

The HIV and AIDS Epidemic in Zimbabwe

Where Are We Now?

Where Are We Going?

Background

Projections

Impacts

Strategic Response



National Aids Council



Ministry of Health
and Child Welfare



United States Agency
for International Development

May 2004

Back of Title Page
(copyright page)



Foreword

The Ministry of Health and Child Welfare and National AIDS Council are pleased to introduce its new publication *The HIV and AIDS Epidemic in Zimbabwe: Where Are We Now? Where Are We Going?* This document provides background to the epidemic, gives consideration to the social and economic impacts of the epidemic, looks at the national strategic response and makes projections about the epidemic under certain assumptions,. It will be accompanied by a series of policy briefs that look at different programmatic interventions.

The goal of the book and policy briefs is to provide an update on the epidemic and the Zimbabwean response. These documents contain much useful information and are written in a simple language to make them useful to as many people as possible. The HIV and AIDS epidemic is an extremely complex phenomenon and no single series can capture all aspects of the situation. Regardless, I believe these documents are an important contribution to Zimbabwean efforts to limit the spread of HIV and to provide care and support for those already infected and otherwise affected by the epidemic.

The HIV and AIDS epidemic is the most serious challenge faced by Zimbabwe since independence. As the book notes, Zimbabwe is one of the worst affected countries in the entire world. An estimated 24.6 percent of the population aged 15–49 is currently infected, and HIV prevalence has been at this level for several years. The consequence has been widespread death and massive suffering among our people. Life expectancy at birth has fallen below levels that existed at independence, wiping out the gains of a generation.

This is an opportune time to look anew at the status and course of the epidemic and our national response. We have several new sources of information about HIV and AIDS and sexual behaviour, including new sentinel surveillance data and a young adults sexual behaviour survey. This new information means that we know more about the status and course of the epidemic than before and that we have more knowledge by which to plan interventions.

This is going to be a long, difficult struggle, and the consequences of the AIDS epidemic are going to be with us for decades. Nonetheless, I believe that we are at a turning point, and I am convinced that with commitment and energy we can now change the course of this epidemic and move towards a nation free from HIV and AIDS.

Finally, on behalf of MOHCW and NAC, I wish to acknowledge and thank the many national and international experts who contributed to the authorship and review of this document.

Dr. P.D. Parirenyatwa
Minister of Health and Child Welfare

Date



Table of Contents

Foreword	iii
Table of Contents	iv
Abbreviations	vi
Introduction	1
1 Background	3
What are HIV and AIDS?	4
Transmission Mechanisms	5
Natural History of HIV - A Hidden Epidemic	6
Current Estimates of HIV Prevalence	8
Trends in HIV Prevalence	10
Age-Sex Distribution of Infected Persons	14
Sexual Behaviour of Young Adults	15
Why Zimbabwe?	23
2 Projections	25
Number of HIV-Infected Persons	27
Number of Annual New AIDS Cases	28
Annual AIDS Deaths	29
Cumulative AIDS Deaths	30
Annual Deaths Among Persons Ages 15 to 49 and Life Expectancy at Birth	31
Population Growth	33



3	Impacts on Social and Economic Development	35
	Health	36
	Agriculture and Food Security	38
	Education	39
	Economy	41
	Orphans	43
	Gender and AIDS	45
4	National Strategic Response	47
5	Where Do We Stand? Where Are We Going?	51
6	Appendices	56
	Appendix A: Questions and Answers on HIV Levels and Trends in Zimbabwe	56
	Appendix B: Differences between National HIV and AIDS Estimates and Current Projections	61
	Appendix C: Glossary	63
	Appendix D: Selected Sources	66

Abbreviations

ABC	Abstinence; Be faithful; Condoms
AIDS	Acquired immune deficiency syndrome
AIM	AIDS Impact Model
AIS	AIDS Indicator Survey
ART	Antiretroviral therapy
BCC	Behavioural change communication
DHS	Demographic and Health Survey
EPP	Epidemic Projection Package
HIV	Human immunodeficiency virus
MOESC	Ministry of Education, Sports and Culture
MOHCW	Ministry of Health and Child Welfare
MTCT	Mother-to-child transmission
NAC	National AIDS Council
NACP	National AIDS Coordination Programme
NGO	Non-governmental organisation
PMTCT	Prevention of mother-to-child transmission
PPTCT	Prevention of parent-to-child transmission
STI	Sexually transmitted infection
TB	Tuberculosis
YAS	Young Adult Survey
UNAIDS	Joint United Nations Programme on AIDS
UNICEF	United Nations Children's Fund
VCT	Voluntary counselling and testing
WHO	World Health Organization
ZAPA	Zimbabwe AIDS Policy and Advocacy Project
ZDHS	Zimbabwe Demographic and Health Survey

Introduction

The HIV and AIDS epidemic is a health and development crisis throughout much of sub-Saharan Africa, including Zimbabwe. The Joint United Nations Programme on AIDS (UNAIDS) estimates the number of infections worldwide at about 40 million by the end of 2003, of which about 26.6 million are found in sub-Saharan Africa. About five million persons became newly infected in 2003, 3.2 million of whom were sub-Saharan Africans. Worldwide, about three million persons died from AIDS in 2003; sub-Saharan Africans accounted for 2.3 million of the total.¹

Human immunodeficiency virus, the virus that causes AIDS, continues to infect large numbers of Zimbabweans. Analysis of the most recent sources of information indicates that 24.6 percent of the entire adult population ages 15–49 is currently infected, making Zimbabwe one of the most seriously affected countries in the entire world. Even now, most Zimbabweans who are infected do not even know their status.

While the HIV and AIDS epidemic is a national tragedy that will affect the country well into the future, no reason exists to be passive in face of the epidemic. We now know more about prevention programmes than ever before in the history of the epidemic. Three out of every four adults in the population remain free of HIV and all of these people can take active measures to protect themselves and their loved ones. It is especially important to develop prevention programmes for young people. We also know more about care and support programmes than in the past. Of special note, Zimbabwe and other African countries are beginning to have access to antiretroviral drugs to help prolong and increase the quality of life of those already infected.

The HIV and AIDS Epidemic in Zimbabwe: Where Are We Now? Where Are We Going? consists of this volume and a series of policy briefs prepared under the sponsorship of the National AIDS Council and Ministry of Health and Child Welfare. These documents are intended to provide information about the HIV and AIDS epidemic in Zimbabwe as one way to contribute to improved multi-sectoral planning and policy dialogue.

¹ UNAIDS/World Health Organisation give a range for each estimate that defines upper and lower limits. The numbers quoted represent the mid-points of the ranges.

<i>This briefing book is divided into four main sections</i>	
Background:	<i>What we know about HIV and AIDS in Zimbabwe today</i>
Projections:	<i>What the epidemic might be like in the future under certain assumptions</i>
Impacts:	<i>What are some of the consequences for the country</i>
Strategic Response:	<i>What policies and strategies have been put in place</i>
<i>The policy briefs look at how the country has responded to the epidemic</i>	
Policy Briefs:	<i>What has happened in key programme areas</i>

Much of the analysis is based on an application of the AIDS Impact Model (AIM), a module of the SPECTRUM suite of reproductive health policy models. SPECTRUM is available at www.policyproject.com or www.tfgi.com. The Zimbabwe-specific files used in this analysis can be obtained from either the National AIDS Council (NAC) or the Zimbabwe AIDS Policy and Advocacy (ZAPA) Project in Harare.



1

Background

What are HIV and AIDS?

Transmission Mechanisms

Natural History of HIV—A Hidden Epidemic

Current Estimates of HIV Prevalence

Trends in HIV Prevalence

Age-Sex Distribution of Infected Persons

Sexual Behaviour of Young Adults

Why Zimbabwe?

Background

What are HIV and AIDS?

A virus is a tiny, invisible particle that works by attaching itself to a host cell. Viruses are the cause of a number of diseases, including influenza and the common cold. Human immunodeficiency virus (HIV) is the virus that causes acquired immune deficiency syndrome or AIDS. HIV attacks the immune system and destroys the biological ability of the human body to fight off opportunistic infections, such as tuberculosis. AIDS itself is defined in terms of how much deterioration of the immune system has taken place as seen by the presence of opportunistic infections and cancers.

Infected people die as a result of the opportunistic infections and tumours that invade the body with the breakdown of the immune system. In the absence of widespread use of antiretroviral therapy (ART), nearly all infected people will eventually die from AIDS-related causes. The majority will be dead within 10 years of infection and many will die even sooner. The use of ART, discussed later, can preserve health longer and prolong life.

Human immunodeficiency virus or HIV is the virus that causes acquired immune deficiency syndrome or AIDS.

HIV acts by weakening the immune system, making the body susceptible to and unable to recover from other diseases.

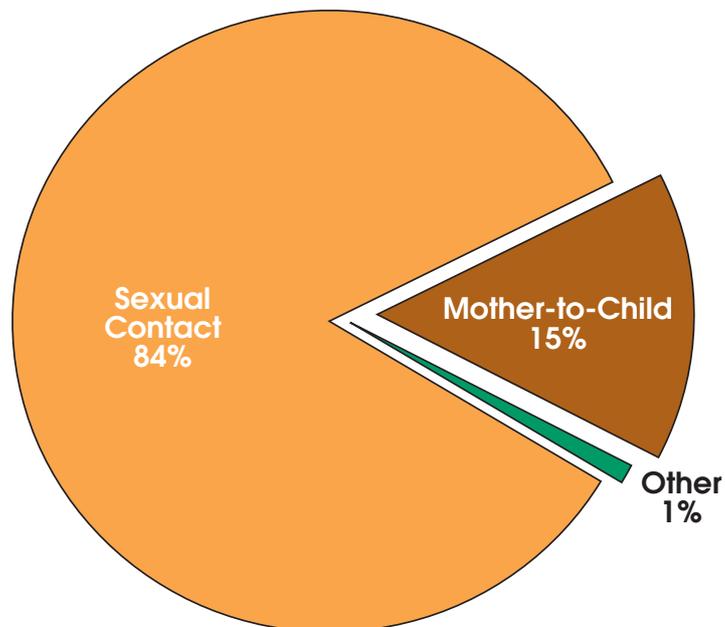


Transmission Mechanisms

An HIV-infected person can transmit the virus to others through sexual contact. Mothers can also transmit the virus to their infants during pregnancy or delivery or while breastfeeding. HIV can also be spread by transfusions of contaminated blood and by sharing needles used for injections and drug use. In Zimbabwe, two transmission mechanisms account for most new HIV infections in the country: sexual contact and mother-to-child transmission.

Equally important is how HIV is not transmitted. The virus is not transmitted by mosquitoes or by casual contact such as shaking hands, kissing, sharing bowls or utensils, or using the same toilet. HIV-infected persons need not be shunned or avoided.

HIV Transmission Mechanisms



Natural History of HIV—A Hidden Epidemic

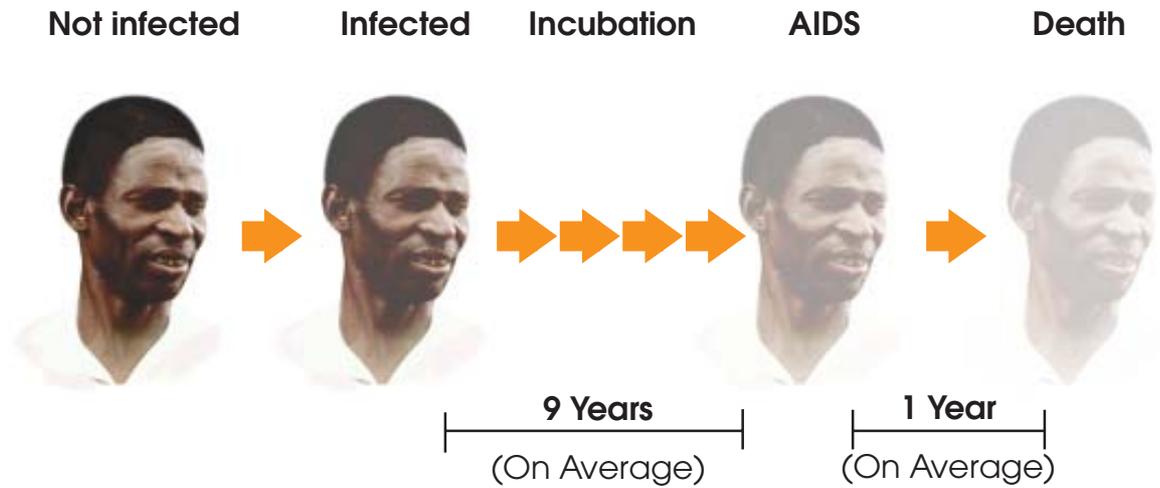
In the absence of antiretroviral therapy, HIV follows a natural progression. For example, the virus is first transmitted to an uninfected adult, most often as a consequence of sexual contact with an infected partner. After transmission of HIV, a person does not develop AIDS immediately. There is often a lengthy incubation period from infection with HIV to development of the disease AIDS that may last anywhere from one to 20 years. Some people may survive a long time, while others will develop AIDS quickly and die soon thereafter. The average time from infection with HIV to development of AIDS is about nine years. That is, on average, a person does not develop AIDS until nine years after becoming infected. Adequate care and treatment can help prolong life.

For most of this incubation period, the person may not have any symptoms and, therefore, may not even be aware that he or she is infected. This contributes to the spread of HIV, since the person can transmit the virus to others without knowing it. A person is able to transmit the virus soon after he or she becomes infected. People with AIDS, of course, remain infectious.

Most HIV-positive people do not know they are infected and do not show symptoms. However, they are capable of unknowingly transmitting the virus to others.

Because of the long and variable incubation period, HIV and AIDS is in many ways a “hidden” epidemic. Most of those who are HIV positive show no symptoms and do not even know they are infected. People without symptoms can be tested to learn their HIV status, but only a small proportion has done so. A main reason is the limited availability of voluntary counselling and testing (VCT) services, especially in rural areas.

Natural History of HIV in Adults



After development of AIDS, the infected person usually succumbs quickly to opportunistic infections and tumours. In the absence of antiretroviral therapy, the average time from development of full-blown AIDS to death is about one year.

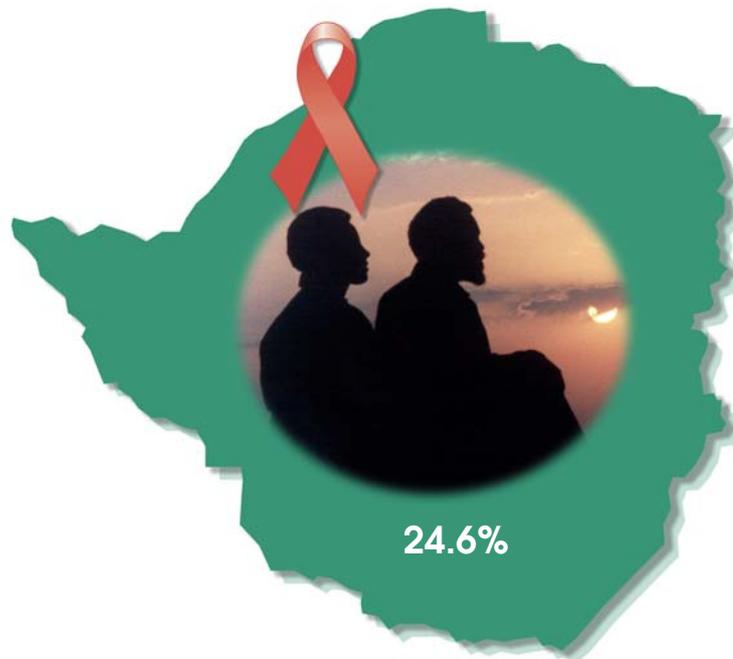
For children, the natural history of HIV is much shorter because their immune systems are not yet fully developed. Most infected infants develop AIDS within two years and die soon thereafter. Proper care, support, and nutrition can help infected infants live as long as possible.

Current Estimates of HIV Prevalence

Sufficient information exists from different sources to draw a reasonably reliable picture of what is happening with HIV and AIDS in Zimbabwe. A good starting point is to look at HIV prevalence in the country. The UNAIDS-recommended measure to understand the extent of HIV in a population is HIV prevalence among 15 to 49 year olds, or the percentage of persons aged 15 to 49 who are infected and living with HIV and AIDS.

The Ministry of Health and Child Welfare (MOHCW), AIDS and Tuberculosis Unit recently assembled a working group of experts to evaluate all the sources of information and arrive at a national estimate of HIV prevalence. This working group estimated that adult HIV prevalence in 2003 was 24.6 percent.² The overall rate is exceedingly high and shows that Zimbabwe is undergoing one of the worst HIV and AIDS epidemics in the entire world. It means that among those Zimbabweans ages 15–49; about one out of four is already HIV infected. Most of those who are currently infected will die from this disease. In addition, more and more adults, as well as children, are becoming newly infected every day. If current prevalence were to persist into the future, about two-thirds of today's 15-year olds would die from this single disease.

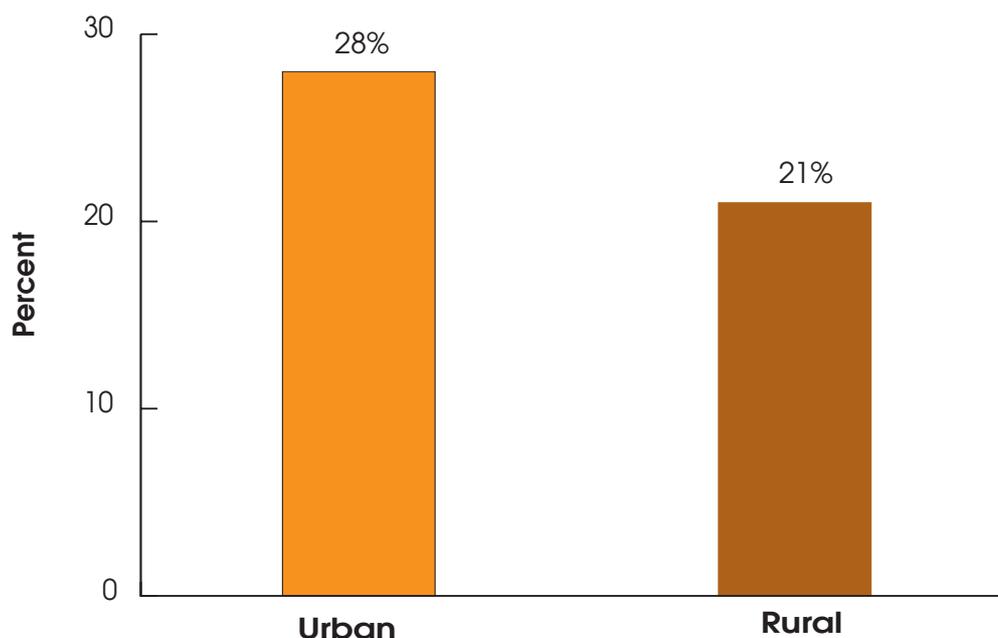
HIV Prevalence, Ages 15 to 49: 2003



² Readers interested in the methodology used to arrive at this estimate should consult Ministry of Health and Child Welfare. *Zimbabwe National HIV and AIDS Estimates 2003*.

In trying to understand the HIV and AIDS epidemic in Zimbabwe, it is important to look at prevalence by place of residence. The Zimbabwe census classifies place of residence by urban, rural, and other. The 2002 census found that 32 percent of the population is urban, 58 percent is rural, and 10 percent lives in other areas.

HIV Prevalence by Urban and Rural Residence, 2003



Source: MOHCW: Zimbabwe National HIV and AIDS Estimates, 2003.

In urban areas, the prevalence rate among 15 to 49 year olds was about 28 percent; in rural areas, it was about 21 percent. Importantly, this is not as wide a differential between urban and rural areas as is found in many other countries in the region. HIV prevalence is high throughout the country.

The “other” category includes, for example, large-scale commercial farms, administrative centers, growth points, mining areas, state land, and army encampments. While only 10 percent of the population lives in these areas, they are nonetheless important to the spread of HIV. In the “other” areas, adult HIV prevalence was estimated to be 35 percent in 2003. Such high prevalence in concentrated areas is one factor contributing to high national prevalence.

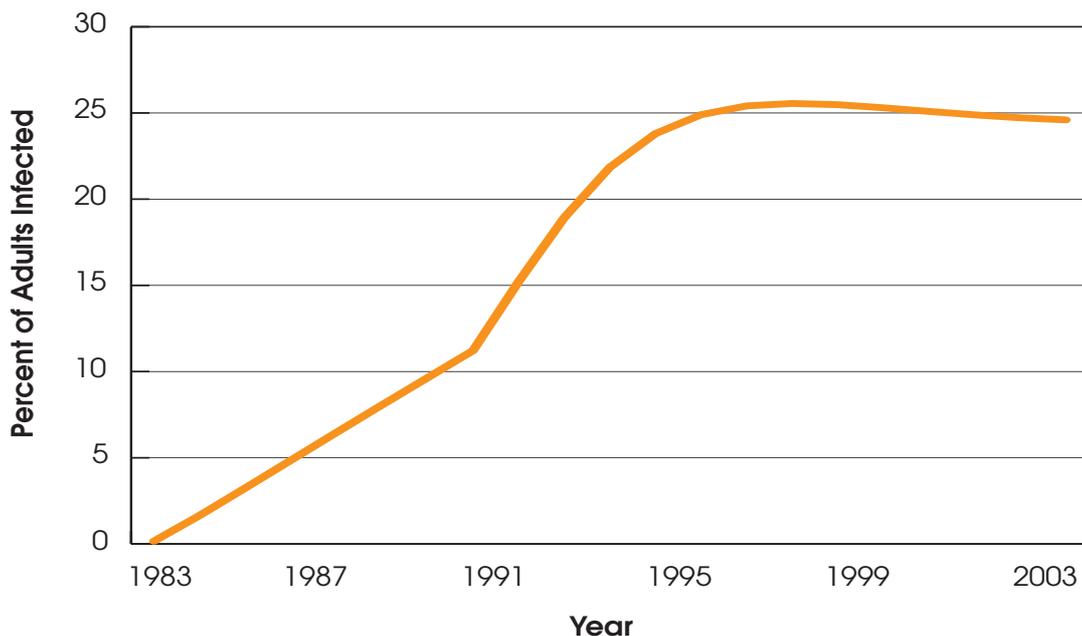
Although HIV prevalence is extremely high, it is equally important to remember the other side of the story. About 75 out of every 100 people ages 15 to 49 remain uninfected, and all of these women and men can actively take measures to protect themselves and help stop the spread of the virus. This is why a strong response to the epidemic from all sectors of Zimbabwean society is so important.

Trends in HIV Prevalence

It is also important to look at trends. Is the epidemic getting worse or is the situation improving? Overall, HIV prevalence in Zimbabwe is still high. The graph, based on estimates prepared by the MOHCW working group, shows prevalence trends in Zimbabwe. Prevalence rose very quickly in the late 1980s and early 1990s, and may have peaked at more than 25 percent somewhere around 1997. Since then it appears to have levelled off.

The plateau in prevalence does not mean that the epidemic has been brought under control. Rather, it means that the number of people who become newly infected each year is about equal to the number who die annually from AIDS. HIV prevalence continues to be very high in Zimbabwe. High HIV prevalence can only persist if large numbers of adults become newly infected each year. The epidemic cannot be brought under control until prevention efforts limit the annual number of new infections.

Estimated HIV Prevalence, Ages 15–49, 1983–2003



Source: AIDS Impact Model, 2003.

The epidemic is certainly not a new phenomenon in Zimbabwe. The evidence indicates that HIV prevalence was already at significant levels in the mid-1980s and at high levels by the early 1990s. This means that the rate of new people infected (incidence) was very high throughout this period.

HIV Prevalence Estimates and Trends

Recently, the Ministry of Health and Child Welfare, AIDS and Tuberculosis Unit led a working group of national and international experts to examine existing data and information, apply appropriate projection programmes, and arrive at an estimate of HIV prevalence for Zimbabwe. The working group used updated and adjusted antenatal clinic data, and reclassified sentinel sites as urban, rural, or other in its effort to estimate HIV prevalence in Zimbabwe. Based on available evidence, this working group determined that adult HIV prevalence is in the 20-28 percent range and that the single best estimate is a prevalence rate of 24.6 percent for 2003.

There have been other estimates of national HIV prevalence in Zimbabwe. Most importantly, UNAIDS, in its *Report on the Global HIV and AIDS Epidemic 2002*, reported an estimated adult HIV prevalence in Zimbabwe of 33.7 percent in 2001. UNAIDS, in turn, based this estimate on the results of the different sentinel surveys, especially the 2000 sentinel survey. However, this does not mean that prevalence has been declining. The earlier UNAIDS estimate and the subsequent MOHCW estimate are based on different methodologies and should not be compared with one another.

Because different estimates exist over time using different methodologies, the picture of HIV prevalence trends in Zimbabwe can sometimes be confusing. Statements are made that adult prevalence has dropped from 33.7 percent to 24.6 percent. However, these are not accurate statements. The prevalence estimate of 24.6 percent is based on new data and better methodologies and the two numbers cannot be compared with one another. The MOHCW working group concluded that adult HIV prevalence in Zimbabwe has not dropped from 33.7 percent to 24.6 percent as is sometimes indicated.

Adult HIV Prevalence

The percentage of persons ages 15 to 49 who are HIV infected.

HIV Incidence

The percentage of uninfected 15 to 49 year-olds who become newly infected each year

However, stable prevalence does not mean that the epidemic is under control. It simply means that the number of people who become newly infected is about equal to the number who die from AIDS each year. A very large number of Zimbabwean adults had to become newly infected each year during the 1990s for prevalence to stabilise at such a high level. This situation will continue as long as prevalence remains stable. (At the same time, stable prevalence probably means that the incidence rate of new infections may have declined from its peak earlier in the 1990s.)



Antiretroviral Therapy and HIV Prevalence in Zimbabwe

The use of antiretroviral therapy (ART) prolongs and improves the quality of the lives of HIV-infected persons. (Not all HIV-infected persons can use ART, and no one yet knows how long, on average, the use of ART will extend life.) To date, ART has only been accessible to a small number of Zimbabweans, but MOHCW has initiated an expansion programme. As ART is used more widely, it will extend the lives of HIV-infected individuals, and people who would otherwise have died in the absence of ART will live longer. This extension of life is highly desirable and the fundamental motivation for expanding ART programmes.

It does mean, however, that public health officials need to be careful in interpreting HIV prevalence trends. As indicated, HIV prevalence is defined as the percentage of persons aged 15 to 49 who are living with HIV and AIDS. Because of demographic trends, especially high birth rates in the past, the overall size of the 15–49 year-old population increases each year.

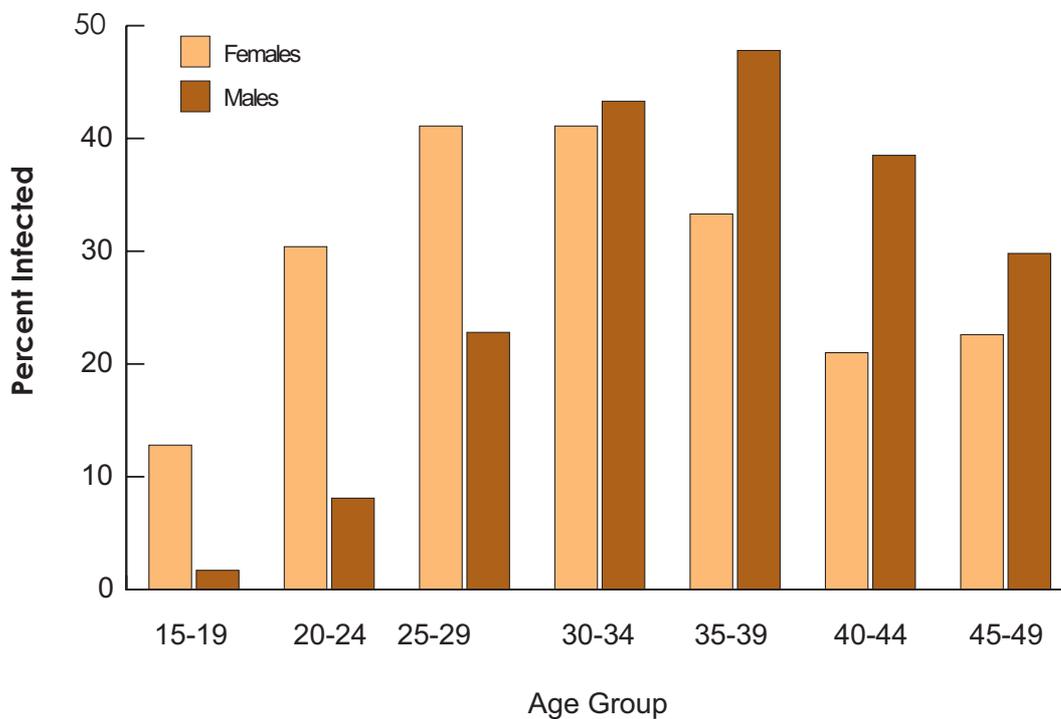
However, two factors affect the HIV prevalence calculation the most. On the one hand, people become newly infected with the virus, thereby “entering” the population of persons living with HIV and AIDS. On the other hand, people die and therefore “leave” this population. When the number of new infections and the number of deaths to HIV-infected persons is about the same, HIV prevalence does not change very much.

With the widespread use of ART, some people who would have died in the absence of ART will still be alive. In this circumstance, the successful and widespread use of ART could actually lead to a rise in HIV prevalence or it could offset an expected decline from the prevention of new infections. This means that public health officials have to be cautious in using prevalence to evaluate the success of programmatic efforts.

Age-Sex Distribution of Infected Persons

Available information indicates that women are about 1.35 times more likely to be HIV infected than men. Prevalence among women is higher in the younger age groups than it is among men and it peaks earlier. HIV-infection rates among young women in the 15–19 year-old age group (around 12 percent) are much higher than they are among young men in the same age group (about 2 percent). In the 20–24 year-old age group, infection rates among young women are about three times higher than those for men.

Age-Sex Distribution of Infected Persons 15 to 49, 2003



Source: AIDS Impact Model, 2003.

Prevalence among women is highest between the ages of 25 and 34. By contrast, male prevalence is highest in the 30–39 year-old age group. The proportion of HIV-infected men is higher than the proportion of HIV-infected women in the older age groups.

Though not shown in the graphic, infection rates are very low in the 5–14 year-old age group. Since prevalence is so low among these young people, programmes targeted at this group provide a special opportunity to prevent infections and affect the future course of the epidemic. The national policy recognises the importance of this “window of hope” and calls for HIV and AIDS prevention programmes for youth, both in- and out-of-school.



Photograph:
Campaign launch
of the Promotion
of Youth
Responsibility
Project (M&M
Communications,
LTD.)

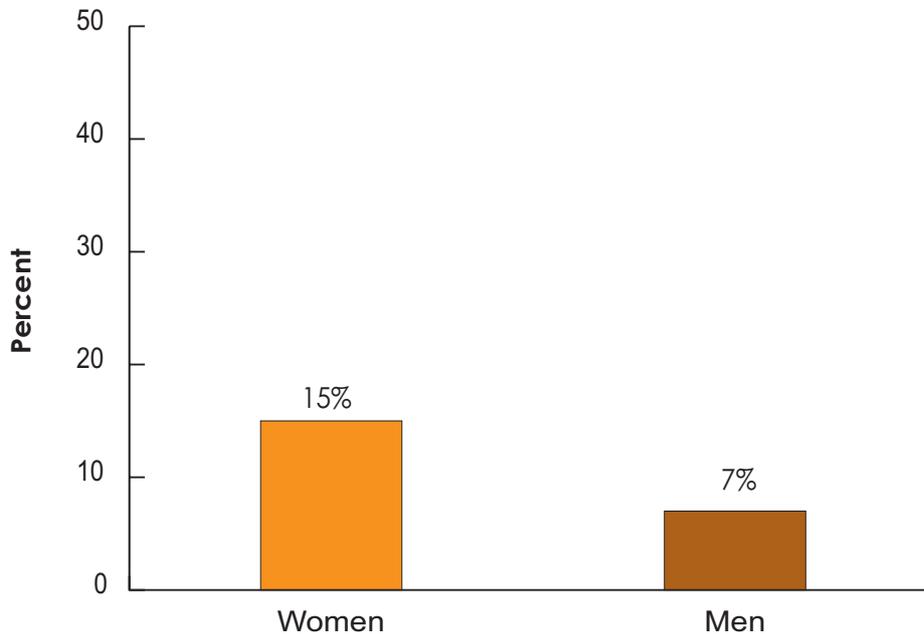
Sexual Behaviour of Young Adults

Adolescents and young adults account for most new HIV infections in Zimbabwe. To alter the course of the epidemic and achieve dramatic reductions in prevalence over time, Zimbabwe will need to reduce new infections among its youth through sustained changes in risky sexual behaviour. The Zimbabwe Young Adult Survey, 2001–2002 (YAS) looked at young people ages 15–29, and the results provide useful information to help address the epidemic.

Overall, knowledge about HIV and AIDS is high among young Zimbabweans. About 93 percent of women ages 15–29 had heard of AIDS, while 83 percent knew of HIV. The percentages were even higher for young men—about 97 percent had heard of AIDS and 92 percent knew of HIV. Most young women and men are aware that sexual contact is a major mode of HIV transmission. The situation is much different when translating this knowledge into action, however.

The discussion considers only those young adults who are sexually experienced, since those are the young people who would have a motivation to be HIV tested. YAS reports that 66 percent of women ages 15 to 29 and 55 percent of women ages 15–24 are sexually experienced. Among men, 62 percent of 15–29 year-olds and 50 percent of 15–24 year-olds were sexually experienced. Not surprisingly, the proportion of young adults with sexual experience rises with age. In the 25–29 year-old age group, 98 percent of men and 94 percent of women reported sexual experience. Among sexually experienced young adults, about 68 percent of women and 97 percent of men indicated that their first sexual experience was prior to marriage. The average age of first intercourse among the sexually experienced was about 18 years for both women and men.

Percent of Sexually Experienced Young Adults 15–29 Who Have Ever Been Tested for HIV

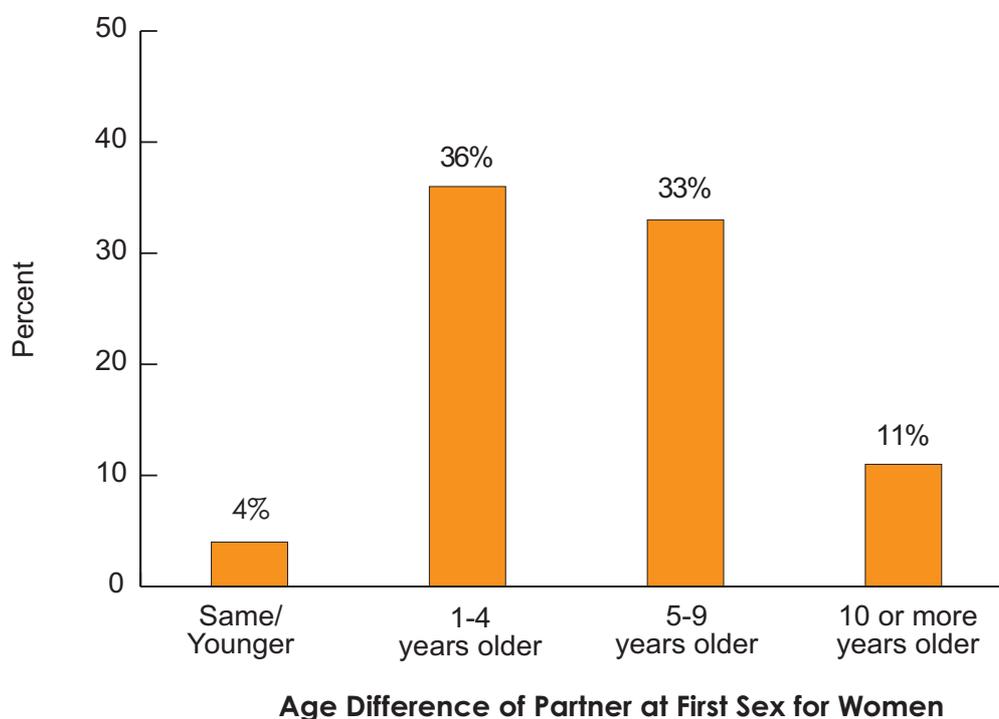


Source: Young Adult Survey, 2001–2002: A Preliminary Report.

The graph shows that the large majority of sexually experienced young people have never been tested and do not know their HIV status. The YAS shows that, among the sexually experienced, about 15 percent of females and 7 percent of males have ever been tested for HIV. About one out of seven of those tested never learned the results of the test. The main reasons for not being tested were the perception of not being at risk, followed by expense and difficulty accessing testing sites. Among the large proportion never tested, more than four out of five persons indicated that they would like to be tested.

Some public health officials believe that one of the factors driving the epidemic is sexual relations between younger women and older men. Age differences are not important in themselves. Rather, age-mixing is used as an indirect way to look at relations between those older men who have multiple partners and who are more likely to be HIV infected and younger women

Reported Age Difference of Partner at First Sex for Women



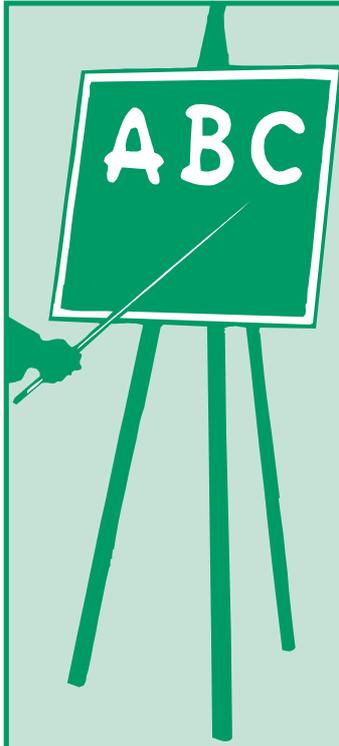
Source: Young Adult Survey, 2001–2002: A Preliminary Report.

YAS confirms extensive age mixing in Zimbabwe. The survey looks at the age of partner at first sex for women. Overall, only 4 percent of women's first sexual partners were the same age or younger. However, 36 percent were one to four years older; 33 percent were five to nine years older; and 11 percent were 10 or more years older.

Sexual violence can also contribute to the spread of HIV. Overall, 24 percent of women ages 15–29 reported being forced to have sex at some time in their lives, including 20 percent in urban areas and 26 percent in rural areas.

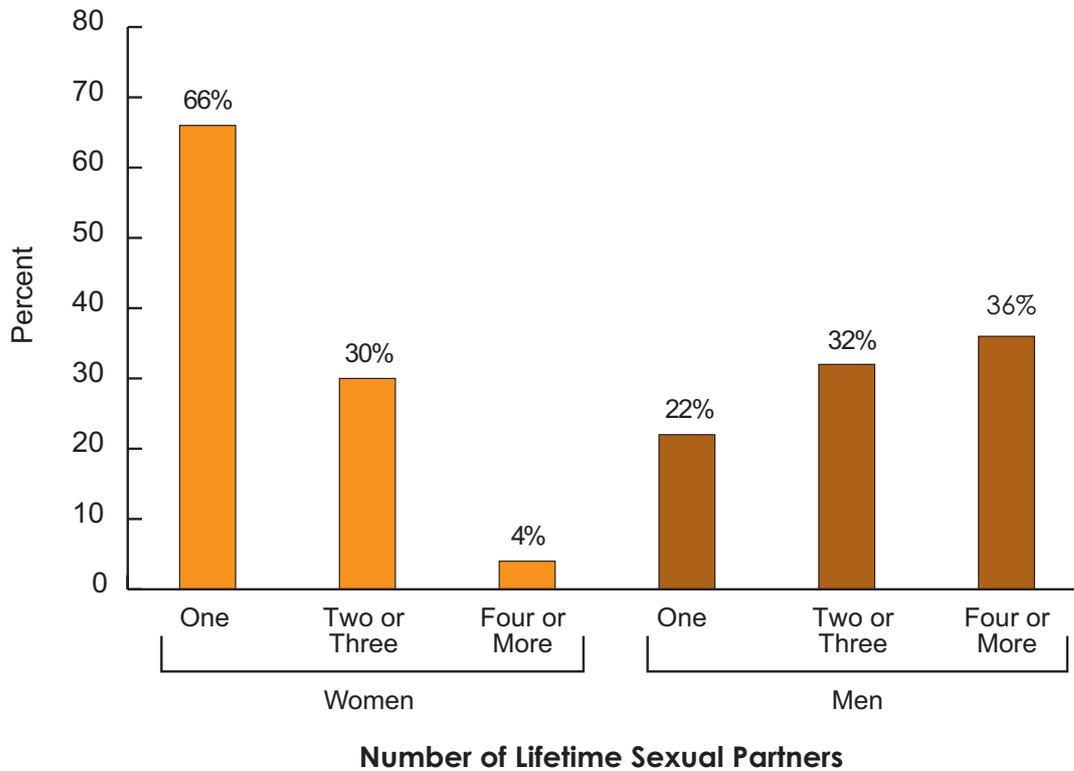
The number of sexual partners can also contribute to the spread of the virus. Among sexually experienced women ages 15–29, 71 percent reported one lifetime sexual partner; 25 percent reported two to three; and 4 percent reported four or more lifetime partners. Among sexually experienced men in the same age group, 31 percent reported a single lifetime sex partner; 33 percent indicated two or three lifetime partners; and 30 percent reported four or more lifetime sexual partners.





In Zimbabwe, sexual contact accounts for most new infections. Consequently, most prevention programmes focus on ways to ensure safe and responsible sexual practices that minimise HIV transmission. The main preventative efforts often involve the ABCs of HIV prevention: A=Abstinence; B=Be Faithful; C=Condoms. Abstinence can be practised prior to marriage, but a person can also begin to practise abstinence at any time in his/her life to protect against infection. Encouraging and achieving delays in first sexual relationships among young people is also an important abstinence strategy. Being faithful means mutual faithfulness to a single partner but is also often used to include reductions in the number of sexual partners. Condom use means the correct and consistent use of condoms, especially in sexual encounters that expose either partner to the risk of HIV transmission.

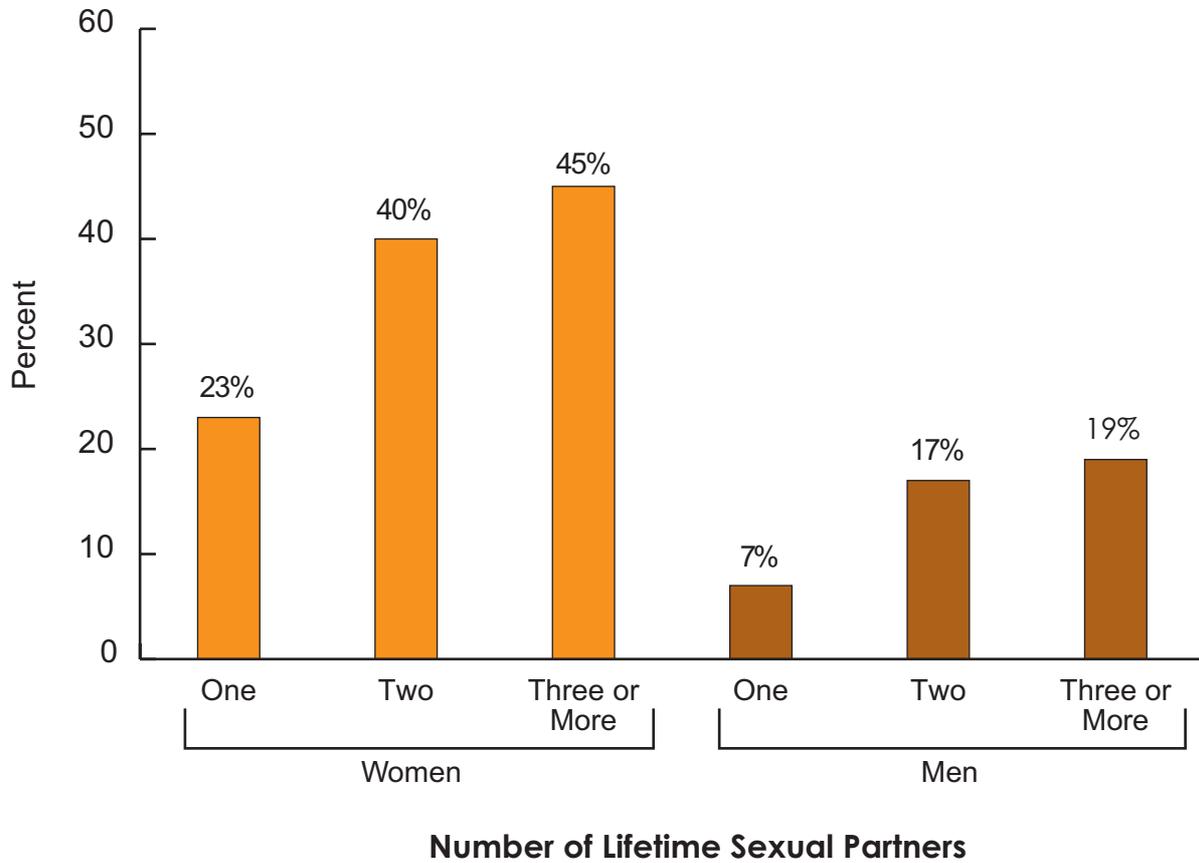
Young Adults Ages 25–29: Number of Lifetime Sexual Partners



Source: Young Adult Survey, 2001–2002: A Preliminary Report.

Looking at the number of lifetime partners among 25–29 year-olds gives a better sense of sexual behaviour over time. Among sexually experienced women in this age group, 66 percent indicated a single lifetime partner, 30 percent reported two or three lifetime partners, and four percent said they had four or more lifetime partners. The percentages with multiple lifetime partners are higher among sexually experienced males in the 25–29 year-old age group. About 22 percent reported a single partner; 32 percent indicated two or three lifetime partners, and 36 percent reported four or more lifetime sexual partners. (About 10 percent of respondents failed to answer the question.)

HIV Prevalence Among 15–29 Year-Olds by Number of Lifetime Sexual Partners

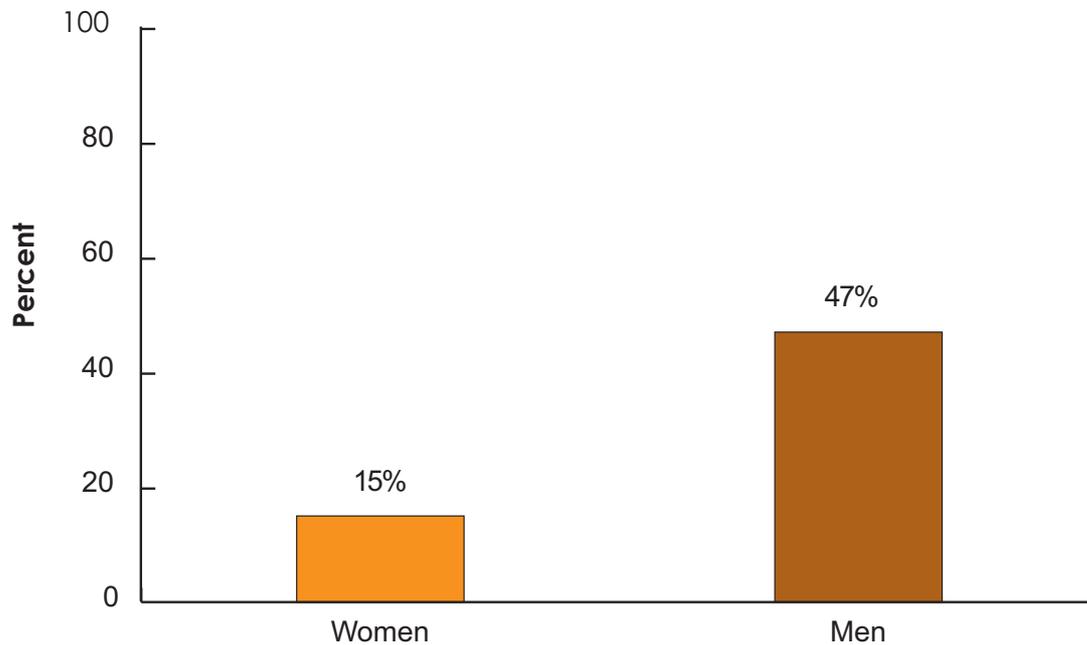


Source: Young Adult Survey, 2001–2002: A Preliminary Report.

The number of lifetime partners is important because of its strong association with HIV prevalence. In looking at sexually experienced persons in the 15–29 year-old age group, YAS found that HIV prevalence among young women was 23 percent if they had a single lifetime partner; 40 percent if they had two lifetime partners; and 45 percent if they reported three or more lifetime sexual partners. Among young men in the age group, HIV prevalence was 7 percent among those who reported a single partner; 17 percent among those who reported two partners; and 19 percent among those who indicated three or more partners.



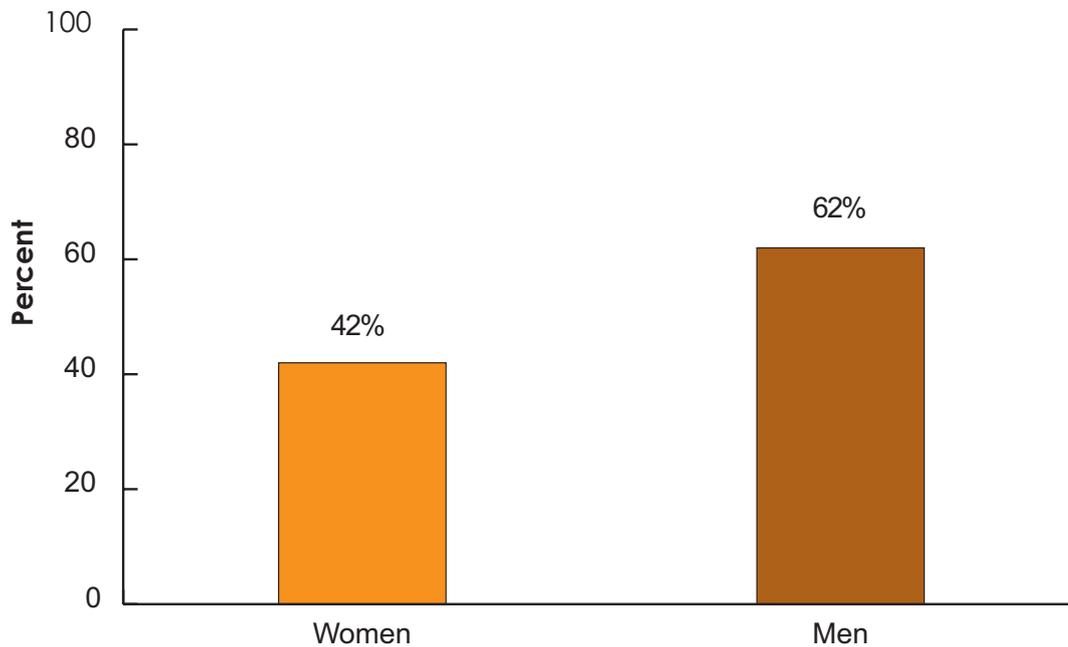
Young Adults Ages 15–29: Condom Use During Last Sexual Intercourse



Source: Young Adult Survey, 2001–2002: A Preliminary Report.

Correct and consistent condom use is also an effective way to prevent transmission of HIV and other sexually transmitted infections. YAS reported that 15 percent of women and 47 percent of men reported condom use during last sexual intercourse. Three out of four sexually experienced women reported having a regular partner, but only 11 percent of these women used a condom with their regular partner over the previous year. By contrast, only two out of five sexually experienced men reported having a regular partner, and about 27 percent of these young men used a condom with their regular partner over the previous year.

Young Adults Ages 15–29: Condom Use at Last Sex With Non-Cohabiting Partner



Source: Young Adult Survey, 2001–2002: A Preliminary Report.

Condom use with non-cohabiting (neither married to nor living with) partners is an important factor to be taken into consideration. This is because unprotected sexual relations with non-cohabiting partners often entails increased risk of HIV transmission. Condom use by young adults with non-cohabiting partners is fairly high. About 42 percent of women and 62 percent of men reported condom use at last sex with a non-cohabiting partner.

Sexual behaviour data can be difficult to interpret. The 2005 Demographic and Health Survey will include questions on HIV and AIDS. After the 2005 DHS results are available, it will be easier to get a sense of change over time. To date, some of the indicators³—condom use, for example—are promising. Still, what is clear is that the persistence of very high HIV prevalence means that Zimbabwe has far to go to create an environment that minimises the risk of HIV transmission, especially among the young.

³ An indicator is an agreed upon measure to show changes in the epidemic or in behaviour over time. Increased condom use, especially in relations with non-cohabiting partners, is a commonly used indicator.

Why Zimbabwe?

The most affected countries with the highest HIV prevalence are clustered in southern Africa—Botswana, Lesotho, Namibia, South Africa, Swaziland, and Zimbabwe. Why has the epidemic been so extremely serious in Zimbabwe? No one knows for certain, although several factors seem to have contributed to the rapid spread of the virus and the sustained high level of HIV prevalence in the country.



High prevalence of other sexually transmitted infections. The probability of transmitting HIV during unprotected sex rises dramatically if either partner is infected with another sexually transmitted infection, such as syphilis or genital herpes. This is because some sexually transmitted infections (STIs) cause ulcers, sores, and blisters as well as genital discharges and inflammation that facilitate the transfer of the virus. In Zimbabwe, although the reported number of STI cases has declined over the past several years, overall levels are still quite substantial.

Low levels of male circumcision. Strong international evidence exists that HIV and other STIs are transmitted at a much higher rate in populations where a low proportion of males has been circumcised. In part, the foreskin has a large number of HIV target receptor cells—cells to which the virus can more readily attach itself and gain entry to the body. With circumcision, these receptor cells are removed. Circumcised men also appear to be less susceptible to abrasions and tearing and less prone to ulcerative STIs, all of which facilitate transmission of the virus. In Zimbabwe, the practice is uncommon and most adult males are uncircumcised.

Multiple sexual relationships. HIV is primarily spread in Zimbabwe by heterosexual contact; therefore, enough sexual networking has to take place to sustain the epidemic over time. Multiple sexual partnerships, especially those that occur concurrently in a person's life, contribute to the spread of HIV. YAS reported that, among young adults ages 15–29, 29 percent of women and 63 percent of men had two or more lifetime partners. Some persons with multiple partners and a high risk of HIV infection—commercial sex workers, for example—are especially important drivers of the epidemic.

Traditionally low use of condoms and incorrect or inconsistent use. Three points are important to this discussion. (1) When condoms are used consistently and correctly, they are a highly effective means of preventing the transmission of HIV and other STIs. (2) As the epidemic spread in the 1980s and early 1990s, condoms were not widely used in the country. Low condom use at this critical time was one factor contributing to the rapid spread of HIV. The distribution and use of condoms subsequently soared during the 1990s but this was after the epidemic had already taken hold in the country. Even now, condom use has not been sufficient to reverse the HIV and AIDS epidemic. (3) To

be effective in preventing disease transmission, condoms need to be used correctly and they need to be used consistently with all partners. Occasional use negates much of the effectiveness of condom use.

Settlement patterns and mobility. Zimbabwe is relatively highly urbanised by African standards. Preliminary reports from the 2002 census indicate that 32 percent of the population lives in urban areas. About 58 percent of the population resides in rural areas, including communal lands, small-scale commercial farms, and resettlements. Another 10 percent of the population is clustered in "other" areas that do not comfortably fit into either an urban or rural classification. The "other" areas include, for example, large-scale commercial farms, growth points, and mining areas, and they are characterised by very high levels of HIV prevalence. Transport and roads have been relatively good in Zimbabwe and have fostered high levels of movement back and forth among town, communal areas, commercial farms and other areas which in turn has helped spread the virus throughout the country. One of the noteworthy characteristics of the epidemic in Zimbabwe is that the gap between HIV prevalence in urban areas (28 percent) and rural areas (21 percent) is narrower than that found in many other countries.

Poverty and low social and economic status of women. The often low social and marginal economic status of women can contribute to high-risk sexual behaviour and vulnerability to HIV infection. A not uncommon coping strategy for survival is for poor women and adolescent girls to exchange sex for money or gifts. Poverty, high rates of unemployment and generally low returns from informal sector economic activities have been associated with high-risk sexual behaviour and the spread of HIV among both women and men.

When HIV first entered Zimbabwe, it came upon an unknowing population. Several factors came together-some of which have been noted-that facilitated the spread of the virus and rapid growth of the epidemic. Many of these conditions persist and have helped sustain the epidemic over time.



Some Factors Contributing to the Spread of HIV

- ✓ High prevalence of other STIs
- ✓ Low levels of male circumcision
- ✓ Multiple sexual relationships
- ✓ Insufficient or incorrect and inconsistent use of condoms
- ✓ Settlement patterns and mobility
- ✓ Poverty and low economic and social status of women



2

Projections

Number of HIV-Infected Persons

Number of Annual New AIDS Cases

Annual AIDS Deaths

Cumulative AIDS Deaths

Annual Deaths to Persons Ages 15 to 49

Sand Life Expectancy at Birth

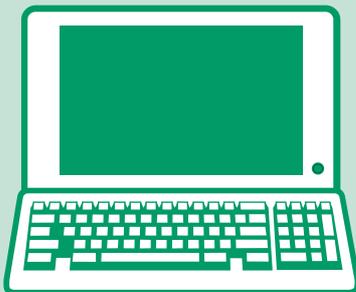
Population Growth

Projections

HIV prevalence has already been high for a long period of time. Consequently, the social and economic impacts of the epidemic are going to be serious regardless of what happens to prevalence in the future.

What is the future course of the epidemic? HIV and AIDS has proven to be an unpredictable epidemic and no one knows its future for certain. Much depends on an ability to sustain changes in sexual behaviour in future generations of youth. Since prevalence has already been stable at its current level for a period of time, it is possible that the epidemic might not change much for many years. Given the national goal to establish effective programmes and achieve behaviour changes, the annual number of new infections might decline as well. In many ways, the future direction of the epidemic is in the hands of the Zimbabwean people and institutions, and much depends on whether individuals are able to change high-risk behaviours and on the success of other interventions.

This section makes projections about the future impact of the HIV and AIDS epidemic in Zimbabwe. It assumes that prevalence drops only slowly in coming years from its present level of 24.6 percent to 21 percent in 2018. It does not take into account the possible expansion of antiretroviral therapy programmes. This is an arbitrary "high prevalence continued" projection, and it is only one of numerous possible alternatives. It is designed to show the consequences of inaction or lack of success.



Computer Models and Projections

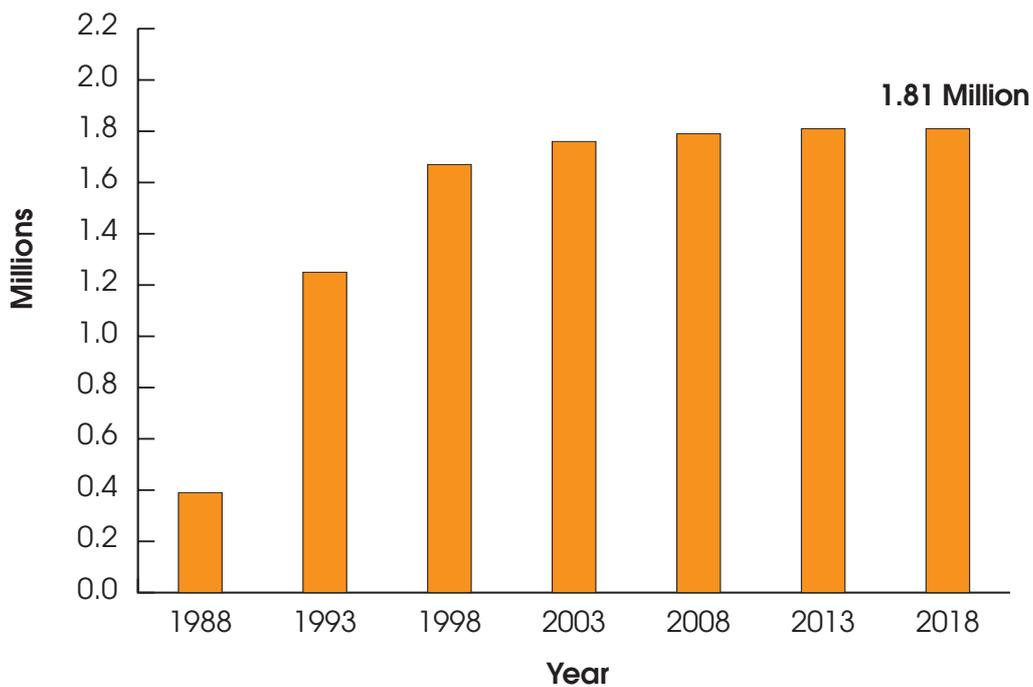
Computer models are a common tool used to analyse existing information to see the consequences of different programmes and policies. These models use assumptions about key demographic and HIV and AIDS variables to ask a series of "what if" questions. For example, a model might be asked to answer the question: what happens to the number of infected persons if antiretroviral therapy is used in future years by large numbers of HIV-infected people?

The NAC team used the AIDS Impact Model (AIM) to prepare the projections in this analysis. The adult HIV prevalence rate is one of the central variables used in AIM. The analysis asks the question: what happens to key indicators if adult prevalence declines only slowly between now and 2018? By taking this approach, the projections show the consequences of inaction or lack of success and can be used to stress the urgency of efforts to stem the epidemic.

Number of HIV-Infected Persons

The number of HIV-infected persons in the population (including children) rose from about 390,000 in 1988 to nearly 1.8 million in 2003 as the epidemic expanded rapidly throughout the country. If HIV prevalence stays high between now and 2018, the number of infected persons will remain near the 1.8 million level. Over that period, large numbers of people will die from the disease and be removed from the HIV-infected population. High mortality, along with the assumed small decline in prevalence, is why the number of infected persons does not grow significantly. The number of people living with HIV and AIDS will be larger if antiretroviral drugs are widely and effectively used to prolong life.

Estimated and Projected Number of People Infected with HIV, 1988–2018



Source: AIDS Impact Model, 2003.

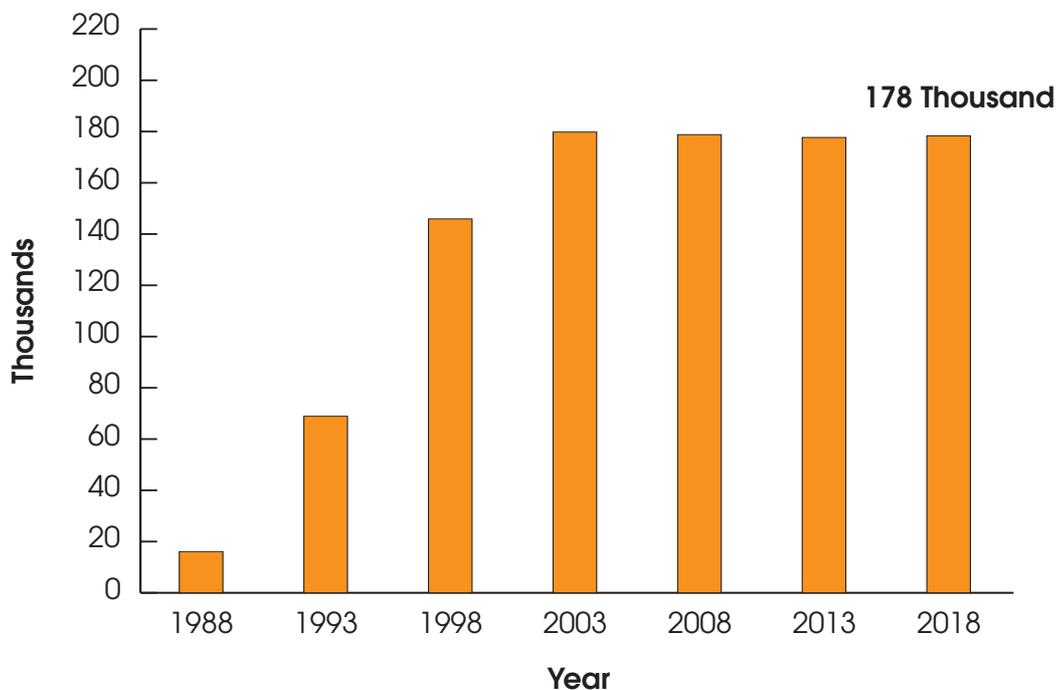
Number of Annual New AIDS Cases

AIDS is the final stage of HIV infection when the virus has broken down the immune system and the body cannot protect itself against disease. Health officials often use a case definition that defines AIDS by the presence of opportunistic infections and tumours. In 2003, approximately 10 percent of HIV-infected persons had developed AIDS.

The number of new AIDS cases developing each year from among those persons living with HIV infection is very important. Infected persons who progress to AIDS place tremendous demands on the health system until they die. As antiretroviral therapy is introduced into the country, the annual number of new AIDS cases is also a good proxy of the number of new people who are potential users of this treatment.

In this projection, the number of annual new AIDS cases rose from 16,000 in 1988 to 180,000 in 2003. In the projections, the annual number of new AIDS cases stays near this mark through 2018. Under the assumptions in this projection, about 490 persons would develop AIDS each and every day for the 15-year period between 2003 and 2018. The very large number of annual new AIDS cases will continue to place severe pressure on the health system, as well as on households, to provide the intensive care required by AIDS patients

Estimated and Projected Number of Annual New AIDS Cases, 1988–2018

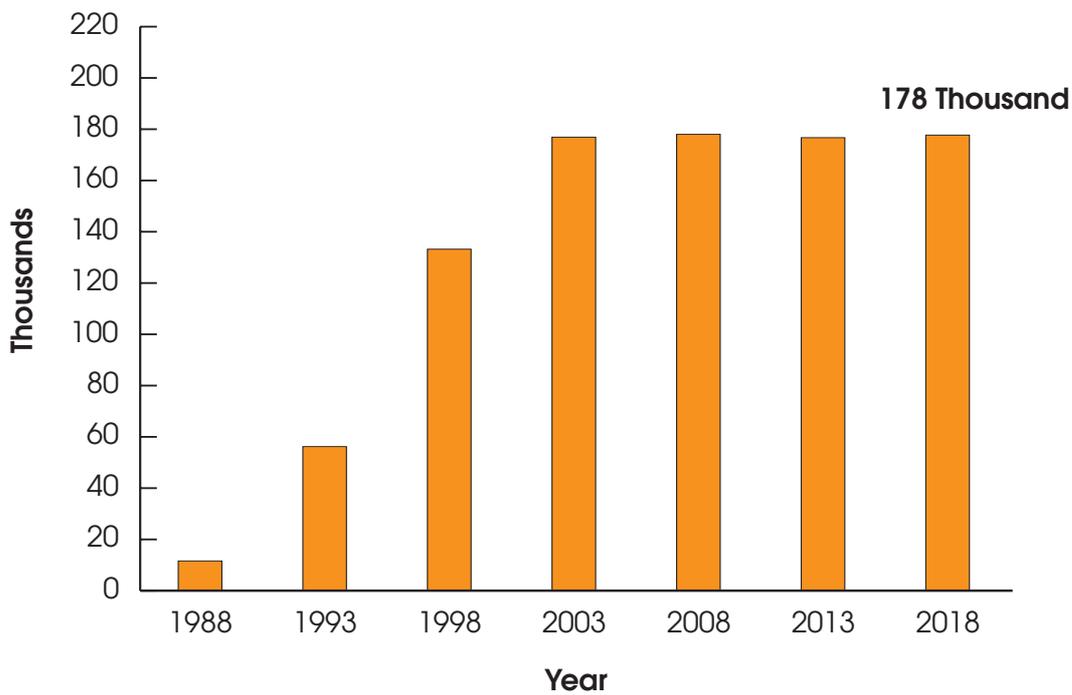


Source: AIDS Impact Model, 2003.

Annual AIDS Deaths

The death toll from AIDS has been high and it continues to rise. In 1988, about 12,000 persons died from AIDS. Fifteen years later in 2003, about 177,000 Zimbabweans died as a result of the disease. Already in 2003, more than 485 Zimbabweans of all ages were dying every single day of the year because HIV has destroyed the ability of their immune systems to resist opportunistic infections. Under the assumptions in this projection, the loss of life from AIDS will continue near this level well into the future.

Estimated and Projected Annual AIDS Deaths, 1988–2018



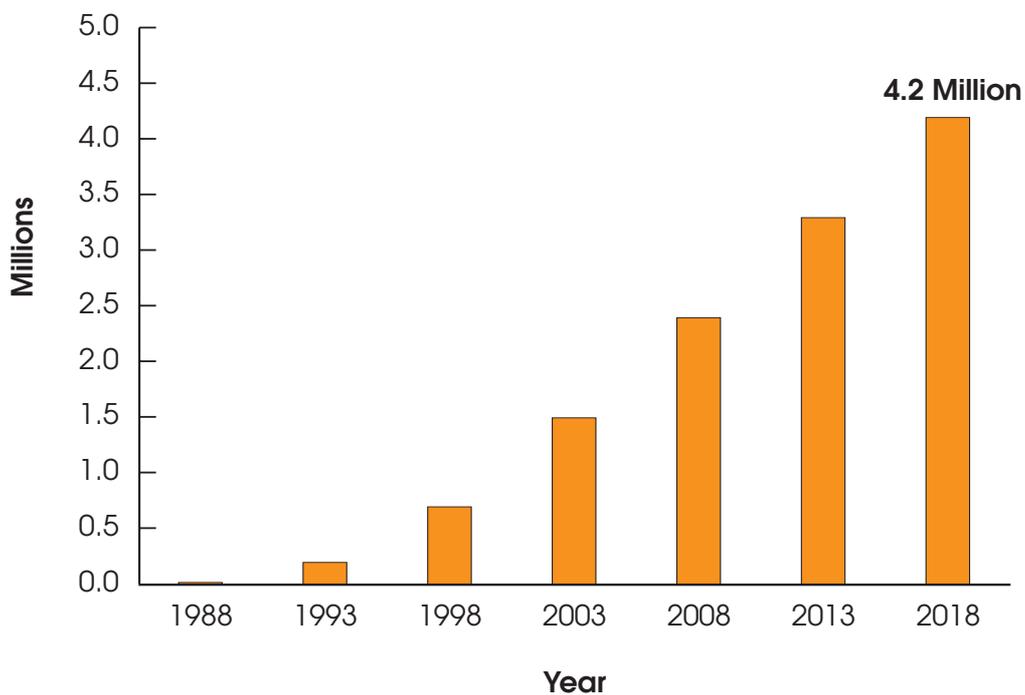
Source: AIDS Impact Model, 2003.



Cumulative AIDS Deaths

The devastation of the epidemic can be seen by looking at cumulative AIDS deaths over time. From the beginning of the epidemic until 2003, an estimated 1.5 million Zimbabweans have died from the disease. Over the 15-year period, from 2003 to 2018, an additional 2.7 million Zimbabweans are likely to die from the disease in the absence of widespread use of antiretroviral drugs. This would result in a cumulative total of about 4.2 million deaths by 2018. The devastating impact of HIV and AIDS is something that Zimbabwe is going to have to deal with well into the future.

Estimated and Projected Cumulative AIDS Deaths, 1988–2018



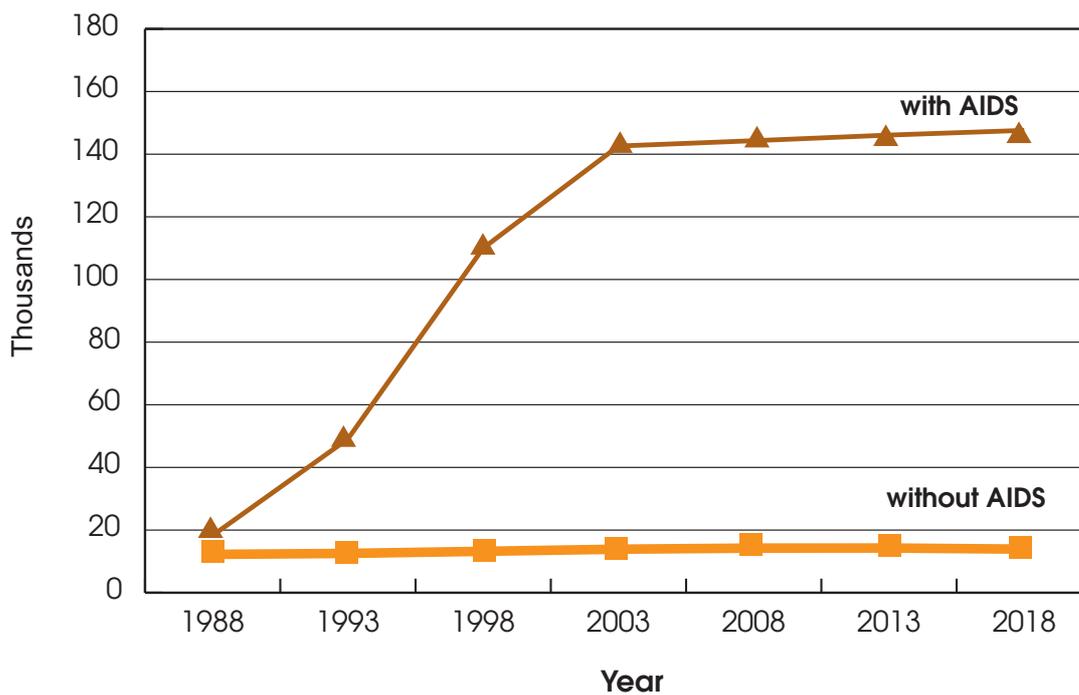
Source: AIDS Impact Model, 2003.

Because of the long incubation period between HIV infection and AIDS, much of the future impact of the epidemic is already determined. If adult HIV prevalence were to fall to zero by 2010—an absolute impossibility—there would still be 1.6 million additional AIDS deaths between 2003 and 2018.

Annual Deaths Among Persons Ages 15 to 49 and Life Expectancy at Birth

The epidemic will increase the death rate in almost all age groups over what it would have been in the absence of AIDS. However, the impact will be most severe among adults in the prime working ages and among children under the age of five. Without AIDS, and assuming a gradual decline in death rates from other causes, the annual number of deaths among adults aged 15–49 would be fairly stable over time. However, AIDS will dramatically increase the number, with annual deaths in this age group from all causes reaching 143,000 per year in 2003 and 148,000 per annum in 2018. AIDS is now responsible for about nine out of every 10 deaths in the 15 to 49 year-old age group. The large number of deaths in the productive age group attributable to AIDS is having serious consequences for the economic and social development of the country. High mortality in these ages also results in large numbers of orphaned children.

Estimated and Projected Annual Deaths Among Persons Ages 15 to 49, 1988–2018



Source: AIDS Impact Model, 2003.

The United Nations Population Division estimates that life expectancy at birth in Zimbabwe was about 58 years in 1980. (Based on census results, Central Statistical Office estimated life expectancy at birth at 58 years in 1982.) By 2003, life expectancy at birth may have dropped into the mid-30s according to the projection model used in this analysis. The same trend of declining life expectancy is found in projections prepared by the United Nations and the U.S. Bureau of the Census. Zimbabwe may have one of the lowest life expectancies in the world and the reason is largely due to the HIV and AIDS epidemic.

Life expectancy at birth is an average. It is calculated by determining what proportion of males and females die at each age from different causes. A large number of deaths at younger ages means that life expectancy will be low; conversely, if most people live to older ages then life expectancy will be high.

Because most HIV transmission is through sexual contact, it raises death rates among young and working age adults. Mother-to-child transmission also results in increased mortality among infants and children. Consequently, as a direct result of the epidemic, life expectancy at birth has dropped dramatically and it is now much lower than at the time of independence.



Life expectancy at birth has dropped dramatically due to AIDS-related mortality

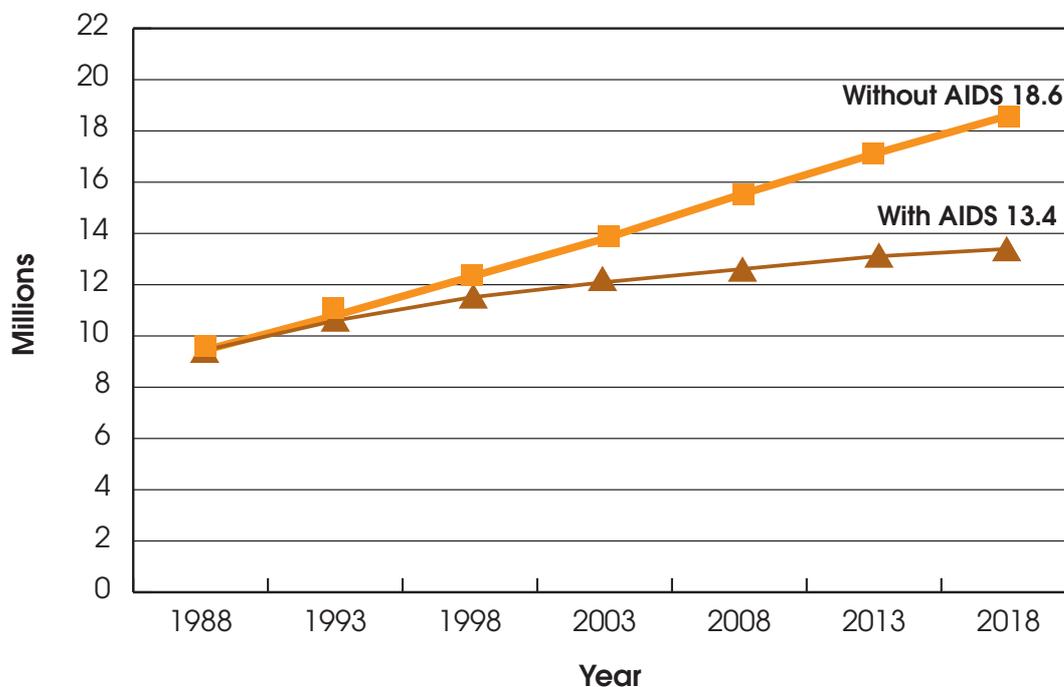


Population Growth

The impact of the HIV and AIDS epidemic on population growth is an important question. Zimbabwe has had one of the most successful family planning programmes in sub-Saharan Africa. The fertility rate, which is the average number of children per woman, fell from about 6.7 children per woman around 1980 to 4.0 children per woman at the time of the 1999 Demographic and Health Survey. More than half of all married women of reproductive age were using a modern contraceptive in 1999, one of the highest levels in the region. Declining fertility, along with rising AIDS mortality and some out-migration, led to a constant decline in the annual rate of population growth. By 1999, the population was probably growing somewhere near 1.2 percent per year.

The following two projections assume a continued decline in the fertility rate to replacement levels by 2020. However, the first projection, for purposes of comparison, assumes no HIV and AIDS epidemic, while the second projection assumes the existence of the epidemic. By 2003, there would be about 1.7 million fewer persons in the population as the direct consequence of the HIV and AIDS epidemic. By 2018, the accumulated impact of the epidemic would mean Zimbabwe would have about 5.2 million fewer persons than would have been the case in the absence of HIV and AIDS. In the projection with AIDS, the population would continue to grow throughout the projection period, although at a very slow pace.

Projected Population Growth, 1988–2018

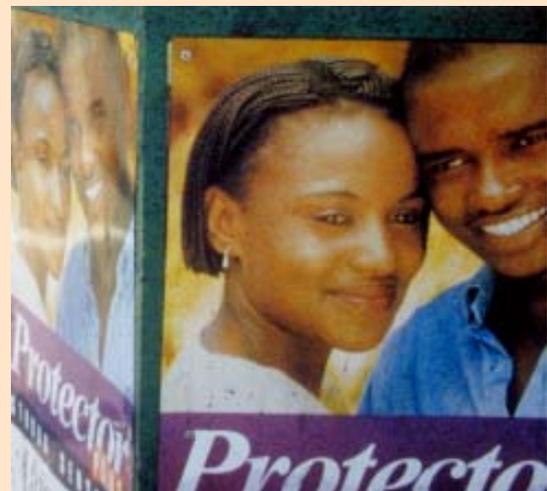


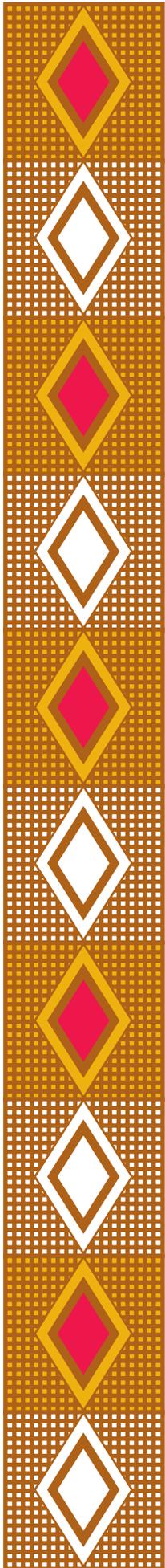
Source: AIDS Impact Model, 2003.

Although Zimbabwe has had one of the strongest family planning programmes in Africa for many years, high AIDS-related mortality and the consequent decline in the rate of population growth have led some observers to wonder about the importance of sustaining a strong programmatic effort. However, family planning is important for many reasons beyond its impact on the rate of population growth. By helping manage the spacing, timing and number of births, family planning leads to better health for both mothers, children, and their families in Zimbabwe. The availability of services also contributes to reproductive health and rights by helping Zimbabwean couples determine, freely and responsibly, the size and spacing of their families. Family planning can also help adolescents avoid unwanted pregnancies and protect their reproductive health.

Family planning is itself an important measure to limit the transmission of HIV and it increases the overall impact of HIV and AIDS services. As noted, correct and consistent use of condoms is a powerful and effective way to limit the transmission of HIV and other sexually transmitted infections. Discordant couples (one partner is infected and the other is not) would almost certainly find it advisable to use condoms. If a woman is infected or uncertain of her HIV status, she and her partner can use family planning to prevent further pregnancies and the consequent risk of mother-to-child transmission. WHO recommends pregnancy prevention among HIV positive women as a major component of PMTCT programmes. Family planning enables HIV positive men and women to make informed decisions about whether to have a child or not.

Family planning is important to the control of HIV and AIDS in Zimbabwe. Family planning also contributes to the health of mothers and children; helps couples choose, freely and responsibly, the size and spacing of their families; and promotes adolescent reproductive health.





3

Impacts on Social and Economic Development

Health

Agriculture and Food Security

Education

Economy

Orphans

Gender and AIDS

Impacts on Social and Economic Development

HIV and AIDS are leading to a massive loss of life in Zimbabwe. The epidemic has caused and is continuing to cause untold suffering among those infected with the virus and among those otherwise affected by the epidemic. The epidemic also has a pervasive impact on Zimbabwean society and economy. All sectors and all Zimbabweans have a vested interest in addressing this epidemic because of what it is doing to the country. Unfortunately, there is a dearth of recent, Zimbabwe-specific information on the impacts of the epidemic. This section presents a few illustrative examples of the social and economic impacts of HIV and AIDS.

Health

The health sector is hit particularly hard by the epidemic. The treatment of opportunistic infections resulting from AIDS is expensive and is straining the delivery of all health services in the country. HIV and AIDS patients command a disproportionate share of beds at health centres and hospitals. Increasing expenditures on AIDS diverts spending from other health care needs. As early as 1998, MOHCW estimated that the costs of conventional care for HIV and AIDS-related illnesses would increase the budget by about 60 percent. Health providers are also affected. Some become infected themselves and large numbers suffer from the intense physical and emotional strain of dealing with AIDS patients. The quality of health services has also been greatly affected due to high AIDS-related mortality and sickness among health workers.

The epidemic also affects the sector in other ways. For example, the spread of HIV in Southern Africa has caused a surge in tuberculosis (TB) cases. Many, perhaps half, of all adults in southern Africa carry a latent TB infection, which is suppressed by a healthy immune system. When the immune system is weakened by HIV, it can no longer control the latent infection and full-blown tuberculosis can develop. MOHCW has reported that the number of TB cases increased by over 400 percent between 1990 and 1999.

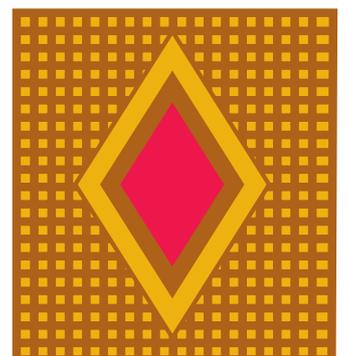
The impact of HIV infection on tuberculosis is an especially serious problem because TB can be transmitted through casual contact. Consequently, Zimbabweans who are not at risk of HIV infection can become tuberculosis infected as an offshoot of the HIV and AIDS epidemic. Some people who are TB infected (both HIV-positive and HIV-negative persons) receive inadequate drug treatment while others fail to adhere to their treatment. The result is that drug-resistant strains of TB are appearing, making it even more difficult and expensive, if not impossible, to treat the disease.

Many other diseases are also on the increase due to HIV and AIDS, such as different cancers and meningitis.



Health

The spread of HIV and AIDS has strained the delivery of health services, led to a surge in the incidence of other diseases, such as tuberculosis, and placed intense pressures on health workers.



Agriculture and Food Security

Zimbabwe has been suffering from serious drought and food shortages, especially for the past two years. This situation is aggravated by the HIV and AIDS epidemic. According to the 2002 census, about 51 percent of the population lives in the communal areas, while another 7 percent lives in the resettlement areas and on small commercial farms. About 21 percent of adults are HIV infected in these areas.

The chronic illnesses that accompany deterioration of the immune system deplete household assets, reduce labour, and lead to reduced crop production. In Zimbabwe, one survey found that agricultural output declined by nearly 50 percent among households affected by AIDS illnesses and deaths. Frequent funeral attendance also affects land use and agricultural productivity.

Women-headed households are particularly vulnerable. This vulnerability is especially important because women in rural areas are 1.35 more times likely to be infected than men, and they constitute the majority of infections. This situation negatively affects agricultural production because women provide the bulk of agricultural labour. When a family member becomes ill with AIDS-related opportunistic infections, it is usually the woman who cares for the sick person. Women in rural areas are thus faced with competing demands to maintain crop production, care for family members suffering from AIDS, and protect their own health.

Adult deaths from AIDS often lead to a loss of traditional knowledge of agricultural practices. Skills may not be transferred to either children or relatives, which has negative implications for food production. When mothers die, children are usually forced to take the place of adults in the subsistence economy, thus increasing child labour and lowering productivity. Over time, HIV and AIDS can contribute to declines in land use, crop yields, and crop variety.

Agriculture and Food Security...



AIDS-affected households are most vulnerable to food shortages.

Women in rural areas face competing demands for crop production and care for family members suffering from AIDS-related illnesses.

Hunger makes it more difficult to maintain a healthy immune system for those who are HIV positive.

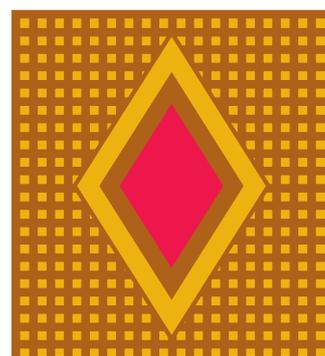
Education

HIV and AIDS are causing considerable turbulence in the education sector as the epidemic affects the supply of educational services, the demand for education, and the overall management of the system. A Ministry of Education, Sports and Culture (MOESC) study in 2002 reported that four out of five school heads say that the epidemic is seriously undermining the provision of quality education.

The MOESC report revealed that teachers are at a high risk of HIV infection. Estimates made as part of this study showed that about one in every three teachers is HIV-infected. AIDS among teachers is resulting in increased absenteeism and poor quality of instruction by infected and/or affected staff. Training costs for teachers (and other education officers) are rising to replace those lost to the epidemic. Experienced teachers who die as a result of AIDS are often replaced by untrained teachers. Overall, less public finance is available to the schools than would otherwise be the case, in part because public funds need to be used to address the manifold impacts of the epidemic.

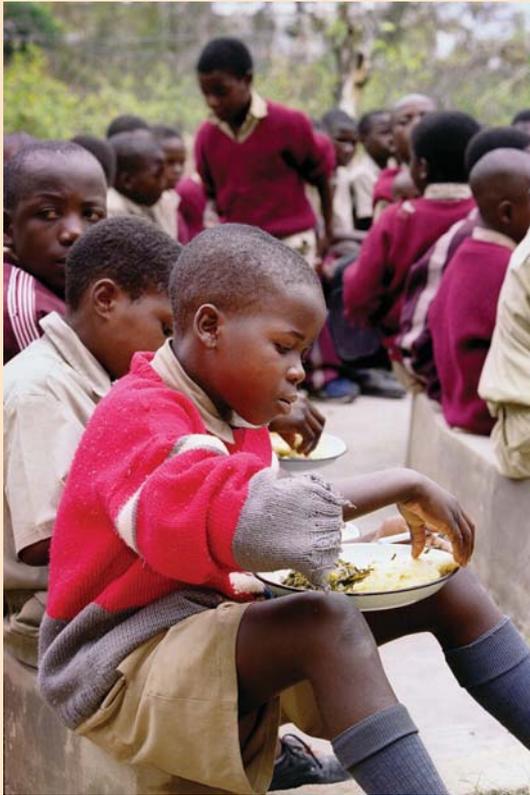
The epidemic also affects the demand for educational services. Over time, high levels of mortality among reproductive age adults, and high levels of mother-to-child transmission result in a smaller school age population than would have been the case in the absence of the epidemic.

Because an AIDS death to an adult results in the loss of household labour and income, children are often required to leave school and remain at home or go to work to compensate for losses and to avoid schooling costs. A study conducted in 2000 in commercial farming areas revealed that 48 percent of primary school orphans and nearly all secondary school orphans dropped out of school due to the illness of parents or after their deaths. For social and cultural reasons, girls are often asked to leave school more often than boys to care for sick family members. Orphans often lose the necessary financial, material, and emotional support that they need for successful schooling.



The HIV and AIDS epidemic also affects management of the educational system. When key managers such as school heads, planning officers, and executive staff are absent, underperforming, or die, the functioning of the system is disrupted as well.

HIV and AIDS cause considerable disruption and turbulence in the education sector. Large investments in education are lost forever and fewer children are able to break the cycle of poverty.



Education

AIDS reduces the number of trained teachers, increases teacher absenteeism and efficiency, reduces available resources, and increases training costs.

Fewer children, especially girls, are able to attend or complete school or afford education.

Orphans and other vulnerable children often have even less access to schooling than other children.

Management systems are disrupted.

Economy

Although the HIV and AIDS epidemic may affect overall economic growth, its economic consequences are more often considered in terms of its impact on household poverty, on the economic success of firms, and on government revenue and expenditures.

Studies show economic setbacks in households that have experienced an AIDS-related death or that have a family member(s) suffering from AIDS-related chronic illnesses. An adult illness or death leads to a loss of household productivity and income. Expenditures for medical care may increase substantially, especially after the development of full-blown AIDS. Funeral and mourning costs often consume a major portion of family savings, leaving the household ill-equipped for the future. A 2003 study in eastern Zimbabwe looked at the consequences for households of adult terminal illnesses and death. About four out of five of those who died were primary household income earners, and three out of five lost their jobs during their illness. In addition, one in seven caregivers had to give up employment to provide care for the sick family member, and about one in four households had to relocate soon after the adult death.

Economic impacts most severe for households



Loss of employment

Loss of household productivity and income

Erosion of savings

Increased health expenditures

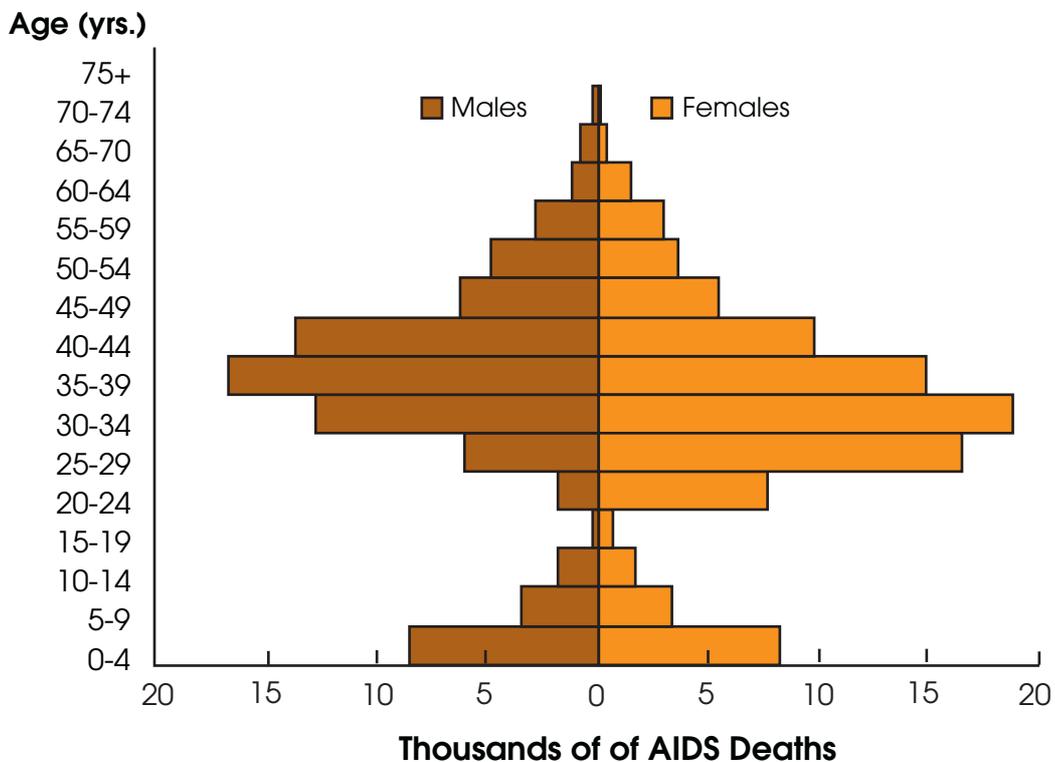
Funeral and mourning costs

AIDS is also having a significant impact on some firms both by increasing expenditures and reducing revenues. Expenditures increase for employee health care costs (including antiretroviral treatments in some cases), burial fees, and recruitment and training of replacement employees. Revenues decrease because of absenteeism due to illness and to attendance at funerals and time spent on training. Labour turnover leads to a less experienced labour force with lower productivity. Studies from the mid-1990s indicate that medical costs were the single largest AIDS-related expenditure for Zimbabwean firms.

The HIV and AIDS epidemic also affects government revenues and expenditures. Revenues drop because of the declining productivity in the economy. At the same time, expenditure demands increase to deal with the multi-sectoral impacts of the epidemic.

The economic impact of HIV and AIDS results not only from high mortality but also from the fact that AIDS-related deaths are concentrated among people in their most productive working ages, 15 to 49. AIDS kills those on whom society relies to work in its factories, mines, and farms, to run its schools and hospitals, and to serve many other economic functions.

Estimated AIDS Deaths by Age and Sex, 2003, 1988–2018

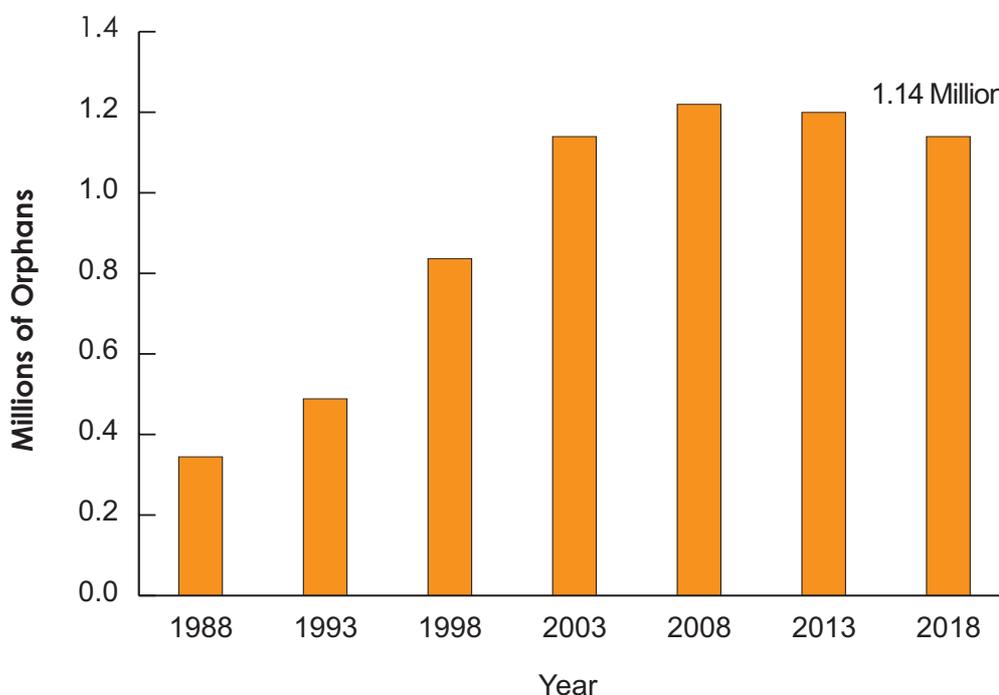


Source: AIDS Impact Model, 2003.

Orphans

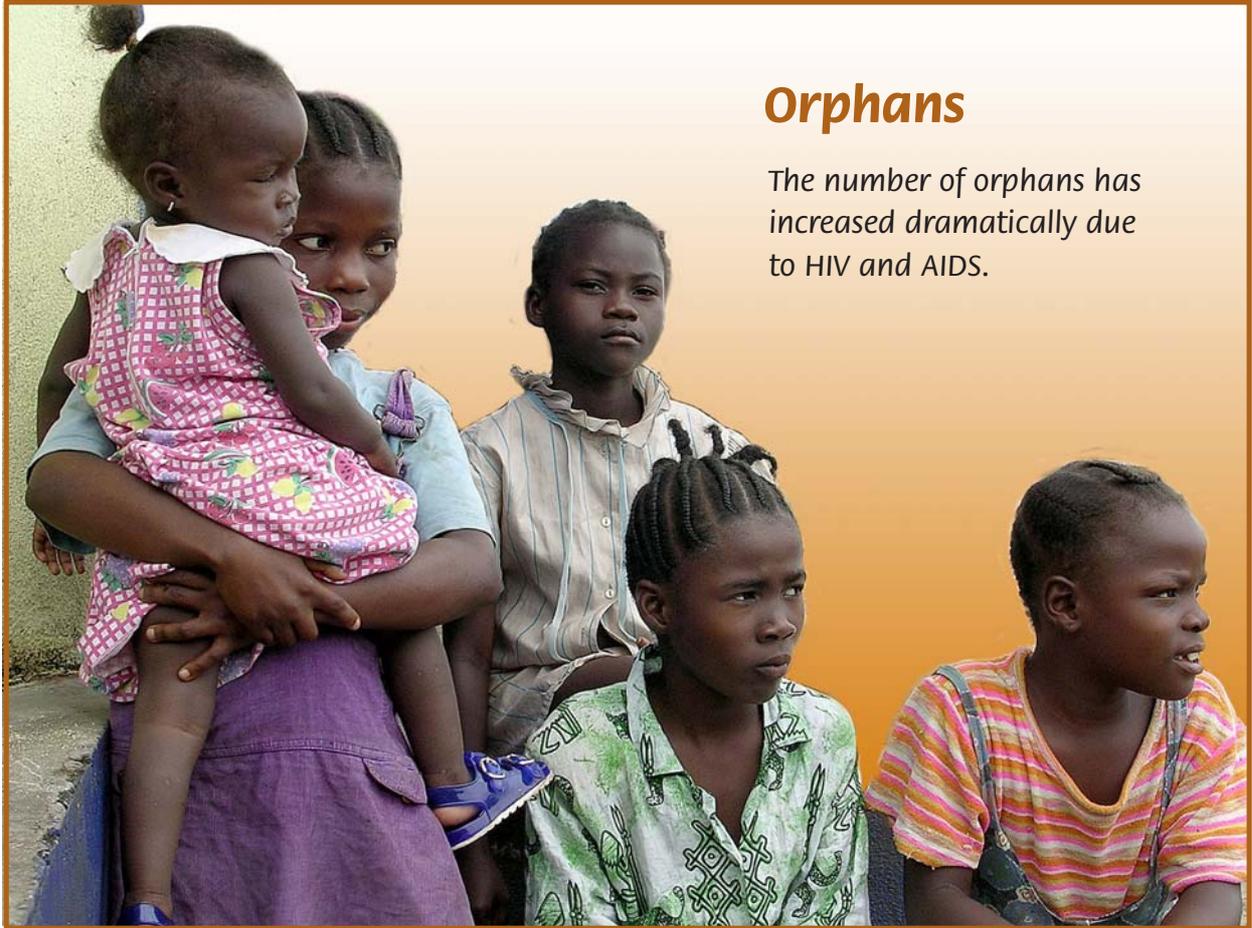
One of the most serious consequences of the HIV and AIDS epidemic is the rapid increase in the number of orphans. The standard definition of an orphan now used by the United Nations Children’s Fund (UNICEF) is a child under the age of 18 who has lost one or both parents. The total number of orphans has risen dramatically in the country, largely as a consequence of the HIV and AIDS epidemic. As shown on the graph, the number of orphans rose from 345,000 in 1988 to 1.14 million in 2003, and will stay near that level for the duration of the projection period. By 2003, nearly four out of every five orphans in the country had lost one or both parents to AIDS.

Estimated and Projected Number of Orphans, 1988–2018



Source: AIDS Impact Model, 2003.

The need to provide care and support for the large number of orphans is placing considerable strain on social systems. At the family level, the extended family, which has the traditional responsibility to care for orphans, is under ever-increasing pressures. Many grandparents are being left to care for young children. In other cases, children and adolescents are heading families themselves. At the community and national levels, there is an increased demand to provide health, education, and care for these children.



Orphans

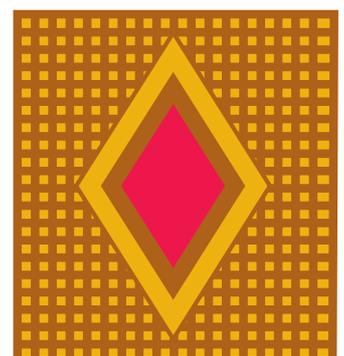
The number of orphans has increased dramatically due to HIV and AIDS.

Gender and AIDS

Women are disproportionately affected by the HIV and AIDS epidemic. In Zimbabwe, women are about 1.35 times more likely to be infected than men. This imbalanced sex ratio may occur in part because women are more biologically prone to infection than men during unprotected sexual intercourse. Similarly, women are more vulnerable to other sexually transmitted infections, the presence of which greatly enhances the risk of HIV transmission. Older men having sexual relations with younger women may contribute to higher rates of infection among young women.

Inequality and power imbalances between women/girls and men/boys in our society heighten the vulnerability of females to infection. In Zimbabwe, women are often taught from early childhood to be obedient and submissive to males. In sexual relations, women are often taught not to refuse sex to their husbands, regardless of whether he has other partners or whether he is willing to use condoms. They are not taught or empowered to negotiate condom use. Because of their low social and economic status, women and girls have more limited access to HIV and AIDS-related information, prevention, treatment, care, support, commodities and services than men and boys. Women often lack equal protection under statutory and customary law.

Sexual violence is the worst manifestation of gender power imbalances that expose women/girls to HIV infection. In the YAS, 24 percent of women ages 15–29 reported being forced to have sex at some time in their lives. Certain cultural and traditional practices, such as widow inheritance, can increase the risk of HIV transmission by contributing to the subordination of women and undermining safe sex practices. Poverty rates are higher among women in Zimbabwe than among men. Exchange of sex for money or gifts is a coping strategy for dealing with poverty.



At the same time, the burden of care for sick and ailing family members falls on women who usually lack the resources and training to provide adequate home-based care. Rural women increasingly face competing demands to maintain crop production, care for family members suffering from opportunistic infections, and protect their own health. Because an AIDS death to an adult results in the loss of household labour and/or income, children are often required to leave school and remain at home or go to work to compensate for losses and to avoid school fees. For social and cultural reasons, girls are asked to leave school more often than boys to care for sick family members. Women also are called upon to nurture the growing number of orphaned children, the majority of whom are survivors of AIDS-affected households.

Women can be especially vulnerable to the AIDS epidemic.



They are biologically more vulnerable than men to HIV infection during unprotected sexual contact.

Their subordinate position to males can make it difficult to protect themselves against HIV.

Certain cultural and economic practices can increase the risk of transmission.

The burden of care in AIDS-affected households falls on women and girl-children.

Video still from "More Time," a movie about adolescent love, sexuality, and the danger of AIDS. Media for Development International.



4

National Strategic Response

National Strategic Response

To mitigate the spread of the virus and provide care and support to those already infected or otherwise affected by the epidemic, Zimbabwe has adopted a multi-sectoral approach that is led by the National AIDS Council. Government ministries/departments, the private sector, non-governmental organisations (NGOs), the churches, communities, community-based organisations, support groups for people living with HIV and AIDS, the media, and international collaborating partners must all be engaged in the national fight against HIV and AIDS.

In 1995, the government initiated the development of a national HIV and AIDS policy. To raise awareness and build support for an effective national response, the government developed the policy through a broad consultative, consensus-building process with stakeholders in all parts of the country. The National HIV and AIDS Policy was officially adopted in December 1999. In 2000, the National AIDS Coordination Programme (NACP) led in the development of National HIV and AIDS Strategy Framework 2000-2004, a strategic plan that includes specific goals and targets. These two documents guide the national response to the HIV and AIDS epidemic.

The overarching goals of the national policy and strategic framework are to prevent the spread of HIV and to reduce the personal, social and economic impact of the epidemic. The policy is a comprehensive document that contains 43 guiding principles. All of them are important, but certain key ones reveal the underlying principles informing the Zimbabwean response. These are highlighted in the following box.

Key Principles of the National HIV and AIDS Policy

HIV and AIDS should be addressed through a multisectoral approach which will be coordinated by the National AIDS Council. All sectors, organisations, and communities should participate actively in the fight against HIV and AIDS utilising their comparative advantages.

The human rights and dignity of people living with HIV and AIDS should be promoted and protected. Discrimination and stigmatisation should be avoided, while at the same time the rights of society and the uninfected should be respected.

Reducing HIV transmission should be central to combating the HIV and AIDS epidemic.

Comprehensive, cost-effective and affordable care should be made available to people living with HIV and AIDS.

All HIV, AIDS, and STI programmes should be gender sensitive and include gender-related issues.

The rights of children and young people with, or affected by HIV/AIDS, must be protected and respected.

To date, prevention has been the cornerstone of the national response. Because HIV is primarily transmitted through heterosexual contact, most prevention efforts have to be aimed at changing high-risk sexual behaviour. Limiting unwanted pregnancies through safe sex practices is also a primary strategy for preventing mother-to-child transmission. The ABCs of HIV and AIDS prevention—abstinence, being faithful, and the correct and consistent use of condoms—have been noted. Several of the key policies and strategies aimed at limiting sexual transmission of the virus are indicated in the following box.

To help prevent mother-to-child transmission of HIV, key strategies enunciated in the policy and strategic framework are to ensure access to VCT for couples contemplating starting a family or having more children, as well as to ensure access to antiretroviral treatments and confidential and comprehensive counselling for HIV-positive pregnant women.

Key Policies and Strategies Aimed at Limiting Sexual Transmission of HIV

- ✓ *Promote delays in onset of sexual activity among the young*
- ✓ *Promote abstinence outside marriage and mutual faithfulness within marriage and other steady relationships*
- ✓ *Make safe-sex normal behaviour in all sexual relationships that pose a risk for HIV transmission*
- ✓ *Promote timely and comprehensive treatment of sexually transmitted infections*
- ✓ *Make condoms (male and female) available, accessible, and affordable to all sexually active individuals who wish to use them*
- ✓ *Make voluntary HIV counselling and testing services available and accessible to all members of the public*
- ✓ *Develop innovative behavioural change communication (BCC) strategies to reach key groups with factual and effective messages about HIV/AIDS*
- ✓ *Change certain cultural practices that increase the risk of HIV transmission, such as the use of vaginal drying agents or spouse inheritance*
- ✓ *Make information on interventions to reduce mother-to-child transmission of HIV widely available, especially to pregnant women.*

For treatment and care, key strategic objectives are

- ◆ To improve the capacity of the health care system to treat and care for people living with HIV and AIDS;
- ◆ To improve the capacity of households and communities to take care of their sick and dying as well as those engaged in care-giving; and
- ◆ To establish economic and social safety nets for individuals, households, and families affected by AIDS-related mortality.

Not all of the strategies will have an equal impact on the epidemic, and national and public health leaders need to make judgments on how resources can best be used to have the maximum impact over time. Because HIV prevalence has been so high for so long, the need for care, support, and treatment is great. The Zimbabwean vision is that prevention, care, support, and treatment are all part of an integrated programme, are all necessary, and all reinforce one another.

Other structural or underlying factors also contribute to the spread of HIV in Zimbabwe, but these are less direct than the immediate causes of transmission. For example, widespread poverty and high rates of unemployment, the low social and economic status of women, and high levels of movement back and forth between town, country, and mining and trading areas have helped spread HIV in Zimbabwe. The country needs to address the structural and underlying factors as well to have a long-term impact on the epidemic.



An Integrated Programme

The Zimbabwean vision is that prevention, care, support, and treatment are all part of an integrated programme, are all necessary, and all reinforce one another. No one component can stand alone.





5

*Where Do We Stand?
Where Are We Going?*

Where Do We Stand? Where Are We Going

Where do we stand in the early months of 2004? Where are we going? HIV and AIDS continues to be a national crisis. HIV prevalence is now estimated at 24.6 percent of people ages 15–49. This means that Zimbabwe has one of the most severe epidemics in the world. Prevalence has probably been near that level since the late 1990s. For HIV prevalence to be sustained at such a high level, it means that a very large number of Zimbabwean adults have to become newly infected year after year. Looked at another way, if a 25 percent prevalence rate were sustained over time, it means that about two-thirds of today's 15 year-olds would die from this one disease.

Zimbabwe has adopted a multi-sectoral approach to prevention and mitigation of the HIV and AIDS epidemic. All government sectors need to be involved in the response and so does the private sector, NGOs, community and church organizations, and many others. Much has already happened and much is being done to stop this epidemic and to provide care and support for those infected and affected. However, more needs to be done; more resources are needed; and more local involvement is required to bring an epidemic of this magnitude under control.

Ultimately, the purpose of this document is to provide information that can contribute to action as Zimbabwe implements its multi-sectoral response to the epidemic. Readers should ask how their organizations or their communities can help strengthen the Zimbabwean response by engaging in activities illustrated on the following page.



Organizations/Communities can help by



Using behavioural change communication to promote the ABCs of HIV and AIDS prevention and to encourage people to practise other health-seeking behaviours.



Promoting correct and consistent condom use and making condoms available to those who wish to use them.



Supporting the control and treatment of other sexually transmitted infections.



Promoting access to and use of voluntary counselling and testing services.



Providing services for special populations that may be especially vulnerable to HIV transmission, such as commercial sex workers.



Considering the use of male circumcision as a prevention measure.



Protecting children through prevention of mother-to-child transmission programmes.



Providing care and support for people living with HIV and AIDS.



Providing care and support for orphans and other vulnerable children.



Helping to make antiretroviral drugs widely available as quickly as possible.



Opposing stigma and discrimination and protecting the human rights of the infected and affected.

Debates and discussions over the best way to address this epidemic will continue. This is inevitable and necessary. Regardless, Zimbabwe has a national policy and a multi-sectoral programme to respond to the epidemic. This leads to the next message. Act now. People are becoming infected now; people need care and support now; people are dying now. The HIV and AIDS epidemic is causing and will continue to cause massive suffering and death until it is brought under control. Use the information in this document to help take or strengthen action but do it now.

Zimbabwe is going to suffer the consequences of the HIV and AIDS epidemic for many decades into the future. In many ways, the worst impacts lie in the future, not in the past. At the same time, we now have more knowledge about the epidemic and how to address it than ever before. Internationally, significant new resources are being made available to combat HIV and AIDS. With sufficient commitment, Zimbabwe can achieve a turning point where the number of new infections keeps going down each year where care, support, and treatment reach new levels of coverage and quality. Now is the time to intensify the effort.





6

Appendices

Appendix A

Questions and Answers on HIV Levels
and Trends in Zimbabwe

Appendix B

Differences between National HIV and
AIDS Estimates Working Group
and Current Projections

Appendix C

Glossary

Appendix D

Selected Sources

Appendix A

Questions and Answers on HIV Levels and Trends in Zimbabwe

The HIV and AIDS epidemic is a raging health and development crisis in Zimbabwe and many other African countries. For that reason, it is important to know as much as possible about the status and course of the epidemic, the effectiveness of interventions to limit the spread of the virus, and ways to help those already infected or otherwise affected by HIV and AIDS. Despite the gravity of the epidemic, much of the available information has been partial and fragmentary and it has been necessary to assemble and interpret information from different sources to paint a picture of what is happening.

Zimbabwe has recent sources of information about HIV and AIDS, sexual behaviour, and population that help us develop an updated picture of the epidemic. The results of the 2002 HIV sentinel surveillance survey are now available, as are the preliminary findings from The Zimbabwe Young Adult Survey (YAS), 2001–2002. YAS took blood samples from the survey participants to test for HIV infection. The initial results of the 2002 census are also now available. These results can be used as a check to see if high AIDS-related mortality is reflected in the population enumeration. This book contains some key information and interpretations from these different sources of data for the benefit of policymakers and others.

How do we measure the extent of HIV in a population?

The UNAIDS-recommended measure to understand the extent of HIV in a population is HIV prevalence among 15 to 49 year olds, or the percentage of persons ages 15 to 49 who are infected with the virus. So, if UNAIDS reports that a country has a prevalence rate of 20 percent, it means that 20 percent of 15 to 49 year-olds are HIV infected. It does not mean that 20 percent of the entire population of the country is HIV positive.

What is the difference between HIV prevalence and HIV incidence?

As noted, HIV prevalence is the percentage of persons ages 15 to 49 who are infected with HIV. HIV incidence is another key concept. HIV incidence is the percentage of uninfected 15 to 49 year-olds who become newly infected each year. HIV incidence declines before prevalence so it is potentially an important indicator of the course of the epidemic. Unfortunately, HIV incidence cannot be measured directly in African and many other countries. Public health officials often use changes in prevalence among 15 to 19 year-olds as an indicator that incidence is changing, but this is not a direct measure.

How do public health officials obtain information about the status of the HIV and AIDS epidemic and trends?

Fundamentally, public health officials use two different types of inquiries to learn about the status and course of the HIV and AIDS epidemic in Zimbabwe. These are sentinel surveillance surveys and population-based surveys. Each has different strengths and both are needed to monitor and understand the course of the epidemic and the effectiveness of interventions.

How does the HIV sentinel surveillance survey work in Zimbabwe?

UNAIDS and its predecessor organizations have long promoted the development of sentinel surveillance systems as a way to track trends in the HIV and AIDS epidemic in different countries. Pregnant women visiting antenatal clinics for the first time for care of the current pregnancy are the key to the sentinel system. Health workers at these health facilities routinely take blood samples from these women to test for problems that might affect the pregnancy.

At the sentinel sites, remaining blood samples from routine testing are sent to a laboratory to be tested for HIV. Certain basic information is collected with each sample—for example, age, residence, marital status, education, employment status, previous number of children—but not the name of the woman who remains anonymous. HIV investigators know, for example, that a certain blood sample belongs to a 24-year old married woman resident in a rural area but they cannot link this information with the identity of the woman. The sentinel surveillance team collects and tests a certain number of samples at each site (a minimum of 300), and these can be used to understand HIV trends.

Have sentinel surveillance surveys been undertaken in Zimbabwe?

Zimbabwe established the sentinel surveillance system in 1990, and implemented surveys in 1991, 1993, 1994, 1995, 1997, 2000, 2001, and 2002. The approach has been standardised since 2000 so that the results can be more easily compared from year to year. Eighteen out of 19 sentinel sites were common to the 2000, 2001, and 2002 surveys and in 2001 and 2002 the sites were exactly the same. In these years, for example, the survey team designated 19 health clinics in urban and rural areas, growth points, commercial farms, mining areas, and border towns as sentinel sites. These surveys are a major source of information on trends in the epidemic.

What are the main advantages and disadvantages of sentinel surveys?

Sentinel surveillance systems are best used for detecting and tracking changes in the epidemic that take place in key communities and age groups over time. This is true because sentinel surveys are taken more frequently than population-based surveys and because the same sites are often repeated from survey to survey. Though not their

primary purpose, sentinel surveillance results are also often extrapolated to evaluate overall national trends in the epidemic. Because sentinel surveillance data are collected at selected sites and only from pregnant women, it is a less accurate way to determine HIV prevalence in the overall population than population-based information. For women, sentinel surveillance results tend to overestimate HIV prevalence among younger age groups and to underestimate prevalence among older age groups.

What are population-based surveys?

Population-based surveys are sample surveys that are broader in scope than the sentinel survey. Samples are taken from both men and women and from designated adult age groups. All women—not just pregnant women—are included in the sample. Population-based surveys can be taken for a particular geographic area or, more commonly, for the country as a whole.

Have population-based surveys been undertaken in Zimbabwe?

The Ministry of Health and Child Welfare, Zimbabwe National Family Planning Council, National AIDS Council, and U.S. Centers for Disease Control and Prevention sponsored The Zimbabwe Young Adult Survey (YAS), 2001–2002. The goal of the YAS is to provide representative data to monitor the HIV epidemic and the prevention and care response in Zimbabwe. One of the key objectives is to monitor the reproductive health behaviours of young adults as well as interventions that influence those behaviours.

Zimbabwe has also been a longstanding participant in the Demographic and Health Survey (DHS) programme. The Central Statistical Office led in the implementation of surveys in 1988, 1994, and 1999. The 1999 survey focused on family planning and contraceptive use and maternal and child health, and included only a limited number of questions on HIV and AIDS. The next survey is scheduled for 2005 and will include the expanded HIV and AIDS module and blood sampling to test for HIV. This will be an effective way to estimate HIV prevalence, both nationally and in the provinces.

What are the advantages and disadvantages of population-based surveys?

Because the national surveys are taking samples from all adults and not just pregnant women, and because they take samples from all parts of the country and not just selected sites, they give better estimates of adult HIV prevalence than do the sentinel surveys. This ability to generalise to the entire population is a key feature of the population-based approach. However, population-based surveys, particularly national ones, are more expensive and difficult to organize than the sentinel surveys. The DHS, for example, will be taken just once every five years. To offset some of these problems, the DHS programme is now implementing the AIDS Indicator Survey (AIS) in some countries. Though still national in scope, the AIS is more focused on the epidemic and less costly than the full DHS.

Does Zimbabwe need both population-based and sentinel surveillance surveys?

Up to now, each type of survey has shown markedly different strengths and both have been used to help the country address the HIV and AIDS epidemic.

What is the prevalence of HIV in Zimbabwe?

Ministry of Health and Child Welfare, AIDS and Tuberculosis Unit led a working group of national and international experts to examine existing data and information, apply appropriate projection programmes, and arrive at an estimate of HIV prevalence for Zimbabwe. This working group determined that, based on available evidence, adult HIV prevalence is in the 20–28 percent range and that the single best estimate is a prevalence rate of 24.6 percent for 2003.

Have there been other estimates of national HIV prevalence in Zimbabwe?

There have been other estimates of national HIV prevalence in Zimbabwe. Most important, UNAIDS, in its Report on the Global HIV/AIDS Epidemic 2002, reported an estimated adult HIV prevalence in Zimbabwe of 33.7 percent in 2001. UNAIDS used a different estimation methodology than the MOHCW working group.

Does this mean that prevalence in Zimbabwe has been declining?

No, these are estimates based on different methodologies and should not be used as a time series. The working group used updated and adjusted antenatal clinic data, and reclassified sentinel sites as urban, rural, or other to make a more accurate estimate of HIV prevalence in Zimbabwe.

Because different estimates exist over time using different methodologies, it can create a confusing picture of HIV prevalence trends in Zimbabwe. Sometimes statements are given that adult prevalence has dropped from 33.7 percent to 24.6 percent. However, these are not accurate portrayals. The 24.6 percent is a new estimate based on new data and better methodologies, and the two numbers cannot be compared with one another.

When the MOHCW working group applied its methodology to sentinel results for earlier years, it arrived at a prevalence estimate of 24.9 percent for 2001, virtually the same as 2003. The group concluded that HIV prevalence has not declined over time. The reader interested in more technical detail is referred to MOHCW's *Zimbabwe National HIV and AIDS Estimates 2003*.

What has been the overall trend in HIV prevalence in Zimbabwe?

The evidence indicates that HIV prevalence was already at high levels in the early 1990s and may have peaked around 1997. Since then, overall prevalence for Zimbabwe appears to have levelled off.

Is the levelling off of prevalence after 1997 good news for Zimbabwe?

The leveling off of prevalence means that the incidence rate of new infections (the percentage of adults who become newly infected each year) declined from its peak earlier in the 1990s. However, stable prevalence does not mean that the epidemic is under control. It simply means that the number of people who become newly infected is about equal to the number who die each year from AIDS. A very large number of Zimbabwean adults had to become newly infected each year for prevalence to level off at such a high level.

Could widespread use of antiretroviral therapy affect HIV prevalence?

Yes, although this is an unusual situation where a successful programmatic intervention could actually lead to higher HIV prevalence.

The use of antiretroviral therapy (ART) prolongs and improves the quality of the lives of HIV-infected persons. (Not all HIV-infected persons can use ART, and no one yet knows how long, on average, the use of ART will extend life). To date, ART has only been accessible to a small number of Zimbabweans, but MOHCW has initiated an expansion programme. As ART is used more widely, it will extend the lives of HIV-infected individuals, and people who would otherwise have died in the absence of ART will live longer. This extension of life is highly desirable and a fundamental motivation for expanding ART programmes.

With the widespread use of ART, some HIV-infected people who would have died in the absence of ART will still be alive. This means that the total number of HIV-infected persons in the population will actually be greater than would have been the case without ART. In this circumstance, the successful and widespread use of ART could actually lead to a rise in HIV prevalence or it could offset an expected decline from the prevention of new infections. This means that public health officials have to be cautious in using prevalence to evaluate the success of programmatic efforts.



Appendix B

Differences between National HIV and AIDS Estimates and Current Projections

As referenced in the text, in 2003 MOHCW convened a National HIV and AIDS Estimates Working Group consisting of national and international experts. This working group evaluated available information from different sources to arrive at an estimate of HIV prevalence in Zimbabwe. It determined that adult HIV prevalence is in the 20–28 percent range and that the single best estimate is a prevalence rate of 24.6 percent for 2003. The prevalence estimate of 24.6 percent is used throughout this document.

The working group also used the SPECTRUM software, which includes the AIDS Impact Model, to make projections of key HIV and AIDS indicators. The summarised results can be found in MOHCW, Zimbabwe National HIV and AIDS Estimates 2003. For this document, *The HIV and AIDS Epidemic in Zimbabwe: Where are We Now? Where are We Going?*, the implementing agencies and the support team also used the AIDS Impact Model to prepare projections of HIV and AIDS indicators. With one important exception, the results of this set of projections for 2003 are very similar to the results obtained from the working group projections.

Why are there any differences at all? The team that worked on the current document had additional time to consult with different Zimbabwean partners and to make refinements to the working group projections based on these consultations. The projections in this document should be seen as an extension of the working group effort. For example, Central Statistical Office recommended that an international migration assumption be added to reflect recent trends. The current projections also use a sex ratio at birth of 103 (103 male births per 100 female births) which is the sex ratio at birth typically used for African countries, including Zimbabwe. This sex ratio at birth is slightly lower than the 105 used by the working group. Most of the refinements make little difference and the results of the two sets of projections are very close to one another. There are two key exceptions, however.

UNAIDS has a Reference Group on Estimates, Models and Projections consisting of international experts who constantly evaluate the best ways to use information to understand the epidemic. Since UNAIDS has adopted SPECTRUM and Epidemic Projection Package (EPP) as its primary tools for countries to use to establish national HIV and AIDS estimates, this Reference Group makes recommendations on changes to the SPECTRUM model. One of the recent changes was in the calculation used by SPECTRUM to determine the number of annual new infections resulting from mother-to-child transmission (MTCT).

In most circumstances, the results based on the new calculation should not have varied much from results derived from the old equation. In this case, however, the differences were important. The working group estimated the number of new infant infections in 2003 at 40,000, with an estimated range somewhere between 32,000 and 45,000 new infant infections. By contrast, the revised analysis estimates the number of new child infections in 2003 at 29,700 which is below the lower end of the range given by the working group.

In 2003, the National HIV and AIDS Estimates Working Group included one assumption that, when used by the model to make calculations, indicated that the large majority of births in the 15–19 year-old age group in 2003 were to HIV-infected women. This single assumption is the reason that the two sets of projections differ from one another in terms of the annual number of infections resulting from MTCT. The new version of SPECTRUM, based on recommendations of the UNAIDS Reference Group, does not use this assumption at all and thus arrives at importantly different results. The number of new infant infections for 2003 in the current application is probably more accurately descriptive of what is happening in the country.

The estimated and projected number of orphans is the other important difference between the two sets of projections. However, this is simply a matter of a definitional change. UNICEF traditionally defined an orphan as a child under the age of 15 who has lost one or both partners. However, UNICEF recently decided to change the working definition of an orphan to a child under the age of 18 who has lost one or both parents. The more recent versions of SPECTRUM reflect the changing definition of an orphan adopted by UNICEF and UNAIDS.

The SPECTRUM software is available off the internet at www.policyproject.com or www.tfgi.com. The Zimbabwe-specific files used in this analysis can be obtained from either the National AIDS Council or the Zimbabwe AIDS Policy and Advocacy (ZAPA) Project in Harare.



Appendix C

Glossary

ABCs. A popular way to summarise interventions to prevent HIV transmission: A=Abstinence; B=Be Faithful; C=Condoms, or Correct and Consistent Use of Condoms.

Acquired Immune Deficiency Syndrome (AIDS). AIDS is the most severe manifestation of HIV infection. Persons with full-blown AIDS often have infections of the lungs, brain, eyes, and other organs, and frequently suffer from debilitating weight loss, diarrhoea and cancers. AIDS can be diagnosed by blood tests to evaluate the CD4 cell count, or by evaluating the extent of opportunistic infections and cancers that develop with the collapse of the immune system.

Antenatal care. Care given to a pregnant woman prior to birth.

Antiretrovirals. Drugs that suppress the replication of HIV in a person's body, thereby delaying the onset of full-blown AIDS and prolonging life. They do not kill or eliminate the virus.

CD4. Blood cells that are an important component of the human immune system. In a healthy person, the CD4 count ranges around 1,200 cells per cubic millimeter of blood. A CD4 count below 2,000 in an HIV-infected person indicates full-blown AIDS.

Demographic and Health Survey (DHS). The DHS is a large, national survey that generates information on key demographic and health issues, including HIV and AIDS. These surveys are undertaken in developing countries throughout the world. Zimbabwe now has results from three Demographic and Health Surveys, 1988, 1994, and 1999, as well as plans for a 2005 survey.

HIV-infected. All persons living with HIV and AIDS, no matter when infected, and regardless of whether they are aware of their status or not.

Human immunodeficiency virus (HIV). The virus that causes AIDS. It acts by weakening the immune system, making the body susceptible to and unable to recover from other diseases.

Immune System. The defense system of the body that protects against foreign invaders (microorganisms, for example) and cancerous cells.

Incidence, or adult HIV incidence. The percentage of uninfected 15 to 49 year olds who become newly infected each year.

Indicator or performance indicator. An agreed upon measure that can be evaluated at different points in time to understand changes in the epidemic or in behaviour or in the programmatic response. For example, the number of people availing themselves for VCT services in a year or the number of infected persons using ART would be useful indicators.

Incubation period. The time between initial HIV infection and the development of AIDS.

Life expectancy at birth. An estimate of the average number of years a newborn can expect to live if the age and sex-specific death rates for a given year continue for the rest of his or her life. Because this measure is an average, rising death rates among children or young adults can have a profound impact on life expectancy trends. Life expectancy at birth is often used as an indicator of the overall quality of life in a country.

Male Circumcision. A practice wherein the foreskin of the male genital organ is cut back. Male circumcision sometimes takes place soon after birth, although it is frequently performed during adolescence or at other times as well. HIV and other STIs appear to be transmitted at a lower rate in populations with high levels of male circumcision. The practice is uncommon in Zimbabwe and most adult males are uncircumcised.

Multi-sectoral response. An approach that sees the HIV and AIDS epidemic as a threat to development and more than just a health sector or medical issue. It therefore demands an encompassing and strategic national response. Government ministries/ departments, the private sector, non-governmental organisations, the churches, communities, community-based organisations, support groups for people living with HIV and AIDS, the media, and international collaborating partners must all be engaged in the national fight against HIV and AIDS.

Orphan. A child under the age of 18 who has lost one or both parents.

Opportunistic infection. In the context of HIV and AIDS, an opportunistic infection is a disease, illness or condition that results because of a weakened immune system.

Prevalence or adult HIV prevalence. The percentage of persons ages 15 to 49 in a population who are HIV infected. It is determined by dividing the number of 15 to 49 year olds who are HIV-infected by the total number of 15 to 49 year olds in the population.

Prevention of mother-to-child transmission (PMTCT). PMTCT includes programmes and activities designed to help limit transmission of HIV from infected women to their infants during pregnancy or delivery or while breastfeeding. Presently, MTCT accounts for about 15 percent of new infections in Zimbabwe each year. PMTCT is sometimes referred to as prevention of parent-to-child transmission (PPTCT).

Sentinel Surveillance Survey. A survey frequently used to help track trends in the HIV and AIDS epidemic in a country. The workings of the sentinel survey in Zimbabwe are described in Appendix A.

Sex worker. Any person engaged in trading of sex for money or material gain.

Sexually transmitted infection (STI). An infection (gonorrhoea, syphilis, chancroid, for example) that is transmitted through sexual contact. STIs that cause ulcers or sores on the skin or membranes facilitate the transmission of HIV.

Tuberculosis (TB). An infectious disease that typically affects the lungs. HIV-infected persons are highly susceptible to TB infection.

Virus. A microscopic organism that can replicate only when it is inside another cell.

Voluntary Counselling and Testing (VCT). A voluntary and confidential process by which a person can be (a) counselled by a professional about the advantages and disadvantages of HIV testing; (b) tested for HIV status; and (c) counselled further according to whether the client is HIV positive or negative.

Window Period. An intervening period between the time a person is first infected with HIV and the time when his/her body starts producing detectable antibodies. During this “window period,” individuals are highly infectious and yet can test negative for HIV.

Appendix D

Selected Sources

Bollinger, L., J. Stover, R. Kerkhoven, G. Mutangadura, and D. Mukurazita. 1999. *The Economic Impact of AIDS in Zimbabwe*. Washington, DC: Futures Group International, Policy Project.

Central Statistical Office. 1994. *Census 1992: Zimbabwe National Report*.

Central Statistical Office. 2003. *Census 2002: Zimbabwe Preliminary Report*.

Central Statistical Office and Macro International, Inc. 1995. *Zimbabwe Demographic and Health Survey, 1994*.

Central Statistical Office and Macro International, Inc. 2000. *Zimbabwe Demographic and Health Survey, 1999*.

Central Statistical Office, Ministry of Finance, Economic Planning, and Development and Institute for Resource Development/Macro Systems, Inc. 1989. *Zimbabwe Demographic and Health Survey, 1988*.

Gregson, S., N. Terceira, M. Kakowa, P.R. Mason, R.M. Anderson, S.K. Chandiwana, and M. Carael. 2002. "Study of bias in antenatal clinic HIV-1 surveillance data in a high contraceptive prevalence population in sub-Saharan Africa." *AIDS* 16: 643–652.

Gregson, S. and S.K. Chandiwana. 2001. "The Manicaland HIV/STD Prevention Project: Studies on HIV Transmission, Impact and Control in Rural Zimbabwe." *Zimbabwe Science News* 35: 27–42.

Health Information and Surveillance Unit, Department of Disease Prevention and Control, AIDS and TB Programme, Ministry of Health and Child Welfare. 2003. *Zimbabwe National HIV and AIDS Estimates 2003*.

Health Information and Surveillance Unit, Department of Disease Prevention and Control, Ministry of Health and Child Welfare. 2000. *National Survey of HIV and Syphilis Prevalence Among Women Attending Antenatal Clinics in Zimbabwe, 2000*.

Health Information and Surveillance Unit, Department of Disease Prevention and Control, Ministry of Health and Child Welfare. 2001. *National Survey of HIV and Syphilis Prevalence Among Women attending Antenatal Clinics in Zimbabwe, 2001: A Comparative Analysis with 2000 Survey Results*.

HIV/AIDS in Education Assessment Team (HEAT), Ministry of Education, Sport and Culture. 2002. *The Impact of HIV/AIDS on Education in Zimbabwe*.

- Kwaramba, P. 1997. *The Socio-Economic Impact of HIV/AIDS on Communal Agricultural Production Systems in Zimbabwe*. Harare: Farmers Union and Friederick Ebert Stiftung.
- Loewenson, R. and A. Whiteside. 1997. *Social and Economic Issues of HIV/AIDS in Southern Africa*. Harare: Southern Africa AIDS Information Dissemination Service (SAFAIDS).
- Ministry of Health and Child Welfare, Zimbabwe National Family Planning Council, National AIDS Council, and U.S. Centers for Disease Control and Prevention. 2002. *The Zimbabwe Young Adult Survey (YAS), 2001–2002: A Preliminary Report*.
- Mushati, P., S. Gregson, M. Mlilo, J. Lewis, and C. Zvidzai. 2003. *Adult Mortality and the Economic Sustainability of Households in Towns, Estates and Villages in AIDS-affected Eastern Zimbabwe*. Paper presented at the scientific meeting on Empirical Evidence for the Demographic and Socio-economic Impact of AIDS, hosted by the Health Economics and HIV/AIDS Research Division (HEARD), Durban, March 26–28, 2003.
- Mutangadura, Gladys Bindura. 2000. *Household Welfare Impacts of Mortality of Adult Females in Zimbabwe: Implications for Policy and Programme Development*. Paper presented at the AIDS and Economic Symposium organised by the International AIDS Economic Network, Durban, July 7–8, 2000.
- National AIDS Coordination Programme, Ministry of Health and Child Welfare. 1998. *HIV/AIDS in Zimbabwe: Background, Projections, Impact, Interventions*.
- National AIDS Council. 1999. *Strategic Framework for a National Response to HIV/AIDS (2000–2004)*.
- Government of Zimbabwe. *National Policy on HIV/AIDS for the Republic of Zimbabwe, December, 1999*. Republic of Zimbabwe: Government of Zimbabwe.
- Population Division, Department of Economic and Social Affairs, United Nations Secretariat. 2003. *The Impact of AIDS. (draft)*. New York: United Nations.
- Stover, J. 2003. *AIM (Version 4): A Computer Program for HIV/AIDS Projections and Examining the Social and Economic Impacts of AIDS*. Washington, DC: Futures Group International, Policy Project.
- Stover, J. and S. Kirmeyer. 1999. *DemProj (Version 4): A Computer Program for Making Population Projections*. Washington, DC: Futures Group International, Policy Project.
- UNAIDS. 2002. *Report on the Global HIV/AIDS Epidemic, 2002*. Geneva: UNAIDS.
- UNAIDS Reference Group on Estimates, Models, and Projections. 2002. "Improved Methods and Assumptions for Estimation of the HIV/AIDS Epidemic and Its Impact: Recommendations of the UNAIDS Reference Group on Estimates, Modelling and Projections." *AIDS* 16: W1–W14.
- UNAIDS/World Health Organisation. 2003. *AIDS Epidemic Update, December 2003*. Geneva: UNAIDS.

