in 1997/1998, overall HIV prevalence among men was 19.8% compared to 30.1% among women. Women of <30 years old were more likely to be infected with HIV than men of the same age; the reverse was true in the older age groups. HIV prevalence peaked at 30–39 years of age in men and at 20–29 years of age in women.

In 1997/1998, HIV prevalence among sex workers in Kisumu was 75%. In 1998, HIV prevalence among STI clinic attendees in Nairobi was 29%.

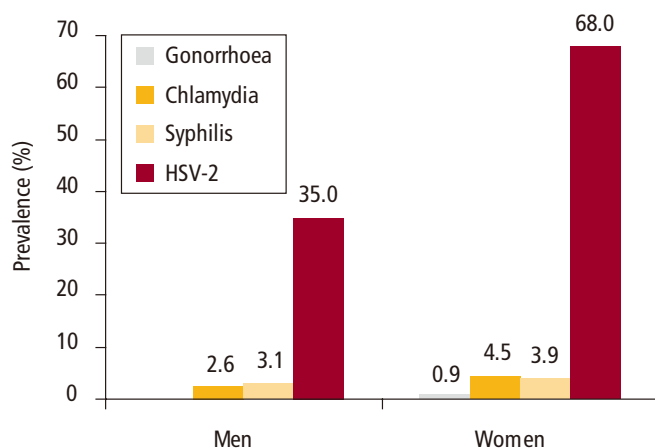
OTHER STIs

According to the survey of STI prevalence conducted in 2000 among company workers in western Kenya, 1.3% had chlamydial infections, 1.2% had syphilis and 0.9% had gonorrhoea. About 3.4% of workers were infected with at least one of the three STIs at the time of the survey. In contrast, self-reported annual incidence of STIs was 32.4%, with 19.2% reporting an episode of genital discharge in the last year and 20.7% reporting a genital ulcer.

The 1997/1998 UNAIDS study in Kisumu found no evidence of chlamydial infection among men and women, although 0.9% of the women had gonorrhoea (no evidence of gonorrhoea among men), and 3.9% of the women and 3.1% of the men had syphilis (Figure 4). Prevalence rates of HSV-2 infection were much higher in women than in men across all age groups (68% versus 35%). The prevalence of trichomoniasis was 29.3% among women.

Figure 4

Prevalence of gonorrhoea, chlamydia, syphilis and HSV-2 infection in the general population, Kisumu, Kenya, 1997/1998



SEXUAL BEHAVIOUR

In the 1998 DHS, 22% of women and 47% of men reported having had sex with a non-marital non-cohabiting sexual partner in the last year. Among those reporting engaging in this type of relationship in the last year, 16% of women and 44% of men used a condom at last sex with a non-marital non-cohabiting partner.

According to the study in Kisumu, 25% and 3% of married men and women reported having had sex with a non-spousal partner in the last year. Condom use with non-spousal partners always or most of the time was 23% for men and 21% of women reported using condoms frequently with such partners.

The survey among company workers in western Kenya found that 29% of company workers had had sex with a 'steady' but non-cohabiting partner in the last year, 13% reported having had sex with a casual partner in the last year and 4% reported having had sex with a sex worker, also in the last year. In the 1998 BSS in Mombasa, 30% of taxi drivers and touts reported having had non-regular sexual relationships in the last year. Fourteen percent said that they had had sex with a sex worker in the last year.

According to the 1998 DHS, among men and women who reported having sex with a non-marital non-cohabiting partner in the last year, 16% of women and 44% of men used a condom at last sex with a non-marital non-cohabiting partner. In 1998, condom use at last sex with a sex worker, a non-regular partner or a regular partner was 75%, 52% and 16% respectively among taxi drivers in Mombasa. In 1998, 88% of sex workers in Mombasa reported using a condom at last sex with a paying client, while 54% had used a condom with a non-paying client. In 2000, 48% of company workers who had had non-regular sexual relationships in the last year used a condom with a non-regular sexual partner, and 54% reported using a condom at last sex with a sex worker.

YOUNG PEOPLE

HIV: HIV prevalence among young women aged 15–24 years attending antenatal care clinics increased from 5.8% in 1990 to 11.9% in 1991, then to 17.7% in 1994, 21% in 1997, 21.8% in 2000 and the rate in 2001 was 12.9% (Figure 5). According to the UNAIDS study in Kisumu in 1997/1998, young women were more likely to be infected than men of the same age. Among women aged 15–19 years, HIV prevalence was 23.0%, compared to 3.5% among men of the same age. The prevalence rate was 38.3% among women aged 20–24 years compared to 12.3% among men of the same age. Similarly, prevalence rates were higher among unmarried sexually-active women aged 15–24 years (26%) than among unmarried sexually-active men of the same age (7%).

Other STIs: According to the 1997/1998 UNAIDS study in Kisumu, the most common STIs among both young men and young women was infection with HSV-2, with women having much higher infection rates than men of the same age. Among women aged 15–19 years and 20–24 years, the prevalence of HSV-2 was 39.0% and 65.8% respectively, while for men aged 15–19 years and 20–24 years, the rates of infection were 8.4% and 17.2% respectively. Trichomoniasis was the second most common STIs among women, with 33.7% of women aged 15–19 years and 32.8% of women aged 20–24 years being infected. There was no evidence of infection with gonorrhoea in men aged 15–24 years, while for women, the prevalence rates of gonorrhoea were 1.9% among women aged 15–19 years and 0.6% among women aged 20–24 years. Chlamydial infection was also common among both men and women, with women more likely to be infected than men. The infection rates were 9.2% and 4.7% among women aged 15–19 years and 20–24 years respectively, and 3.9% and 3.8% among men aged 15–19 years and 20–24 years respectively. The rates of syphilis seroprevalence were 3.4% among women of 15–19 years of age and 0.7% among men of the same age.

Sexual behaviour

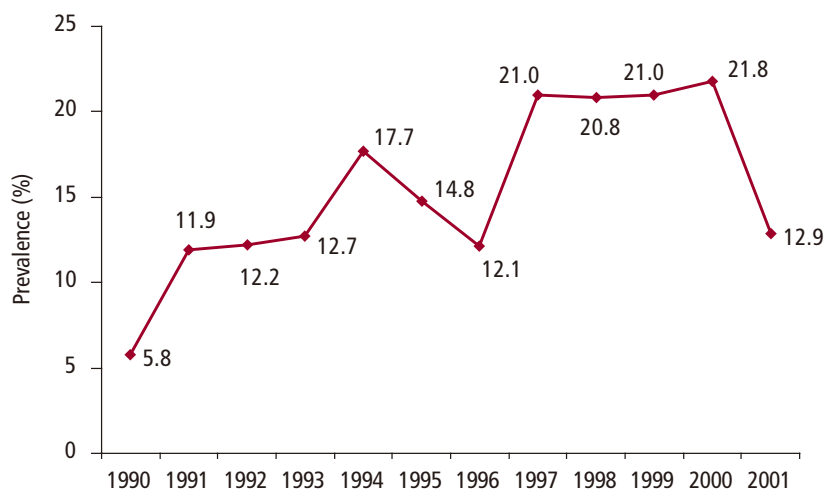
Age at first sex: The median age at first sex for young women and young men in 1998 was 17.9 years and 17.1 years respectively.

Premarital sex: In 1998, 32% of young women and 56% of young men reported having had premarital sex in the last year.

Condom use: Fifteen percent of young women and 43% of young men reported using a condom at last premarital sex.

Figure 5

Trend in median HIV prevalence among young women aged 15-24 years attending antenatal care clinics, Kenya, 1990-2001



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence remains high among women attending antenatal care clinics in Kenya, with rates in young attendees aged 15–24 years being higher than the national median.
- High prevalence rates of HSV-2 are found among young women; these women are more likely to be infected with HIV and HSV-2 than men of the same age.
- High-risk behaviours are significantly prevalent among both adults and young people. Non-regular sexual relationships and premarital sex are common.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** HIV sentinel surveillance among women attending antenatal care clinics needs to be sustained and sites should be used consistently over time. Surveys among groups at high risk of HIV infection should complement antenatal care clinic-based surveillance.
 - **Other STIs:** There is need to strengthen STI surveillance to include the compilation and analysis of data generated from testing for syphilis at HIV sentinel sites; this should be complemented by the establishment of a few sites to closely monitor the magnitude and trends of other STIs.
 - **Sexual behaviour:** The inclusion of modules on sexual behaviour in the DHS is good and should continue. The BSS in selected groups at increased risk of HIV infection complement the information from the DHS and should be continued, with surveys repeated periodically.

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RWANDA

Total population (2002)	8,272,000
Young people aged 15–24 years	1,768,000
Adults aged 15–49 years	3,828,000
Population in capital city (Kigali) (2001)	5.2%
Population, other urban (2001)	1.1%
Population, rural (2001)	93.7%
Pregnant women using antenatal care (2000)	92.4%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

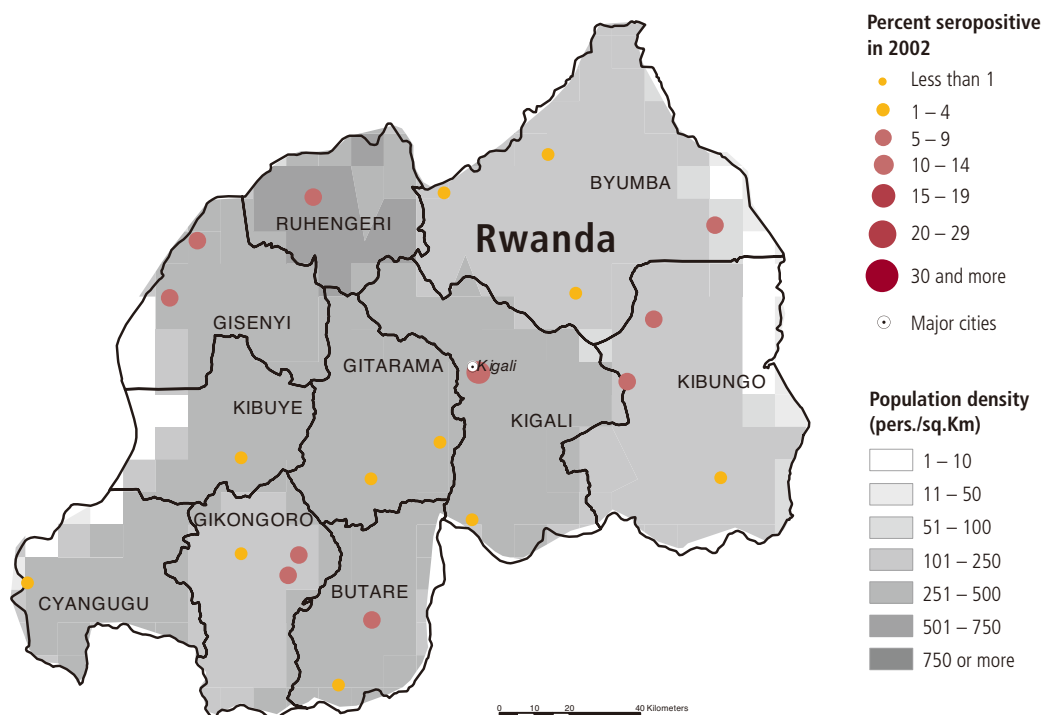
HIV: In 2002, sentinel surveillance among women attending antenatal care clinics was expanded to cover all the provinces in the country, with a total of 24 sites being used. Thirteen of the sites used in 2002 were in rural areas and at least 450 pregnant women were enrolled at each site. In 1997, a repeat national adult population-based serosurvey was conducted as a follow-up of the first national serosurvey conducted in 1986. HIV surveillance among STI patients was conducted in Kigali in 1996.

Other STIs: STI case reporting is based on syndromic reporting. No surveys of STI prevalence have been conducted.

Sexual behaviour: The main sources of information on sexual behaviours are the BSS conducted among young people, sex workers and taxi drivers in 2000 and the 2000 DHS.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 24 sites was 4.2%, with a range of 1.2% to 13.0% (Figure 2). Median HIV prevalence rates were higher in urban areas (6.9%) than rural areas (3.0%). The median prevalence among women attending antenatal care clinics at 10 sites was 9.5% in 1998, and 8.9% in 1996. In the capital city of Kigali, the median HIV prevalence among women attending antenatal care clinics at two sites was 13% in 2002 (Figure 3), having decreased from 16.5% at the same two sites in 1998 (18.2% at Bilyogo and 14.7% at Gikondo) and in 1996, median HIV prevalence in the same sites plus one other site was 23% (32.6% at Bilyogo, 23.0% at Gikondo and 22.4% at Central Hospital in Kigali). In sites outside Kigali city, median HIV prevalence in 2002 was 13.0% at 22 sites and, in 1998, 7.1% at the eight sites used (with a range of 2.3% in Ruli, Kigali Ngali province to 13.2% in Nyagatare, in Umatara province).

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Rwanda, 2002

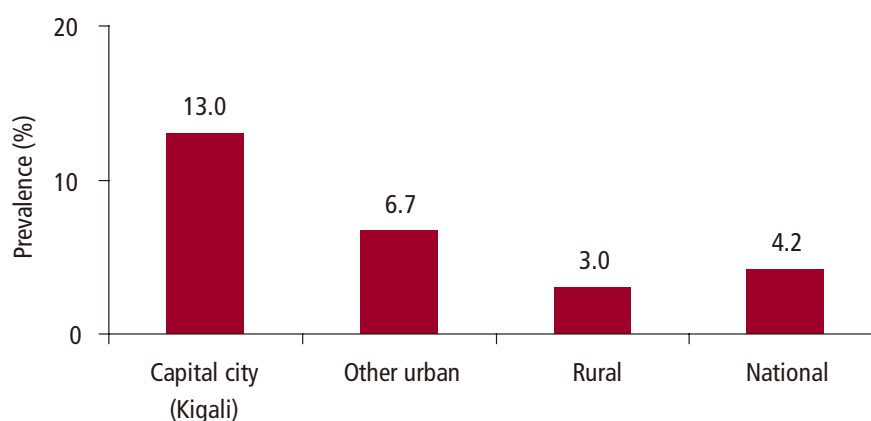
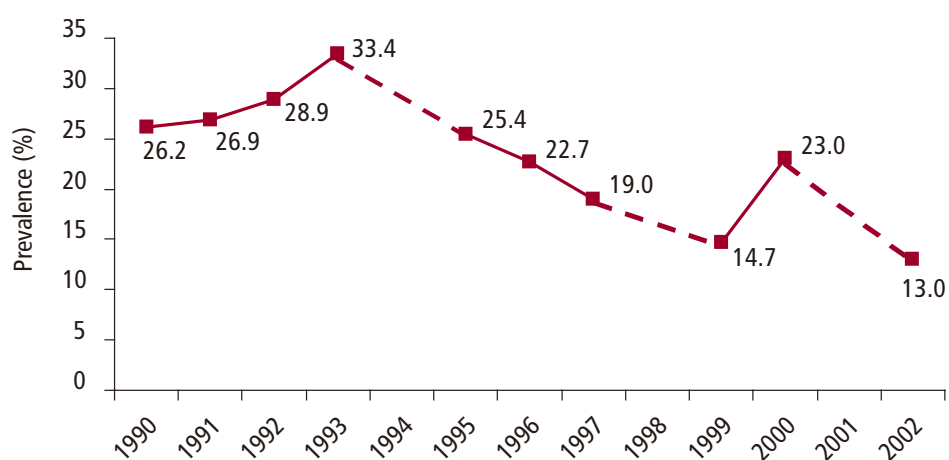


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, Kigali, Rwanda, 1990-2002



In 1997, HIV prevalence among the general population was 11.1%. The difference between prevalence rates in urban areas (12.5%) and rural areas (10.8%) was small compared to the difference reported in the pre-war period when HIV prevalence in urban areas was higher. HIV prevalence in the rural areas increased from 1.3% in 1986 to 10.8% in 1997. The survey in 1997 found prevalence rates of 11.3% among women and 10.8% among men. Rates among young women were higher than among young men; this pattern was reversed after age 30 years. The HIV prevalence rate among women who reported being raped during the war (15.2%) was higher than the rate among those who were not raped (11.0%). In 1996, HIV prevalence among STI patients tested at Bilyogo, a suburb in Kigali city was 55%, while HIV prevalence among those at Central Hospital Kigali was 29%.

OTHER STIs

Information on trends on reported STI cases needs to be interpreted with caution as the reporting is confounded by many factors, including STI health care seeking behaviours. In 2000, 13,470 STI syndromes were reported of which 3,659 were genital ulcer in men, 3,565 were genital ulcer in women and 6,246 were urethral discharges. In 1998 and 1999, 9,353 and 15,604 STI syndromes were reported respectively. During the course of 1999, 225 urethral discharges, 52 neonatal conjunctivitis and 39 non-specific urethral discharges were detected in Bilyogo health facility in a suburb of Kigali city; of which 51% were confirmed as infections with gonorrhoea.

SEXUAL BEHAVIOUR

In the 2000 DHS, 6% of women and 12% of men reported having had sex with a non-marital non-cohabiting sexual partner in the last year. Only 1% of the men said that they had had sex with a sex worker in the last year. Among the populations at higher risk of HIV infection surveyed in the 2000 BSS, 35%, 11% and 12% of the taxi drivers reported having had sex in the last year with three, two and one sex worker(s) respectively. Eighty-one percent of the sex workers reported using a condom at last sex with a paying sexual partner. Among the drivers who had had sex with sex worker(s) in the last year, 47% reported using condoms frequently with sex workers.

According to the 2000 DHS, 15% of women and 51% of men who had had sex with a non-marital, non-cohabiting sexual partner in the last year used a condom at last sex with a non-marital non-cohabiting partner.

YOUNG PEOPLE

HIV: According to the 1997 population-based serosurvey, HIV prevalence among young people aged 15–24 years was 11.2%. HIV prevalence among young people aged 15–19 years was 6.1% and among those aged 20–24 years was 12.3%. More young women were infected in these age groups than young men of the same age. Among women aged 20–24 years, HIV prevalence was 13.9% as compared to 8.6% among men of the same age but among the those aged 15–19 years the rates were 6.4% for girls and 5.9% for boys.

Sexual behaviour

Age at first sex: In the 2000 DHS, median age at first sex for young women was 20.8 years while for young men it was 20.4 years. The 2000 BSS indicated that 59% of young women and 67% of young men reported being sexually active before the age of 15 years.

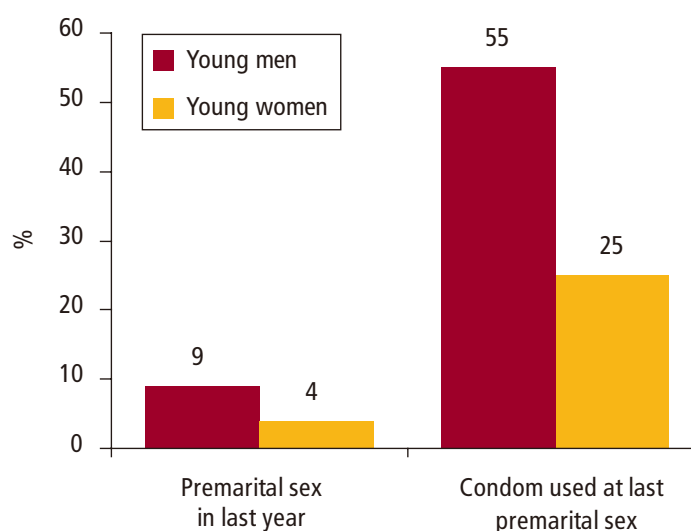
Premarital sex: In 2000 DHS, 9% of young men and 4% of young women reported having had premarital sex in the last year.

Commercial sex: The BSS in 2000 reported that a large proportion of young people have had remunerated sexual relationships (54% of young women, and 24% young men).

Condom use: In the 2000 DHS, 25% of young women and 55% of young men reporting premarital sex in the last year reported using a condom at last premarital sex (Figure 4). In the BSS, only 10% of the sexually-active young people of both sexes declared having used a condom at least once in their lifetime.

Figure 4

Young people aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Rwanda, 2000



CONCLUSIONS AND RECOMMENDATIONS

- In Rwanda, HIV prevalence rates are almost uniform in both urban and rural areas, a pattern that has evolved since the 1990–1994 war. Further monitoring of trends is needed to confirm the observed decline in HIV prevalence in Kigali, the capital city.
- Only limited information is available on the prevalence of STIs in the country.
- There are noticeable proportions of both adults and young people engaging in high-risk behaviours, yet condom use is low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The improvement of sentinel surveillance among women attending antenatal care clinics should be sustained and consolidated, and this should be complemented by periodic studies conducted among groups at increased risk of HIV infection, such as sex workers. General population-based surveys, repeated every five years, should also complement antenatal care clinic-based surveillance data.
 - **Other STIs:** Reporting of STI syndromes should continue and be complemented with periodic surveys of STI prevalence at a few selected sites.
 - **Sexual behaviour:** Use of DHS and BSS to monitor behaviour in the general population should continue, with surveys repeated periodically and with particular attention paid to young people and groups at increased risk of HIV infection.

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UNITED REPUBLIC OF TANZANIA

Total population (2002)	12,835,000
Young people aged 15–24 years	3,063,000
Adults aged 15–49 years	6,100,000
Population in capital city (Harare) (2001)	14.5%
Population, other urban (2001)	21.5%
Population, rural (2001)	64.0%
Pregnant women using antenatal care (1999)	93.1%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

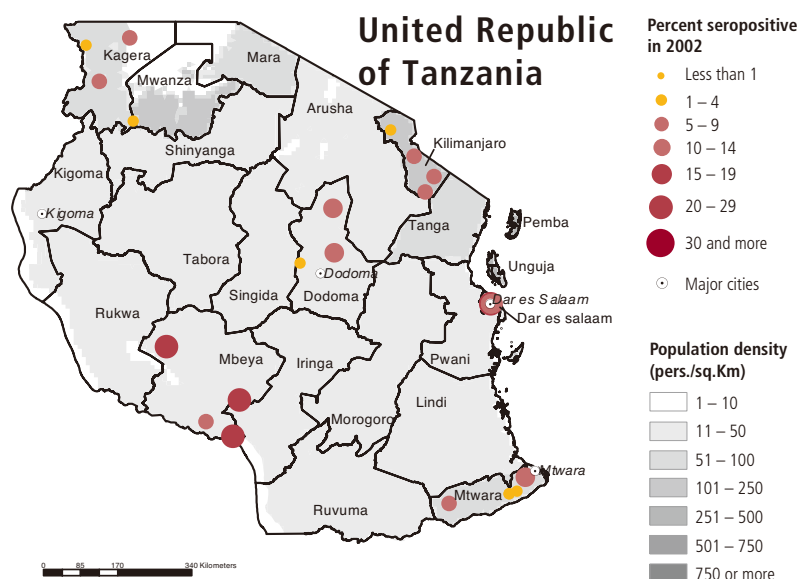
HIV: During the 1990s, the sentinel surveillance system included 24 antenatal care clinics in 11 of the 20 regions of the mainland of the United Republic of Tanzania. Reporting has been inconsistent since 1994, but a GTZ-supported project in Mbeya region in south-west Tanzania has continued to provide annual reports for 10 clinics in that region. A new system using 24 antenatal care clinics located in six regions was implemented in 2002. The clinics represent urban, semi-urban, roadside and rural locations. Zanzibar operates its own antenatal care clinic-based surveillance system. Annual reports of HIV prevalence among blood donors, mostly family members of patients, are available. For 1999–2001, data are reported by age group and by district. Data from VCT have been reported since 1997, although the majority of these tests appear to be done in conjunction with diagnosis of suspected HIV infection. HIV prevalence and incidence data have been collected in a range of research studies throughout the 1990s. In 2002, Zanzibar conducted a population-based survey which included collection of data on HIV status.

Other STIs: Most antenatal care clinics involved in HIV surveillance also report rates of infection with syphilis, as diagnosed by RPR test. The health information system collected data on incidence of genital discharge and genital ulcer syndromes, by age and sex, in 2001. In addition, several research studies have generated information on STIs in the country.

Sexual behaviour: The main source of data on behaviour is DHS, with the 1996 and 1999 national surveys with AIDS modules being the most recent surveys undertaken. The newly-designed HIV surveillance system completed its first round of behavioural data collection among young people living near antenatal care clinic sentinel sites in 2002. Some research studies also provide data on behaviour and risk factors.

Figure 1

Sentinel surveillance in pregnant women, 2002

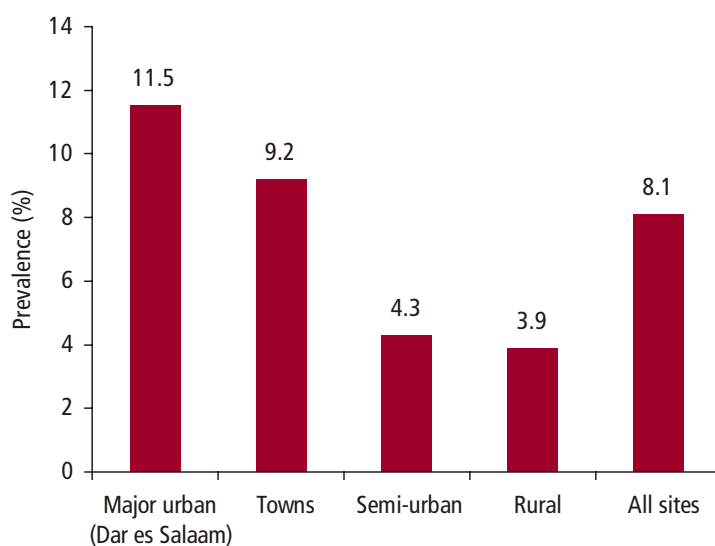


HIV

In 2002, the median HIV prevalence at 24 antenatal care clinic sites in 6 regions was 8.1% (Figure 2). The highest prevalence was reported in Mbeya region (median 17.2%), followed by Dar es Salaam (11.5%), while median prevalences in the other four regions were between 4.0% and 6.0%. Median HIV prevalence in rural areas, based on eight sites in five regions, was 4.0%.

Figure 2

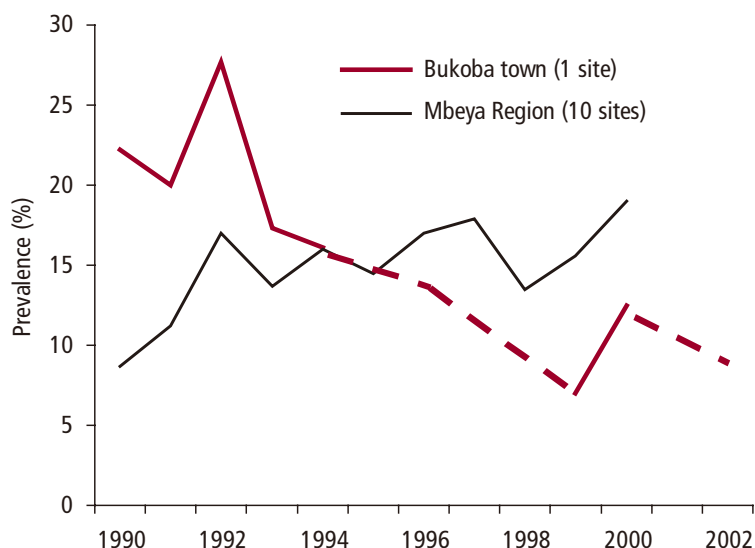
Median HIV prevalence among women attending antenatal care clinics at 24 sites in six regions, by location, United Republic of Tanzania mainland, 2002



Long-term trends can be observed in Mbeya region. The median HIV prevalence at 10 clinics in Mbeya Region showed little decline during 1990–2000, but in Bukoba, the regional capital of Kagera region in north-west Tanzania, near the border with Uganda, HIV prevalence dropped considerably during the 1990s (Figure 3). HIV prevalence among pregnant women in Dar es Salaam has been between 10% and 15% since 1993.

Figure 3

Trends in median HIV prevalence among women attending antenatal care clinics in Bukoba town and Mbeya region, United Republic of Tanzania, 1990-2002



The monitoring of HIV prevalence among blood donors has been part of the HIV surveillance system in the United Republic of Tanzania for more than a decade, but reporting has been variable. District-level prevalence figures have been reported in recent years. The median HIV prevalence reported from 93 districts was 9.1% in 2001, compared with 9.0% in 2000, and 8.2% in 1999. Prevalence among female blood donors was about 1.5 times higher than among male donors.

Research studies have been conducted in several regions, but no study has published data for the last five years, with the exception of Kisesa community in rural Mwanza Region, where HIV prevalence among adults aged 15–44 years climbed gradually from 5.9% in 1994–1995 to 6.6% in 1996–1997 and 8.1% in 1999–2000. All population-based studies show substantial differences in HIV prevalence and incidence between urban, semi-urban and roadside settlement populations on the one hand, and truly rural populations on the other hand.

Antenatal care clinic-based surveillance in the islands of Unguja and Pemba indicated that HIV prevalence was in the order of 1% or less. This was confirmed by a population-based survey in 2002 among people aged ≥ 10 years in which HIV prevalence was reported to be 0.2% and 0.9% among all male and all female respondents respectively.

OTHER STIs

Screening for syphilis among pregnant women is done using a RPR test. The median prevalence of syphilis at 24 clinics was 7.4% in 2002. In contrast to HIV, the highest prevalence of syphilis is found in rural settings, presumably because of poorer treatment services for syphilis in the rural areas. There is considerable variation in the prevalence of syphilis within the country, with a range of $< 1\%$ in Kilimanjaro region, to 15.8% in Dodoma region. Trends during 1994–2000 at seven sites with annual reports in Mbeya region showed a decline to 1.5% during 1994–1997, but a return to higher levels during 1998–2000 (5.8% in 2000). The four sites had a prevalence of 11.1% in 2002.

Population-based studies have also confirmed the high prevalence of syphilis among both women and men. Furthermore, studies among women attending antenatal care clinics in Mwanza Region and clients of family planning clinics in Dar es Salaam showed that as many as 25% of women were infected with *Trichomonas vaginalis*, while chlamydial infections and gonorrhoea were found in about 8% of women, with chlamydial infection being more common. Serological studies have also shown high rates of infection with HSV-2 in the general population.

SEXUAL BEHAVIOUR

A review of the four national surveys carried out in the 1990s concluded that multiple partnerships, as measured by the number of non-marital partnerships, were common especially among men and that there was little evidence of changes in behaviour. For instance, in 1999, 27% of men reported having had two or more non-cohabiting non-marital partners in the last year.

In 1999, 24% of women and 35% of men said that they had used a condom the last time they had sex with a non-regular partner. These proportions were very similar to those found in 1996.

YOUNG PEOPLE

HIV: In 2002, 6.1% of all young women aged 15–24 years attending antenatal care clinics were infected with HIV (Figure 4). Prevalence was much lower in the rural clinics. In population-based studies, HIV prevalence among young men has consistently been found to be lower than among young women. For instance, in Kisesa, Mwanza Region, HIV prevalence among men aged 15–24 was 2.5% compared with 6.1% for women of the same age, in 2000.

Sexual behaviour

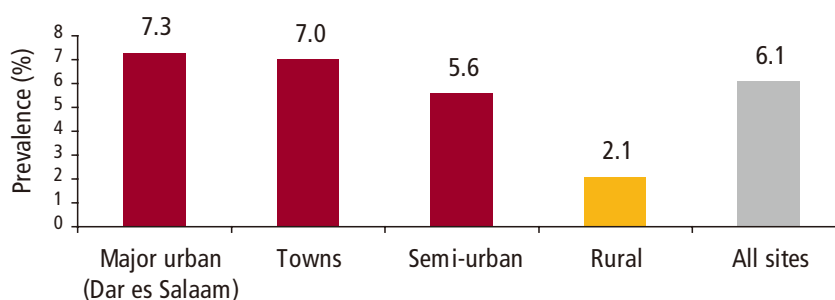
Age at first sex: The median age at first sex, based on reports from young people aged 15–24 in 1999, was 16.9 and 17.0 years for men and women respectively. These ages are similar to those reported in 1996.

Premarital sex: Premarital sex is common: 57% of young single men and 39% of young single women reported having sex during the last year.

Condom use: In 1999, 31% of men and 21% of young women said they had used a condom at the last premarital sex.

Figure 4

Median HIV prevalence among young women aged 15–24 years attending antenatal care clinics at 24 sites in 6 regions, by location, United Republic of Tanzania mainland, 2002



MORBIDITY AND MORTALITY

Hospital statistics indicate that a large proportion of admissions are associated with HIV/AIDS, e.g. in Kagera region, 33% of adults admitted to hospital were infected with HIV. In 1998, 44% of tuberculosis patients were infected with HIV and 60% of the increase in smear-positive tuberculosis between 1991 and 1998 was attributed to HIV/AIDS.

Studies in four districts in the United Republic of Tanzania have shown that HIV/AIDS is now the leading cause of death among adults, and causes more than one-third of adult deaths. The probability that a person aged 15 years dies before age 60 has increased from about 33% to nearly 50% during the 1990s. Improvements in child mortality have stagnated during the mid 1990s and this is likely to be associated with HIV/AIDS.

CONCLUSIONS AND RECOMMENDATIONS

- The median HIV prevalence among women attending antenatal care clinics at 24 sites on the United Republic of Tanzania mainland was 8.1%. Using three strata — capital city, major urban, and outside major urban — the weighted median prevalence for all pregnant women in 2002 is 6.3%. Owing to changes in the surveillance system, trends are difficult to assess, but (apart from Bukoba town which had a very early epidemic) neither Mbeya region nor Dar es Salaam provide evidence for change. Data from blood donors also do not indicate a decline. HIV prevalence is much lower in Zanzibar, at about 1%.
- National surveys show that high-risk sexual behaviour is common and that no favourable changes in patterns of sexual behaviour have taken place during the 1990s.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The new antenatal care clinic-based surveillance system will form a good basis for assessing trends.
 - **Other STIs:** Surveillance needs to be strengthened, starting with regular surveillance at a few selected sites in urban areas.
 - **Sexual behaviour:** The DHS surveys should continue to form the basis for assessment of trends in the general population and young people, complemented by local surveillance in populations or places with a higher risk of HIV infection and among young people.

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UGANDA

Total population (2002)	25,004,000
Young people aged 15–24 years	5,044,000
Adults aged 15–49 years	10,510,000
Population in capital city (Kampala) (2001)	5.3%
Population, other urban (2001)	9.3%
Population, rural (2001)	85.4%
Pregnant women using antenatal care (1995)	91.2%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

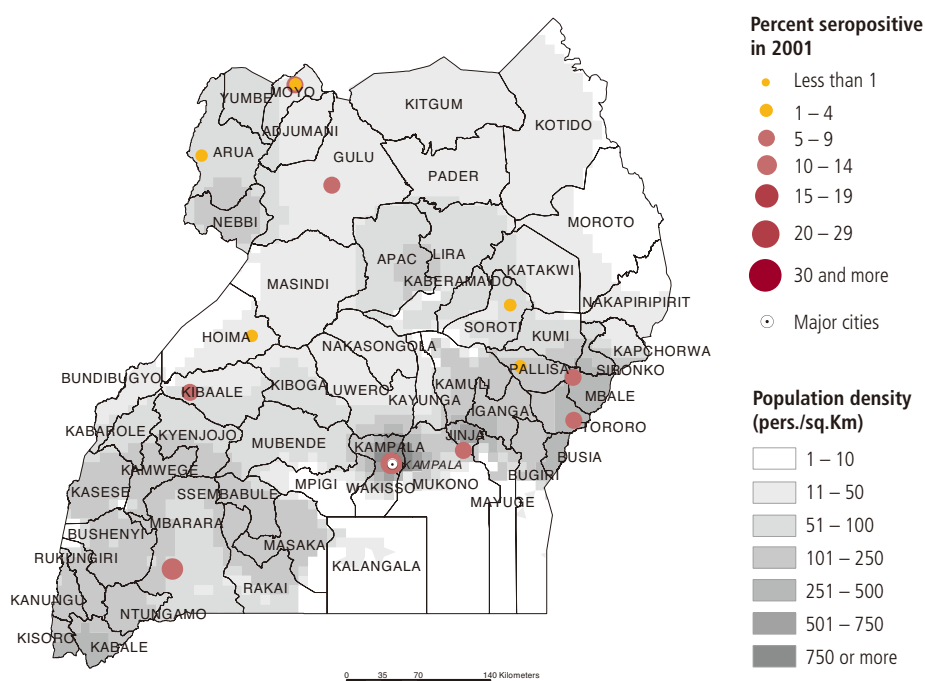
HIV: The sentinel surveillance system was initially established at six urban sites and has gradually been expanded since 1992–1993 to include more sites outside the urban areas. Sentinel surveillance is repeated annually. In the last four years, only 17 out of 19 sites have been used consistently. A minimum sample of 250 pregnant women is obtained from each of the sites, with the exception of four sites in large urban areas where deliberate oversampling is done to enrol 500 pregnant women from each site. Sentinel surveillance has been repeated annually among STI patients in one clinic in Kampala since 1989. Special studies among sex workers in Lyantonde, south-western Uganda, and Kampala were conducted in 1988–1989 and 2000. Cohort studies among the general population have been ongoing in Masaka and Rakai districts since 1990. In Lacor district, serial consecutive studies have been conducted among secondary school students. Additional epidemiological HIV information is generated from service interventions, such as VCT among young people aged 15–24 years being tested for HIV status for the first time.

Other STIs: Scanty information exists on the prevalence of STIs in the country. Some data on STIs were generated from the cohort study in Masaka district, 1994–2000.

Sexual behaviour: Since 1995, periodic district-based surveys among the general population have been conducted in several districts in the country. The DHS conducted in 2000/2001 is another recent source of information on sexual behaviours in the country.

Figure 1

Sentinel surveillance in pregnant women, 2002

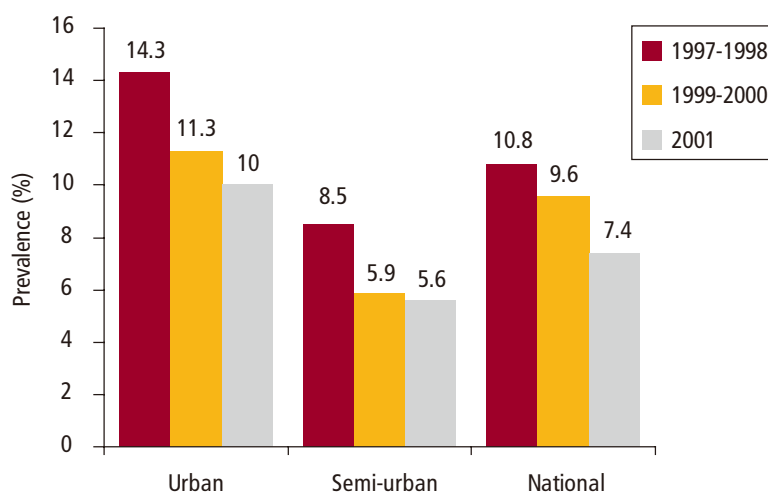


HIV

In 2001, the median HIV prevalence at the 17 antenatal care clinic sites was 5.6%, with values ranging from 1.7% to 11.3%. The median HIV prevalence was higher in Kampala (10.0%) than in the sites outside of Kampala (5.2%). Seven sites outside Kampala had HIV prevalence rates of <6% in 2001. HIV infection rates have declined from a peak of about 30% in 1992 to 10% in 2001, in Kampala. Similar declines have been observed in other urban and rural sites (Figure 2). In Jinja, the second largest town in the country, HIV prevalence declined from 24.9% in 1989 to 7.4% in 2001. In the town of Mbale, eastern Uganda, HIV prevalence declined from 14.8% in 1992 to 5.6% in 2001, while in Lacor in northern Uganda, HIV infection rates declined from 27.1% in 1991 to 11.3% in 2001. In Pallisa, a rural site in eastern Uganda, HIV prevalence declined from 7.6% in 1992 to 3.7% in 2001.

Figure 2

Trend median HIV prevalence among women attending antenatal care clinics, at the same sites, by location, Uganda, 1997-2001



Overall HIV prevalence among the general population in the Kyamulibwa-Masaka cohort study was 5.4% in 2001 compared to 5.8% in 2000. Prevalence of HIV in this district has also dropped from 8.2% in 1999. In the same study, HIV incidence for adults of all ages declined from 7.6 per 1000 person years of observation in 1990 to 3.2 per 1000 person years in 1998.

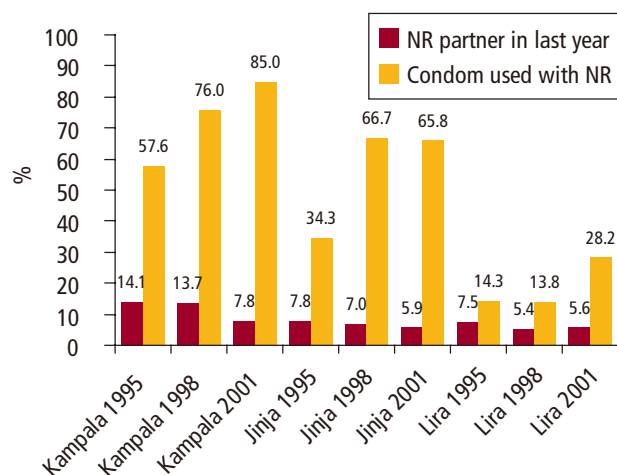
Similarly, HIV infection rates have declined among STI patients at Mulago STI clinic in Kampala from 44.6% in 1990 to 29.4% in 1997, and then to 23.7% in 2001. Levels of HIV infection were high, 80% in the 1980s, among sex workers, but in 2000, HIV prevalence among sex workers in Kampala was 28%.

OTHER STIs

In the 2000/2001 DHS, 14% of women and 28% of men surveyed reported having had sex with a non-marital non-cohabiting partner in the last year. According to the KABP surveys conducted in 1995 and 2001, the proportion of male respondents reporting having had sex with non-regular sexual partners in Kampala district decreased from 14% in 1995 to 8% in 2001 (Figure 3). A similar pattern has been observed in Jinja and Lira districts, where the proportion of men reporting non-regular sexual relationships in the previous year dropped from 8% in 1995 to 6% in 2001 for Jinja district, and from 8% in 1995 to 6% in 2001 for Lira district.

Figure 3

Respondents with a non-regular (NR) partner in the last year and respondents with a NR partner who used a condom at last sex, by location, Uganda, 1995-2001



During 1995–1999, 10,495 cases of STIs were diagnosed in six parishes in the Masaka cohort; of these cases, genital discharge and genital ulcer disease accounted for 50% and 25%, respectively, of the new cases. About 30% of female and 15% of male patients with genital discharge also presented with ulcers.

SEXUAL BEHAVIOUR

Thirty-eight percent of women and 59% of men who reported having had sex with a non-marital non-cohabiting partner in the last year in 2000/2001 reported using a condom at last sex. Data from KABP surveys implemented at the district level indicate a trend towards increasing use of condoms. Condom use at last sex with a non-regular sexual partner among people reporting having non-regular sexual relationships in Kampala increased from 58% in 1995 to 76% in 1998, and then to 85% in 2001. In Lira, a rural district, the trend was more attenuated, although condom use at last sex with a non-regular sexual partner did increase slightly from 14% in 1995 to 28% in 1998.

YOUNG PEOPLE

HIV: Declining HIV prevalence over the past 10 years has been observed among young women aged 15–24 years attending antenatal care clinics. At Nsambya hospital in Kampala, HIV infection rates among women aged 15–19 years attending antenatal care clinics declined from 28.5% in 1991 to 8.8% in 1998, and to 8.2% in 2001. In Lacor hospital, HIV prevalence among women aged 15–19 years attending antenatal care clinics has also fallen (Figure 4).

Decreases in HIV prevalence were also observed among young men and women in the general population. HIV prevalence among secondary school students in Gulu district, northern Uganda, declined from 2.0% in 1994 to 0.8% in 1998. HIV prevalence rates among very young children are low; mean HIV prevalence was 1.4% among children aged 0–12 years and 0.8% among children aged 2–4 years in 2001.

There has been a consistent decline in HIV prevalence among young people aged 15–24 years being tested for HIV for the first time at the AIDS Information Centre over the last 10 years; for men, the rate decreased from 11.0% in 1992 to 3.7% in 2001, and for women from 29.0% in 1992 to 10.1% in 2001.

Sexual behaviour

Age at first sex: Median age at first sexual intercourse as reported in the 2000/2001 DHS was 17.3 years among young women and 18.3 years among young men.

Premarital sex: In the 2000/2001 DHS, 27% of young women and 31% of young men reported having had premarital sex in the last year (Figure 5).

Condom use: Condom use among young women and young men who reported having had premarital sex in the last year in 2000/2001 was 50% and 58% respectively. Condom use among women and men reporting sex with multiple partners in the same year was 44% and 62% respectively.

Figure 4

Trend in HIV prevalence among women aged 15-19 years attending antenatal care clinics, Lacor Hospital, northern Uganda, 1993-2001

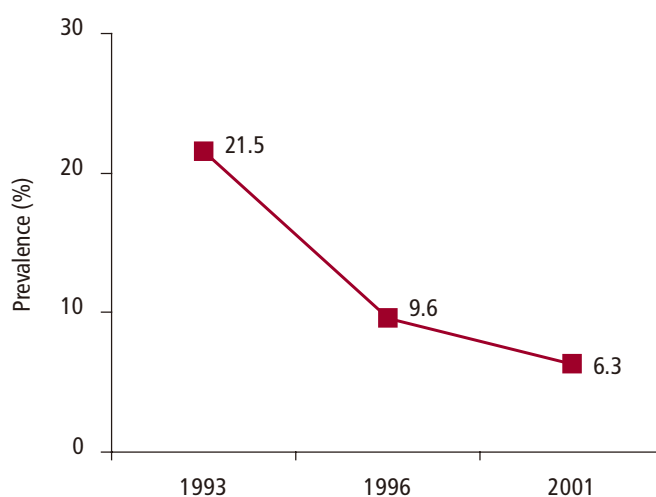
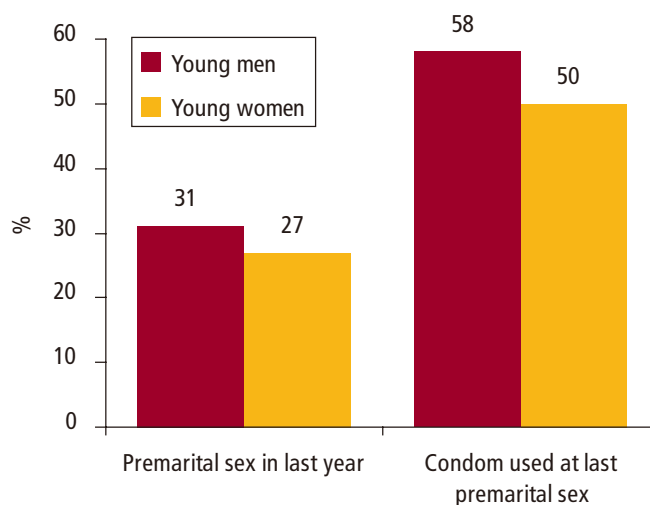


Figure 5

Young people, aged 15-24 years reporting premarital sex in the last year and those reporting premarital sex who used a condom at last premarital sex, Uganda, 2000/2001



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence has declined in Uganda over the last 12 years, especially among young people.
- Only limited data are available on the prevalence of STIs in the country.
- Data suggest that there have been changes in sexual behaviour, in particular, an increase in the use of condoms. Such changes in behaviour are the most plausible explanation for the decreases in HIV prevalence observed mainly among young people.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Monitoring of trends in HIV prevalence in Uganda should be sustained and consolidated.
 - **Other STIs:** Surveillance of STIs should be improved by compiling and analysing the data accruing from testing for syphilis among women attending antenatal care clinics, as well as conducting regular surveillance at a few selected sites in the country.
 - **Sexual behaviour:** Monitoring of trends in sexual behaviour in Uganda should be sustained using the district-based population surveys and DHS, and these should be complemented by surveys among populations at a higher risk of HIV infection, especially young people.

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CENTRAL AFRICA



CAMEROON

Total population (2002)	15,729,000
Young people aged 15–24 years	3,261,000
Adults aged 15–49 years	7,350,000
Population in capital city (Yaoundé) (2001)	10.0%
Population, other urban (2001)	40.0%
Population, rural (2001)	50.0%
Pregnant women using antenatal care (2000)	75.3%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

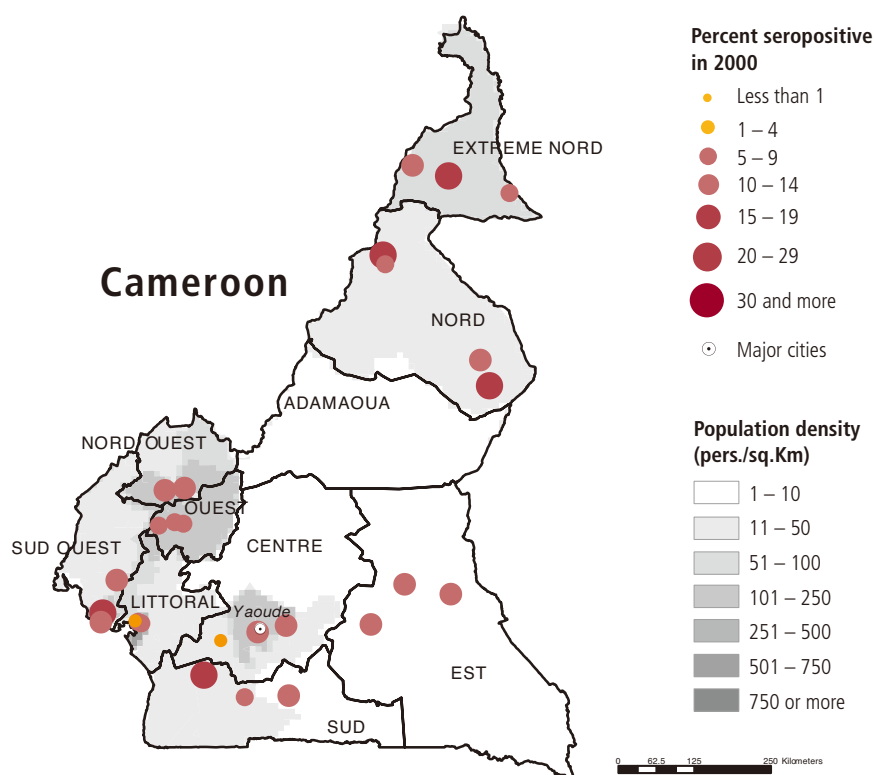
HIV: HIV sentinel surveillance among women attending antenatal care clinics was reinforced in 2000; 27 antenatal care clinics covering all ten provinces participated and a minimum of 250 pregnant women were enrolled from each site. Prior to this, although HIV sentinel surveillance among women attending antenatal care clinics was established in 1989, surveys were not conducted regularly and, in the period 1996–1999, sites were not used consistently. Data on HIV prevalence among the general population of people aged 15–49 years and sex workers were also collected in Yaoundé in 1997/1998 in the context of a four-city UNAIDS study.

Other STIs: From 1992 to 2000, data on the prevalence of syphilis were generated from testing of women attending selected antenatal care clinics. More data on STIs were generated by the UNAIDS study in Yaoundé.

Sexual behaviour: The main sources of information on sexual behaviour are a BSS conducted among young people, truck drivers and sex workers in 2001, the DHS conducted in 1998, and the UNAIDS four-city study conducted in Yaoundé in 1997/1998.

Figure 1

Sentinel surveillance in pregnant women, 2000

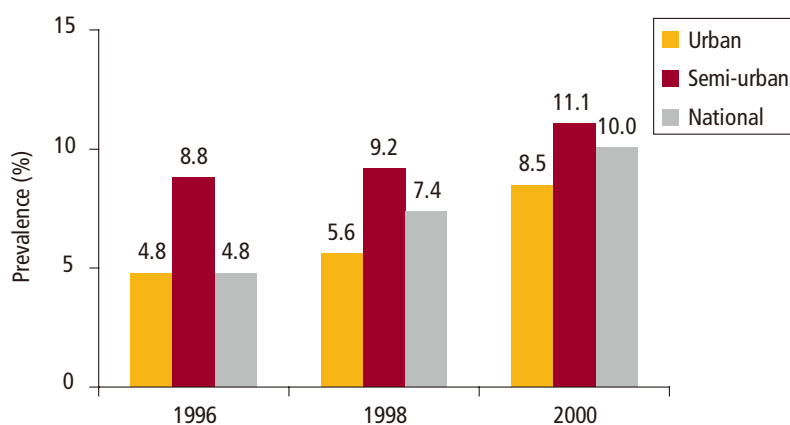


HIV

In 2000, the median HIV prevalence among women attending antenatal care clinics at 27 sites was 10.3%. The lowest median HIV prevalence rate (5%) was found in Littoral province while the highest median prevalence rate was found in Adamawa province (17%). In 2000, median HIV prevalence among women attending antenatal care clinics in Yaoundé was 10.3%, while in Douala, the other major city, median prevalence was 5.0%. The trend in median HIV prevalence among women attending the same four antenatal care clinics show an increase in both urban and semi-urban areas between 1996 and 2000, with a median prevalence rate of 8.5 % in urban populations and 11.1% in semi-urban populations in 2000 (Figure 2). Data generated from the four-city UNAIDS study indicate that HIV prevalence among the general population aged 15–49 years in Yaoundé was 4.4% for men and 8.4% for women in 1997/1998.

Figure 2

Trend in median HIV prevalence among ANC attendees at four sites, by location, Cameroon, 1996-2000



According to the 1997/1998 UNAIDS study, HIV prevalence among sex workers in Yaoundé was 34.4%.

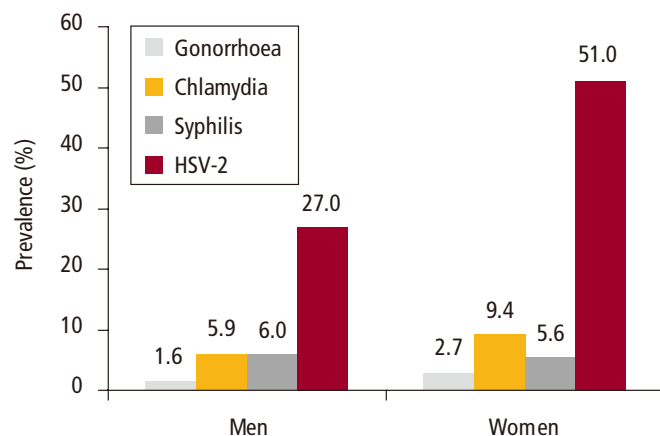
OTHER STIs

Syphilis seroprevalence rates among women attending selected antenatal care clinics in Cameroon has fluctuated between 12.5% in 1992, 8.3% in 1993, 15.8% in 1994, 4.9% in 1995 and 2.2% in 2000.

The 1997/1998 UNAIDS study showed that the prevalence of chlamydia in the general population was significantly higher than that in other countries of central Africa (Figure 3). The study also found a high seroprevalence of HSV-2: 27% in men and 51% in women. The prevalence of trichomoniasis in women was also high (17.6%).

Figure 3

Prevalence of gonorrhoea, chlamydia, syphilis and HSV-2 in the general population, Yaoundé, Cameroon, 1997/1998



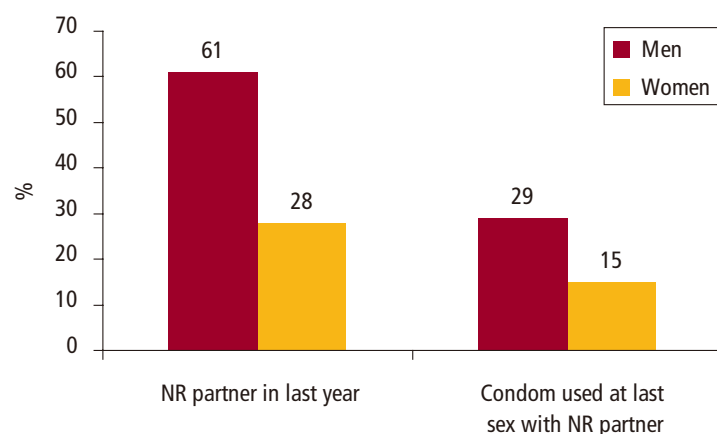
SEXUAL BEHAVIOUR

In the 1998 DHS, 28% of women and 61% of men reported having had sex with a non-marital non-cohabiting sexual partner in the last year. According to the 1997/1998 UNAIDS study in Yaoundé, 64% of men and 49% of women reported having had non-spousal sexual relations in the last year. Twenty percent of men reported having had sex with a sex worker in the last year.

Results of both the 1998 DHS and the 1997/1998 study in Yaoundé indicated that condom use by people having higher-risk sex was relatively low. In the 1998 DHS, only 15% of women and 29% of men who reported having had sex with a non-marital non-cohabiting partner in the last year used a condom at last sex with a non-marital non-cohabiting partner (Figure 4). In the 1997/1998 study, only 24% of men and 16% of women who reported having had sex with non-spousal non-cohabiting partners reported using condoms frequently.

Figure 4

Respondents with a non-regular (NR) partner in the last year, and respondents with a NR partner who used a condom at last sex, Cameroon, 1998



According to the 2001 BSS, 62% of truck drivers had had more than one partner in the last year, with 45% of persons having had sex with an occasional partner using a condom at last sex. Almost 60% of truck drivers reported having had paid sex in the last year, with almost 60% of these men using a condom at last paid sex. Almost 80% of sex workers surveyed reported using a condom at last sex with a paying partner.

YOUNG PEOPLE

HIV: The median HIV prevalence among young women aged 15–24 years attending antenatal care clinics in 2000 was 11.9%, ranging from 7.5% in Littoral province to 19.6% in Adamawa province. Among women aged 15–19 years attending antenatal care clinics, the median HIV prevalence was 11.5%, ranging from 2.8% in Littoral province to 21.9% in Adamawa province. The 1997/1998 study conducted in Yaoundé showed that women were more likely to be infected with HIV than men; HIV prevalence rates were 7.8% among women and 4.1% among men. HIV prevalence rates were much higher among young women than among men of the same age (3.4% and 0.0% for women and men aged 15–19 years respectively, and 9.3% and 1.4% among women and men aged 20–24 years respectively).

Other STIs: In 2000, the prevalence of syphilis among young women aged 15–24 years attending antenatal care clinics was 2.2%. The 1997/1998 UNAIDS study also found low prevalence rates of syphilis among young men and women in Yaoundé. Among young people aged 15–19 years, 1.1% of the men and 1.3% of the women had syphilis. The 1997/1998 study in Yaoundé found much a higher prevalence of HSV-2 infection in young women than in men of the same age. The prevalence of HSV-2 was 26.4% among women aged 15–24 years and 5.1% among men of the same age.

Sexual behaviour

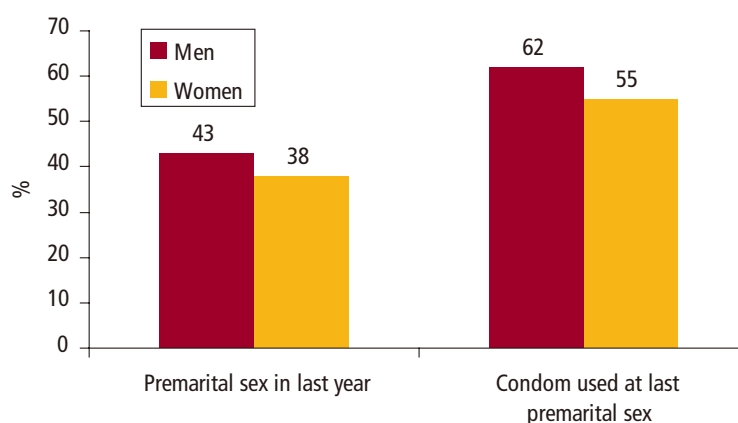
Age at first sex: The median age at first sex was 16.5 years for young women and 17.5 years for young men, according to the 1998 DHS.

Premarital sex: In the 2001 BSS, 38% of young women and 43% of young men aged 15–19 years had had premarital sex. In the 1998 DHS, 52% and 58% of surveyed women and men reported having had premarital sex in the last year.

Condom use: In the 2001 BSS, 62% of young men and 55% of young women reported using a condom at last premarital sex (Figure 5). Of the young people who reported having had premarital sex in the last year in the 1998 DHS, 17% of the women and 32% of the men had used a condom at the last premarital sex.

Figure 5

Young people aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Cameroon, 2001



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence among women attending antenatal care clinics has been increasing, both in urban areas and outside major urban areas. The high prevalence among young people aged 15–24 years indicates a high incidence of HIV infection among young people in Cameroon.
- Studies indicate a high prevalence of STIs in Cameroon, with especially high rates of HSV-2. The prevalence rates of HSV-2 are higher in women of all age groups than in men of the same age.
- High-risk behaviours are prevalent in Cameroon and yet condom use is relatively low in those people who have higher-risk sex.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be continued and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** The monitoring of trends in the prevalence of syphilis among women attending antenatal care clinics should be continued and complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The DHS, which has been the main source of information on sexual behaviour, should be repeated regularly to assess trends in behaviour in this country and these should be complemented by regular surveys among populations at increased risk of HIV infection and young people.

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CENTRAL AFRICAN REPUBLIC

Total population (2002)	3,819,000
Young people aged 15–24 years	771,000
Adults aged 15–49 years	1,741,000
Population in capital city (Bangui) (2001)	17.6%
Population, other urban (2001)	24.0%
Population, rural (2001)	58.4%
Pregnant women using antenatal care (1994)	66.4%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

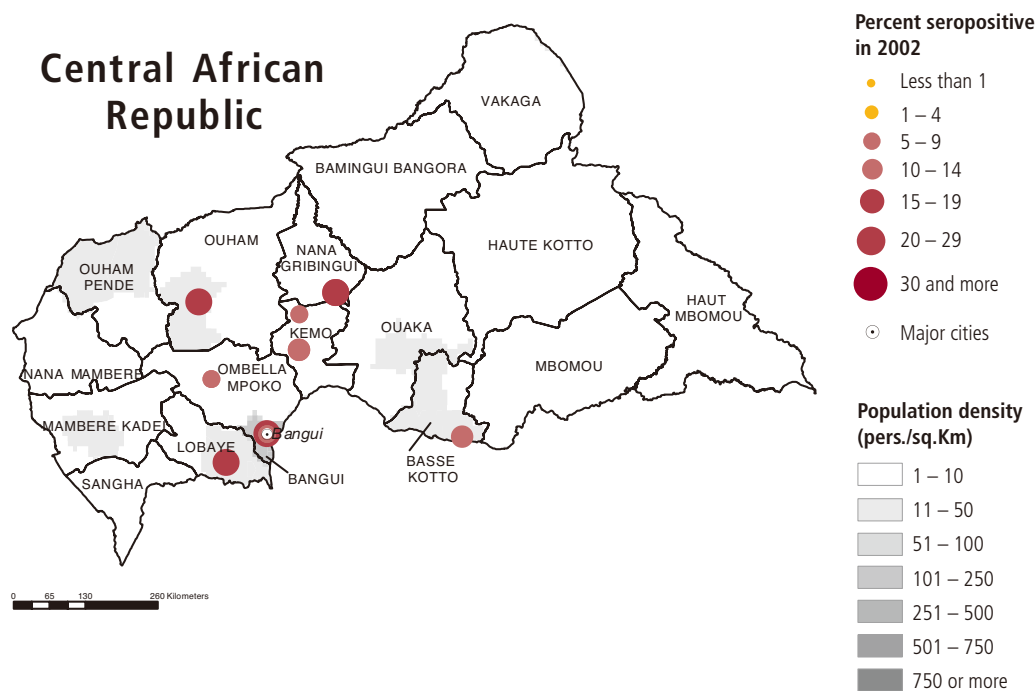
HIV: In 2002, HIV surveillance was conducted among 9,187 pregnant women attending 48 antenatal care clinics in 17 districts. A minimum of 190 pregnant women were enrolled from each site. Although HIV sentinel surveillance was established in 1986, no surveys were conducted between 1997 and 2000. STI patients have been used as another sentinel population, and information on prevalence in this group is available for the years when HIV surveillance was conducted among women attending antenatal care clinics. In 2001, a special study was undertaken among university students. Studies have been conducted among medical workers at the Institut Pasteur since 1995, with the most recent study conducted in 2001.

Other STIs: Although no STI surveillance system has been established, a study was conducted among STI patients in 1999.

Sexual behaviour: There are no recent data on sexual behaviours in the country. The most recent source of data is the 1995 DHS.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics was 15.0%, ranging from 4.0% in Gamboula (Mambéré Kadéï) to 28.0% in Amadafok (Vakaga Prefecture). Only 8 of the 48 sites used in 2002 reported HIV prevalence rates of <10%. No differences were found between urban and rural locations (Figure 2). Rates were slightly higher in rural areas than they were in urban areas. The median HIV prevalence among women attending two antenatal care clinics in Bangui remained relatively stable (9.3%–14.0%) between 1994 and 2002 (Figure 3).

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Central African Republic, 2002

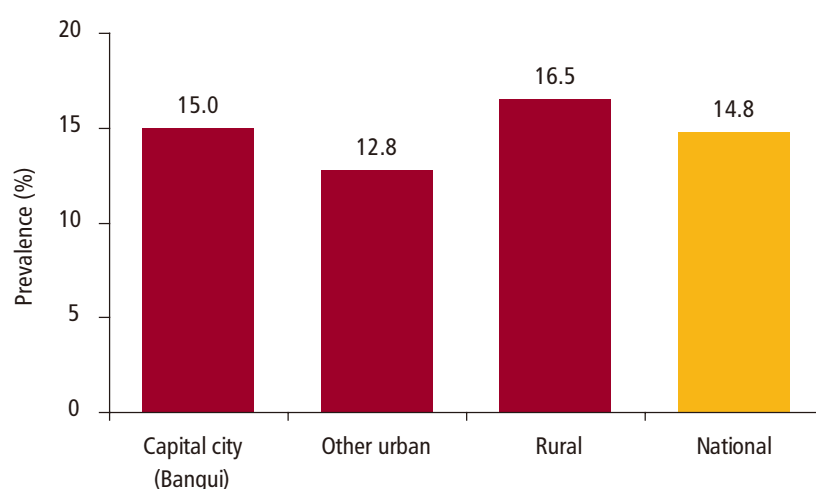
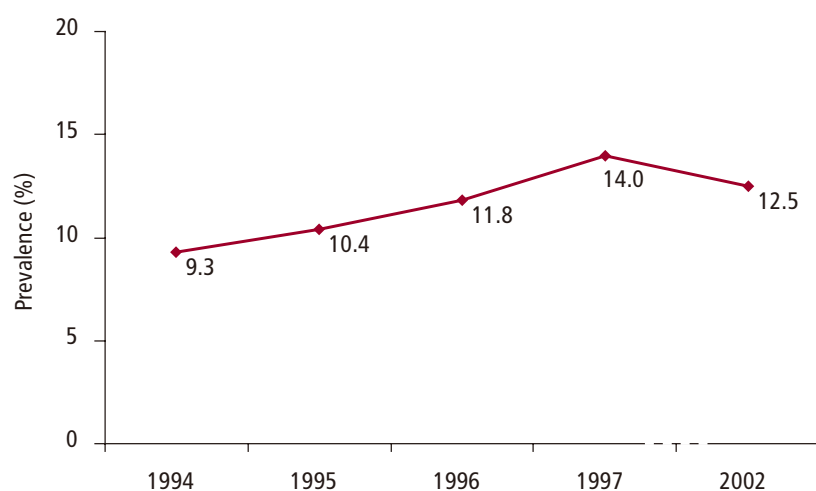


Figure 3

Median HIV prevalence among women attending two antenatal care clinics, Bangui, Central African Republic, 1994-2002



In 2001, the median HIV prevalence among STI patients at six sites was 31.3% (with a range of 4.0% to 41.0%). The median HIV prevalence rate among STI patients increased from 14.0% in 1989 to 26.7% in 1994, 40% in 1995 and 30% in 1996. In 2001, a study of HIV prevalence among university students found that 9.5% of students were HIV-positive. HIV prevalence rates among medical workers tested at the Institut Pasteur were 15.4% in 1994, 15.8% in 1995, 16.6% in 1996 and 12% in 2001.

OTHER STIs

The prevalence of gonorrhoea, chlamydia, and trichomoniasis among women attending STI clinics in Bangui in 1999 was 1%, 3% and 1% respectively. In the same year, seroprevalence rates of syphilis and HSV-2 were 8% and 82% respectively.

SEXUAL BEHAVIOUR

There are no recent data on sexual behaviours in the Central African Republic. According to the 1995 DHS, only 4% of the women who reported being sexually active in the last year said that they had used a condom at last sex with anyone (spouse/cohabiting or non-spousal non-cohabiting partner). There was no information on condom use by men. In the 1995 DHS, 10% of men reported having had sex with a sex worker in the last year.

YOUNG PEOPLE

HIV: HIV prevalence among young women aged <20 years attending antenatal care clinics was around 12% in 2002, with similar rates found in rural and urban areas. In the same year, prevalence rates among women aged 20–24 years attending antenatal care clinics were slightly higher: 14% at rural sites and 15% at urban sites.

Sexual behaviour

Age at first sex: There is no recent information. According to the 1995 DHS, the median age at first sex was 16.7 years for young women and 17.2 years for young men.

Premarital sex: In the 1995 DHS, 60% of young men and 41% of young women reported having premarital sex in the last year.

Condom use: Only 14% of the young women who reported having had premarital sex in the last year had used a condom at last premarital sex, according to the 1995 DHS. There was no information on condom use among young men.

CONCLUSIONS AND RECOMMENDATIONS

- The Central African Republic has an epidemic with a high HIV prevalence rate exceeding 10% among women attending antenatal care clinics. Rates of prevalence are slightly higher in rural areas than in urban areas.
- There are no recent data on sexual behaviours but the 1995 DHS showed that high-risk sexual behaviours were common among both adults and young people, but condom use was very low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be continued with surveys conducted regularly and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of repeated DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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CHAD

Total population (2002)	8,348,000
Young people aged 15–24 years	1,597,000
Adults aged 15–49 years	3,648,000
Population in capital city (N'Djamena) (2001)	9.0%
Population, other urban (2001)	15.1%
Population, rural (2001)	75.9%
Pregnant women using antenatal care (2000)	41.6%

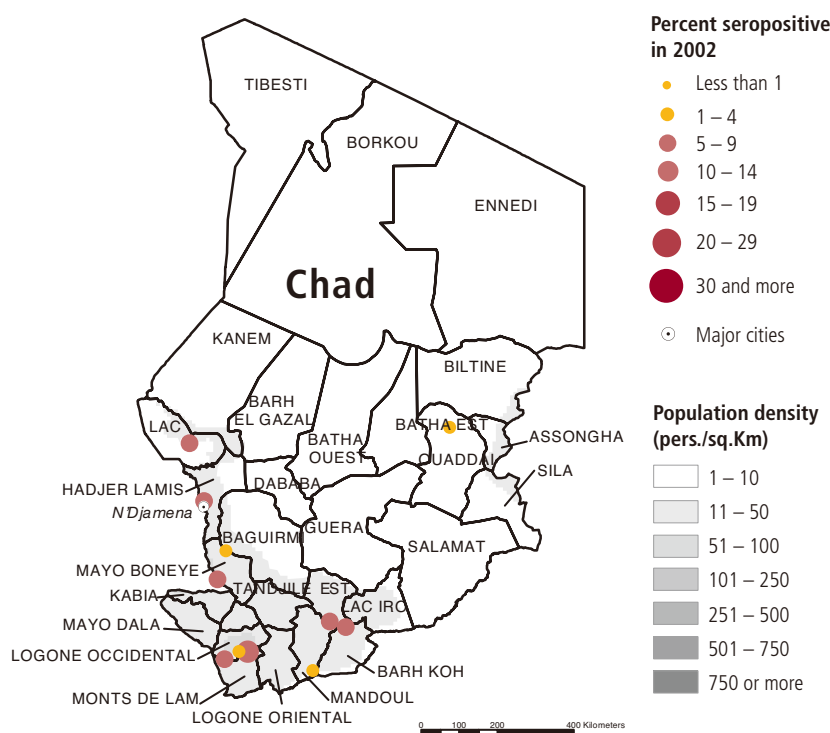
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: In 2002, sentinel surveillance among women attending antenatal care clinics was conducted in 11 sites of which seven were located in urban areas. Although HIV sentinel surveillance among women attending antenatal care clinics was established in 1992, no sentinel surveys were conducted in 1993 and 1994, or from 1996 to 1998, making it difficult to assess trends in HIV prevalence over time. In 1999 and 2000, special studies were conducted among STI patients and tuberculosis patients. In 1995 and 1997, HIV prevalence studies were conducted among sex workers and military personnel in N'Djamena. In the same period, a survey of HIV prevalence was conducted among sex workers in Sahr, outside N'Djamena. Small-scale population-based serosurveys were conducted in selected areas of the country in 1989, 1997 and 2000.

Other STIs: The assessment of seroprevalence of syphilis among women attending antenatal care clinics is a component of the national HIV sentinel surveillance system.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 11 sites was 5.3%, with a range of 1.2% in Mongo to 11.9% in Moundou (both sites outside N'Djamena). While HIV prevalence rates were slightly higher in N'Djamena, rates reported at other urban sites were similar to those at rural sites (Figure 2). HIV prevalence among women attending antenatal care clinics in N'Djamena has been increasing (Figure 3) from 2.1% in 1995 to 3.2% in 1999, 4.0% in 2000, 5.9% in 2001 and 7.5% in 2002. Increases in prevalence rates were also observed between 1992 and 2000 at some sites outside the major urban area. In Sahr, HIV prevalence rose from 4.1% in 1992 to 5.3% in 1999, 9.0% in 2000 and 8.3% in 2002. In Abeche, the HIV prevalence rate increased from 0.3% in 1992 to 5.2% in 1999, and was reported to be 3.4% in 2002.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Chad, 2002

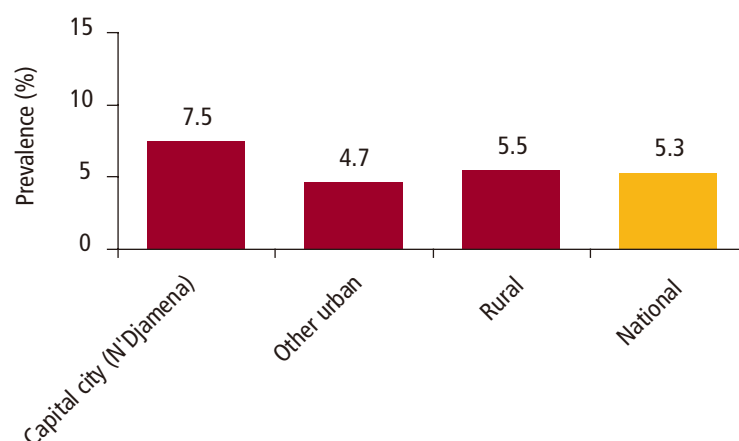
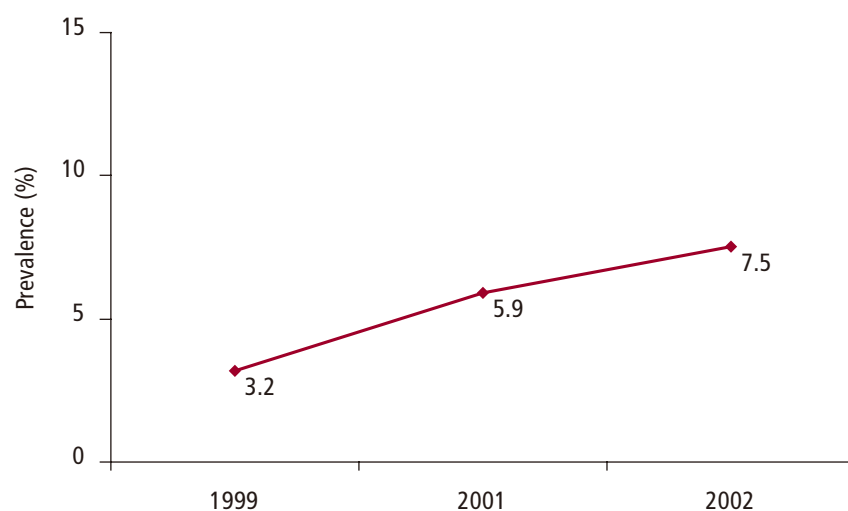


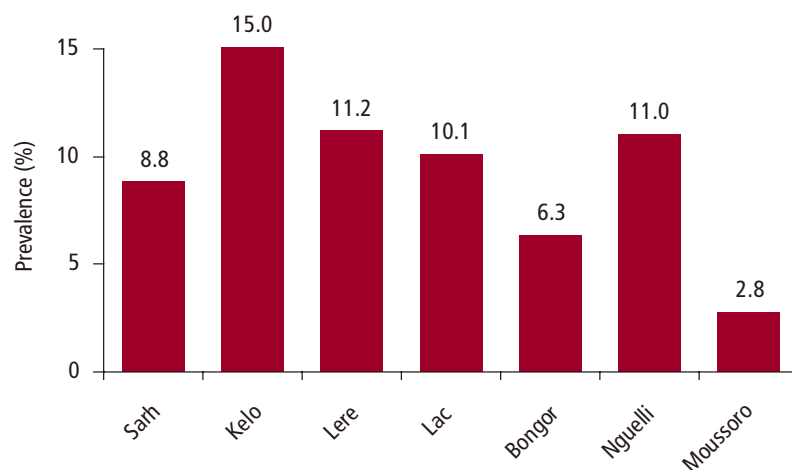
Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, N'Djamena, Chad, 1999-2002



The population-based serosurvey conducted in seven locations in 2000 showed that the median HIV prevalence was 12.6%, with the highest rate found in Kelo and the lowest in Moussoro (Figure 5). In 1989, HIV prevalence among the general population was <1.0% in N'Djamena, 1.6% in Moundou and there was no evidence of HIV infection in Sahr, Bogor or Abeche. In 1997, a repeat survey in Abeche showed that HIV prevalence had increased to 1.0% and the prevalence rate in Am-Timan was 6.1%.

Figure 4

HIV prevalence in the general population, Chad, 2000

In 2000, HIV prevalence among STI patients who were tested for HIV ranged from 0.0% to 42.6%. Among tuberculosis patients tested at four sites in 2000, the HIV prevalence rate ranged from 9.5% to 60.0%.

OTHER STIs

Syphilis seroprevalence rates among women attending antenatal care clinics were 5.6% in 1999, 5.7% in 2000 and 4.9% in 2002. In 2002, rates ranged from 2.4% in Mongo to 20.6% in Bol.

YOUNG PEOPLE

HIV: In 2002, HIV prevalence among young women 15–24 years attending antenatal care clinics was 5.3%. In 2002 in N'Djamena, HIV prevalence among women aged 15–19 years attending antenatal care clinics was 5.3%, while the rate was 7.3% among women aged 15–24 years. Outside N'Djamena, HIV prevalence among women aged 15–24 years attending antenatal care clinics was 5.8%, and ranged from 2.8% to 10.2%.

CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence rates among women attending antenatal care clinics at selected sites in Chad exhibit an upward trend.
- The median HIV prevalence in young women aged 15–24 years attending antenatal clinics in Chad is the same as the median prevalence rate among women 15–49 years.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Efforts made to strengthen sentinel surveillance among women attending antenatal care clinics should be sustained. Data from population-based serosurveys complement antenatal care clinic-based data, as do surveys among populations at higher risk of HIV infection.
 - **Other STIs:** Screening for syphilis among women attending antenatal care clinics should be continued and complemented by monitoring for other STIs at a few selected sites.

- **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of repeated DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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CONGO

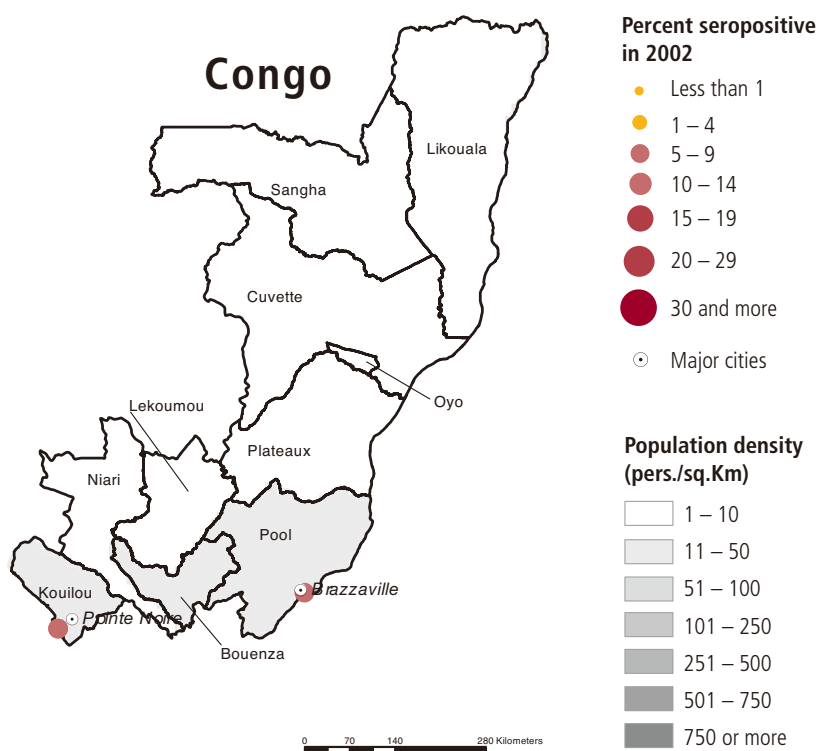
Total population (2002)	3,633,000
Young people aged 15–24 years	718,000
Adults aged 15–49 years	1,600,000
Population in capital city (Brazzaville) (2001)	43.7%
Population, other urban (2001)	22.4%
Population, rural (2001)	33.9%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Although HIV sentinel surveillance among women attending antenatal care clinics was established in 1989, the system was disrupted by war in 1996 and only re-established in 2000. In 2002, three sites in Brazzaville and two sites in Pointe-Noire were used. At least 450 samples were collected in each urban area. A survey of military personnel was conducted in 1999. Information on HIV prevalence among blood donors is available from 1998 to 2000.

Figure 1

Sentinel surveillance in pregnant women, 2002

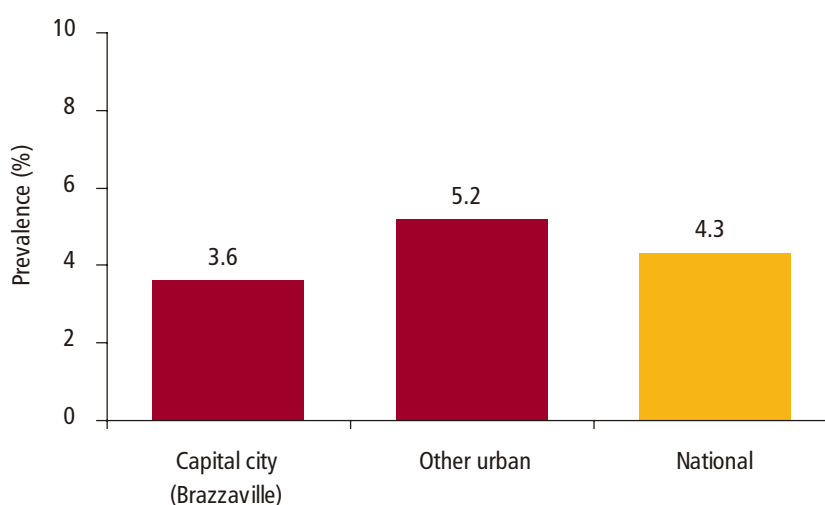


HIV

The median HIV prevalence among women attending antenatal care clinics in Brazzaville and Pointe Noire was 4.3% in 2002 (Figure 2). In Brazzaville, median HIV prevalence rates remained stable between 2000 (4%) and 2002 (3.6%). The median HIV prevalence rate in Pointe-Noire decreased from 14.6% in 2000 to 5.2% in 2002. In 1999, HIV prevalence among military personnel tested was 4.9%. HIV prevalence among blood donors was 7.7% in 1998, 7.7% in 1999 and 7.2% in 2000.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Congo, 2002

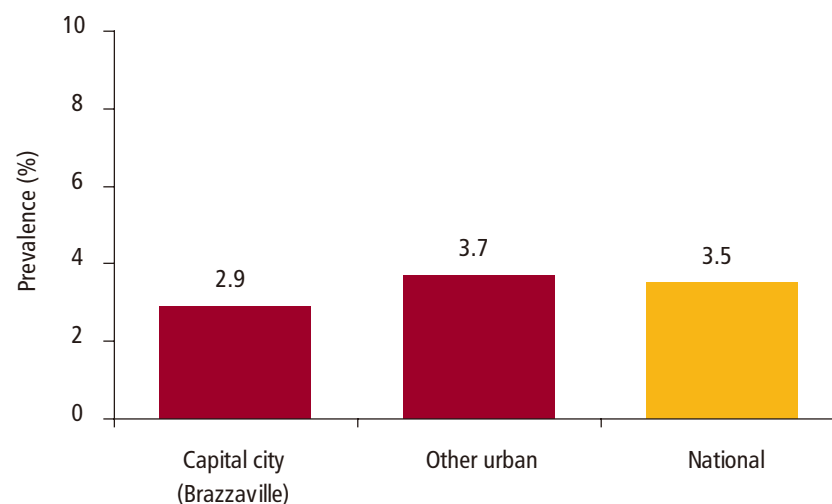


YOUNG PEOPLE

HIV: In 2002, median HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 3.5%. (Figure 3).

Figure 3

Median HIV prevalence among women aged 15-24 years attending antenatal care clinics, by location, Congo, 2002



CONCLUSIONS AND RECOMMENDATIONS

- Sentinel surveillance among women attending antenatal care clinics in Brazzaville and Pointe Noire indicates that the epidemic has been stable in Brazzaville, while a decline was observed in Pointe Noire between 2000 and 2002. Additional rounds of surveillance are necessary to assess and confirm this observed trend.
- No recent data on trends are available for HIV prevalence in rural areas or among populations at higher risk of infection, and no information exists on sexual behaviours in this country.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be expanded to include both rural and urban areas. Periodic studies of HIV prevalence should also be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** DHS should be conducted regularly to assess behaviour trends in the general population. Behaviour surveillance should be conducted among populations at higher risk of HIV infection and young people.

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DEMOCRATIC REPUBLIC OF THE CONGO

Total population (2002)	51,201,000
Young people aged 15–24 years	10,366,000
Adults aged 15–49 years	22,783,000
Population in capital city (Kinshasa) (2001)	10.0%
Population, other urban (2001)	20.7%
Population, rural (2001)	69.3%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

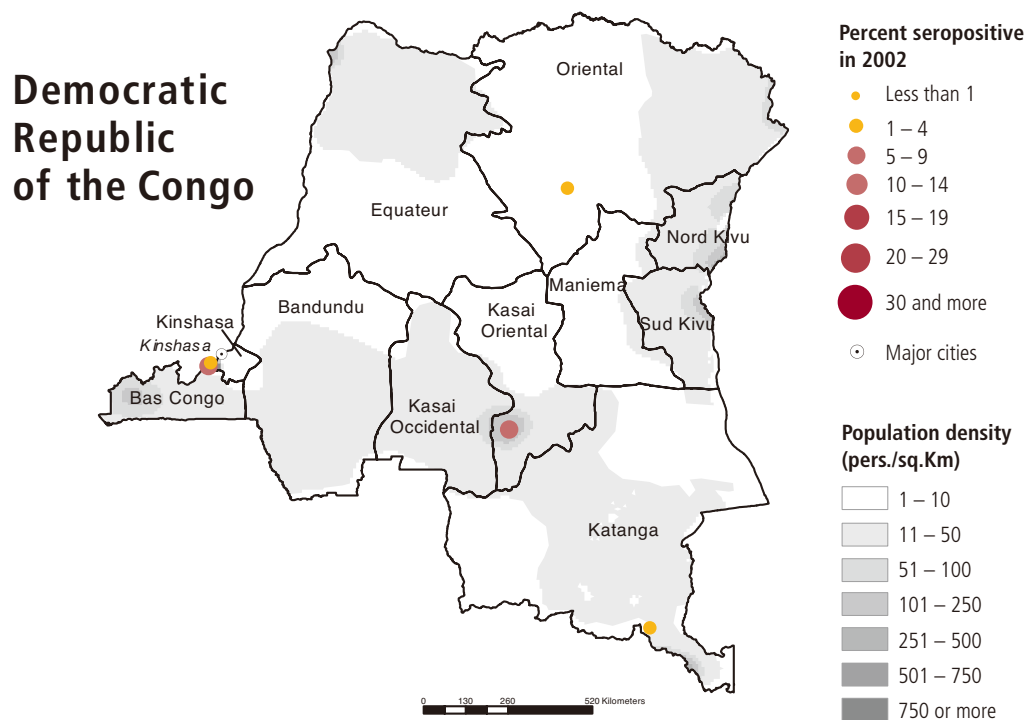
HIV: Although a system of HIV sentinel surveillance among women attending antenatal care clinics was established in 1985, sentinel surveys have not been conducted regularly and sites have not been used consistently. The last sentinel survey was conducted in 1999 and four sites were used: two urban sites were in Kinshasa, one was in Lubumbashi and one rural site was in Mikelayi. Efforts are being made to strengthen surveillance; an ongoing HIV surveillance round is being undertaken at 15 urban and rural sites. Serosurveys were conducted in 2002 among women attending antenatal care clinics, tuberculosis patients, STI patients, blood donors and sex workers. Information on sex workers and STI patients in Kinshasa and in a few other areas outside the capital is available from 1985 to 2002.

Other STIs: In 1997, women attending antenatal care clinics in Bunia, eastern Democratic Republic of the Congo, were tested for syphilis.

Sexual behaviour: A KABP survey conducted among young people in 1999 generated some information on sexual behaviours.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In a study of women attending antenatal care clinics in 2002, HIV prevalence ranged from 3.0% in Kinshasa to 4.4% in Mbuji-Mayi (Figure 2). In the 1999 sentinel survey, HIV prevalence among women attending antenatal care clinics ranged from 0.6% in Mikalayi to 8.6% in Sendwe (Figure 3). Countrywide trends in HIV prevalence among women attending antenatal care clinics in the Democratic Republic of Congo are difficult to ascertain since use of surveillance sites has been inconsistent. However, available trend data suggest a stabilization of the epidemic in some parts of the country. HIV prevalence rates among women attending antenatal care clinics in Kinshasa were 6.9% in 1985, 5.7% in 1987, 10.8% in 1992 and 5.4% in 1999. From 1992 to 1999, HIV prevalence rates in Kisangani remained between 3.0% and 5.6%. In Mbuji-Mayi, HIV prevalence among women attending antenatal care clinics was 6.3% in 1997 and 4.8% in 2002. However, prevalence rates seem to be increasing in Lubumbashi, from 2.7% in 1989 to 4.7% in 1997, and to 8.5% in 1999. In 2000, HIV prevalence among women attending antenatal care clinics was reported to be 24.2% in Kalemie, a town in eastern Democratic Republic of Congo.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Democratic Republic of the Congo, 2002

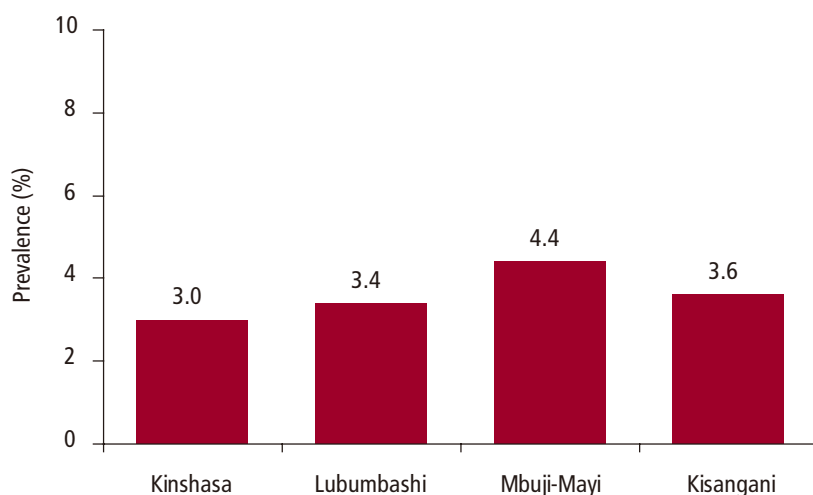
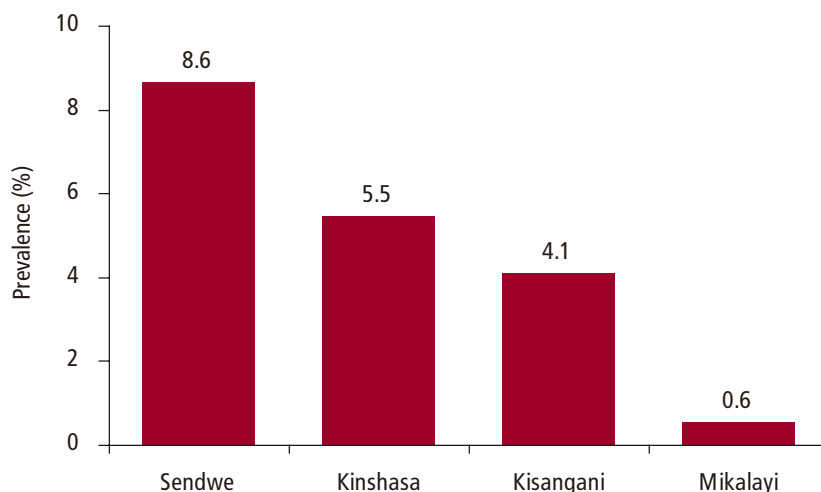


Figure 3

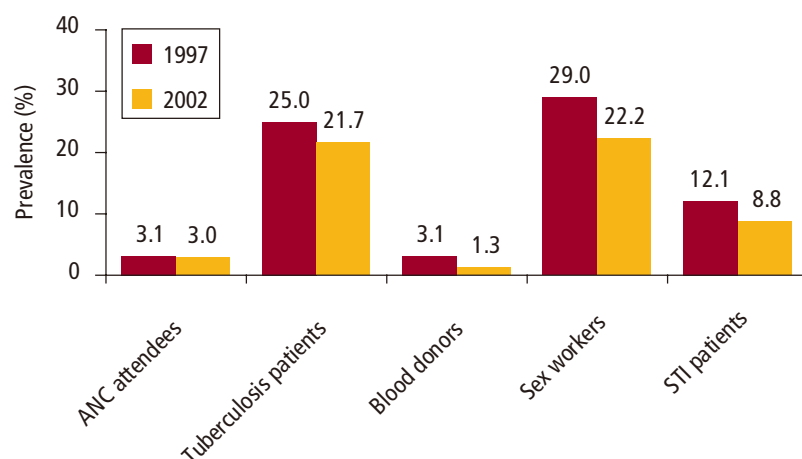
HIV prevalence among women attending antenatal care clinics, by location, Democratic Republic of the Congo, 1999



HIV prevalence rates among sex workers in Kinshasa have fluctuated between 26.8% in 1985, 38.0% in 1989, 29.0% in 1997 and 22.2% in 2002. Reported prevalence rates among tuberculosis patients, blood donors, sex workers and STI patients in Kinshasa suggest a declining trend (Figure 4).

Figure 4

HIV prevalence among selected population groups, Kinshasa, Democratic Republic of the Congo, 1997 and 2002



OTHER STIs

The only available information on the prevalence of STIs is from testing for syphilis among women attending an antenatal care clinic in Bunia in 1997; syphilis seroprevalence was 24% among those tested.

YOUNG PEOPLE

Sexual behaviour

Age at first sex: According to a 1999 KABP survey among young people, mean age at first sex was 16.5 years for women and 16.3 years for men.

Premarital sex In 1999, 61% of young people aged 15–19 years surveyed were already sexually active and 42% reported having had premarital sex in the last year.

Condom use: In 1999, condom use at last premarital sex was reported to be <15% among young people.

CONCLUSIONS AND RECOMMENDATIONS

- Information on HIV prevalence is only available for a limited number of sites in the Democratic Republic of the Congo. The information available suggests that there are significant epidemiological differences across the country, with a stabilization of prevalence rates in some areas and significant increases in other areas.
- There is only limited information available on the prevalence of STIs in this country.
- Risk behaviours are common among young people, according to limited data on sexual behaviour dating from 1999.

- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should continue to be strengthened and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of repeated DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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EQUATORIAL GUINEA

Total population (2002)	481,000
Young people aged 15–24 years	89,000
Adults aged 15–49 years	215,000
Population in capital city (Malabo) (2001)	7.0%
Population, other urban (2001)	42.4%
Population, rural (2001)	50.6%
Pregnant women using antenatal care (1994)	37.0%

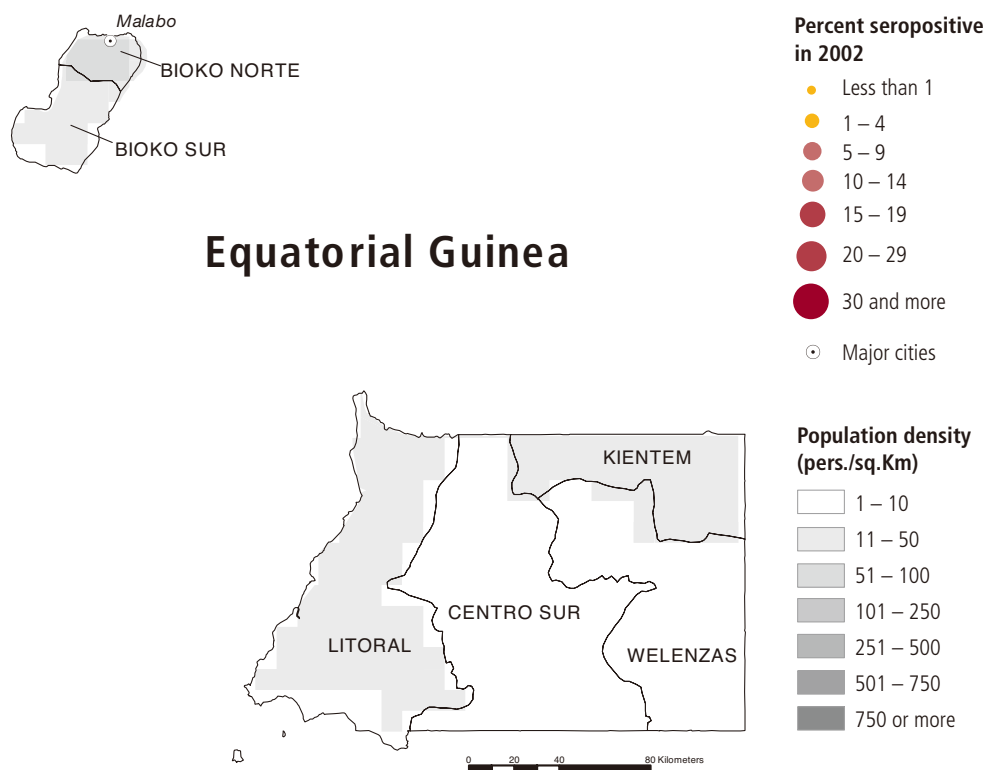
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Surveillance of HIV among women attending antenatal care clinics has been irregular, with no consistency in the sites used. The latest HIV prevalence information is for women attending antenatal care clinics, blood donors and tuberculosis patients in the Continental region from 1997 to 1999. A population-based study was also conducted in 1997.

Sexual behaviour: KABP studies were carried out nationally in 1997, and among young people in Bata in 1999.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In the Continental region, HIV prevalence rates among pregnant women increased from 2.2% to 3.3% between 1997 and 1999. In 1997, a national population-based survey reported an HIV prevalence of 3.4%. The same survey found HIV prevalence rates of 1.5%, 0.5% and 2.6% among pregnant women, high school students and hospital patients respectively in the city of Bata. Between 1997 and 1999, increases in HIV prevalence from 1.1% to 3.9% among blood donors and from 7.5 to 18.0% among patients with tuberculosis were reported.

SEXUAL BEHAVIOUR

In a 1997 national survey, 46% of men and 17% of women reported having had sex with a non-regular non-cohabiting partner in the last year. Only 33% of respondents reported having ever used a condom, with only 10% of respondents having used a condom at last sex with a non-regular non-cohabiting partner.

YOUNG PEOPLE

Other STIs: There was a high prevalence of chlamydial infection (31.6%) detected among students aged 15–30 years in an urban area in 1997.

Sexual behaviour

Age at first sex: In a 1999 KABP study in Bata, 86% of young people aged 13–19 years reported having had sex. Thirty-four percent of these young people reported having had sex by age 15 years. Eleven percent of men and 16% of women reported having had sex by age 13–14 years.

Condom use: In 1999, 28% of young men and 19% of young women reported having used a condom at last sex.

CONCLUSIONS AND RECOMMENDATIONS

- The availability of data on HIV, STIs and sexual behaviour in Equatorial Guinea is limited.
- Data from ad hoc studies suggest that HIV prevalence in the country is increasing and that risk behaviours are common, with condom use being relatively low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Antenatal care clinic-based surveillance should be carried out regularly in selected sites using the same sites consistently, and this should be complemented by serosurveys among selected populations at higher risk of HIV infection.
 - **Other STIs:** The monitoring of trends in the prevalence of syphilis among women attending antenatal care clinics should be implemented.
 - **Sexual behaviour:** BSS of the general population as well as of populations at higher risk of HIV infection should be implemented regularly.

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GABON

Total population (2002)	1,306,000
Young people aged 15–24 years	264,000
Adults aged 15–49 years	622,000
Population in capital city (Libreville) (2001)	45.4%
Population, other urban (2001)	36.9%
Population, rural (2001)	17.7%
Pregnant women using antenatal care (2000)	94.4%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

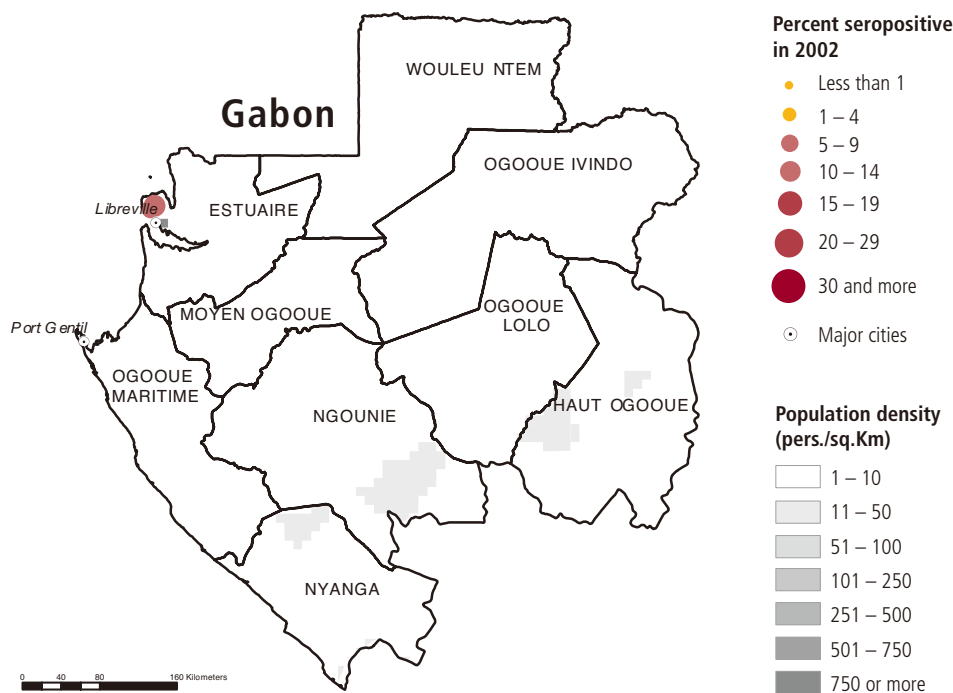
HIV: HIV sentinel surveillance among women attending antenatal care clinics is being re-established in Gabon, with surveillance being undertaken at two pilot sites in 2002. Although a surveillance system was established in 1986, sentinel surveys were conducted irregularly between 1986 and 1995, sites were used inconsistently and the system stopped functioning altogether in 1996. The surveillance system among special groups is underdeveloped. Some data are available from a general population survey conducted in Libreville, Lamnarene, Port Gentil, and Franceville in 2000/2001.

Other STIs: Some data on STIs are available from the general population survey conducted in 2000/2001

Sexual behaviour: The main source of data on sexual behaviour is the DHS conducted in 2000.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

HIV prevalence rates among women attending the same two antenatal care clinics in Libreville increased from 3.8% in 1995 to 9.0% in 2002. A survey of the general population in 2000/2001 reported HIV prevalence rates of 7.7% in Libreville, 3.8% in Lamnarene, 9.0% in Port Gentil, and 3.8% in Franceville.

OTHER STIs

A study conducted among the general population in 1996 found syphilis seroprevalence rates to be 5.6% among men and 11.0% among women in the urban area of Franceville, and 24.0% among men and 27.0% among women in villages in the Nouna area. The same study reported a prevalence of chlamydial infection of 59.6% in Franceville.

SEXUAL BEHAVIOUR

Among adult respondents, 42% of women and 67% of men reported having had sex with a non-marital, non-cohabitating partner in the last year, and of these people 31% of women and 48% of men reported using a condom at last higher-risk sex.

YOUNG PEOPLE

Sexual behaviour

Age at first sex: In 2000, the median age at first sex, based on reports from young people aged 15–24 years, was 16.2 years for women, and 16.9 years for men.

Premarital sex: According to the 2000 DHS, 64% of young women and 76% of young men reported having had premarital sex in the last year.

CONCLUSIONS AND RECOMMENDATIONS

- Lack of surveillance data from the same sentinel sites over time makes it difficult to assess trends. Data from Libreville indicate fluctuations in HIV prevalence. No data on trends are available from other parts of the country.
- To strengthen surveillance, it is recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be undertaken regularly and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of repeated DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection and young people.

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SAO TOME AND PRINCIPE

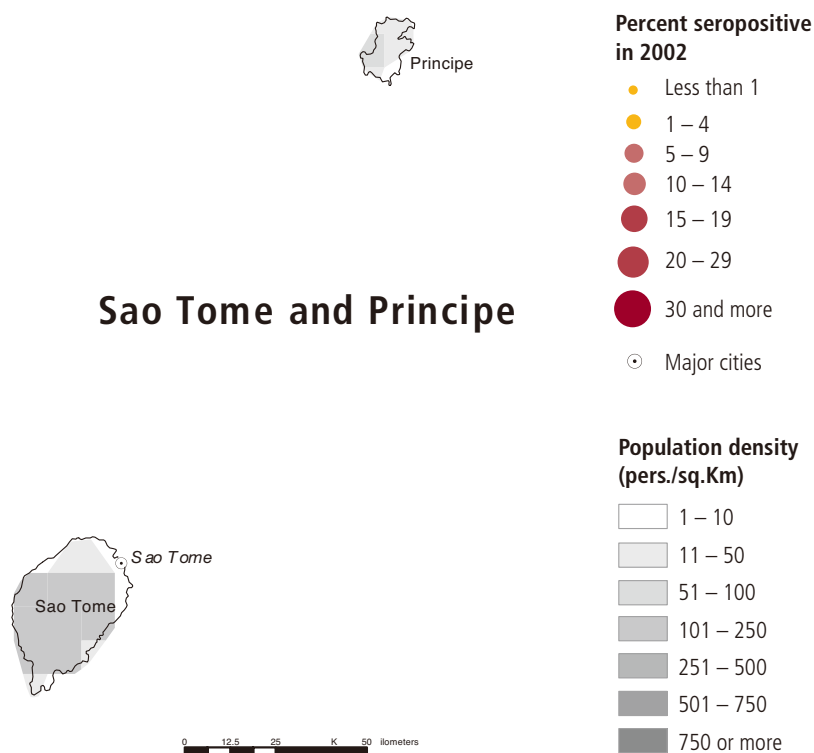
Total population (2002)	157,000
Young people aged 15–24 years	37,000
Adults aged 15–49 years	77,000
Population in capital city (Sao Tome) (2001)	47.9%
Population, rural (2001)	52.1%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Surveillance among women attending antenatal care clinics were conducted annually from 1991 to 1996 at three sites,. No surveys were conducted between 1997 and 2000. In 2001, a survey of HIV prevalence was conducted among selected groups, including women attending antenatal care clinics, tuberculosis patients and students.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics was 0.1%. In the same year, HIV prevalence among tuberculosis patients was 13.7%.

YOUNG PEOPLE

HIV: In the 2001 prevalence survey, only 1 person out of 699 students aged 15–19 years tested was found to be infected with HIV.

CONCLUSIONS AND RECOMMENDATIONS

- Sao Tome and Principe has a low-level epidemic with HIV prevalence rates of <1.0% among women attending antenatal care clinics.
- No information is available on the prevalence of STIs and sexual behaviours in this country.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance among groups at higher risk of HIV infection should be undertaken. Periodic studies of prevalence among women attending antenatal care clinics should also be carried out.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours among groups at higher risk of HIV infection should be established.

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WESTERN AFRICA



ALGERIA

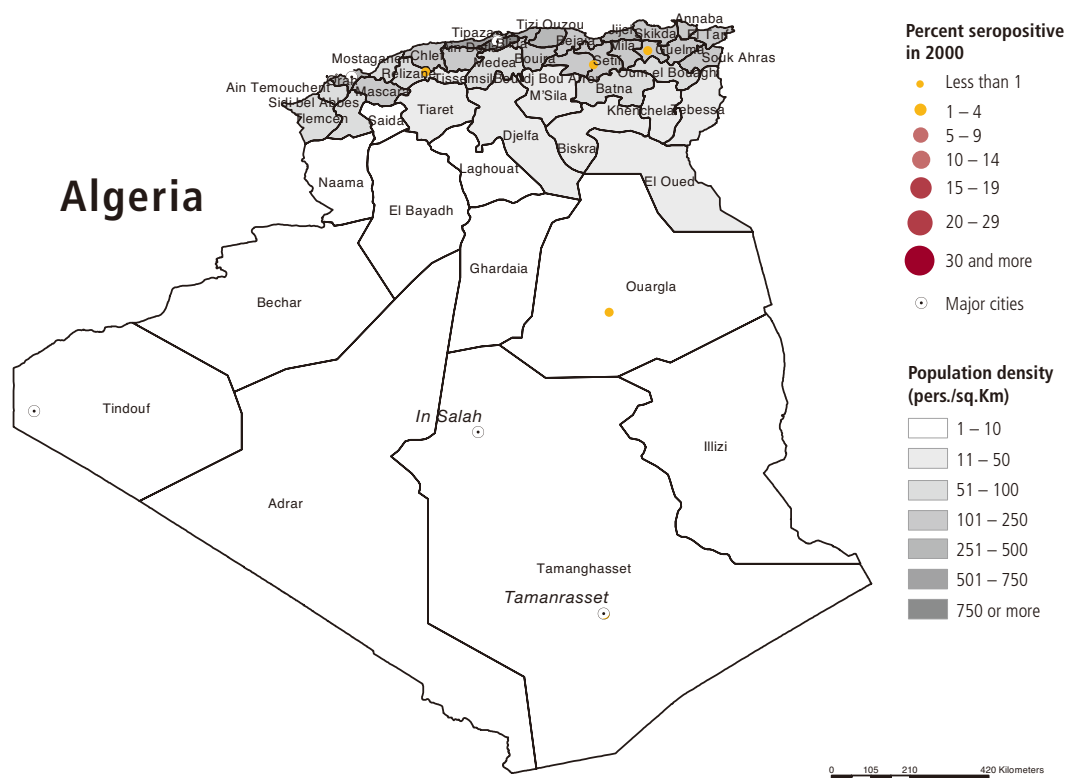
Total population (2002)	31,266,000
Young people aged 15–24 years	6,841,000
Adults aged 15–49 years	17,152,000
Population in capital city (Algiers) (2001)	9.3%
Population, other urban (2001)	48.4%
Population, rural (2001)	42.3%
Pregnant women using antenatal care (1992)	58.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: The first round of sentinel surveillance among women attending antenatal care clinics was conducted at five sites in 2000. Each site enrolled over 400 pregnant women. Special studies were conducted among STI patients and sex workers in 2000.

Figure 1

Sentinel surveillance in pregnant women, 2000



HIV

HIV prevalence among women attending antenatal care clinics at five sites was 0.2% in 2000. HIV prevalence in Tamanrasset, which hosts the capital city, was 0.9%. There was no evidence of HIV infection at the other four sites.

In 2000, 2 out of 22 sex workers tested in Tamanrasset and 2 out of 117 sex workers tested in Oran were HIV-positive. In Tamanrasset, only one STI patient out of the 79 tested was HIV-positive. None of the STI patients tested in Constantine, Mustapha, Maillot and the Central Army Hospital were found to be HIV-positive. In 1998, HIV prevalence among blood donors was 0.04%. A national survey conducted among tuberculosis patients in 1997 showed no evidence of HIV infection.

As of mid 2002, a cumulative total of 1317 cases of infection with HIV had been officially diagnosed and reported in the country.

CONCLUSIONS AND RECOMMENDATIONS

- Available data indicate that Algeria has a low-level HIV/AIDS epidemic.
- There is limited information available on HIV prevalence, other STIs and trends in sexual behaviour among populations at higher risk of HIV infection.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV infection among groups at higher risk of HIV infection, such as sex workers, should be reinforced with surveys conducted regularly. This can be complemented with antenatal care clinic-based sentinel surveillance, which should be conducted at least every two years.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** Systematic surveillance of higher-risk behaviours among groups at increased risk of HIV infection, such as sex workers, should be undertaken and conducted regularly.

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BENIN

Total population (2002)	6,558,000
Young people aged 15–24 years	1,371,000
Adults aged 15–49 years	3,008,000
Population in capital city (Porto-Novo) (2001)	3.5%
Population, other urban (2001)	39.5%
Population, rural (2001)	57.0%
Pregnant women using antenatal care (1996)	80.3%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

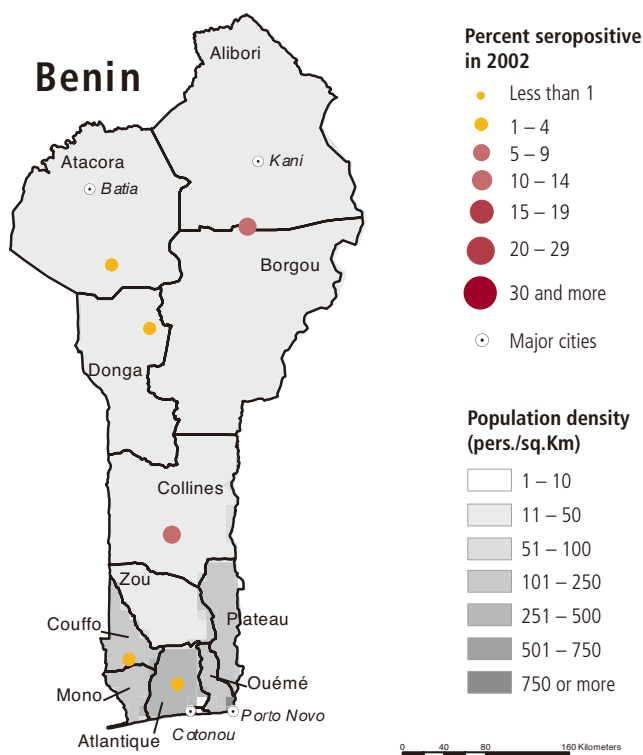
HIV: In 2002, sentinel surveillance among women attending antenatal care clinics was conducted at 36 sites. HIV prevalence data are also collected annually among STI clinic attendees as part of sentinel surveillance. Data were collected in Cotonou, the administrative capital, in the context of a four-city UNAIDS study in 1997/1998. This study generated information on HIV prevalence among adults aged 15–49 years and sex workers. A series of cross-sectional studies of HIV and STI prevalence have been conducted among sex workers in the country with the most recent conducted in 2002 in four areas, including Cotonou. The study of HIV prevalence in 2002 also included the clients of sex workers.

Other STIs: Data on the prevalence of syphilis among women attending antenatal care clinics are available from 1999. In the 2002 study, sex workers and their clients were also tested for STIs. Data on STIs in the general population and sex workers are available from the UNAIDS study conducted in Cotonou in 1997/1998.

Sexual behaviour: The main sources for behavioural data are the 2001 DHS, the BSS conducted among truck drivers, sex workers and youth in 2001, and the four-city UNAIDS study in Cotonou in 1997/1998.

Figure 1

Sentinel surveillance in pregnant women, 2002

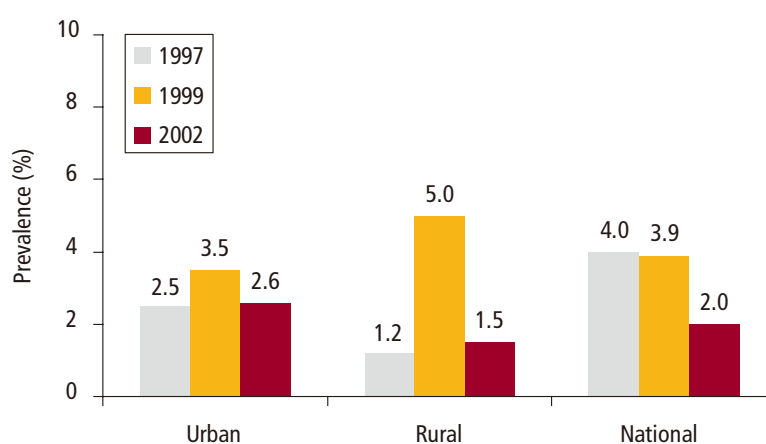


HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 36 sites was 1.9%. In 2002, HIV prevalence in Cotonou was 2.3%. Data from the same six antenatal care clinics from 1997–2002 are illustrated in Figure 2. Prevalence rates in both urban and rural areas fluctuated during this time period. Data generated from the four-city UNAIDS study indicate that HIV prevalence among adults aged 15–49 years in Cotonou was 3.3% for men and 3.4% for women in 1997/1998.

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics, at six sites, Benin, 1997-2001



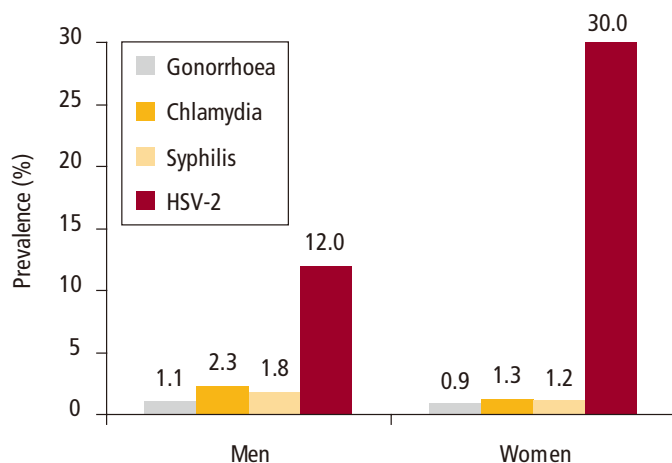
In 2002, HIV prevalence among sex workers in the four areas studied, Porto Novo, Parakou Abomey-Bohicon and Cotonou, was 44.7%. Among sex workers in Cotonou, HIV prevalence declined from 59.5% in 1996 to 49.6% in 1999, and to 38.9% in 2002. HIV prevalence among clients of sex workers in the four study areas was 7.2%. Median HIV prevalence among STI clinic attendees in the surveillance sites of Atlantique, Aplahoue, Tchaourou, and Natitingou was 5.3% in 2001.

OTHER STIs

Median prevalence of syphilis among women attending 36 antenatal care clinics in 2002 was 0.95%. Median prevalence of syphilis among women attending antenatal care clinics in Cotonou was 1.8% in 2002. In the 1997/1998 UNAIDS study, seroprevalence of syphilis, gonorrhoea and chlamydia in the general population of Cotonou (Figure 3) was relatively low compared to that of other countries in the region. Seroprevalence of HSV-2 was 11.9% among men and 29.5% among women respectively. The prevalence of trichomoniasis in women was 3.2%.

Figure 3

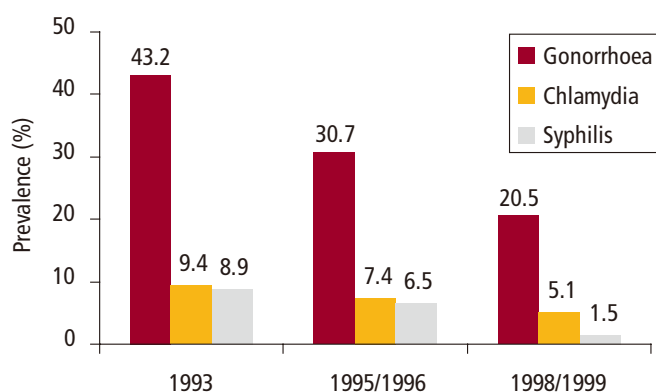
Prevalence of gonorrhoea, chlamydia, syphilis and HSV-2 among the general population, Benin, 1997/1998



The STI prevalence study conducted in 2002 among sex workers showed that prevalence rates of gonorrhoea were 14%, 27%, 29% and 36% in Cotonou, Parakou, Abomey-Bohicon and Porto Novo respectively. The prevalence of trichomoniasis among sex workers was 6%. A series of cross-sectional studies among sex workers in Cotonou carried out between 1993 and 1999 showed declines in the prevalence of syphilis, gonorrhoea and chlamydia (Figure 4).

Figure 4

Trends in prevalence of gonorrhoea, chlamydia and syphilis among sex workers, Benin, 1993-1999



SEXUAL BEHAVIOUR

In Cotonou in 1997/1998, 1% and 31% of married women and men respectively reported having had sex with at least one non-spousal partner in the past year. Among men, 21% reported that they used a condom always or most of the time with all their non-marital partners in the last year. Eleven percent of women reported that they frequently used a condom with all their non-spousal partners.

According to the 2001 BSS survey, 25% of sexually-active truck drivers reported having had sex with a non-marital non-cohabiting partner in the last year. Thirteen percent of truck drivers reported having had sex with a sex worker. Thirty-three percent of truck drivers who had had sex with a non-marital partner in the last year reported always using a condom with such partners, and 60% of truck drivers reporting sex with a sex worker in the last year reported consistent condom use with such partners. In 2001, 90% of sex workers reported using a condom with the last sex partner, although only 69% reported that they always used a condom with their clients.

YOUNG PEOPLE

HIV: Median HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 1.7% in 2002. According to the UNAIDS study in Cotonou, HIV prevalence among women aged 15–19 years and 20–24 years was much higher than that among men in these age groups (Figure 5).

Other STIs: While the prevalence of gonorrhoea was 1.5% among young women aged 15–19 years in Cotonou in 1997/1998, prevalence among young men was 0%. The prevalence of chlamydia was 2.4% among women in the same age group and 1.1% among men. Women aged 15–24 years in Cotonou were almost four times more likely to be infected with HSV-2 than men (13.2% versus 3.5%).

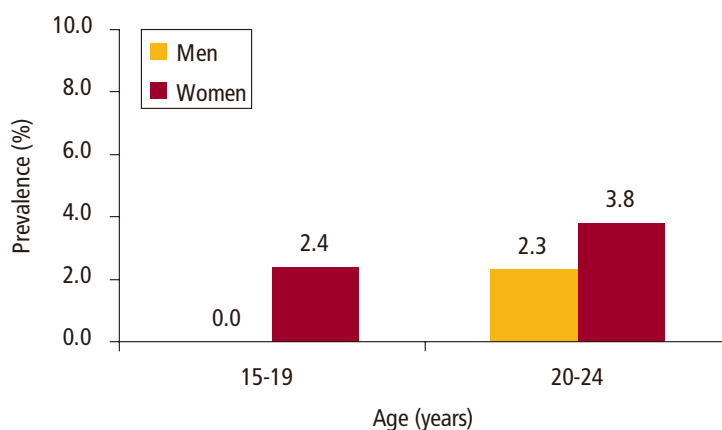
Sexual behaviour

Premarital sex: According to the 2001 DHS, 42% of young women and 53% of young men had had premarital sex in the last year.

Condom use: The 2001 BSS indicated that 23% of sexually-active young people reported using a condom at last sexual intercourse.

Figure 5

HIV prevalence among the general population, by sex and age group, Cotonou, Benin, 1997/1998



CONCLUSIONS AND RECOMMENDATIONS

- Benin has a generalized HIV/AIDS epidemic, with a national median HIV prevalence of <5% among women attending antenatal care clinics.
- Studies indicate that there is a high prevalence of STIs. Across all age groups, women are more likely than men to be infected with HSV-2.
- High-risk behaviours were prevalent both among adults and young people, with condom use being relatively low, especially among young people.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be continued with surveys conducted regularly and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** Testing for syphilis among women attending antenatal care clinics should continue and surveillance of other STI should be undertaken at a few select sites.
 - **Sexual behaviour:** The surveys of behaviour that have been initiated among young people and among groups at higher risk of HIV infection should be repeated at regular intervals to generate information on trends.

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BURKINA FASO

Total population (2002)	12,624,000
Young people aged 15–24 years	2,600,000
Adults aged 15–49 years	5,491,000
Population in capital city (Ouagadougou) (2001)	7.3%
Population, other urban (2001)	9.7%
Population, rural (2001)	83.0%
Pregnant women using antenatal care (1998)	60.7%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

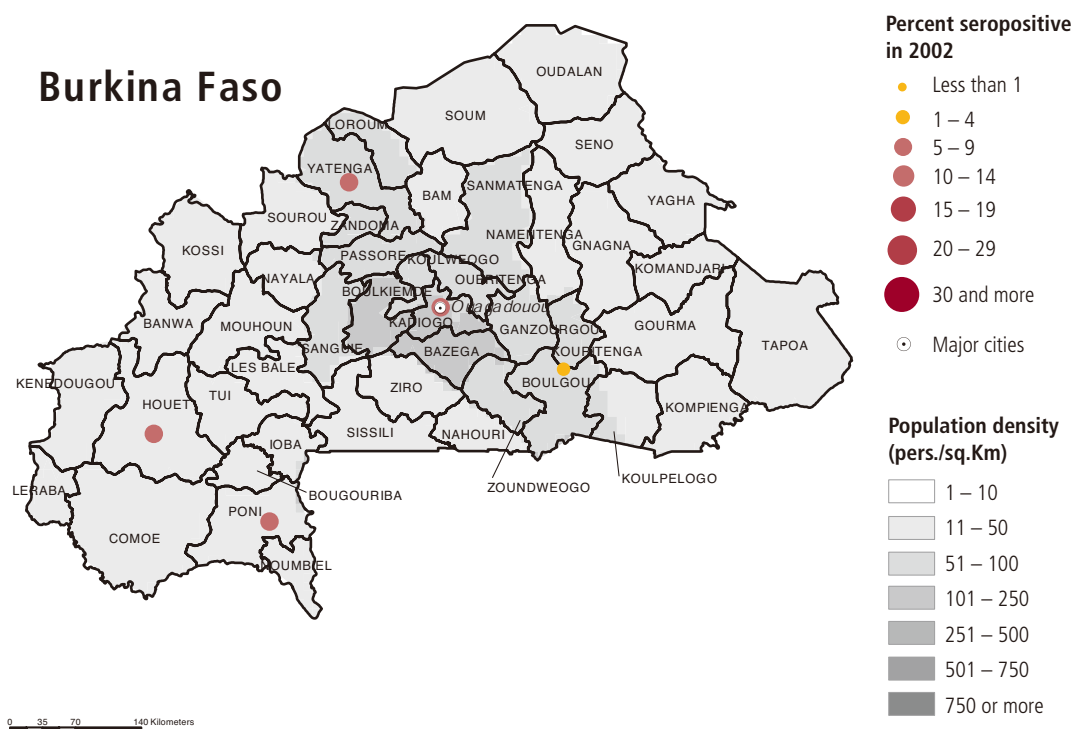
HIV: In 2002, HIV sentinel surveillance among women attending antenatal care clinics was conducted at five sites. These sites, located in five out of the eight regions in the country, have been used consistently since 1997. Sentinel surveys are conducted annually, with at least 400 pregnant women enrolled at each site. In 2000, a survey of HIV prevalence was conducted among sex workers in Bobo-Dioulasso. A special study was conducted among prisoners in Ouagadougou in 1998.

Other STIs: A study conducted in Bobo-Dioulasso from 1995–1999 generated information on the prevalence of syphilis among pregnant women

Sexual behaviour: A BSS conducted among the general population in Ouagadougou, Ouahigouya and Gaoua in 2000 generated information on sexual behaviour, as did a BSS conducted in the same year among young people, truck drivers, sex workers and miners in Ouagadougou, Bobo-Dioulasso, Ouahigouya, Gaoua and Tenkodogo. In addition, a DHS was conducted in 1999.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at the five surveillance sites was 4.6%, prevalence ranging from 2.1% in Tenkodogo to 6.5% in Bobo-Dioulasso (Figure 2). Median HIV prevalence among attendees among the same antenatal care clinics in rural areas remained stable between 1998 and 2002, while median prevalence among the same antenatal care clinics in urban areas decreased from 8.2% to 5.6% (Figure 3).

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Burkina Faso, 2002

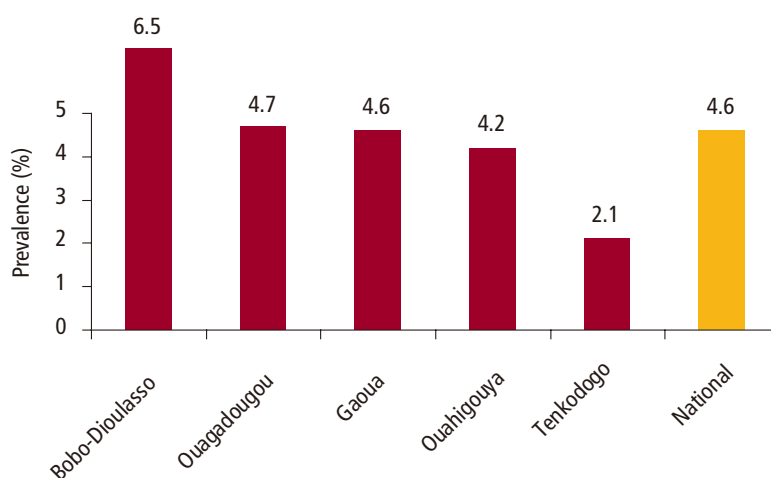
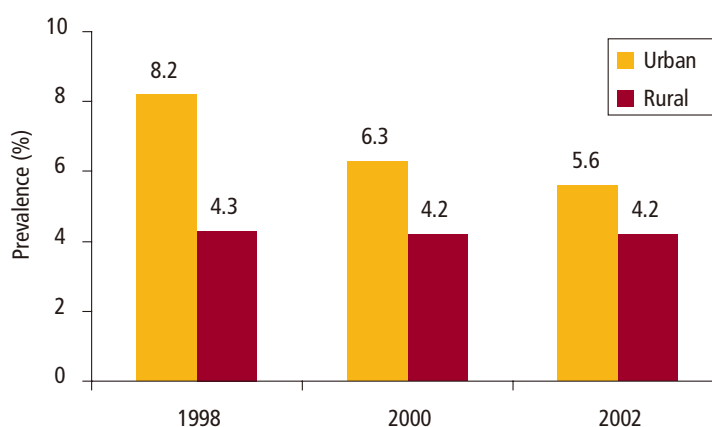


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, at five sites, by location, Burkina Faso, 1998-2002



A study conducted among sex workers in Bobo-Dioulasso in 1998 found that HIV prevalence among non-professional "sellers" and "bar waitresses" was 37%, while prevalence was 29% among professional "roamers". The same study found an HIV prevalence of 15% among "students" and women making and selling local beer in huts. A study conducted in 1998 showed that 9.1% of prisoners surveyed in Ouagadougou were HIV-positive.

OTHER STIs

A study conducted from 1995–1999 among women attending antenatal care clinics in Bobo-Dioulasso reported a low and stable syphilis seroprevalence of 0.2% throughout the period.

SEXUAL BEHAVIOUR

According to the 2000 BSS conducted among the general population of adults aged 25–49 years in three towns in Burkina Faso, 49% of men and 16% of women reported having had sex with non-regular sexual partners in the last year.

In the 1999 DHS, 8% of women and 31% of men reported having had sex with a non-marital, non-cohabiting partner in the last year. Thirty nine percent of these women and 57% of these men reported using a condom the last time they had sex with a non-marital, non-cohabiting partner. Eight percent of men reported having sex with a sex worker in the last year.

The 2000 BSS conducted among populations at higher risk of HIV infection in five towns in Burkina Faso found high rates of multiple and non-regular sexual relationships among truck drivers and miners. Almost three-quarters of drivers and miners who reported having had non-regular sexual relationships and sex with a sex worker in the last year reported having used a condom at last sex with a non-regular partner. Slightly more than three-quarters of these truck drivers and miners reported having used a condom at last sex with a sex worker. In the same survey carried out among sex workers, the large majority (79%) always used condoms with clients, with different proportions using condoms at last sex for paid clients (87%), than for non paying partners (65%).

MORBIDITY AND MORTALITY

A study in Addis Ababa showed that between 1987 and 2001 the number of deceased persons aged 5–14 years who were buried remained constant, while there was an annual increase in the number of buried persons aged 25–49 years. The ratio of all-cause mortality in people aged 25–49 years compared to those aged 5–14 years increased by 8.5% per year. A study comparing the number of burials occurring in Addis Ababa in 1984 and in 2001 also found increases over time (Figure 4). Between 1984 and 2001, mortality rates increased by 5 times among men and by 5.3 times among women aged 35–39 years. Age-specific mortality differences were pronounced in women aged 25–39 years and in men aged 30–44 years. The probability of a person aged 15 years dying before age 60 was 41.9% in 2001 versus 23.1% in 1984 for men, and 35.2% in 2001 versus 17.4% in 1984 for women. The age-specific pattern of this increase in mortality suggests that HIV/AIDS is the principal cause.

YOUNG PEOPLE

HIV: In 2001, the median HIV prevalence among young women aged 15–24 years attending antenatal care clinics was 4.1%, ranging from 2.1% in Tenkodogo to 4.8% in Bobo-Dioulasso and Gaoua (Figure 4).

Sexual behaviour

Median age at first sex: In 1999, the median age at first sex was 17.5 years for young women, while it was 19.5 years for young men.

Premarital sex: Among the surveyed young people aged 15–19 years in Ouagadougou, Ouahigouya and Gaoua in 2001, 60%, 69% and 67% respectively reported being sexually active in the last year. Among those surveyed aged 15–24 years in the five towns, about half the young men and women reported being sexually active in the last year. In the 1999 DHS, 24% of females and 34% of males reported having had premarital sex in the last year (Figure 5).

Commercial sex: Among the young people surveyed aged 15–24 years in the five towns, 12% reported exchanging money for sex in 2001. Girls were more likely to report exchanging sex for money than boys. In the 1999 DHS, 44% of women and 55% of men engaging in premarital sex reported having used a condom at last premarital sex.

Condom use: Among the young people surveyed aged 15–24 years in the three towns of Ouagadougou, Ouahigouya and Gaoua in 2001, 78% used a condom at last high-risk sex. Similar proportions of youth using a condom at last high-risk sex were observed among the youth surveyed during the BSS in five towns.

Figure 4

Median HIV prevalence among women aged 15–24 years attending antenatal care clinics, by location, Burkina Faso, 2001

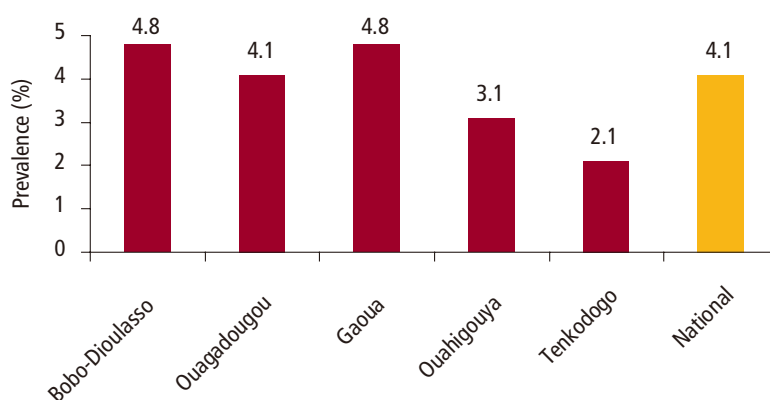
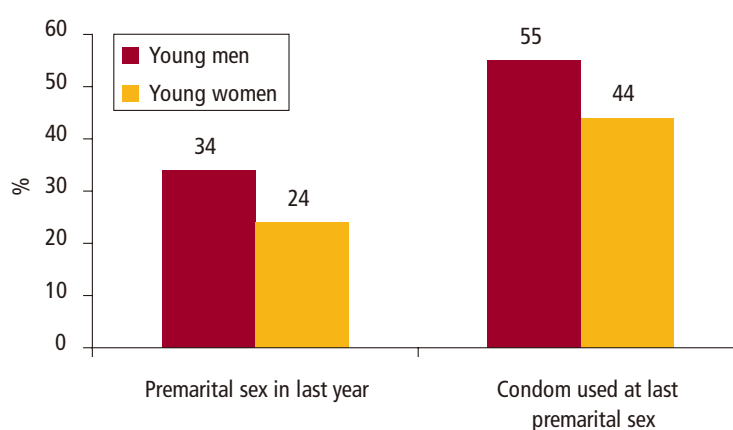


Figure 5

Young people, aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Burkina Faso, 1998/1999



CONCLUSIONS AND RECOMMENDATIONS

- The median HIV prevalence among women attending antenatal care clinics in Burkina Faso has been declining at most of the sites, but there are significant variations in HIV prevalence reported in urban and rural areas. Additional studies have shown high HIV prevalence rates among sex workers and their clients, as well as among prisoners.
- Available data indicate that the levels of STIs, such as syphilis, are low.
- Risky sexual behaviours are highly prevalent in Burkina Faso among both young people and adults, with infrequent condom use among those engaging in higher-risk sex.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Antenatal care clinic-based surveillance is carried out systematically and should continue, with emphasis on surveillance in young people. Inclusion of a number of truly rural sites should be considered.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The behavioural surveillance system initiated, using DHS and special surveys of behaviour among groups at increased risk of HIV infection, that has been initiated should be sustained and reinforced.

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CAPE VERDE

Total population (2002)	454,000
Young people aged 15–24 years	102,000
Adults aged 15–49 years	228,000
Population in capital city (Praia) (2001)	18.8%
Population, other urban (2001)	44.7%
Population, rural (2001)	36.5%
Pregnant women using antenatal care (1998)	99.3%

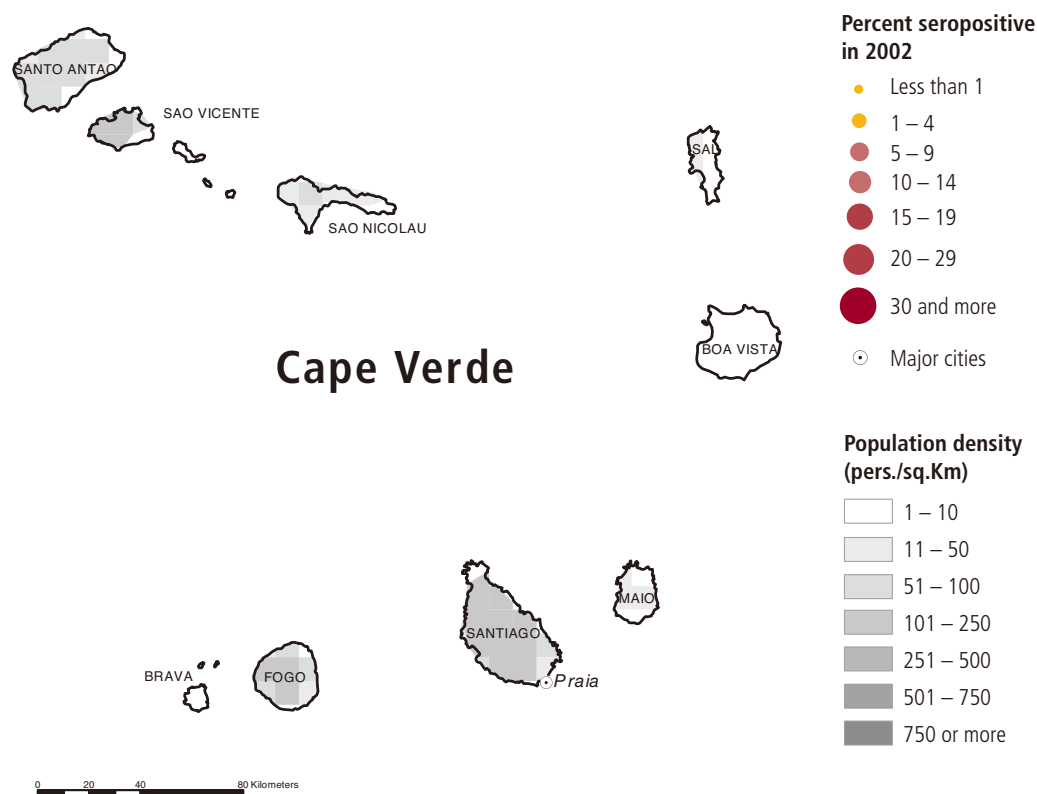
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: There is no recent information on HIV prevalence among women attending antenatal care clinics or any other subpopulation in the country. The most recent information on HIV prevalence among women attending antenatal care clinics is for 1997. Screening of blood donors provided some data on HIV infection in the period 1988–1997. In 1997, a special study was conducted among health workers and prisoners in Sao Vicente.

Other STIs: National data on STI prevalence are available from screening for syphilis and hepatitis infections among blood donors from 1988–1997.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

There is no recent information on HIV prevalence in Cape Verde. Information available indicates that there was a low-level epidemic in Cape Verde between 1988 and 1997. The median HIV prevalence among women attending antenatal care clinics remained <1% during most of the period 1989–1997. In 1997, HIV prevalence was 0.9% in Praia and 0.5% in Mindelo district.

In 1997, HIV infection rates among health workers and prisoners tested in Sao Vicente were reported to be 0.0% and 1.5% respectively. HIV prevalence among blood donors screened in Praia district remained at <1% in the period 1988–1997. Similar trends were observed in the other four districts of the country.

OTHER STIs

Between 1988 and 1997, information on testing of blood donors for syphilis using VDRL indicated that seroprevalence rates remained stable, with rates of 2.1% in 1988 and 1.9% in 1997. The prevalence of hepatitis B infection among screened blood donors was 4.6% in 1997.

CONCLUSIONS AND RECOMMENDATIONS

- Available data on median HIV prevalence among women attending antenatal care clinics in Cape Verde indicate that the country had a low-level HIV/AIDS epidemic between 1988 and 1997. However no recent information is available to assess current level and trends in prevalence of HIV and other STIs, or sexual behaviours.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance among groups at higher risk of HIV infection should be undertaken regularly, at least every two years, and should be complemented with regular studies of prevalence among women attending antenatal care clinics.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** Surveillance in groups at higher risk of HIV infection should be undertaken and conducted regularly, and should be supplemented with DHS to generate information on sexual behaviours among both young people and the general population.

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CÔTE D'IVOIRE

Total population (2002)	16,385,000
Young people aged 15–24 years	3,616,000
Adults aged 15–49 years	7,805,000
Population in capital city (Abidjan) (2001)	24.2%
Population, other urban (2001)	19.8%
Population, rural (2001)	56.0%
Pregnant women using antenatal care (2000)	87.5%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

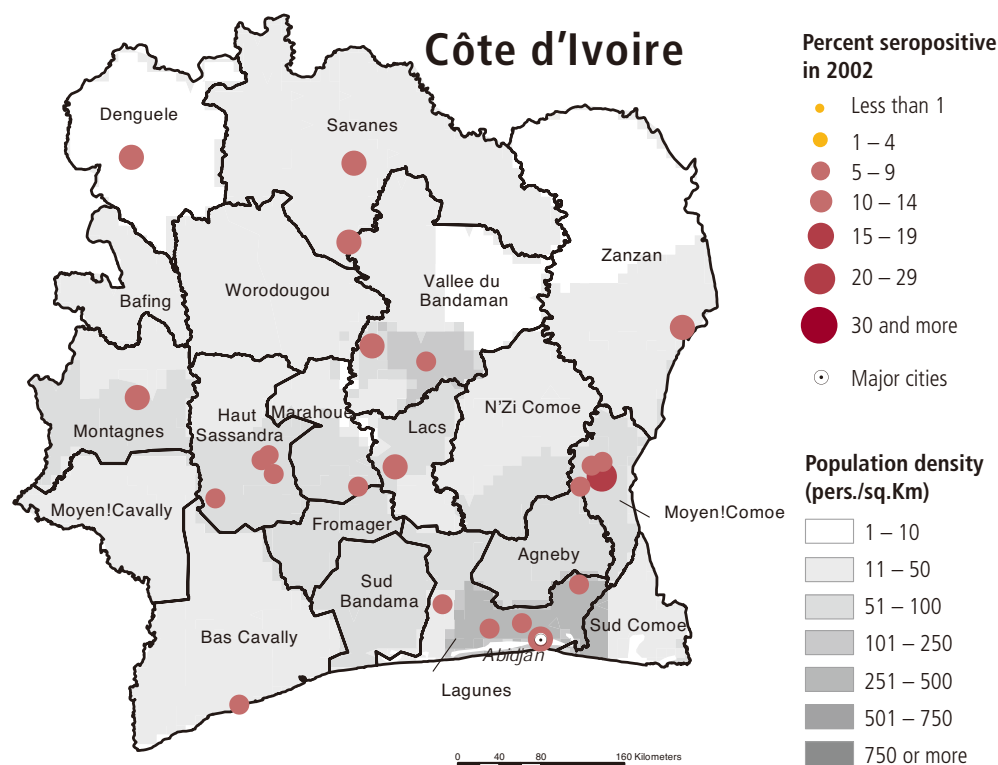
HIV: Sentinel surveillance among women attending antenatal care clinics was established in 1986 with one site in Abidjan and has gradually expanded. In 2002, there was a total of 28 sentinel sites in eight districts including eight urban sites and 20 rural sites. Due to insecurity in the country, most of the sites were not able to enrol as many pregnant women as anticipated. Several cross-sectional studies were conducted among female sex workers in Abidjan between 1992 and 2002.

Other STIs: Testing for syphilis among women attending antenatal care clinics is an integral part of HIV sentinel surveillance, though the data are not regularly reported. Syndromic case-reporting was established in 1995. Data for genital ulcer disease, urethral discharge and genital warts are collected from 65 districts.

Sexual behaviour: The main sources of data on behaviour are the DHS conducted in 1998 and the BSS conducted among young people, sex workers, truck drivers and male migrants in 1998 and 2002.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 28 sites was 7.3% (Figure 2). The median HIV prevalence in Abidjan was 7.4% while median prevalence among attendees at the other seven urban sites was 10.3% compared to a median prevalence of 5.8% among attendees at rural sites. The HIV prevalence among attendees at rural sites ranged from 1.9% in Yapeu to 11% in Lopou while prevalence among attendees at urban sites ranged from 7.4% in Abidjan to 11.6% in Daloa. Median HIV prevalence data from the same eight antenatal care clinics in urban areas from 1998–2002 show that prevalence declined slightly since 1998 (Figure 3).

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Côte d'Ivoire, 2002

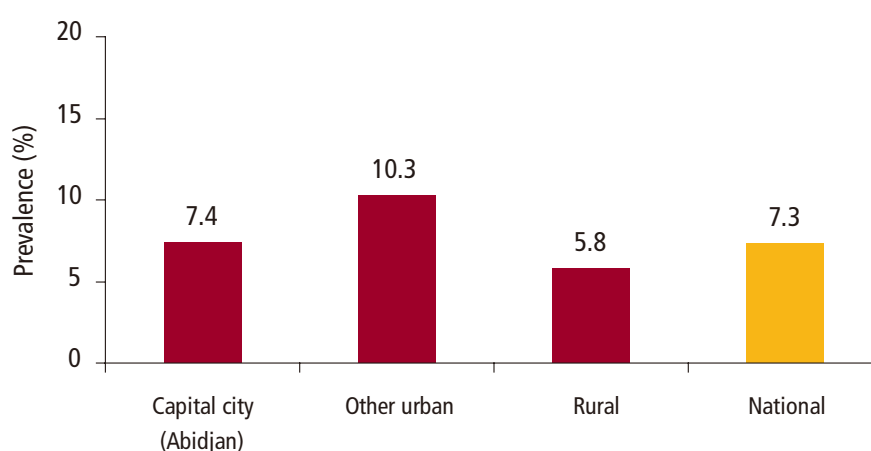
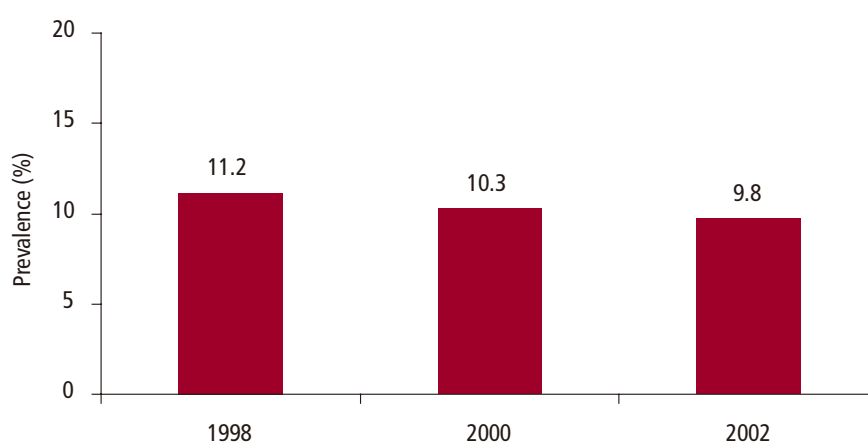


Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, at eight urban sites, Côte d'Ivoire, 1998-2002



A series of cross sectional studies conducted among sex workers in Abidjan showed a decline in HIV prevalence from 89% in 1992 to 32% in 1998.

OTHER STIs

In 1997 and 2001, the seroprevalence of syphilis among pregnant women attending antenatal care clinics in 10 sentinel urban sites was 1.4% and 0.5% respectively. In a study conducted in three urban health centres in Yopougon in 1997, the prevalence of syphilis was found to be 1.3%.

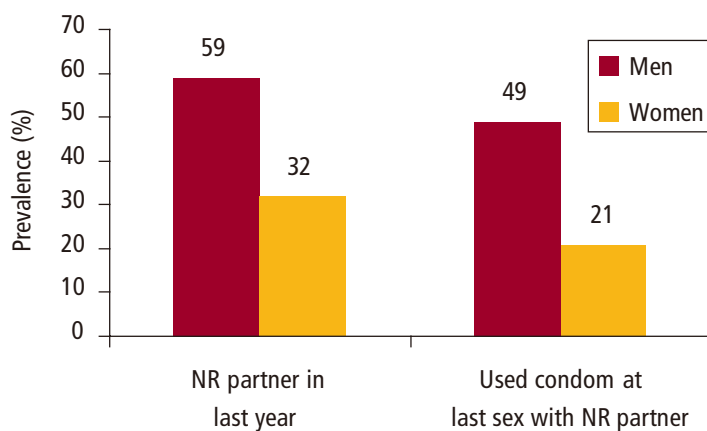
A series of cross-sectional studies conducted among sex workers in Abidjan showed a declining trend in STIs among female sex workers between 1992 and 1998. Only the prevalence of chlamydial infections increased during this period. In 1998, prevalence rates among female sex workers in Abidjan were as follows: 11% for gonorrhoea, 7% for chlamydial infections, 11% for trichomoniasis and 2% for syphilis.

SEXUAL BEHAVIOUR

In the 1998 DHS, 32% of women and 59% of men surveyed reported having had sex with a non-marital non-cohabiting sexual partner in the last year (Figure 4). According to the 2002 BSS, 34% of truck drivers and 17% of migrants reported having had sex with a non-marital non-cohabiting sexual partner in the last year.

Figure 4

Respondents with a non-regular (NR) partner in the last year, and respondents with a NR partner who used a condom at last sex, Côte d'Ivoire, 1998



According to the 1998 DHS, 5% of the men in the general population reported having had sex with a sex worker in the last year. For the truck drivers and migrants surveyed in the 2002 BSS, 23% and 5% respectively reported having had sex with sex worker(s) in the last year. Use of condoms was higher among groups at higher risk of infection than among persons with risky behaviour in the general population. In the 1998 BSS, among truck drivers and migrants, condom use at last sex with a non-marital non-cohabiting partner was 72% and 67% respectively. Condom use at last sex with a sex worker was 88% and 82% among truck drivers and migrants who reported having sex with a sex worker in the last years. In 2002 BSS, condom use at last sex with paying clients and non-paying clients (regular) was 87% and 42% among sex workers.

The exit survey of condom users in the Condom Consumer Profile Survey showed that 62% of respondents aged 14–49 years who had had sex with casual partners had used a condom, a considerably higher proportion than with regular partners (31% with a spouse or other regular partner). Consistency of condom use was also reported to be much higher with casual partners than with regular partners.

YOUNG PEOPLE

HIV: In 2002, median HIV prevalence among young women aged 15–24 years attending antenatal care clinics at 28 sites was 5.8% (Figure 5). In 2001, median HIV prevalence among attendees of the same age at 24 sites was 7.1%. In both 2001 and 2002, HIV prevalence was slightly higher in urban areas than in rural areas.

Sexual behaviour

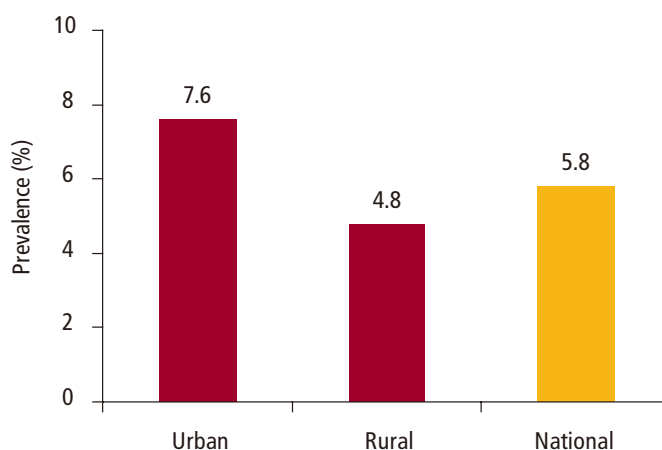
Age at first sex: In the 1998 DHS, median age at first sex was 16.5 years for young women and 17.1 years for young men.

Premarital sex: The 1998 BSS also showed that there were significant proportions of single men and women who were engaging in premarital sex; 55% of the men and 53% of the women aged 15–19 years reported being sexually active in the last year.

Condom use: Condom use at last sex in premarital sex in the 1998 BSS was 17% for young women and 19% for young men.

Figure 5

Median HIV prevalence among women aged 15–24 years attending antenatal care clinics, by location, Côte d'Ivoire, 2002



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence among pregnant women attending antenatal care clinics in Côte d'Ivoire is relatively high compared to the rates in most western African countries. The prevalence among young women aged 15–24 years attending antenatal care clinics is 5.8%, suggesting that there is a moderately high incidence of HIV infection among young people in this country.
- There are significant proportions of both adults and young people engaging in high-risk sexual behaviours. Yet condom use in higher-risk sex is relatively low among the general population and young people, although in groups at higher risk of HIV infection, such as truck drivers, sex workers and migrants, use of condoms in higher-risk sex was higher than in the general population.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be sustained and complemented with periodic special studies among selected groups.

- **Other STIs:** Data on the prevalence of syphilis among women attending antenatal care clinics should be compiled and analysed, and this should be complemented with the setting up of a few sites for regular monitoring of other STIs.
- **Sexual behaviour:** The DHS surveys should continue to form the basis for assessment of trends in the general population and should be complemented with regular surveys among groups at higher risk of infection and young people, at least every two years.

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GAMBIA

Total population (2002)	1,388,000
Young people aged 15–24 years	259,000
Adults aged 15–49 years	656,000
Population in capital city (Banjul) (2001)	31.3%
Population, rural (2001)	68.7%
Pregnant women using antenatal care	not available

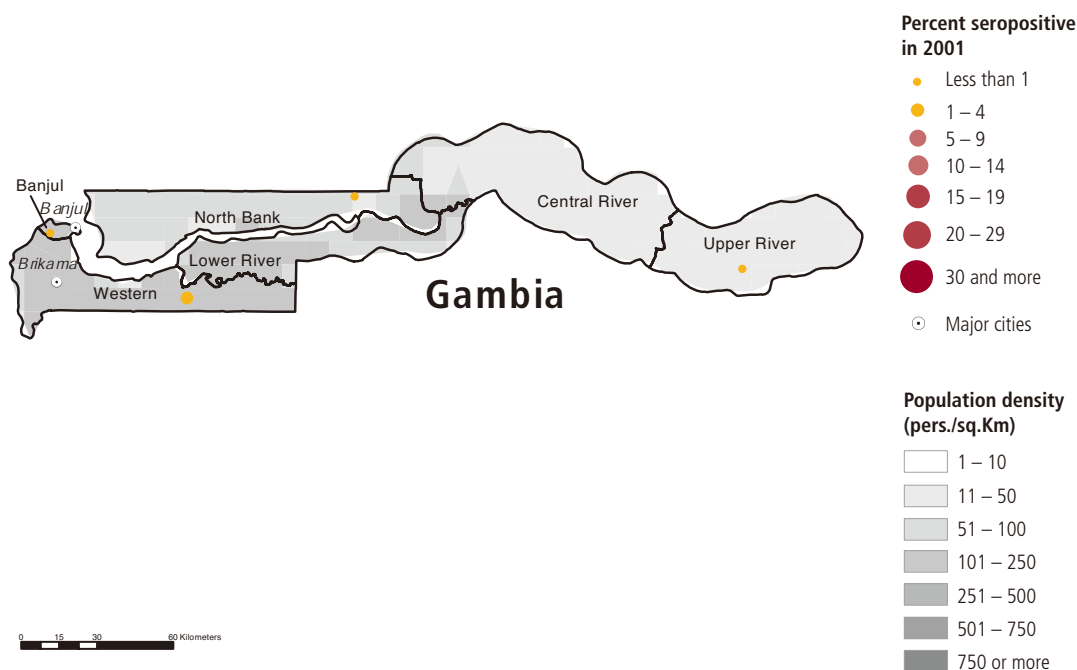
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: In 2000/2001, sentinel surveillance among women attending antenatal care clinics was established at four health facilities previously used in a special HIV prevalence study of women attending antenatal care clinics, conducted in 1990/1991 and 1993–1995.

Other STIs: No STI surveillance has been established but some information has been reported in special studies.

Figure 1

Sentinel surveillance in pregnant women, 2001



HIV

In 2000/2001, HIV prevalence at four antenatal clinic sites ranged from 0.5% in Farafenni to 3.0% in Sibanor (both sites are in rural areas) (Figure 2). The median HIV prevalence among women attending antenatal care clinics increased from 0.7% in 1993/1995 to 1.3% in 2000/2001 (Figure 3).

Figure 2

Median HIV-1 prevalence among women attending antenatal care clinics, by location, Gambia, 2000/01

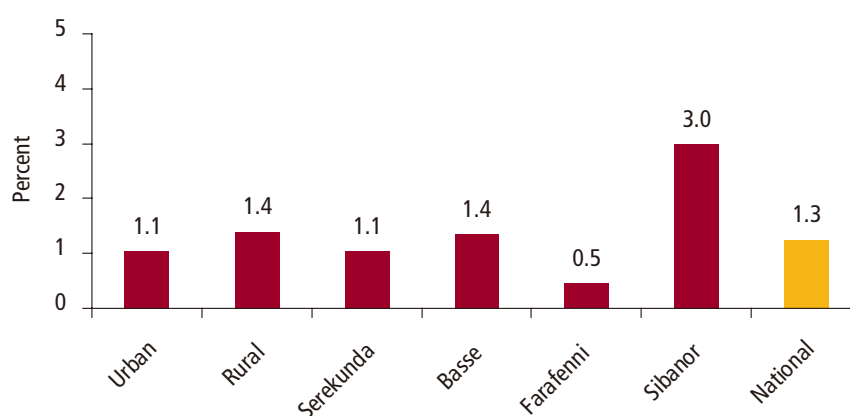
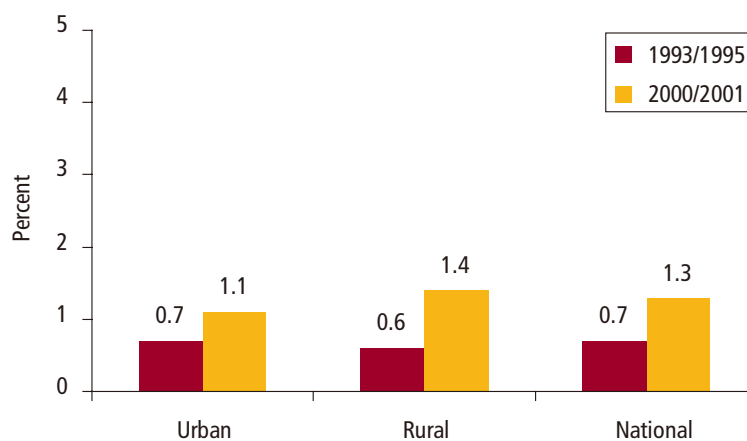


Figure 3

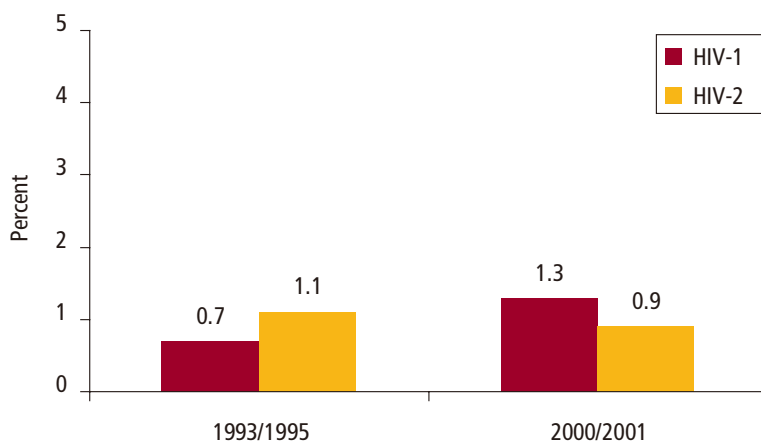
Trend in median HIV-1 prevalence among women attending antenatal care clinics at the same four antenatal clinics, Gambia, 1993/95-2000/01



Both HIV-1 and HIV-2 exist in this country, with HIV-1 being the predominant type (a reversal of the situation in 1993/1995). Overall HIV-2 prevalence among women attending antenatal care clinics declined slightly from 1.1% in 1993-1995 to 0.9% in 2000/2001 (Figure 4).

Figure 4

Trend in prevalence of HIV-1 and HIV-2, Gambia, 1993/95-2000/01



OTHER STIs

A population-based study conducted in 1999 found HSV-2 prevalence of 16% among never-married women, and a prevalence of 36% among ever-married women. A study conducted in the Western Division of the Gambia in 1998 found a syphilis seroprevalence rate of 1% among men and 7% among women. This study also found prevalence rates of HSV-2 of 28% among women and 5% among men. The same study found that 0.8% of women and 0.2% of men were infected with chlamydia.

CONCLUSIONS AND RECOMMENDATIONS

- During a period of about seven years, the prevalence of HIV-1 has almost doubled among women attending antenatal care clinics in the Gambia, while the prevalence of HIV-2, the less pathogenic virus declined slightly.
- The prevalence rates of HSV-2 and syphilis as reported in recent studies are a cause for concern.
- No information is available on sexual behaviour.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be strengthened, with surveys conducted at least every two years. Regular surveys should also be conducted among groups at a higher risk of HIV infection, to complement antenatal clinic-based sentinel surveillance data.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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GHANA

Total population (2002)	20,471,000
Young people aged 15–24 years	4,434,000
Adults aged 15–49 years	10,117,000
Population in capital city (Accra) (2000)	9.7%
Population, other urban (2000)	26.7%
Population, rural (2000)	63.6%
Pregnant women using antenatal care (1998)	87.5%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

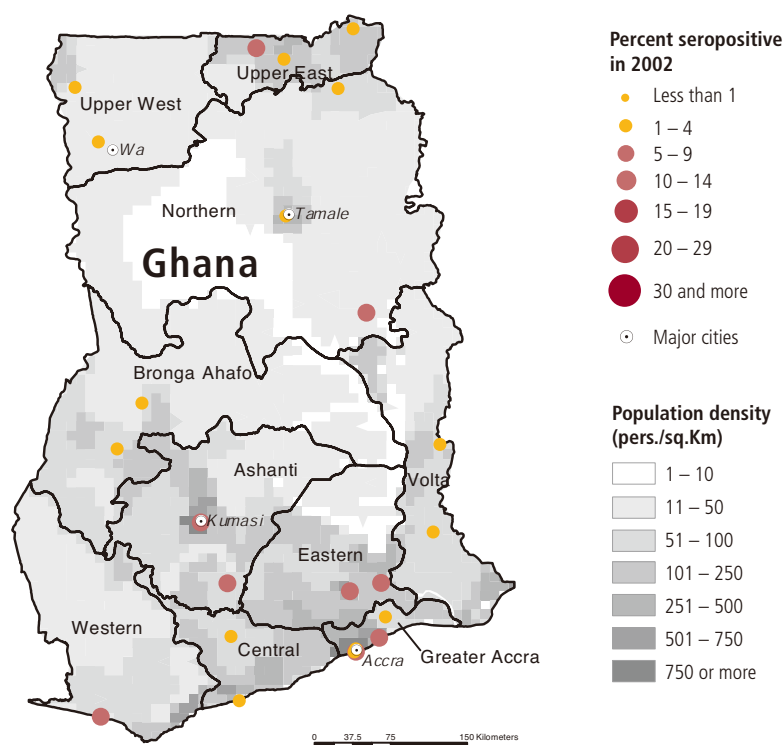
HIV: In 2002, sentinel surveillance among women attending antenatal care clinics was conducted at 24 sites. At least 500 women were enrolled from each of these sites. Since 1994, the surveillance system has included two antenatal care clinic sites in all ten regions of the country. Of the surveillance sites in each region, one site is in an urban area, the other is in a semi urban area (usually a district hospital). Sentinel surveillance among women attending antenatal care clinics has been conducted regularly, on an annual basis. Special studies of sex workers in Accra, Tema and Kumasi and of STI patients in Accra and Kumasi were conducted in 1998 and 1999.

Other STIs: Testing for syphilis among women attending antenatal care clinics has been an integral part of HIV sentinel surveillance since 1999, with all antenatal care clinic sites reporting the results. Information on STIs is also available from a special study of blood donors, conducted in 1999.

Sexual behaviour: The main sources of data on behaviour are the 1998 and 1993 DHS. A system of BSS was initiated in 2000 among four groups at increased risk of HIV infection, including young people, and was repeated in 2002.

Figure 1

Sentinel surveillance in pregnant women, 2002

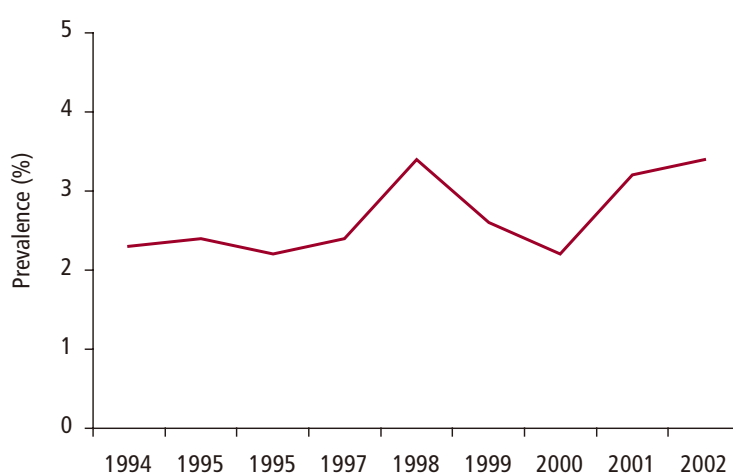


HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 24 sites was 3.4%. HIV prevalence was only slightly higher in the four sites in Accra (4.1%) than in the ten regional towns (3.4%) and the sites outside the regional towns (3.2%). HIV-1 is the predominant infecting agent (92.2% of cases), while 7.4% of cases are dual infections with HIV-1 and HIV-2, and only 0.5% of all infections in 2002 were with HIV-2 alone. The trend in HIV prevalence from 1994 to 2002 among all antenatal care clinic sites in Ghana shows that prevalence fluctuates between 2% and 3.5% with no clear pattern (Figure 2).

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics, Ghana, 1994–2002



The highest HIV prevalence in Ghana was recorded in Agomanya and Atua in the Eastern Region in the late 1990s (14.9%). This has been attributed to economically-driven migration to, especially, Côte d'Ivoire following the building of the Akosombo dam. HIV prevalence recorded at Agomanya antenatal care clinic has since dropped to 7.0% in 2002, although it is still higher than at most sites elsewhere in Ghana. HIV prevalence is lowest in the three regions in the northern part of Ghana, followed by the central and southern regions. The difference in HIV prevalence between the central and southern regions is small.

In 1999, a survey of sex workers in Tema and Accra found a HIV prevalence of 74.2% among the "seater" street-based sex workers, and 27.2% among the home-based "roamer" sex workers, findings similar to those observed in 1997/98. In Kumasi, prevalence among sex workers was very high (82%) in 1999.

OTHER STIs

In 2002, the median prevalence of syphilis among women attending antenatal care clinics at all antenatal sites was 0.5% in 2002, compared with 0.2% in 1999, 0.7% in 2000 and 0.2% in 2001. A study conducted by the National Blood Transfusion Service in 1999 showed that 3.5% of blood donors, almost all of whom were replacement donors (family members of the blood recipient), tested positive for syphilis, indicating past or present infection.

SEXUAL BEHAVIOUR

According to the DHS of 1999, 37% of the men aged 15–49 years who had ever had sex reported having more than one sexual partner in the last year, with 13% saying that they had had more than two partners. In the 1998 DHS, 25% of the married or cohabiting men reported having had an extra-marital or non-cohabiting partner in the last year. In the 2000 BSS, 25% of male policemen in Accra and 29% of male miners in Obuasi reported having had sex with non-regular partners in the past year. Three percent of policemen and 7% of the miners reported having sex with a sex worker in the last year.

The Ghana DHS does not provide data on condom use with high-risk partners, but in 1998, 15% of men and 68% of women reported using a condom during last sex. High levels of condom use during sex with non-regular partners were reported by policemen and male miners. In Obuasi, 51% of miners and in Accra, 61% of policemen who reported a non-regular partner in the last year had used a condom at last sex with a non-regular sexual partner.

Among sex workers, 95% in Accra and 73% in Obuasi reported the use of a condom at last sex with a paying client. The proportion of sex workers who reported the use of condoms during every sex act with clients was 88% and 44% in Accra and Obuasi respectively.

YOUNG PEOPLE

HIV: Apart from a dip in 1999, the trend in HIV prevalence among pregnant women aged 15–24 years shows little change, with prevalence remaining at about 3% (Figure 3). In 2002, the median HIV prevalence among young pregnant women in Accra was 4.1%, while in other urban areas it was 3.4% and outside major urban clinics it was 3.2%. For all 24 sites combined, the median was 3.4%.

Age at first sex: According to the 1998 DHS, the median age at first sex was 18.3 years for young women and 20.5 years for young men. In 1993, median age at first sex was reported to be 17.0 years for women and 18.6 years for men.

Premarital sex: The median age at first marriage in 1998 among young women aged 15–24 years was 20 years, while less than half of men were still unmarried by the age of 25 years. Premarital sex is more common among men than women, and a substantial decline occurred in the 1990s (Figure 4).

Condom use: According to the 1998 DHS, 22% of young women and 40% of young men who reported having premarital sex in the last year said that they had used a condom at last premarital sex.

Figure 3

Trend in median HIV prevalence among women aged 15–24 years attending antenatal care clinics, Ghana, 1994–2002

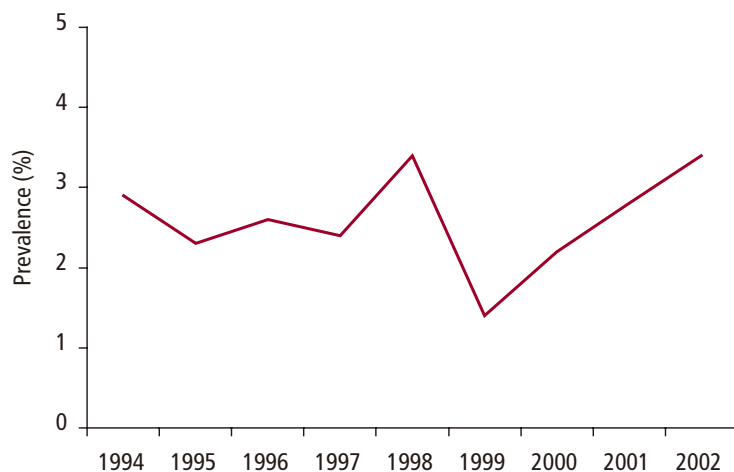
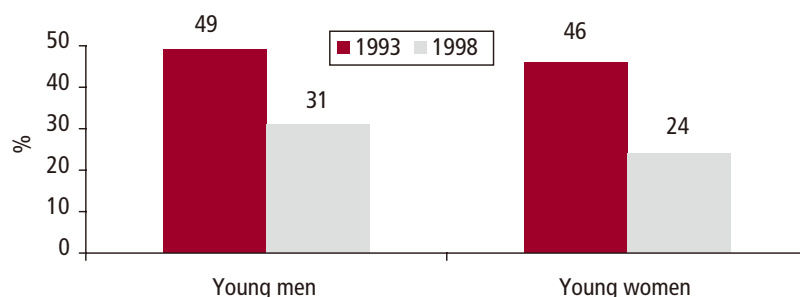


Figure 4

Young people aged 15–24 years reporting premarital sex in the last year, Ghana, 1993 and 1998



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence among women attending antenatal care clinics in Ghana has remained fairly constant, between 3% and 4%, for the last five years. Using the three strata — capital city, major urban, and outside major urban areas — the weighted median prevalence for all pregnant women in 1998 is 3.3%. Nationally, HIV prevalence is likely to be somewhat lower as rural populations are underrepresented in the surveillance system. Notable is the lack of difference between Accra and other urban areas, but a few studies in sex workers have found very high prevalence.
- The main changes observed in sexual behaviour are an increase in age at first sex, a reduction in the prevalence of premarital sex and an increase in condom use, although overall condom use remains low, except in commercial sex.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Antenatal care clinic-based surveillance is operating well and needs to be continued. Inclusion of a number of truly rural sites should be considered.
 - **Other STIs:** Surveillance of syphilis among women attending antenatal care clinics needs to be continued and complemented with regular surveillance at a few selected sites in urban areas.
 - **Sexual behaviour:** The use of DHS surveys to monitor trends in sexual behaviour in the general population and in young people needs to continue and to be complemented with regular surveys carried out in populations at a higher risk of HIV infection, as has already been initiated.

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GUINEA

Total population (2002)	8,359,000
Young people aged 15–24 years	1,682,000
Adults aged 15–49 years	3,884,000
Population in capital city (Conakry) (2001)	15.4%
Population, other urban (2001)	12.6%
Population, rural (2001)	72.0%
Pregnant women using antenatal care (1999)	70.7%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Sentinel surveillance among women attending antenatal care clinics is underdeveloped. However, in 2001, a national sero-behavioural survey was conducted, which included women attending antenatal care clinics in all the regions as one of the study populations. There were other earlier studies conducted in 1996 among women attending antenatal care clinics at six sites in the country. The 2001 national survey also included the following study populations: sex workers, truck drivers, military personnel, young people, tuberculosis patients and miners.

Other STIs: The 2001 national survey also generated information on the prevalence of STIs.

Sexual behaviour: The main sources of data are the 2001 national survey and a DHS conducted in 1999.

Figure 1

Sentinel surveillance in pregnant women, 2001

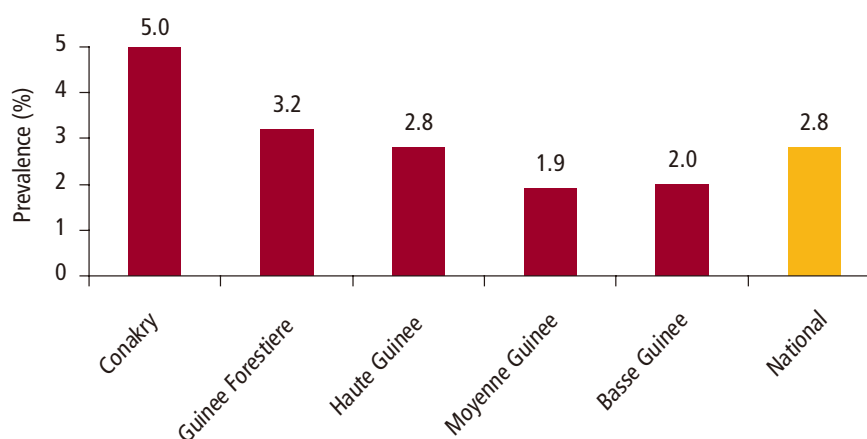


HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics was 2.8%, with a range of 1.9% in the Middle Guinea region to 5.0% in Conakry (Figure 2). HIV prevalence among women attending antenatal care clinics in Conakry was 1.5% in 1996. According to the 2001 survey, HIV prevalence was slightly higher (median prevalence of 3.2%) in more urban regions than in rural regions (median prevalence of 2.6%). This survey also showed that both HIV-1 and HIV-2 exist in Guinea, with HIV-1 being the predominant infecting agent. Of the pregnant women who were HIV-positive, 9% were infected with HIV-2. Of the miners and students who were HIV-positive, 12% were infected with HIV-2.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Guinea, 2001



According to the 2001 national sero-behavioural survey, HIV prevalence rates were 42.0% among sex workers, 6.6% among military personnel, 7.3% among truck drivers, 4.7% among miners and 16.7% among tuberculosis patients.

OTHER STIs

Based on the 2001 national survey, the seroprevalence of syphilis among women attending antenatal care clinics was 5.7%. The differences in syphilis prevalence rates between the regions were not significant.

SEXUAL BEHAVIOUR

In the 1999 DHS, 13% of women and 51% of men reported having had sex with a non-marital non-cohabiting partner in the last year, and 4% of the men said that they had had sex with a sex worker in the last year.

According to the 1999 DHS, 17% of the women and 33% of the men who said that they had had sex with a non-marital non-cohabiting partner in the last year used a condom at the last sex with a non-marital non-cohabiting partner. According to the 2001 survey, 7% of women attending antenatal care clinics reported having a non-marital non-cohabiting partner. Nineteen percent of these women reported using a condom with their non-regular partners. The same survey found that 60% of the truck drivers, 42% of the military, 73% of the tuberculosis patients and 35% of the miners who had had sex with a non-regular partner did not use condoms at last sex with these partners. Twenty-eight percent of sex workers reported not using a condom at last sex with a client.

YOUNG PEOPLE

HIV: According to the 2001 national survey, HIV prevalence among young people aged 15–24 years was 2.7%, with no significant difference between men (2.4%) and women (2.7%) (Figure 3).

Sexual behaviour

Age at first sex: In the 1999 DHS, the median age at first sex for young women was 16.7 years and 17.4 years for young men, whereas in the 2001 national survey it was 15 years and 16 years for females and males respectively.

Premarital sex: According to the 1999 DHS, 52% of young men and 27% of young women aged 15–24 years reported having had premarital sex in the last year (Figure 4).

Condom use: In the 1999 DHS, 20% of the young women and 33% of the young men who reported having had premarital sex in the last year used a condom at last premarital sex.

Figure 3

Median HIV prevalence among young people aged 15-24 years, by location, Guinea, 2001

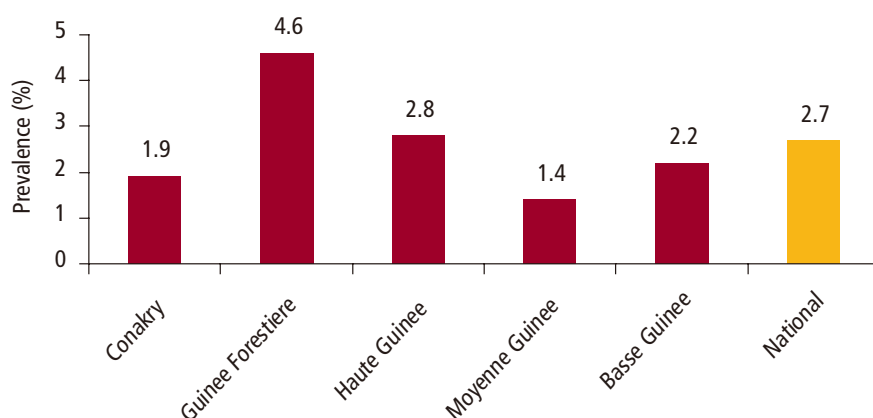
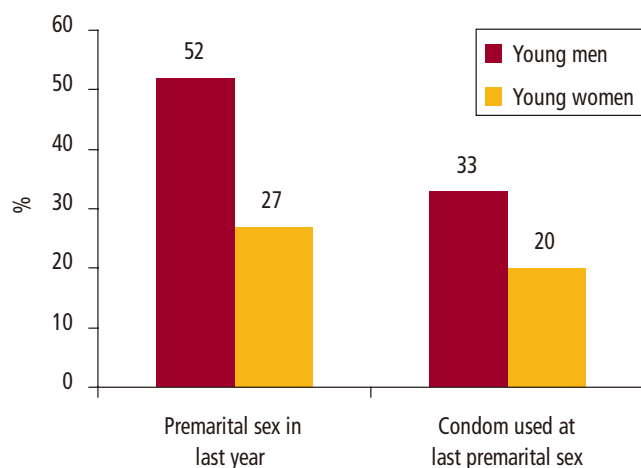


Figure 4

Young people aged 15-24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Guinea, 1999



CONCLUSIONS AND RECOMMENDATIONS

- Guinea has a generalized HIV/AIDS epidemic, with HIV prevalence of 2.8% among women attending antenatal care clinics.
- High-risk behaviours are prevalent among both young people and adults in this country and yet reported use of condoms is low.
- To strengthen HIV surveillance, it can be recommended that:
 - **HIV:** Periodic antenatal care clinic-based surveillance at the same sites used in the 2001 sero-behavioural survey is encouraged. Special studies among STI patients and other groups at increased risk of HIV infection, such as sex workers, should also be conducted regularly to complement antenatal care clinic-based data.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The system that has been initiated to monitor sexual behaviours using DHS and surveys in groups at increased risk to HIV infection should continue and be reinforced.

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GUINEA-BISSAU

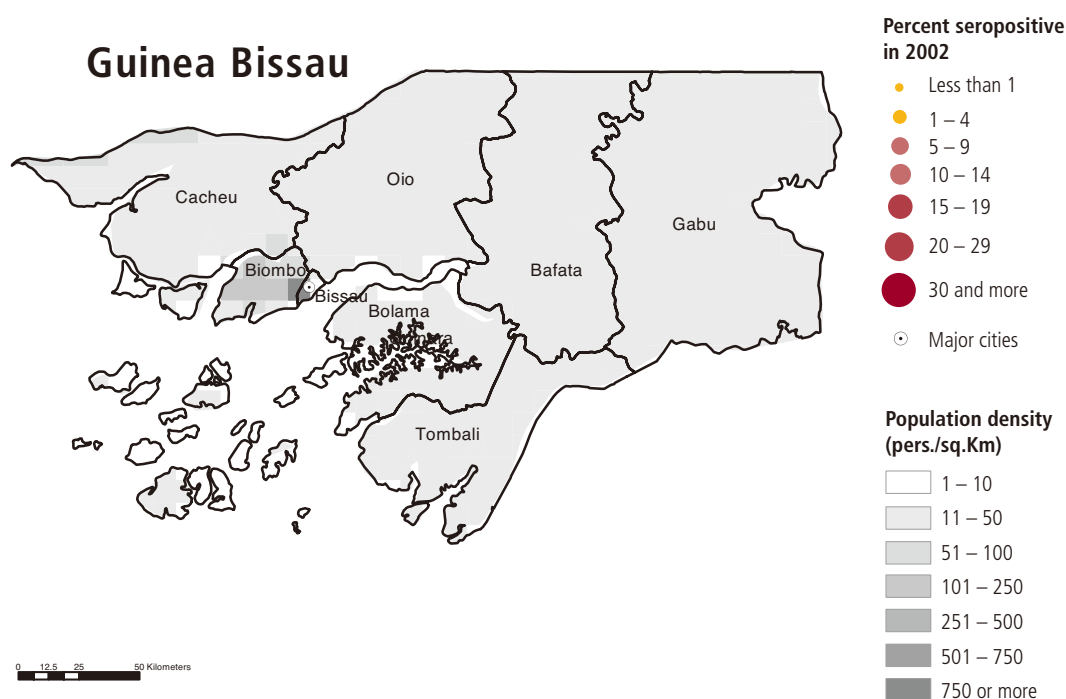
Total population (2002)	1,449,000
Young people aged 15–24 years	271,000
Adults aged 15–49 years	627,000
Population in capital city (Bissau) (2001)	23.7%
Population, other urban (2001)	8.7%
Population, rural (2001)	67.6%
Pregnant women using antenatal care (2000)	62.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: There has been no HIV sentinel surveillance among women attending antenatal care clinics since 1996. Some data are available from special studies.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

No recent information exists on HIV prevalence among women attending antenatal care clinics in the country, but in 1995, HIV prevalence among women attending antenatal care clinics was reported to be 2.7%. In 1996, HIV prevalence among blood donors was 9.8%.

In a study comparing the prevalence of HIV in Bandim and Belem, two communities outside Bissau, the prevalence of HIV-2 was 5.9%, prevalence of HIV-1 was 1.3%, and prevalence of HIV-1/2 was 0.9% in 1996. Prevalence of HIV-2 was found to be lower in men (4.7%) than in women (8.4%). This study found an overall decrease in the prevalence of HIV-2 from 7.4% reported in 1987.

CONCLUSIONS AND RECOMMENDATIONS

- No recent information exists on prevalence of HIV, STIs or sexual behaviours in the country.
- Data available from 1987–1996 suggest that there was a generalized HIV/AIDS epidemic in Guinea Bissau in 1996.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Sentinel surveillance among women attending antenatal care clinics should be established with surveys conducted regularly and periodic studies of prevalence should be conducted among populations at higher risk of HIV infection.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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LIBERIA

Total population (2002)	3,239,000
Young people aged 15–24 years	654,000
Adults aged 15–49 years	1,468,000
Population in capital city (Monrovia) (2001)	15.8%
Population, other urban (2001)	29.7%
Population, rural (2001)	54.5%
Pregnant women using antenatal care (1986)	82.9%

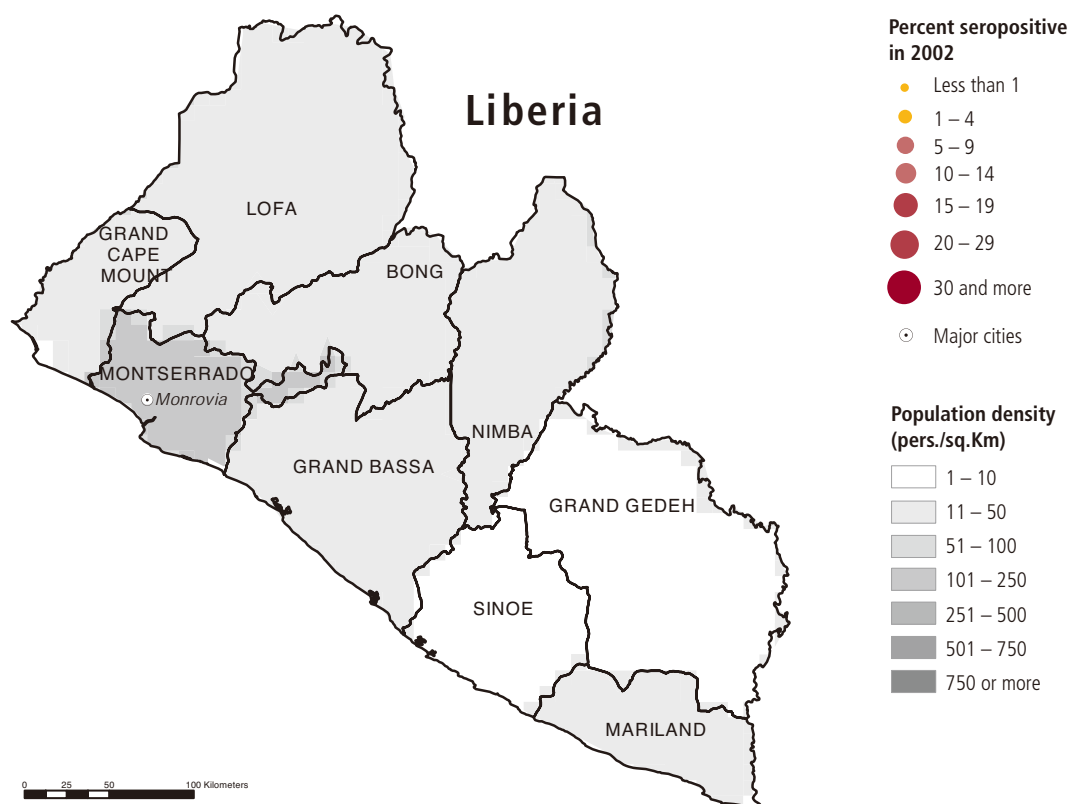
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: No HIV sentinel surveillance system has yet been established in Liberia. Information on HIV prevalence exists for pregnant women attending antenatal care clinics for the years 1993/1995, 1998, 1999 and 2002 from serosurveys by health facilities. Data are available from screening of blood donors in 2002. A baseline tuberculosis and HIV co-infection survey was conducted among tuberculosis patients in five counties of the country in 1998.

Sexual behaviour: A KABP survey was conducted among school children in 2001.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2002, prevalence of HIV among women attending antenatal care clinics was 4.3% for the whole country. In 1999, HIV prevalence among women attending antenatal care clinics surveyed across the whole country was 12.7%, while the rate in 1998 among women attending an unspecified antenatal care site was 10%. The civil war in Liberia has spurred large population migrations at various points in time. It is therefore not possible to adequately interpret the results of changes in prevalence among women attending antenatal care clinics over time.

In 2002, HIV prevalence among blood donors was 5%. In 1998, HIV prevalence among the tuberculosis patients surveyed was 12.2%.

YOUNG PEOPLE

HIV: In 2002, the HIV prevalence rate among blood donors aged 15–19 years was 2.3% among young men and 1.7% among young women.

Sexual behaviour

Premarital sex: The 2001 survey in schools showed that 70% of school children were already sexually active.

Condom use: Condom use among young people engaging in higher-risk sex was low. The survey in schools in 2001 showed that only 23% of school children who reported having multiple sexual partners were using condoms at all times.

CONCLUSIONS AND RECOMMENDATIONS

- Owing to the civil war in Liberia over the last 15 years, only limited information is available to assess trends in the prevalence of HIV, other STIs or behaviour among the general population or among populations at increased risk of HIV infection in Liberia.
- To strengthen the surveillance system, it can be recommended that:
 - **HIV:** Methodology used to collect surveillance data among women attending antenatal care clinics should be standardized and the recommended guidelines on sentinel surveillance among women attending antenatal care clinics should be followed.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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MALI

Total population (2002)	12,623,000
Young people aged 15–24 years	2,571,000
Adults aged 15–49 years	5,443,000
Population in capital city (Addis Ababa) (2001)	10%
Population, other urban (2001)	21.0%
Population, rural (2001)	69.0%
Pregnant women using antenatal care (1995)	46.9%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

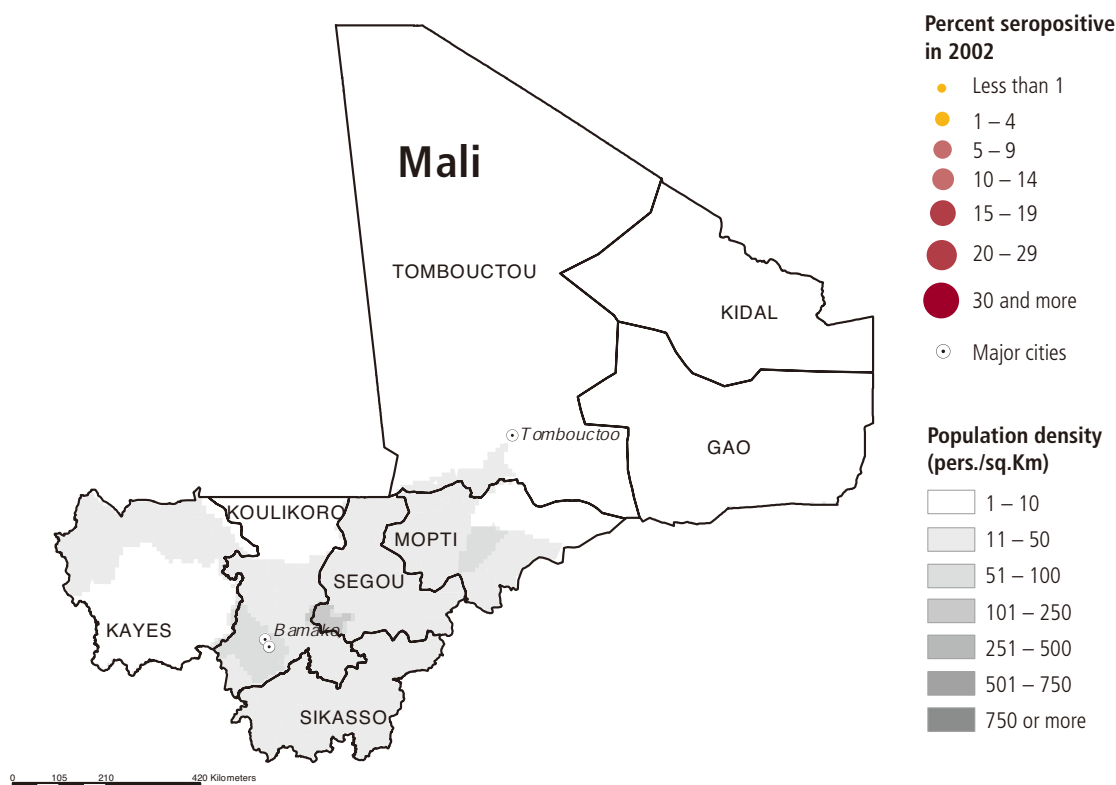
HIV: Antenatal care clinic sentinel surveillance was re-established in the country in 2002 and included nine sites, of which seven sites were urban and two were rural. A minimum of 300 pregnant women were enrolled from most of the sites. This was the first antenatal care clinic-based survey conducted in the country since 1998. The DHS conducted in 2001 included testing for HIV in the general population of people aged 15–49 years. The 2001 DHS also assessed HIV prevalence among sex workers, truck drivers, hawkers and touts (ticket resellers).

Other STIs: Testing for syphilis among women attending antenatal care clinics was implemented as an integral part of the sentinel surveillance system in 2002.

Sexual behaviour: The main sources of information on sexual behaviours are the 2001 DHS and the BSS conducted among groups at higher risk of HIV infection in the same year.

Figure 1

Sentinel surveillance in pregnant women, 2002

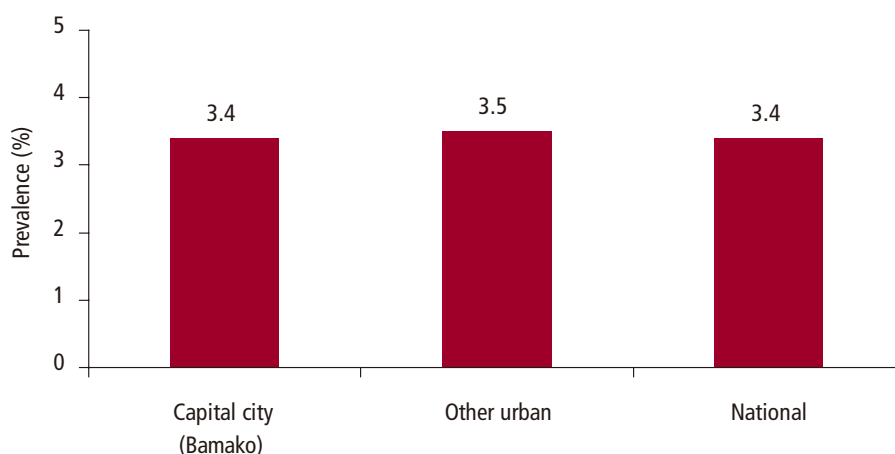


HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at nine sites was 3.4% ranging from 2.3% to 5.0% (Figure 2).

Figure 2

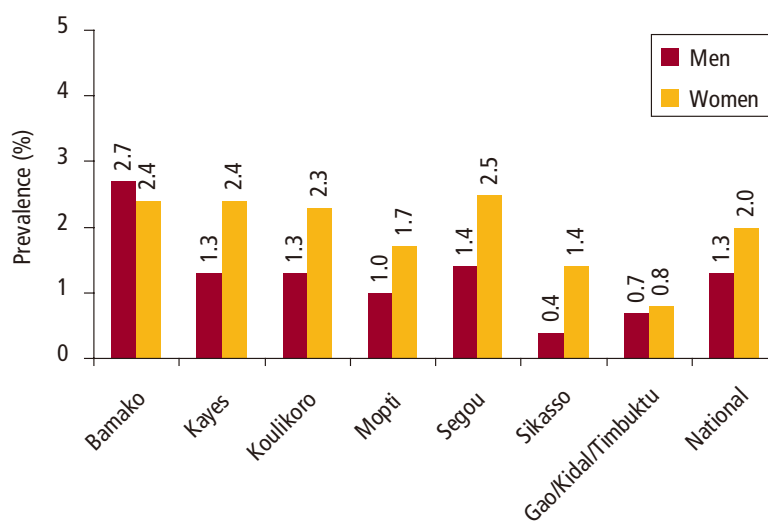
Median HIV prevalence among women attending antenatal care clinics, by location, Mali, 2002



According to the 2001 DHS, HIV prevalence among the general population was 1.7%. There were regional variations, with the highest prevalence rate being reported in Bamako and the lowest in the Gao/Kidal/Timbuktu region (Figure 3). The urban residents had higher rates of HIV infection than did the residents of rural areas (2.2% versus 1.5%). Also, women were more likely to be infected with HIV than men (2.0% versus 1.3%). Peak HIV infection occurred at age 30–34 years for both women (3.3%) and men (3.8%).

Figure 3

HIV prevalence in the general population aged 15-49 years, by region, Mali, 2001



In the 2001 DHS, the median HIV prevalence among sex workers was 24.2%, with a range of 18.6% in Kaye to 49.0% in Segou. The median HIV prevalence among truck drivers was 4.0%, with a range of 1.3% in Mopti to 6.7% in Sikasso. The median HIV prevalence among hawkers was 10.0%, with a range of 5.5% in Sikasso to 17.4% in Gao. The median HIV prevalence among ticket resellers was 7%, with no significant differences between the three areas surveyed.

OTHER STIs

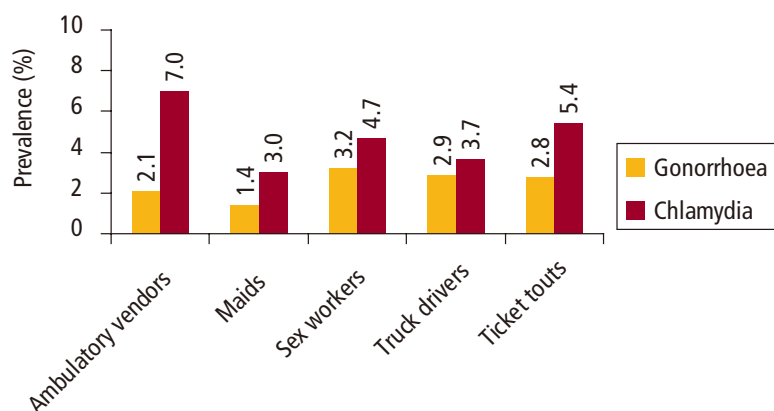
In 2002, the median seroprevalence of syphilis among women attending antenatal care clinics was 2.0%, with a range of 1.0% in Segou to 13.4% in Douentza. Higher median prevalence rates were found at the two rural sites (7.5%) than in Bamako (1.7%), or in the other urban areas (2.4%).

In 1997, a cross-sectional study reported that the seroprevalence of syphilis among women attending antenatal care clinics in Bamako was 2%, and that the prevalence of gonorrhoea, chlamydia and trichomoniasis was 1%, 5% and 22% respectively. The same study also reported the prevalence of syphilis, gonorrhoea, chlamydial infection and trichomoniasis among female sex workers in Bamako to be 7%, 4%, 4% and 33%, respectively.

According to a study conducted in 2000, among populations at increased risk for HIV infection, prevalence of gonorrhoea and chlamydial infection varied moderately across risk groups (Figure 4).

Figure 4

Prevalence of gonorrhoea and chlamydia, by group, Mali, 2000



SEXUAL BEHAVIOUR

Two percent of women and 10% of men reported having had sex with a non-marital non-cohabiting partner in the last year. Of these, 14% of women and 33% of men reported using a condom at last sex with a non-marital non-cohabiting partner.

In 2001, 96% of the surveyed sex workers reported using condoms with regular and new clients, but 58% of them said that they were using condoms with regular sexual partners ("boyfriends").

Twenty percent of the surveyed long-distance truck drivers had never tried using a condom. Twenty percent reported having had sex with more than one partner during the last thirty days. Almost half reported having a girlfriend with whom they had sexual relations. However, only 30% reported using a condom during last sex with a casual partner. Fourteen percent of the truck drivers reported having had sex with a sex worker during the last six months, with 85% of those who reported having sex with a sex worker using a condom at last sex with a sex worker.

Thirty percent of ticket resellers had never used a condom. Twenty percent reported having had more than one sexual partner during the last thirty days. Of the ticket resellers who reported having had non-regular sexual relationships, 43% reported having a girlfriend and 31% using a condom during last sex with this type of partner. Fourteen percent of the ticket sellers reported having had sex with a sex worker in the last six months, and 79% reported using a condom during the last sex with a sex worker. Among the 25% of ticket resellers reporting having had sex with a casual partner during the last year, 51% used a condom during the last encounter.

Only 22% of the hawkers or ambulatory vendors reported using condoms with occasional partners (“boyfriends”) among the 36% who reported having boyfriends. A small number, 9%, reported having had an occasional partner during the past six months, and 31% used a condom during last sex with this partner.

Among the surveyed housemaids, 14% had a boyfriend and none used a condom during their last sexual encounter with a boyfriend. Only 8% of the housemaids reported having had sex with a casual partner in the last six months.

YOUNG PEOPLE

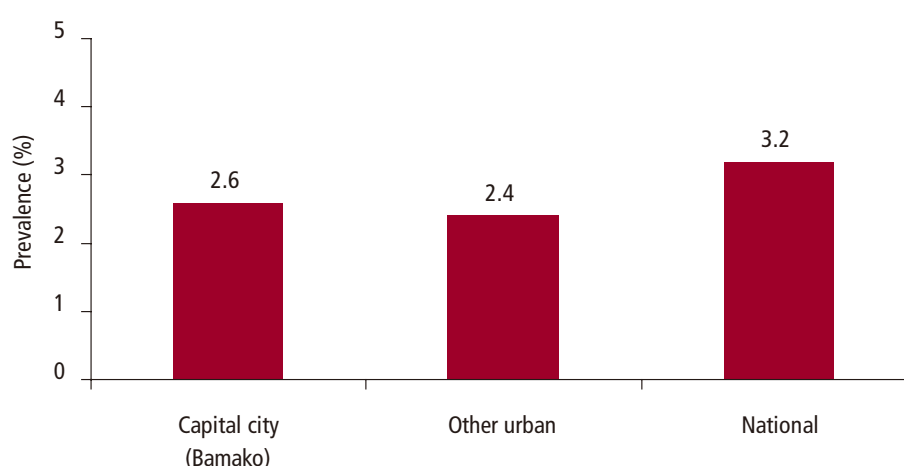
HIV: In 2002, the median HIV prevalence among young women aged 15–24 years attending antenatal care clinics in 9 clinics was 3.2% (Figure 5), with the rate being lowest among women attending antenatal care clinics in Sikasso (0.9%) and highest among those attending antenatal care clinics in Hôpital Ségou and Bla (4.5%). In the 2001 DHS, young women in the general population were more likely to be infected with HIV than men of the same age.

Sexual behaviour

Premarital sex: According to the 2001 DHS, 30% of young women and 37% of young men reported having had premarital sex in the last year.

Figure 5

Median HIV prevalence among women aged 15-24 years attending antenatal care clinics, by location, Mali, 2002



CONCLUSIONS AND RECOMMENDATIONS

- Mali has a generalized HIV/AIDS epidemic, with a relatively low HIV prevalence among the general population. HIV prevalence among the general population was lower than that among women attending antenatal care clinics, which may be due to better representation of rural populations. HIV prevalence rates in groups at higher risk of HIV infection in this country are relatively high.
- Available data show that prevalence rates for STIs vary in the country. While the prevalence of syphilis and of gonorrhoea is somewhat low, rates of chlamydial infections and of trichomoniasis are relatively high. The high prevalence of syphilis at Douentza appears as an outlier; further investigations are needed.
- The prevalence of high-risk sexual behaviours among the general population appears to be relatively low in Mali, both among adults and young people.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The efforts that have been made to re-establish antenatal care clinic sentinel surveillance should be sustained and sentinel surveys should be conducted regularly. Inclusion of HIV testing in the DHS is valuable and should be encouraged in subsequent surveys.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The use of DHS to monitor sexual behaviours among young people and the general population should continue and be reinforced. The DHS should be complemented with regular surveys among groups at a higher risk of infection with HIV.

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MAURITANIA

Total population (2002)	2,807,000
Young people aged 15–24 years	545,000
Adults aged 15–49 years	1,300,000
Population in capital city (Nouakchott) (2001)	22.8%
Population, other urban (2001)	36.3%
Population, rural (2001)	40.9%
Pregnant women using antenatal care (1990)	48.0%

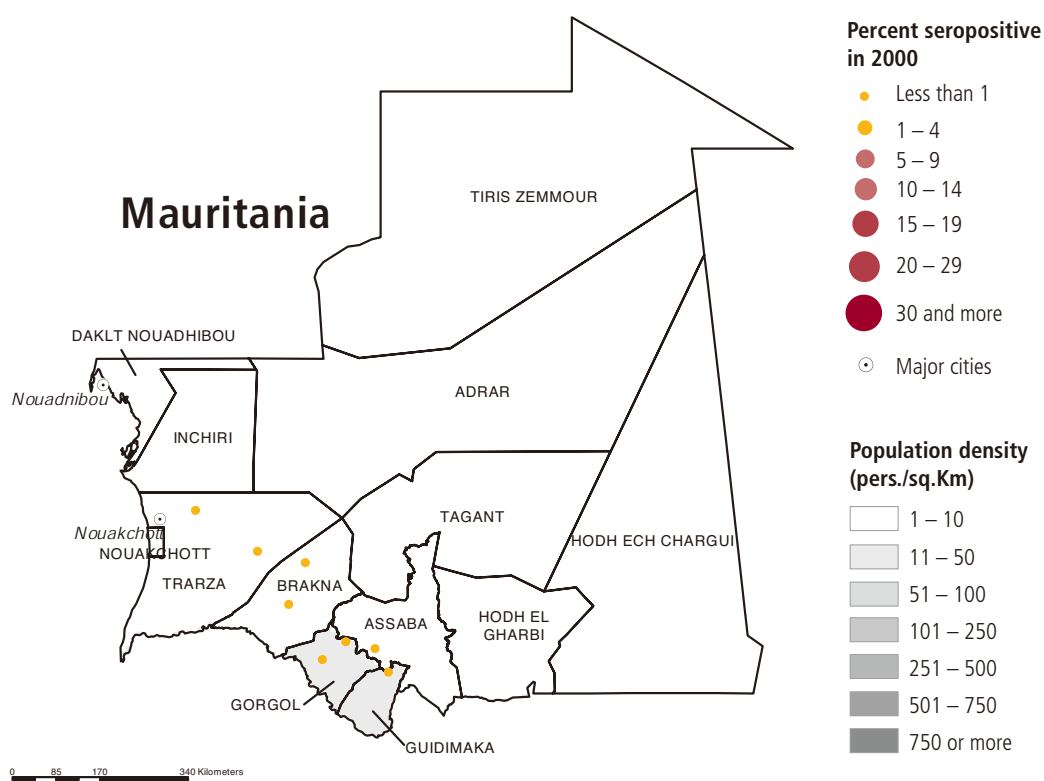
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: Sentinel surveillance has not yet been established in this country. In 2000, a study of HIV prevalence was conducted among women attending antenatal care clinics at 13 sites in the country. Data are available on HIV prevalence among blood donors. In 1997, a special study was conducted among patients with tuberculosis.

Other STIs: Reporting of STIs is based on syndromes and is integrated into the health management information system.

Figure 1

Sentinel surveillance in pregnant women, 2000

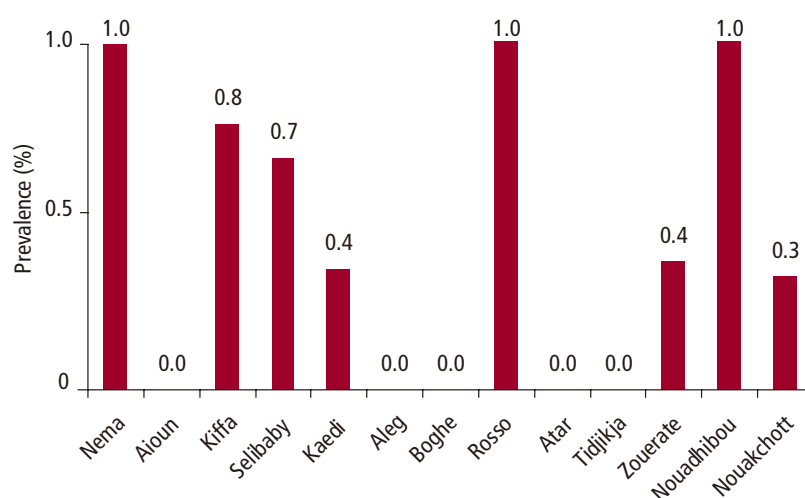


HIV

In 2000, the median HIV prevalence among women attending antenatal care clinics at 13 sites was 0.4%. HIV prevalence among women attending antenatal care clinics and tested in Nouakchott was 0.3%, while median HIV prevalence among women attending antenatal care clinics at 12 sites outside Nouakchott was 0.4%, with a range of 0.0% to 1.0% (Figure 2). There was no evidence of HIV infection detected in women attending antenatal care clinics at five sites used in the 2000 survey. HIV prevalence among blood donors was 0.6% in 1995 and 0.8% in 2000. In 1997, HIV prevalence among patients with tuberculosis who were tested for HIV was 1.5%.

Figure 2

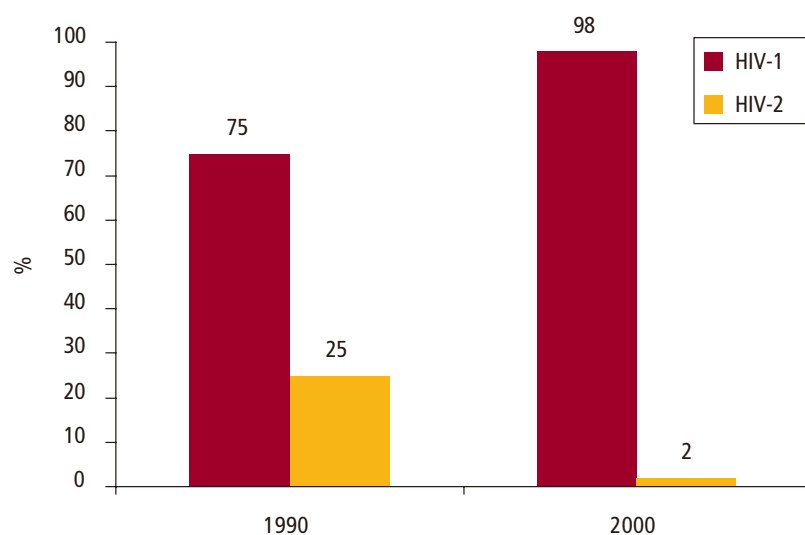
Median HIV prevalence among women attending antenatal care clinics, by site, Mauritania, 2001



Data from infected blood donors show an increase in the proportion of HIV-1 cases in the country (Figure 3). In 1990, the infecting agent was HIV-1 in 75% of cases in 1990 and 98% of cases in 2001.

Figure 3

Proportion of HIV-1 and HIV-2 types among infected blood donors, Mauritania, 2001



OTHER STIs

In 2001, 11,666 STI syndromes were officially reported, of which 22.8% were urethral discharges, 26.8% were pelvic inflammatory disease, 21.7% were genital ulcerations and 28.6% were vaginal discharges. Gonorrhoea was identified in over 50% of cases of male urethral discharge and in 3.8% of cases of vaginal discharge. The proportion of chlamydial infections identified in both sexes was low (6.4% in women and 8.7% in men).

CONCLUSIONS AND RECOMMENDATIONS

- Available data indicate that Mauritania has a low-level HIV/AIDS epidemic.
- The number of STI cases reported indicates that there is a high prevalence of STIs in this country. This should serve as a warning system and encourage the design and implementation of HIV/AIDS prevention projects.
- No information is available on sexual behaviours in Mauritania.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** A surveillance system should be established to monitor HIV trends among groups at a higher risk of HIV infection, such as sex workers, and this could be complemented with surveys carried out regularly among women attending antenatal care clinics, at least every two years.
 - **Other STIs:** The reporting of STI syndromes should be encouraged and complemented by periodic surveys of STI prevalence.
 - **Sexual behaviour:** A system to monitor sexual behaviours should be established. Use of DHS surveys is encouraged and these should be complemented by regular surveys of populations at increased risk of HIV infection.

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NIGER

Total population (2002)	11,544,000
Young people aged 15–24 years	2,236,000
Adults aged 15–49 years	4,950,000
Population in capital city (Niamey) (2001)	7.3%
Population, other urban (2001)	13.8%
Population, rural (2001)	78.9%
Pregnant women using antenatal care (2000)	41.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: The most recent sentinel surveillance round among women attending antenatal care clinics was conducted at six sites in 2000. Five of these sites were in urban areas and one was in a rural area. Four hundred pregnant women were enrolled from each of the sites. There has been inconsistency in the sentinel sites used and surveys have been conducted irregularly, with no surveys conducted in 2001 and 2002. In 2002, a nationwide population-based serosurvey was conducted among adults aged 15–49 years. In 2001, a special study was conducted among sex workers at three sites outside Niamey (Aguie, Firji, and Guidan Roumji). In 2000, a survey of HIV prevalence was conducted among sex workers in Dirkou, and a study of HIV prevalence was conducted among patients with tuberculosis in Tahou in 2001.

Other STIs: STI cases are reported based on syndromes and the reporting is integrated into the health management information system.

Figure 1

Sentinel surveillance in pregnant women, 2000

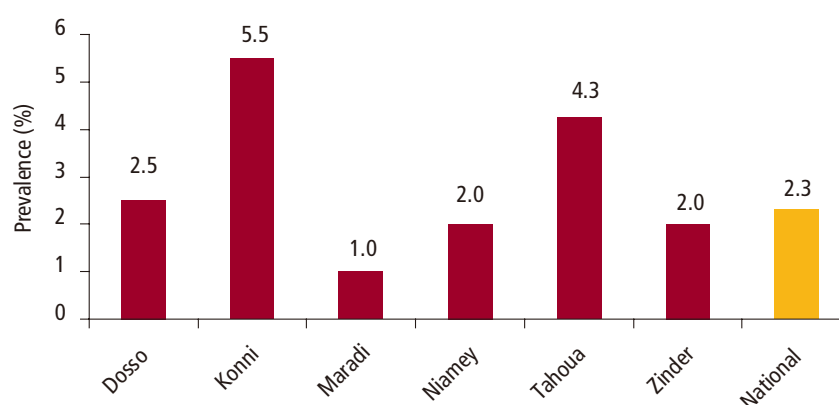


HIV

In 2000, the median HIV prevalence among women attending antenatal care clinics at six sites was 2.3% with a range of 1% to 5.5%. The median HIV prevalence among women attending antenatal care clinics at five urban sites was 2.0%, with a range of 1.0% in Maradi to 4.3% in Tahoua (Figure 2). Unexpectedly, the HIV prevalence rate was highest, 5.5%, in Konni, the only rural site that was used. In Niamey, HIV infection rates have been increasing gradually from 1.1% in 1992 to 1.8% in 1999, and then to 2.0% in 2000.

Figure 2

Median HIV prevalence among women attending antenatal care clinics, by location, Niger, 2000

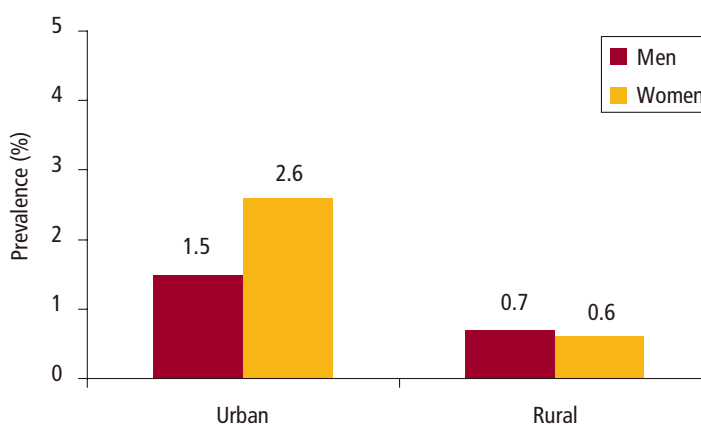


According to the 2002 national serosurvey, both HIV-1 and HIV-2 are found in Niger, with HIV-1 being predominant and accounting for 94% of the total number of infections reported in the national serosurvey.

HIV prevalence among the general population was 0.9%. The Niamey region had the highest prevalence rate, 1.8%, and Tillaberi region had the lowest rate, 0.2%. However, the differences between the HIV prevalence rates in the various regions were not statistically significant. In urban areas, women were more likely to be infected than men (2.6% versus 1.5%). In rural areas, prevalence rates in men and women were similar (0.6% of women and 0.7% of men) (Figure 3).

Figure 3

HIV prevalence among the general population aged 15-49 years, by location, Niger, 2002



In 2001, the median HIV prevalence among sex workers in three areas of Aguiè, Firji and Guidan Roumji, was 34.2%. The rate was lowest among sex workers in Aguiè (27.9%) and highest among those in Guidan Roumji (39.2%). HIV prevalence rates among sex workers tested in Dirkou, was 28.1% in 2000. In 2001, the HIV prevalence rate among tuberculosis patients in Tahou was 22.4%.

OTHER STIs

Trends in reported STI cases have fluctuated since 1990 making interpretation difficult in the absence of information on STI health care, behaviour and STI interventions in the country. In 2000, 5,721 cases of STI were reported, of which 571 were urethral discharges and 505 were genital ulcerations.

CONCLUSIONS AND RECOMMENDATIONS

- Niger has a relatively low HIV prevalence of 0.9% among the general population. Available data on women attending antenatal care clinics also indicates a low prevalence of <5%. The higher HIV prevalence among women attending antenatal care clinics than among the general population was probably due to better representation of rural areas in the population-based serosurvey.
- There are no recent data on sexual behaviour in the country.
- To strengthen the surveillance system, it can be recommended that:
 - **HIV:** There is need to re-establish sentinel surveillance among women attending antenatal care clinics and to conduct surveys regularly at the same sites. This can be complemented by special studies among groups at a higher risk of HIV infection, such as sex workers. The undertaking of the population-based survey was timely and such surveys should be encouraged so as to calibrate antenatal care clinic sentinel surveillance data and should be repeated, at least every five years.
 - **Other STIs:** Reporting of STI syndromes should be continued and complemented by regular surveillance at a few selected sites.
 - **Sexual behaviour:** Use of DHS in the monitoring of sexual behaviour among the general population and young people should be encouraged, and complemented with regular surveys among young people and groups at a higher risk of HIV infection, such as sex workers.

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NIGERIA

Total population (2002)	120,911,000
Young people aged 15–24 years	24,453,000
Adults aged 15–49 years	55,300,000
Population in capital city (Abuja) (2001)	0.4%
Population, other urban (2001)	44.5%
Population, rural (2001)	55.1%
Pregnant women using antenatal care (1999)	63.9%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

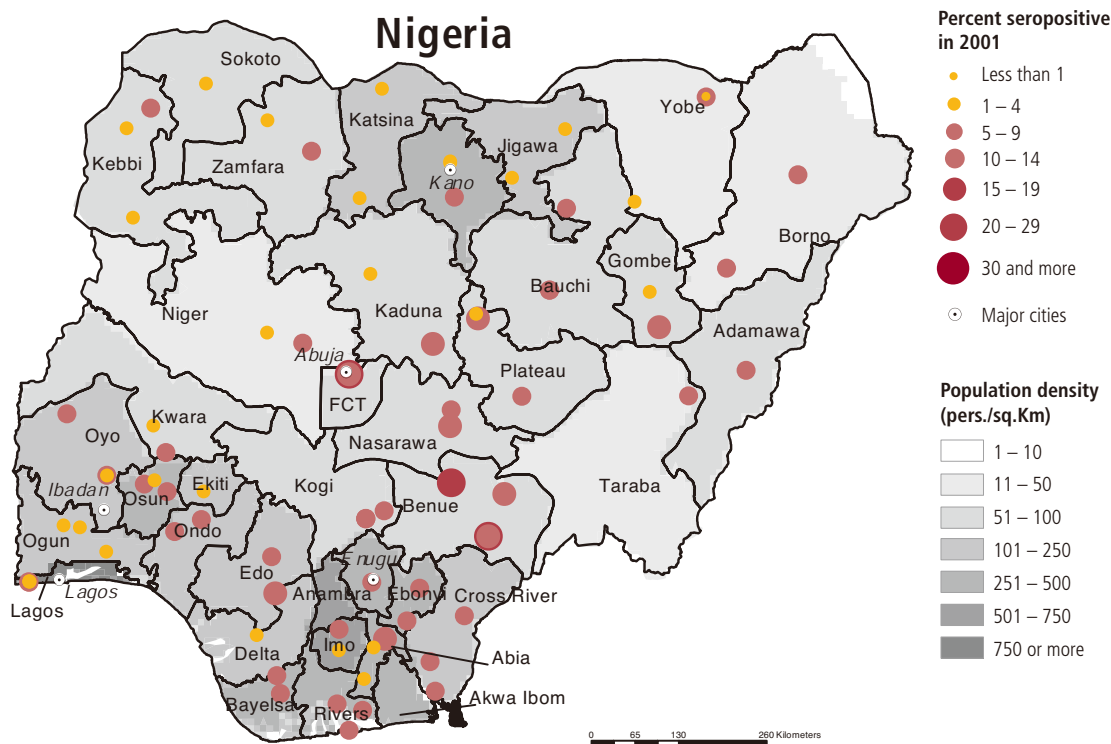
HIV: In 2001, HIV sentinel surveillance among women attending antenatal care clinics was undertaken at 86 sites located in all 37 states. At least one urban and one rural site was used in each state. A minimum sample of 300 pregnant women was enrolled at each site. Sentinel surveys are conducted once every two years. STI clinic attendees and patients with tuberculosis were used as additional sentinel populations until 1996. In 2000, a survey was conducted among STI patients and tuberculosis patients.

Other STIs: Information on STIs is available for 1999 and 2001 from testing for syphilis among women attending antenatal care clinics, which is an integral part of HIV sentinel surveillance.

Sexual behaviour: The main sources of information on sexual behaviours are a DHS conducted in 1999, a BSS conducted among in-school young people, truck drivers and female sex workers in 2000, and a KABP survey conducted among Nigerian military personnel in 2001.

Figure 1

Sentinel surveillance in pregnant women, 2001

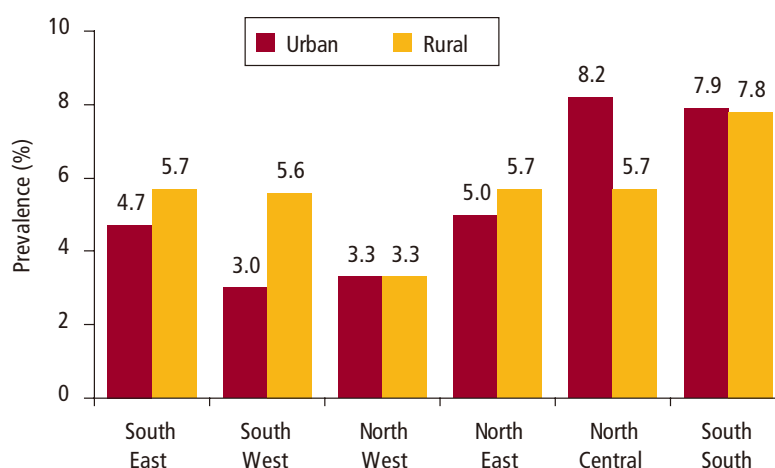


HIV

In 2001, the median HIV prevalence among women attending antenatal care clinics at 86 sites was 5.8%, with rates ranging from 1.1% to 15%. The median HIV prevalence among women attending the urban and rural antenatal care clinics in three zones ranged from a low of 3.0% in urban clinics in the South West zone to 8.2% in the urban clinics in the North Central zone (Figure 2). The differences in prevalence between the zones are moderate, with rates being lower in the North West and higher in the North Central and South South regions. Notable is the lack of difference in HIV prevalence rates between urban and rural clinics, a phenomenon that has been observed in many countries. In five zones, rural HIV prevalence is about the same as or higher than the urban prevalence, and only antenatal care clinics in the North Central zone show the conventional pattern. It is possible that most of the so-called rural sites are actually located in small towns or semi-urban areas where there are often high levels of mobility (presence of large health facilities, markets, guest houses etc). The HIV prevalence rates in most major cities, including Lagos, Ibadan, Kano, and Kaduna, are <5%.

Figure 2

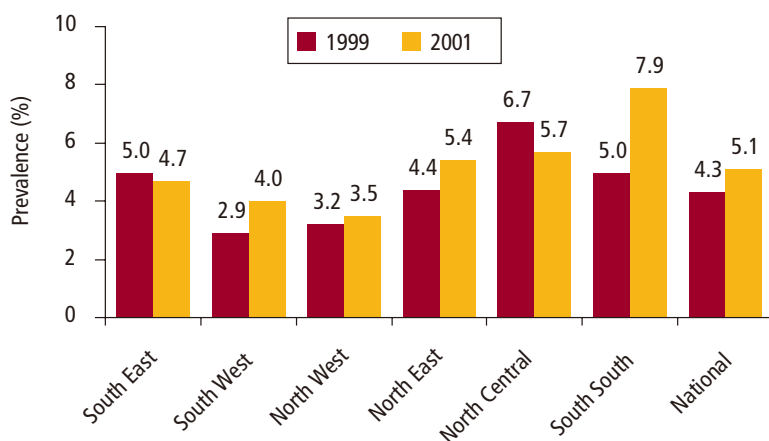
Median HIV prevalence among women attending antenatal care clinics, by state and location, Nigeria, 2001



Data are available for both 1999 and 2001 from 67 antenatal care clinics. The median HIV prevalence increased from 4.3% to 5.1% during this two-year period (Figure 3). The increase was similar in the urban and rural sites and occurred in five of the six zones. The largest increases were observed in South South and South West regions, while there was a small decline in the South East region.

Figure 3

Trend in median HIV prevalence among women attending antenatal care clinics, at 67 sites, by state, Nigeria, 1999-2001



In 2000, the HIV prevalence rate among STI patients was 11.5%, with a range of 5.6% to 23.0%, while among patients with tuberculosis, the prevalence rate was 17.0%.

OTHER STIs

In 2001, the overall prevalence of syphilis among women attending antenatal care clinics was low, although there were wide variations in rates of seroprevalence between selected sentinel sites. The median prevalence rates among women attending antenatal care clinics at 85 sites ranged from 0.3% to 1.0%. The prevalence of syphilis was highest (1%) in the North West, with a range of 0% to 8.3%. In 1999, the median syphilis seroprevalence among women attending antenatal care clinics at 72 sites was 2.3%.

SEXUAL BEHAVIOUR

In the 1999 DHS, 9% of men reported having had sex with a sex worker in the last year. Of these men, 48% used a condom at last sex with a sex worker.

According to the 2000 BSS carried out among truck drivers in Kebbi and Anambra, 8% and 42% respectively reported having had sex with non-regular sexual partners in the last year. In Kebbi, 21% of the truck drivers who reported having had sex with non-regular sexual partners stated that they used a condom at last sex with such a partner, and in Anambra, 47% of men reported doing so. The proportion of truck drivers who reported having had sex with a sex worker in the last year was 7% in Kebbi and 17% in Anambra, and condom use at last sex in this type of relationship was 39% and 60% respectively. Consistent condom use at last sex with a paying partner among sex workers surveyed in Lagos, Abia and Jigawa in 2000, was 89%, 76% and 24% respectively.

According to the survey conducted among military personnel in 2001, 15% of those surveyed reported having had multiple sexual partners in the last year, with about one-third of these partners being non-regular sexual partners. Five percent of those surveyed reported having sex with a sex worker in the last year and half of the respondents reported using condoms regularly with non-regular sexual partners.

YOUNG PEOPLE

HIV: In 2001, the HIV prevalence among young women aged 15–24 years attending antenatal care clinics at 86 sites was 6.0%.

Sexual behaviour

Age at first sex: According to the 1999 DHS, the median age at first sex was 18.1 years for young women and 19.4 years for young men. Slightly lower median ages at first sex were found among in-school youth in Ekiti, Katsina and Enugu (Figure 4).

Premarital sex: In the 1999 DHS, 28% and 31% of young women and men respectively reported having had premarital sex in the last year. According to the 2000 BSS, premarital sex among single in-school youth was fairly common in all the study areas (Figure 5).

Condom use: Among the young people who reported having had premarital sex in the last year, 21% of the women and 38% of the men used a condom at last premarital sex according to the 1999 DHS. Slightly higher rates of condom use at last premarital sex were found among in-school youth in Ekiti, Katsina and Enugu.

Figure 4

Median age at first sex for young people, Ekiti, Katsina and Enugu, Nigeria, 2000

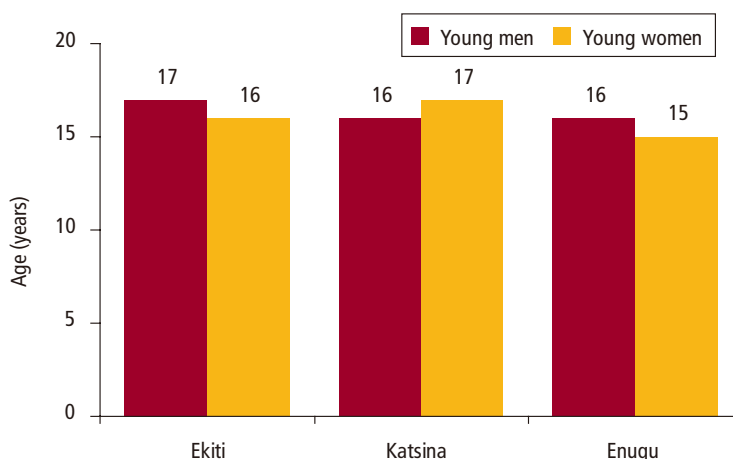
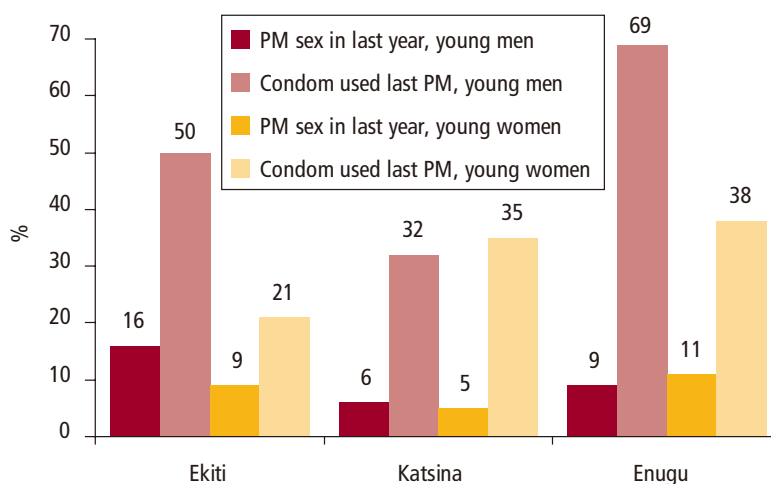


Figure 5

Young people, aged 15–24 years, in school, reporting premarital sex (PM) in the last year, and those reporting premarital sex who used a condom at last premarital sex, Ekiti, Katsina and Enugu, Nigeria, 2000



CONCLUSIONS AND RECOMMENDATIONS

- HIV prevalence rates in women attending antenatal care clinics throughout Nigeria have been increasing gradually over the past five years. There are significant variations in HIV prevalence between the various zones, with prevalence rates in the South South being more than twice those of the North West.
- Syphilis seroprevalence rates are low in Nigeria.
- Significant proportions of both adults and young people are engaging in high-risk behaviours, yet condom use when engaging in higher-risk sex is low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** The surveillance system among women attending antenatal care clinics is functioning well and should be sustained and consolidated. More rural sites should be added, especially given the unexpectedly high prevalence observed in sites outside the major urban settlements.
 - **Other STIs:** The monitoring of STIs among women attending antenatal care clinics should continue and should be complemented with a few sites monitoring the magnitude of and trends in prevalence of STIs in the country.
 - **Sexual behaviour:** Use of DHS, and special surveys among young people and populations at increased risk of HIV infection, to monitor behaviours should continue.

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SENEGAL

Total population (2002)	9,855,000
Young people aged 15–24 years	2,039,000
Adults aged 15–49 years	4,690,000
Population in capital city (Dakar) (2001)	22.4%
Population, other urban (2001)	25.8%
Population, rural (2001)	51.8%
Pregnant women using antenatal care (1999)	77.2%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

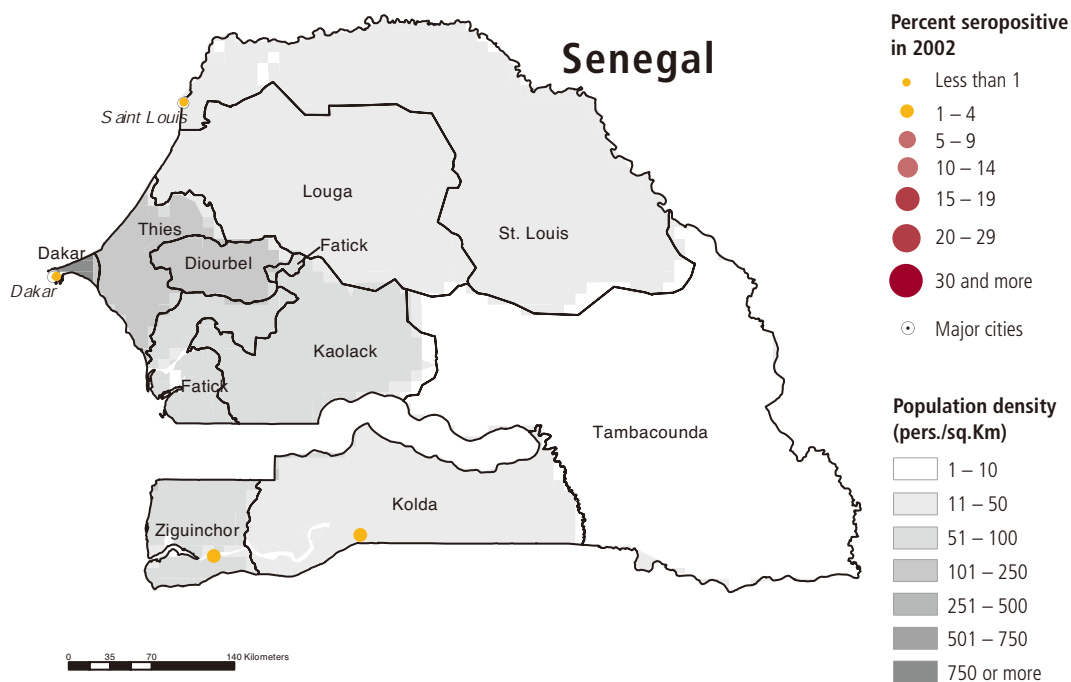
HIV: In 2002, sentinel surveillance among women attending antenatal care clinics was conducted at 11 urban sentinel sites. Three of these sites have been used consistently since the system was established in 1989. In 2002, most sites enrolled well over 500 women, with the exception of Tambacounda and Diourbel, where smaller sample sizes were used. Sex workers and STI patients are used as additional sentinel surveillance populations. Surveillance among sex workers and STI patients is repeated annually. Information on HIV prevalence among tuberculosis patients is also available from several unlinked anonymous surveys that have been conducted in this group, most recently in 2002.

Other STIs: Testing for syphilis among women attending antenatal care clinics, STI clinic attendees and sex workers is an integral component of the sentinel surveillance system.

Sexual behaviour: The main sources of data on sexual behaviour are the BSS conducted among young people and sex workers in 1997, 1998 and 2001/2002. In 2001/2002, a BSS was also conducted among truck drivers and fishermen. A DHS was conducted in 1997.

Figure 1

Sentinel surveillance in pregnant women, 2002

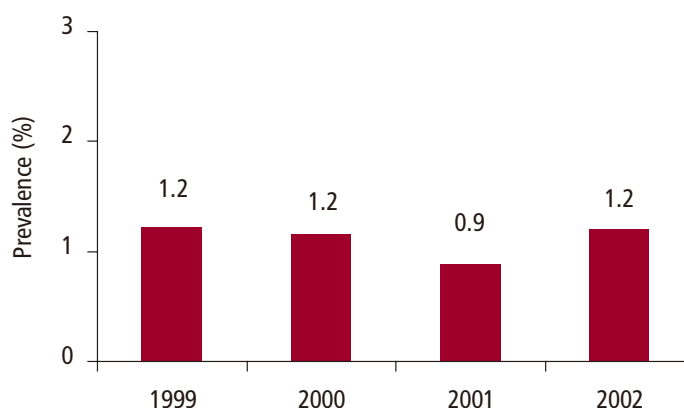


HIV

In 2002, the median HIV prevalence among women attending antenatal care clinics at 11 sites was 1.1%, which was very close to the rate observed in 2001 (0.9%). Median HIV prevalence rates among women attending antenatal care clinics have remained relatively low at around 1% since the 1980s. Figure 2 illustrates trends in median HIV prevalence at three clinics from which data are available from 1999 to 2002.

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics, Kaolack, Saint Louis and Ziguinchor, Senegal, 1999-2002

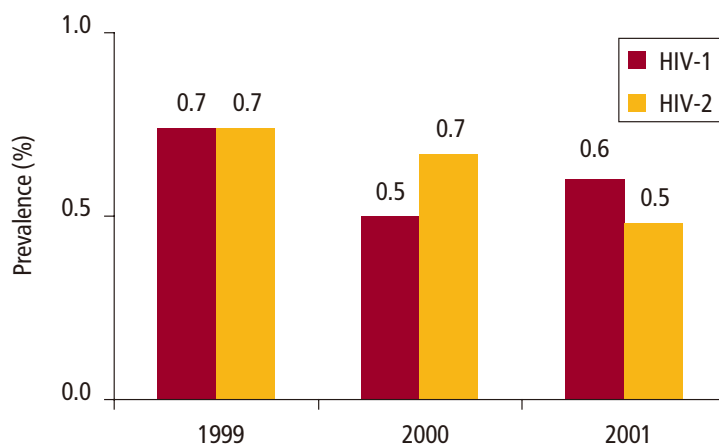


HIV prevalence rates among women attending antenatal care clinics in Dakar, the capital city, were 0.5% in 1998, 0.8% in 2001 and 1.1% in 2002. In sites outside Dakar, HIV prevalence also remained low and stable. Median HIV prevalence rates at these sites were 0.9% in 1999, 0.7% in 2000, 1.1% in 2001 and 1.2% in 2002.

The HIV prevalence rates discussed above include both HIV-1 and HIV-2. The distribution of HIV-1 and HIV-2 among women attending antenatal care clinics has remained relatively constant between 1999 and 2001 (Figure 3). It should be noted that the median prevalence for dual infection with HIV-1 and HIV-2 (HIV-1/2) for the three sites that have data for every year was 0%. In 2001, prevalence rates of HIV-1, HIV-2 and HIV-1/2 among sex workers in Dakar were 12.4%, 4.8% and 1.4% respectively. Among STI patients in Dakar in the same year, 4.1% of patients tested were infected with HIV-1. No cases of HIV-2 or HIV-1/2 were found among STI patients.

Figure 3

Trend in prevalence of HIV-1 and HIV-2 among women attending antenatal care clinics, Kaolack, Saint Louis, Ziguinchor, Senegal, 1999-2001



In 2002, the median HIV prevalence among sex workers in Dakar was 19.4%. HIV prevalence rates among sex workers have stayed at around 20% since 1999. The prevalence rates among sex workers in Dakar were 20.8% in 1999, 18.9% in 2000 and 18.5% in 2001. In 2002, the median HIV prevalence among sex workers tested at four sites outside Dakar was 21.3%, with rates being highest in Ziguinchor and Kaolack (28.5% and 28.0% respectively). In 2000 and 2001, the median HIV prevalence among sex workers tested in Kaolack and Mbour was 22.1%. HIV prevalence among STI clinic attendees tested in Dakar in 2001 was 4.1%, that is, similar to the rates reported in 1999 and 2000 (3.4% and 4.1% respectively). In 2002, the median HIV prevalence among tuberculosis patients tested in Dakar and in three sites outside Dakar (Kaolack, Mbour and Thiès) was 10.7%.

OTHER STIs

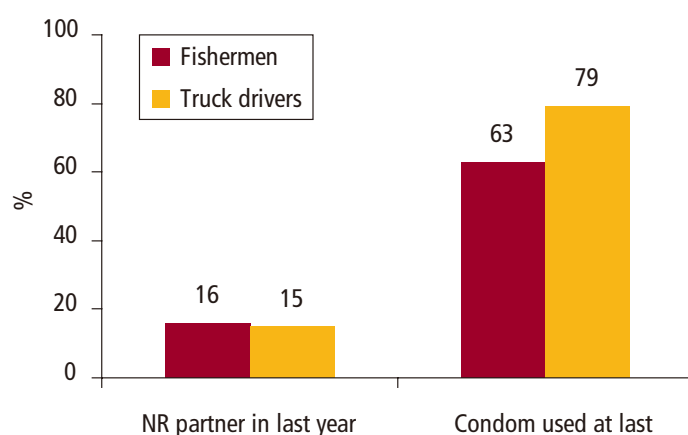
During 1999–2001, median syphilis seroprevalence rates among women attending antenatal care clinics at HIV surveillance sentinel sites were low, ranging from 0.0% to 0.3%. In 2001, the highest rate found was 2%, reported for women attending antenatal care clinics in Dakar. According to the 1999 and 2000 sentinel surveillance data on female sex workers in Dakar, syphilis prevalence rates were 16.3% in 1999 and 11.1% in 2000. The seroprevalence of syphilis among STI patients in Dakar was 3.4% in 1999, 5.2% in 2000 and 2.7% in 2001.

SEXUAL BEHAVIOUR

In 2001/2002, 16% and 15% respectively of the fishermen and truck drivers surveyed reported having had sex with a non-regular sexual partner(s) in the last year (Figure 4). About 6% of fishermen and 5% of truck drivers also reported having had sex with sex workers in the last year.

Figure 4

Respondents with a non-regular (NR) partner in the last year, and respondents with a NR partner who used a condom at last sex, Senegal, 2001/2002



Also in 2001/2002, 63% of the fishermen and 79% of the drivers reporting having had sex with non-regular sexual partner(s) in the last year used a condom at last sex with a non-regular sexual partner. The proportion of sex workers who reported always using condoms with clients was 90% in 1997 and 95% in 1998, but the proportions of sex workers who reported always using condoms with non-paying regular sexual partners decreased from 71% in 1997 to 51% in 1998. In the 2001/2002 BSS, 82% of the fishermen and 84% of the truck drivers who reported having had commercial sex in the last year used a condom at last sex with a sex worker.

While 14% of men reported having more than one sex partner in the last year in 1997, 17% reported doing so in 1998.

YOUNG PEOPLE

HIV: Among young people aged 15–24 years, the HIV prevalence rate was 0.7% in 2001 and 0.8% in 2002.

Sexual behaviour

Age at first sex: There were no recent data on median age at first sex for young people, but according to the 1997 DHS, median age at first sex for women was 19.2 years. In the 1998 BSS, 25% of sex workers said that they had had their first sexual encounter when they were <15 years old. According to both the 1997 and 1998 BSS, slightly more than 55% of the surveyed sex workers reported having started sex when they were between ages of 15 and 19 years.

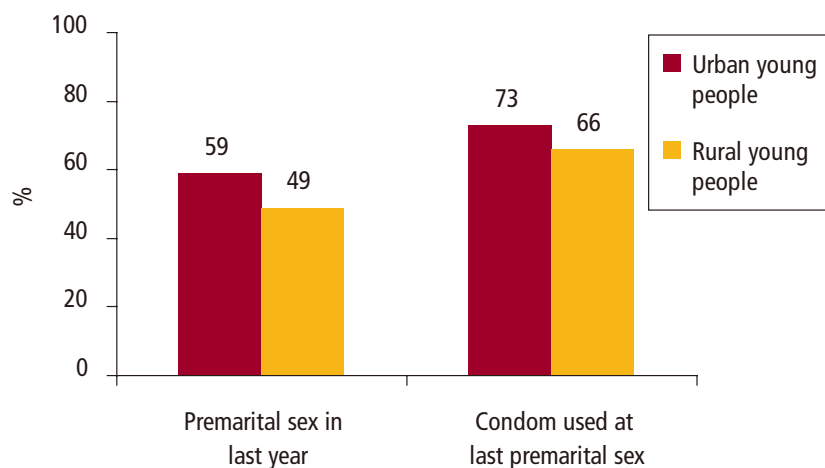
Abstinence and premarital sex: The proportion of young women who reported not being sexually active was 88% in the 1997 BSS and 95% in the 1998 BSS. The proportion of young men who reported not being sexually active was 34% in 1997 and 35% in 1998.

Non-regular sexual relationships: According to the BSS surveys, the proportion of young men reporting having non-regular sexual relationships in the last year increased from 31% in 1997 to 45% in 1998. In the 2001 BSS, 59% of the surveyed urban young people and 49% of the rural young people reported having had sex with non-regular sexual partner(s) in the last year (Figure 5).

Condom use: Consistent (100%) condom use in non-regular sexual relationships among surveyed young people who had had sex with non-regular sexual partners was 54% in 1997 and 64% in 1998. Condom use at last sex with a non-regular sexual partner was 73% for young people in urban areas and 66% for young people in rural areas in 2002.

Figure 5

Young people, aged 15–24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Senegal, 2001



CONCLUSIONS AND RECOMMENDATIONS

- Senegal has low HIV prevalence rates among women attending antenatal care clinics and relatively high prevalence rates of about 20% are found in groups with a higher risk of HIV infection, such as sex workers.
- High-risk behaviours in this country are fairly common among groups with an increased risk of HIV infection, such as fishermen and drivers .
- The use of condoms in higher-risk sex and premarital sex is relatively high among both young people and groups.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV among women attending antenatal care clinics, sex workers, and STI patients has been functioning well and should be sustained.
 - **Other STIs:** Surveillance of syphilis among women attending antenatal care clinics at sentinel surveillance sites should be consolidated and complemented with regular monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The monitoring of behaviours using repeated BSS in groups at a higher risk of HIV infection is commendable and should be continued. The information from BSS should be complemented with regular information on sexual behaviours in the general population, which could be obtained from another DHS.

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SIERRA LEONE

Total population (2002)	4,764,000
Young people aged 15–24 years	917,000
Adults aged 15–49 years	2,185,000
Population in capital city (Freetown) (2001)	18.2%
Population, other urban (2001)	19.2%
Population, rural (2001)	62.6%
Pregnant women using antenatal care (2000)	68.0%

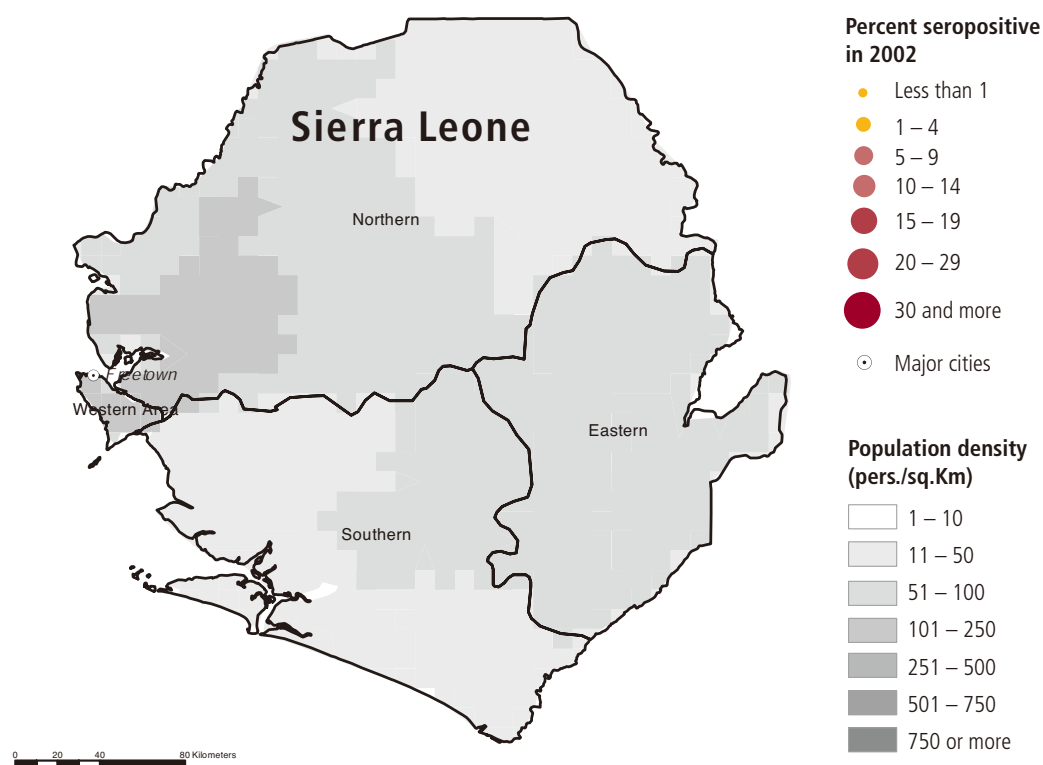
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: No HIV sentinel surveillance system exists in Sierra Leone. Information on HIV prevalence for a sample of women attending antenatal care clinics in Freetown is available for 1996 and 1997. A survey of HIV prevalence was carried out in 2002 among the general population of the country by the United States Centers of Disease Control and Prevention (CDC). Some small-scale studies were conducted among sex workers in 1995 and 1997.

Sexual behaviour: The 2002 CDC survey also included an assessment of behavioural risk factors among the general population.

Figure 1

Sentinel surveillance in pregnant women, 2002

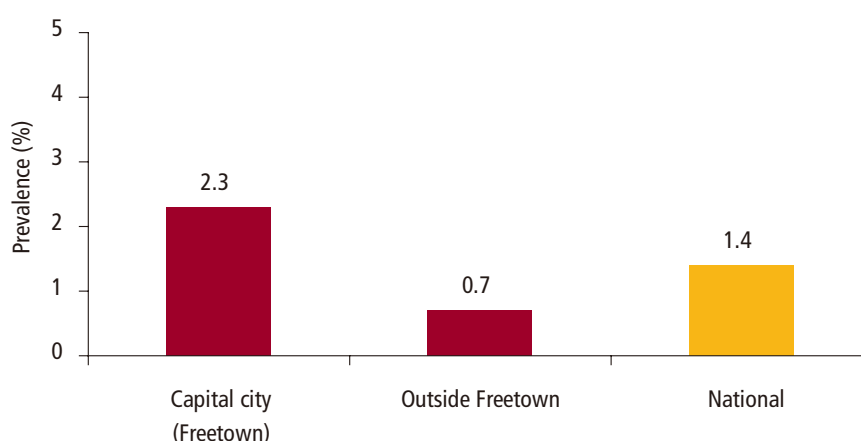


HIV

In 2002, HIV prevalence among the general population of adults aged 15–49 years was 1.4%. The prevalence in Freetown was found to be higher than that in areas of the country outside Freetown (Figure 2). The highest prevalence rate was found in adults aged 25–39 years (2%). In the same study, HIV prevalence rates among VCT attendees in Bo and Kenema were assessed and found to be 3.0% and 4.4% respectively at these two sites. No cases of HIV-2 were identified.

Figure 2

HIV prevalence in the general population, by location, Sierra Leone, 2002



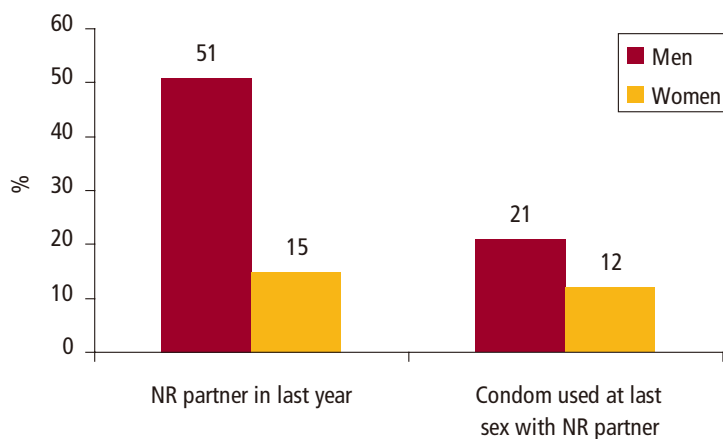
HIV prevalence rates among women attending antenatal care clinics in Freetown in 1996 and 1997 were 5.5% and 7.0% respectively. HIV prevalence among sex workers in Freetown was 70.7% in 1997.

SEXUAL BEHAVIOUR

In the 2002 behaviour survey conducted by CDC, 15% of women and 51% of men aged 15–49 years reported having had sex with a non-marital non-cohabiting sexual partner in the last year (Figure 3). Of the persons reporting having had sex with a non-marital non-cohabiting sexual partner in the last year, only 12% of the women and 21% of the men used a condom at last sex with such a partner. Twenty-nine percent of the men reported having given money, goods or services in exchange for sex in the last year and 5% of women said that they had received money, goods or services in exchange for sex in the last year.

Figure 3

Respondents with a non-regular (NR) partner in the last year, and respondents with a NR partner who used a condom at last sex, Sierra Leone, 2002



YOUNG PEOPLE

HIV: In the 2002 population serosurvey, HIV prevalence among all young people aged 15–24 years was 1%. It is notable that the survey found no evidence of infection among young people aged 12–14 years.

Sexual behaviour

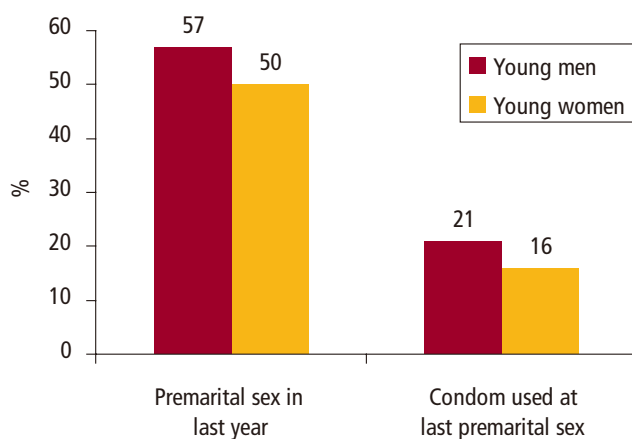
Median age at first sex: The median age at first sex was found to be 15 years for young women and 16 years for young men in the 2002 survey.

Premarital sex: Over half of all young people aged 15–24 years surveyed in 2002 reported having had premarital sex in the last year. Fifty percent of women reported engaging in premarital sex in the last year while 57% of men reported doing so (Figure 4).

Condom use: Condom use when engaging in premarital sex was low, with only 16% of the young women and 21% of the young men who reported having had premarital sex in the last year using a condom at last premarital sex.

Figure 4

Young people aged 15-24 years reporting premarital sex in the last year, and those reporting premarital sex who used a condom at last premarital sex, Sierra Leone, 2002



CONCLUSIONS AND RECOMMENDATIONS

- Data from a general population serosurvey suggest that HIV prevalence in Sierra Leone is low, although the country has a generalized HIV/AIDS epidemic. No recent information exists to allow the evaluation of trends among women attending antenatal care clinics and populations at higher risk of HIV infection.
- No information is available on STI prevalence rates in the country.
- High-risk sexual behaviours are highly prevalent among both adults and young people in Sierra Leone, yet levels of condom use are extremely low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** An antenatal care clinic-based surveillance system should be established to monitor trends in HIV prevalence, and this should be complemented by regular surveys among populations at a higher risk of HIV infection, such as sex workers. It would be useful to carry out a repeat national adult general population survey within the next five years.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.
 - **Sexual behaviour:** The efforts made to collect information on sexual behaviours in the general population and young people is commendable and the system should be reinforced. Regular surveys among groups at higher risk of HIV infection would complement data generated from general population and youth surveys.

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TOGO

Total population (2002)	4,801,000
Young people aged 15–24 years	972,000
Adults aged 15–49 years	2,222,000
Population in capital city (Lomé) (2001)	15.7%
Population, other urban (2001)	18.2%
Population, rural (2001)	66.1%
Pregnant women using antenatal care (1998)	82.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

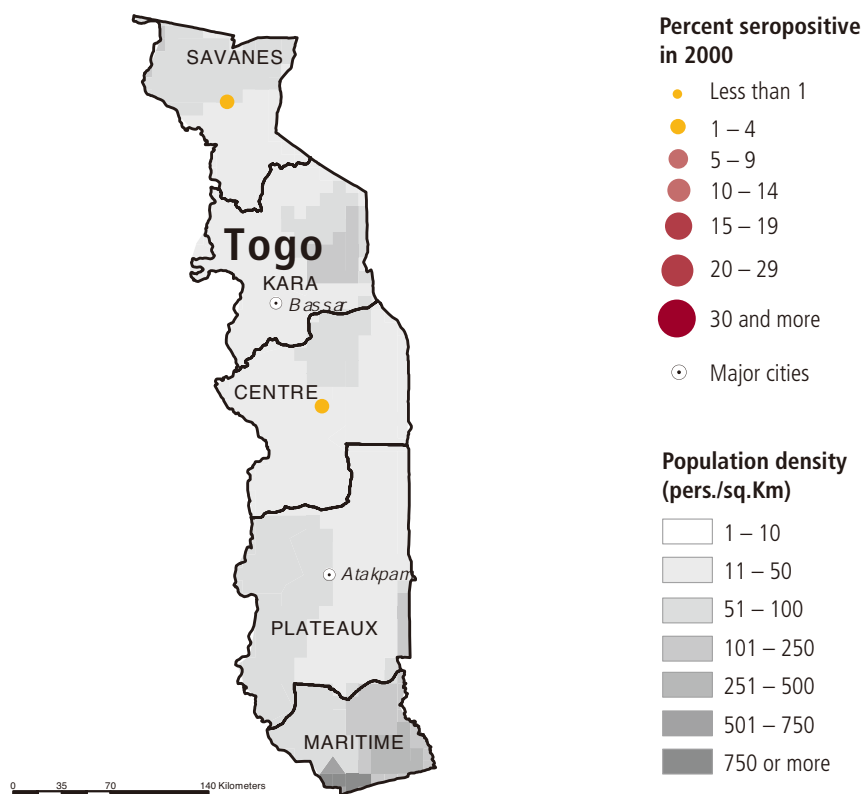
HIV: In 2000, sentinel surveillance among women attending antenatal care clinics was conducted in the two rural sites of Dapoang and Sakode, the only sites that have been operating since 1998. In 1998, surveillance was conducted at these two sites as well as in Lomé. From 1992 to 2001, six consecutive studies were conducted among military recruits aged 18–24 years.

Other STIs: Information on syphilis prevalence is available from antenatal clinic sentinel surveillance sites for 1998.

Sexual behaviour: The main source of data on behaviour is the DHS conducted in 1998.

Figure 1

Sentinel surveillance in pregnant women, 2000

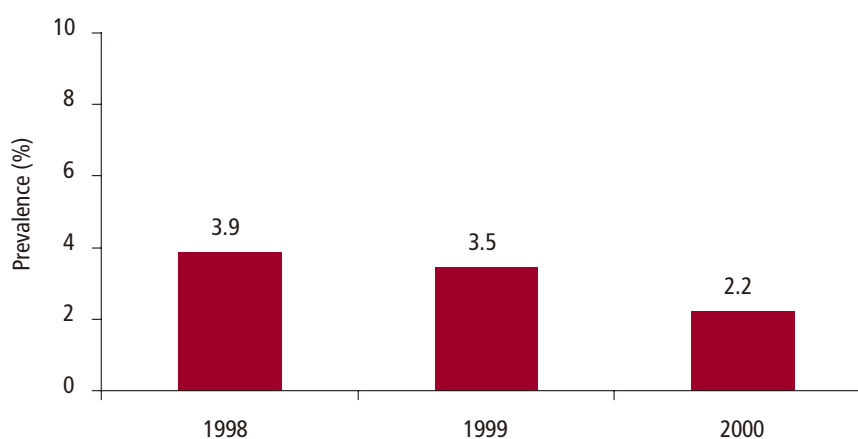


HIV

In 2000, the median HIV prevalence among women attending antenatal care clinics at two sites was 2.2%. The trend in median HIV prevalence at Dapaong and Sokode indicate a gradual decrease from 3.9% in 1998 to 2.2% in 2000 (Figure 2). Further surveys are needed before any inference can be made regarding this trend. There is no recent information available on prevalence among women attending antenatal care clinics in Lomé, but the prevalence rate in 1998 in this city was 6.8%.

Figure 2

Trend in median HIV prevalence among women attending antenatal care clinics, at two rural sites, Togo, 1998-2000



OTHER STIs

In 1998, there was considerable variation in the prevalence of syphilis among women attending antenatal care clinics within the country, with rates ranging from 6.4% in Lomé to 12% in Dapaong.

SEXUAL BEHAVIOUR

According to the 1998 DHS, 23% of women and 49% of men aged 15–49 years reported having had sex with a non-marital, non-cohabiting partner(s) in the last year. Also, 5% of men reported having sex with a sex worker in the last year.

Of the women and men who had had sex with a non-marital non-cohabiting partner(s) in the last year, 19% of women and 38% of men reported using a condom at last sex with such a partner.

YOUNG PEOPLE

HIV: HIV prevalence rates among young military personnel aged 18–24 years increased from 2.2% in 1995 to 7.2% in 2001 (Figure 3).

Other STIs: In 1998, young pregnant women aged 14–24 years had a higher rate of positive syphilis serology (8.6%) than women aged 25–45 years (4.2%).

Sexual behaviour

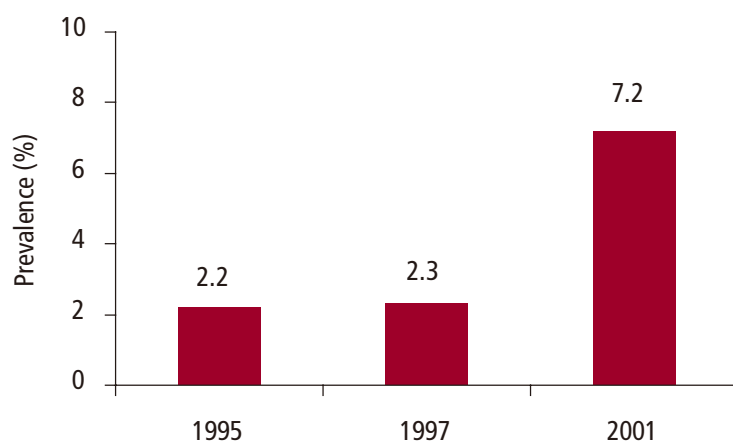
Age at first sex: The median age at first sex for young women and young men was 16.7 and 18.1 years respectively, according to the 1998 DHS.

Premarital sex: In 1998, 53% of young women and 46% of young men reported having had premarital sex in the last year.

Condom use: Twenty-two percent of young women and 42% of young men who reported having had premarital sex in the last year in 1998 said that they had used a condom at last premarital sex.

Figure 3

Trend in median HIV prevalence among young military personnel aged 18-24 years, Togo, 1995-2001



CONCLUSIONS AND RECOMMENDATIONS

- Median HIV prevalence among women attending antenatal care clinics in rural areas in Togo has remained stable at low levels, but no recent information is available on prevalence rates in urban areas.
- In 1998, use of condoms was relatively low among both young people and all adults, yet significant proportions of both adults and young people were engaging in higher-risk sex and premarital sex, respectively.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Antenatal clinic sentinel surveillance should be re-established and expanded to improve coverage, and the same sites should be used consistently to make possible the monitoring of trends. Antenatal clinic-based data should also be complemented by regular surveys among populations at a higher risk of HIV infection, such as sex workers.
 - **Other STIs:** A system to monitor trends in the prevalence of syphilis among women attending antenatal care clinics should be established and it should be complemented with the monitoring of other STIs at a few selected sites.

- **Sexual behaviour:** The use of DHS to monitor sexual behaviours among the general population should continue and be supplemented with regular surveys among young people and groups at a higher risk of HIV infection.

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INDIAN OCEAN



COMOROS

Total population (2002)	747,000
Young people aged 15–24 years	160,000
Adults aged 15–49 years	364,000
Population in capital city (Moroni) (2001)	6.7%
Population, other urban (2001)	27.1%
Population, rural (2001)	66.2%
Pregnant women using antenatal care (2001)	74.3%

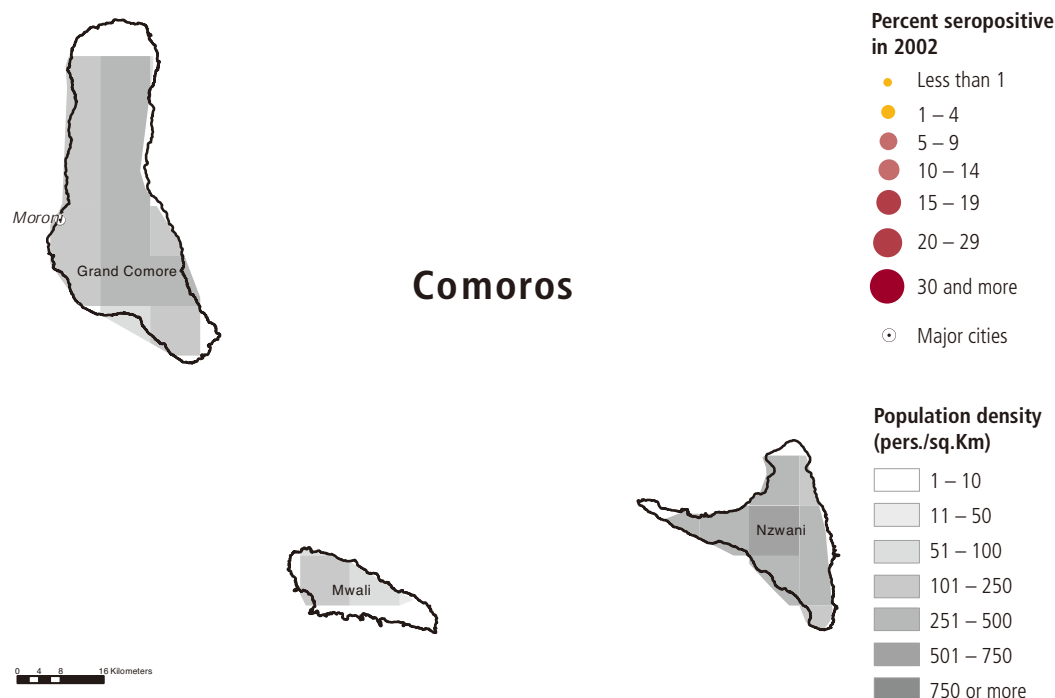
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: HIV surveillance among women attending antenatal care clinics is not developed. Information is available from antenatal care clinics in Moroni, the capital city, from 1994–1996 and in 2001. In 1994 and 1998, special studies were conducted among sex workers in Moroni. Studies were also conducted among STI patients in 1987, 1996 and 2001. Information is available on HIV prevalence among tuberculosis patients and blood donors for 2001.

Other STIs: In 1994, the three sites used for HIV sentinel surveillance also reported results of testing for syphilis among women attending antenatal care clinics.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

From 1991 to 2001, no evidence was found of HIV infection among women attending antenatal care clinics in Moroni. In 2001, no evidence of HIV infection was detected among patients with tuberculosis, and HIV prevalence among blood donors was 0.06%. In 1987, 1996 and 2001, there was no evidence of HIV infection among STI patients tested for HIV. Of the sex workers tested for HIV in 1998, only one was found to be HIV-positive.

OTHER STIs

In 1994, syphilis seroprevalence rates among women attending antenatal care clinics screened at three sites ranged from 13.6% to 16.6%.

CONCLUSIONS AND RECOMMENDATIONS

- Comoros has a low-level HIV/AIDS epidemic with a high prevalence of syphilis among women attending antenatal care clinics, suggesting that high-risk sexual behaviours are relatively common in the country.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV prevalence among populations at a high risk of HIV infection should be continued and it would be useful to carry out periodic studies of prevalence among women attending antenatal care clinics, at least once every two years.
 - **Other STIs:** Screening for syphilis among pregnant women should be reinforced and complemented with surveillance of STIs among groups at an increased risk of HIV infection.
 - **Sexual behaviour:** Behavioural surveillance among groups at higher risk of HIV infection is encouraged so as to provide an early warning system.

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MADAGASCAR

Total population (2002)	16,916,000
Young people aged 15–24 years	3,253,000
Adults aged 15–49 years	7,761,000
Population in capital city (Antananarivo) (2001)	10.3%
Population, other urban (2001)	19.9%
Population, rural (2001)	69.8%
Pregnant women using antenatal care (2000)	73.0%

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

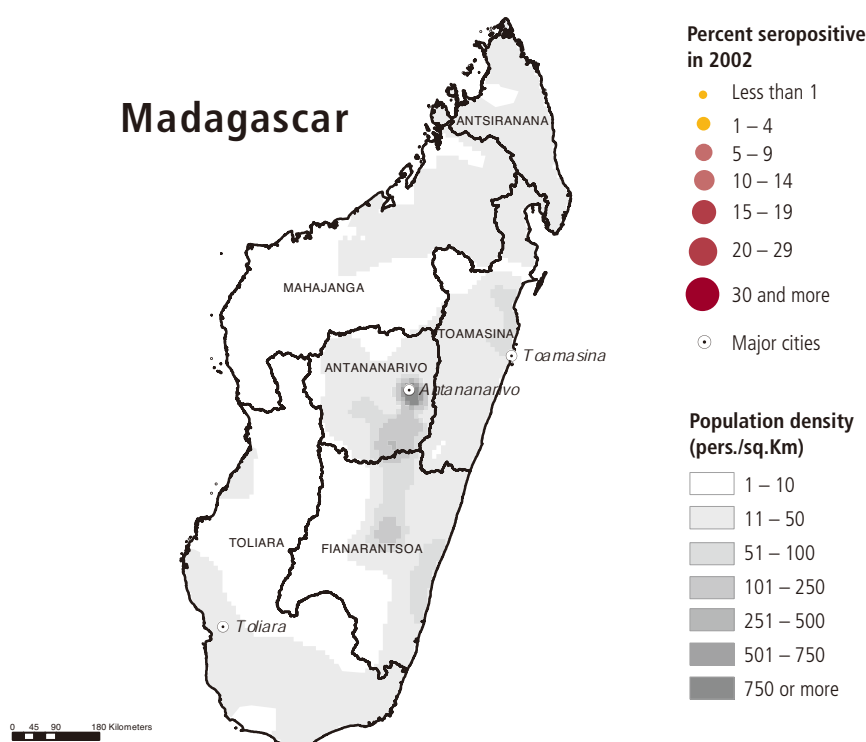
HIV: The last survey among women attending antenatal care clinics was conducted in 2000 at eight sites. STI patients were used as another sentinel population from 1990 to 1996. In 1998, another study was conducted among STI patients. Between 1990 and 1998, some studies were conducted among sex workers in, and at a few sites outside, the capital city, Antananarivo.

Other STIs: In 1995, women attending antenatal care clinics, STI patients and sex workers in selected areas were tested for syphilis and the results were reported. In 1997, a study was conducted to determine the etiology of genital ulcers. A study of STI prevalence was conducted among a sample of women, including sex workers, occasional sex traders and the general population, in 1997.

Sexual behaviour: The main source of data is the DHS conducted in the country in. No men were included in this survey. In 2000, a sociodemographic study conducted among STI patients attending a clinic at l'Institut d'Hygiène Sociale generated information on behaviours in this population.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2000, HIV prevalence among women attending antenatal care clinics at eight sites ranged from 0.0–3.2%. There was no evidence of HIV infection among women attending antenatal care clinics in Antananarivo between 1990 and 1996. Evidence of HIV infection was found in only five out of eleven sites outside Antananarivo and even in those sites, only at one site did the prevalence rate exceed 1% in 1996.

In Antananarivo, HIV infection rates among sex workers increased from no evidence of HIV infection in the period 1991–1994, to 0.3% in 1995, and to 1.3% in 1998. HIV infection rates among sex workers in most sites outside Antananarivo were reported to be at similar levels.

From 1990 to 1998, no evidence of HIV infection was found among STI patients in this country except in three years — 1990, 1992 and 1995 — when HIV was detected at a few sites, with prevalence rates of <1.5%.

OTHER STIs

In 1995, rates of syphilis seroprevalence among women attending antenatal care clinics, STI patients and sex workers were 12.1% and 15.5% and 30.5% respectively. In 1997, a study conducted among STI patients to determine the etiology of genital ulcers showed that 29% of the ulcers were due to syphilis, 29% to lymphogranuloma venereum, 33% were chancroid and 10% were associated with HSV-2 infection.

In a study conducted among women seeking primary care in Antananarivo in 1997, the prevalence of trichomoniasis, cervical infection due to chlamydia and gonorrhoea, and syphilis were, respectively, 16%, 49%, 16% among sex workers; 18%, 30%, 13% among occasional sex traders; and 24%, 17%, and 4% among other women.

SEXUAL BEHAVIOUR

In the 1997 DHS, only 1% of those surveyed had used a condom at last sexual intercourse with anyone (whether spousal/cohabiting, or non-spousal/non-cohabiting partner).

In 1997, at the Institut d'Hygiène Sociale, the age at first sexual intercourse among female sex workers with STIs who were surveyed was 16.4 years as compared to 18.7 years among female STI patients who were not sex workers.

YOUNG PEOPLE

Sexual behaviour

Age at first sex: According to the 1997 DHS, the median age at first sexual intercourse for young women was 17 years. There was no information on age at first sex for young men.

Premarital sex: Thirty-eight percent of young women reported having had premarital sex in the 1997 DHS.

Condom use: In 1997 DHS, only 3% of the young women who reported having had premarital sex in the last year had used a condom at the last premarital sex.

CONCLUSIONS AND RECOMMENDATIONS

- Madagascar has a low-level HIV/AIDS epidemic, which has remained stable over the last ten years.
- Studies conducted in the country indicate that there are high rates of STI, which would provide fertile ground for the rapid spread of HIV.
- High-risk sexual behaviours are common and condom use is low.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV prevalence among populations at a high risk of HIV infection should be continued and it would be useful to carry out periodic studies of prevalence among women attending antenatal care clinics, at least once every two years.
 - **Other STIs:** Screening for syphilis among pregnant women should be reinforced and complemented with surveillance of STIs among groups at an increased risk of HIV infection.
 - **Sexual behaviour:** Another round of the DHS would be timely, and behavioural surveillance among populations at increased risk of HIV infection is recommended.

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MAURITIUS

Total population (2002)	1,210,000
Young people aged 15–24 years	209,000
Adults aged 15–49 years	686,000
Population in capital city (Port Louis) (2001)	14.5%
Population, other urban (2001)	27.5%
Population, rural (2001)	58.0%
Pregnant women using antenatal care	not available

SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

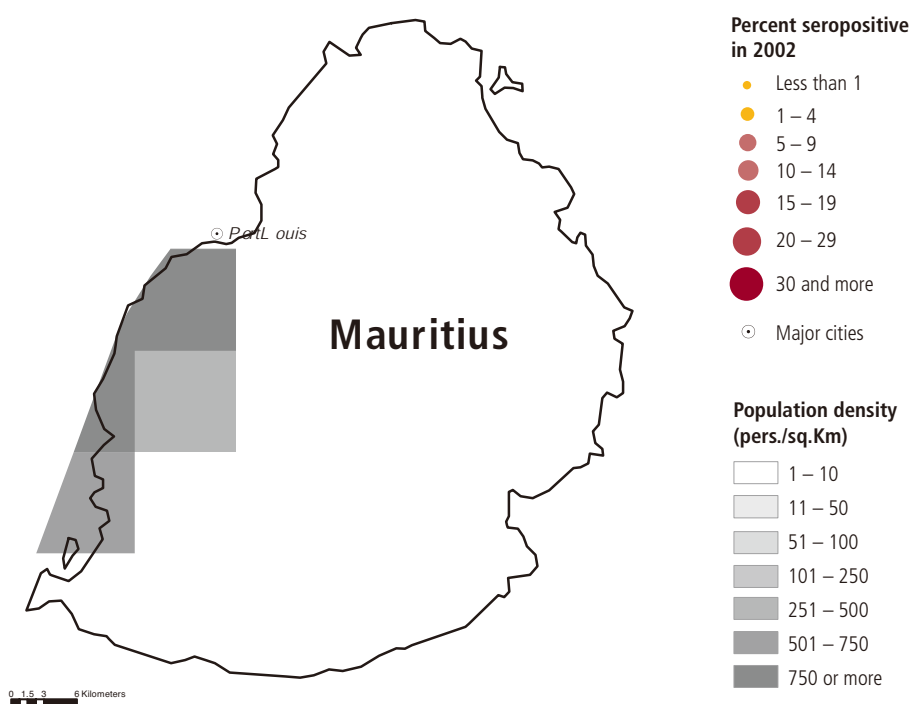
HIV: No system of HIV surveillance among women attending antenatal care clinics has yet been established in Mauritius. However, since 1998, all pregnant women attending antenatal care clinics have access to VCT services in about 150 health facilities. HIV serology data on women attending antenatal care clinics and receiving VCT is compiled and analysed. Sex workers, prison inmates, STI patients and injecting drug users were screened for HIV in 2000, and information on HIV prevalence in these groups was generated, although the methods used were not specified. HIV/AIDS is a notifiable disease in the country and data are regularly compiled and analysed.

Other STIs: Reporting of STIs is based on etiological diagnosis made at health facilities.

Sexual behaviour: A youth profile study carried out in 1997 among young people aged 14–25 years generated some data on behaviour. In 1996, a KAPB survey was conducted among the general population, sex workers, injecting drug users, and men having sex with men.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

In 2000, HIV prevalence among women attending antenatal care clinics who were tested during VCT was 0.04%. By the end of August 2002, a cumulative total of 339 HIV/AIDS cases had been officially reported to the Ministry of Health and Quality of Life, and 80 of these patients died of AIDS.

In 2000, HIV prevalence rates among sex workers, STI patients and injecting drug users were 8.0%, 1.0% and 2.9% respectively.

OTHER STIs

Based on records from the Central Laboratory, seroprevalence of syphilis was 0.3% in 1999. In the month of September 2002 alone, 88 cases of gonorrhoea and 24 cases of syphilis were reported to the Ministry of Health and Quality of Life.

SEXUAL BEHAVIOUR

The proportion of adults surveyed in 1996 who reported having had non-regular sexual relationships in the last year was 2% in Port Louis and 15% in Rodrigues. Of the persons reporting non-regular sexual relationships in the last year in 1996, 26% in Port Louis and 22% in Rodrigues had used a condom at last sex with a non-regular sexual partner.

YOUNG PEOPLE

Sexual behaviour

Premarital sex: Of the young people surveyed in 1997, 43% of men and 11% of women reported having had premarital sex.

Non-regular sexual relationships: Of the young people surveyed, 4% of women and 10% of men reported having had sex with casual partners.

Commercial sex: Fourteen percent of the young men surveyed reported having had sex with a sex worker.

CONCLUSIONS AND RECOMMENDATIONS

- Mauritius has a low-level HIV/AIDS epidemic with a relatively low prevalence of STIs, although data suggest that risky sexual behaviours are common among adults and young people.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV prevalence among populations at higher risk of HIV infection should be continued. It would be useful to carry out periodic studies of prevalence among women attending antenatal care clinics, at least once every two years.
 - **Other STIs:** Screening for syphilis among pregnant women and groups at higher risk of HIV infection should be established to complement laboratory-based STI surveillance.
 - **Sexual behaviour:** Behavioural surveillance among groups at higher risk of HIV infection is encouraged so as to provide an early warning system.

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SEYCHELLES

Total population (2002)	80,000
Young people aged 15–24 years	not available
Adults aged 15–49 years	not available
Population in capital city (Victoria) (2001)	36.6%
Population, other urban (2001)	28.0%
Population, rural (2001)	35.4%
Pregnant women using antenatal care	not available

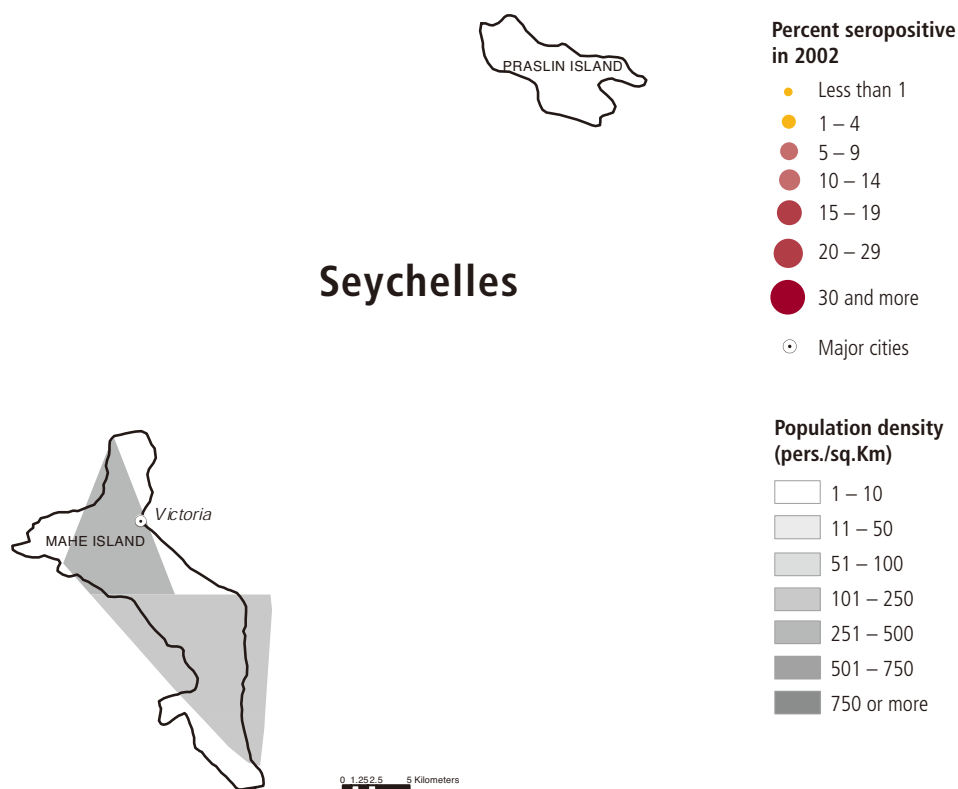
SURVEILLANCE SYSTEM AND OTHER DATA SOURCES

HIV: No sentinel surveillance system among women attending antenatal care clinics has yet been established. Although testing for HIV is mandatory for all antenatal clinic attendees, only two-thirds of pregnant women attending antenatal care clinics were tested for HIV in 2000. Information is available on STI patients tested for HIV at the Central Referral Hospital in 1999 and 2000. In 2000, tuberculosis patients were also tested for HIV. No surveys have been conducted among sex workers. There is information on HIV prevalence among blood donors for the year 1999.

Other STIs: STI reporting is based on etiological diagnoses and is reported through the Health Management Information System.

Figure 1

Sentinel surveillance in pregnant women, 2002



HIV

There is scanty information available on the HIV situation in Seychelles. In 2000, about two-thirds of the women attending antenatal care clinics in the country were tested for HIV and only three were found to be HIV-positive. In 1999, HIV prevalence among blood donors was 0.07%. In 1999, 2 out of 21 tuberculosis patients tested for HIV were HIV-positive, whilst in 2000, only 1 out of 20 tuberculosis patients tested was HIV-positive. In 1999 and 2000, HIV prevalence rates among STI patients tested at the Central Referral Hospital were 1.1% and 1.0% respectively.

OTHER STIs

In 1999, 51 cases of gonorrhoea, five cases of syphilis and three cases of lymphogranuloma venereum were reported to the Ministry of Health.

CONCLUSIONS AND RECOMMENDATIONS

- Seychelles has a low-level HIV/AIDS epidemic with a low prevalence of STIs.
- To strengthen surveillance, it can be recommended that:
 - **HIV:** Surveillance of HIV prevalence among blood donors should be carried out regularly and complemented by surveillance among populations at higher risk of HIV infection. It would be useful to conduct periodic studies of prevalence among women attending antenatal care clinics, at least once every two years.
 - **Other STIs:** Screening for syphilis among women attending antenatal care clinics should be established and complemented with surveillance of STIs among groups at higher risk of HIV infection.
 - **Sexual behaviour:** Behavioural surveillance among groups at higher risk of HIV infection is encouraged so as to provide an early warning system.

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