



ZIMBABWE FURTHER ANALYSIS

Knowledge of STIs and AIDS, Risk Awareness, and Condom Use



Demographic and Health Surveys
Macro International Inc.

Zimbabwe Further Analysis

Knowledge of STIs and AIDS, Condom Use, and Risk Awareness

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The ZDHS further analysis is part of the worldwide Demographic and Health Surveys (DHS) programme, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the Zimbabwe further analysis project may be obtained from the Central Statistical Office, P.O. Box 8063, Causeway, Harare, Zimbabwe (Telephone: 706-681, Fax: 708-854). Additional information about the DHS programme may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Calverton, MD 20705 (Telephone: 301-572-0200 and Fax: 301-572-0999).

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PREFACE

One of the important contributions from the 1994 Zimbabwe Demographic and Health Survey Project is the series of collaborative analyses that have followed the ZDHS fieldwork and final report. These analyses were funded by USAID/Zimbabwe and are envisaged to inform health and family planning policy development.

A significant objective of the further analysis effort was to facilitate a collaborative link between individuals and institutions in Zimbabwe and researchers working in the international arena. The present paper represents one of the important "fruits" of that investment. It presents the findings of an analysis entitled "Knowledge of STIs and AIDS, Risk Awareness and Condom Use." Given the serious challenge in the health sector presented by the HIV/AIDS epidemic, the paper comes at a timely juncture.

We extend our thanks to the Central Statistical Office for collecting the ZDHS data and thus making this analysis possible.

Martin Vaessen
DHS Project Director



CHAPTER 1

INTRODUCTION

Background

HIV/AIDS continues to pose a serious health and social threat in Zimbabwe. Incidence is high, and the disease has made inroads into all segments of the population, among groups not usually considered to be at high risk. Care of those infected with HIV/AIDS and with related diseases such as tuberculosis is placing a heavy burden on already limited resources within the health sector.

The first cases of HIV/AIDS were reported in Zimbabwe in 1987. Although initial response to the disease was slow, public officials and medical personnel soon realized the potential severity of the problem and launched public information campaigns. Generally, the messages promoted in the first campaigns cautioned people to avoid prostitutes, use condoms, and stay with a single sexual partner. They did not acknowledge the frequency of sexual exchanges that often take place among men and women, not as prostitution, but as a mutually beneficial relationship sometimes of long standing (Vos, 1994). They also did not attempt to overcome the negative image of condoms, their association with illicit, possibly contaminating intercourse, or that women are culturally constrained from demanding condom use. Inadequate attention was given to the implications of one partner accepting monogamy and faithfulness and hence believing they were protected from infection, while the other maintained a pattern of multiple and frequent partners. Another flaw was the failure to acknowledge the possibility of past exposure to infection before deciding that a partner in serial monogamy was free from infection.

As a result of the education campaigns, increased media coverage of the disease and its social ramifications, and a greater emphasis on counselling among reproductive health professionals, knowledge about HIV/AIDS increased rapidly. The 1988 Zimbabwe Demographic and Health Survey (ZDHS) found that 86 percent of the 4,201 women interviewed had heard about AIDS (CSO and IRD, 1989). While high, knowledge was not universal. Women with no education (65 percent), women living in rural areas (81 percent), and women in the oldest age group (76 percent) were least likely to have heard of AIDS. Within six years, these differences were eliminated. The 1994 ZDHS found knowledge to be virtually universal, with 99 percent of 6,128 women having heard about AIDS (CSO and MI, 1995: Table 10.4.1). No important differences were seen among women of different ages, places of residence, or education levels.

Knowledge, Behaviour, and Intervention

Knowledge about HIV/AIDS is not sufficient to protect individuals. Knowledge must be translated into personal assessments of risk, and subsequently into behavioural change. Only by understanding how people perceive and internalize risk factors, and by learning what they are willing to do to effect behavioural change, can effective intervention programme be developed and implemented. This study is an analysis of knowledge, perceptions of risk of HIV infection, and behavioural change (particularly condom use) among a national sample of women and men using data from the 1994 ZDHS. This is the first time that questions of perceived risk have been posed to a nationally representative sample of adults, rather than to groups of individuals included in small-scale studies. The expectation is that by examining the differentials in factors associated with knowledge, perceived risk, and behaviour, targeted programmes can be designed or modified to address the needs of those with the least understanding of their possible exposure to HIV/AIDS.

Sexually Transmitted Infections

Research in Zimbabwe, as elsewhere, has shown a high prevalence of HIV infections in people with sexually transmitted infections (STIs), and an association between seropositivity and history of past STIs (Latif, 1995). Within the national public health system, increasing attention is being devoted to the early diagnosis and treatment of STIs as one means to reduce susceptibility to HIV. Behavioural risk factors among people with STIs have been identified, and are being introduced to improve the use of syndromic case management algorithms promoted under the Essential Drugs Action Programme. Risk factors include: separation from spouse during the preceding year; sex with nonregular, new, or multiple partners in the preceding 3 months; inconsistent condom use; partner's STI status; and use of intravaginal drying agents. Several of these risk factors are included in the ZDHS data and will be examined in later chapters.

Gender Relations

Researchers are increasingly focusing attention on the nature of gender relations and how male-female dynamics influence sexual behaviour. There is a growing literature looking at this issue in Zimbabwe and it provides interesting insights for programmes that address treatment and prevention of HIV/AIDS and other STIs. Meursing and Sibindi (1995) studied 72 HIV-positive men and women who sought counselling. They found that women do not question their husband's extramarital affairs. They also observed that STIs and AIDS are accepted as a risk of married life, with few women standing up to their husbands to protest infection.

In a larger study of urban factory workers, 233 couples enrolled in long-term counselling (Maposhere et al., 1996). Women reported having limited options in using barrier methods, other contraception, and control of their partner's sexual patterns. Of 30 women interviewed when they sought treatment for STIs at a municipal clinic, 22 knew condoms offered protection against infection, but added that their husbands would not use them (Pitts et al., 1995). The submission of women within marriage is underscored by conservative social norms and by limits to the roles and rights of women. Chitsike (1995), in writing about gender relations in Zimbabwe, noted that "Women who challenge gender injustice as it exists in our culture are called prostitutes and accused of failing in their duties to housekeeping in their marriages."

To date, much of the research has been qualitative, using focus groups and case studies to explore male-female interactions. While we cannot read too much into data not collected specifically to investigate these issues, the findings of the analysis in this report may provide some quantitative evidence of gender differences in knowledge, risk assessment, and preventive behaviours linked to STIs.

Regional Patterns

Zimbabwe is among the countries hardest hit by the AIDS epidemic. With a cumulative total of 57,518 cases as of June 1996, it ranks third among southern and eastern African countries, (behind only Tanzania and Kenya), in the number of people diagnosed (WHO and UNAIDS, 1996). In 1995, the last year for which annual prevalence rates are available, Zimbabwe ranked second only to Namibia in prevalence per 100,000 population: 118.6 vs 119.1. Tanzania is also high, with 95.5 cases per 100,000 population. Regional neighbors—Botswana, Malawi, and Zambia—had prevalence rates ranging from 35.9 to 47.3.

Estimates of the percentage of persons who are HIV positive in the sexually active population of southern African countries range from less than 1 to more than 30 percent. The rates are highest for Zimbabwe and Malawi, with pregnant women showing rates of 32 and 33 percent, respectively (U.S. Bureau of the Census, 1997).

Epidemiology of AIDS in Zimbabwe

The number of AIDS cases in Zimbabwe has grown steadily since the country first began reporting incidence data to the World Health Organization (WHO) in 1987. As of June 1996, 57,518 cumulative cases had been reported. During 1995, the last year for which complete information is available, 13,356 new cases were reported, a threefold increase over the 4,362 cases reported just five years earlier in 1990. During the first half of 1996, a total of 5,610 cases were reported, a decline from the number of cases reported during the first half of 1995. However, it is not thought that this signals a plateauing of cases in Zimbabwe. Rather, it is possible that fewer doctors are sending patients for laboratory tests for confirmation, relying instead on clinical diagnoses (MOH&CW, 1996). The sex ratio of HIV incidence has remained relatively stable since 1990, with about one-quarter more cases reported among men than among women.

Like its neighbors in the region, the dominant viral strain in Zimbabwe is HIV-1. Transmission is mainly through heterosexual contact, and perinatal transmission from mother to infant. The age pattern is bimodal, with peaks among the sexually active population aged 20 to 39, and among children aged 0 to 4. Research results show consistent evidence throughout the region for risks associated with HIV infection, including multiple sexual partners, incidence of STIs, and employment in particular occupations, notably long-distance truck drivers, the military, and commercial sex workers. However, the epidemic is now emerging in all segments of national populations, beyond these "core" risk groups.

Reported cases are mainly concentrated among the adult, sexually active population, and among children aged 0 to 4. Most reported cases appear among women aged 20 to 29 (8,865) and among men 30 to 39 (10,464). A sharp difference between the sexes emerges among teens aged 15 to 19, where nearly six times as many cases have been reported among girls as among boys (889 vs 128) (MOH&CW, 1996). In part this reflects girls' earlier entry into sexual relations. The 1994 ZDHS, with a nationally representative sample, found that 71 percent of women had their first intercourse by age 20, compared with 55 percent of men (CSO and MI, 1995: Table 5.17). Many girls in their teens develop relationships with older men to gain money, small gifts, or supplies needed for schooling. There is also anecdotal evidence that older men seek teenage girls as sexual partners believing that they will be free of infection, not realizing they may well transmit HIV/AIDS to their young partners (Taylor, 1995). Allowing for an incubation period of two years or more, it is apparent that many cases reported for women in their twenties are the result of infections occurring during their teen years.

The number of AIDS cases varies among Zimbabwe's 10 provinces. Fewer than 2,500 cumulative cases have been reported for Matabeleland South and Matabeleland North, while all other provinces report twice as many cases, ranging from 5,240 to 6,541 (MOH&CW, 1996). Cases in Harare, the capital, are nearly double the average for the other provinces, with 11,091 cumulative cases (19 percent of all cases). This represents both a concentration of population in Harare and Chitungwiza (a mainly residential twin city), and the concentration of medical services in the city. According to the 1992 Population Census, Harare is home to 14 percent of the national population (CSO and MI, 1995), so cases also exceed that expected based on population distribution.¹

Much of the early research on prevalence in Zimbabwe, as in other countries, focused on core population groups thought to be at high risk of infection: commercial sex workers, long-distance truck drivers, STI patients, and military personnel. However, as the disease spread through the population, it became clear that it was not sufficient to focus attention only on these groups. Zimbabwe has an extremely mobile population, fostered by a colonial legacy of labor recruitment to work in mines, industry, and on commercial

¹ Harare province includes Harare urban areas (80 percent), Chitungwiza (19 percent), and Harare rural areas (1 percent).

farms. For miners and industrial workers, in particular, this meant long separations from their families who remained behind on native reserves.

The concentration of industry and service sectors in the four or five major towns meant that even after national independence in 1980, workers followed employment to the cities, while wives and children assumed responsibility for family holdings in communal farming areas. Men often established second households with a "town wife," or sought companionship with multiple girlfriends or prostitutes. In a study of HIV risk factors carried out in Harare in 1989, 34 percent of married respondents were living apart from their spouses (Moyo et al., 1993). Ironically, the well-developed road system and nationwide bus services facilitated periodic visits home, during which men would bring their wives money, food, gifts, and infections.

By the early 1990s, it was clear that HIV/AIDS had spread through most areas of the country and among all segments of the population. Measures of HIV/AIDS prevalence among women attending antenatal clinics, usually taken as an indicator of prevalence in the adult, sexually active population, have been climbing. Among 1,168 women attending antenatal clinics in greater Harare in 1994-1995, 30 percent tested HIV positive (Mbizvo et al., 1996). This rate is much higher than the 18 percent prevalence detected among a similar sample in 1990 (Mahomed et al., 1991). A higher proportion of single women visiting the clinics were HIV positive (46 percent) than married women (29 percent), although most of the women testing positive were married (86 percent).

High HIV prevalence is not limited to urban areas. A study among pregnant women and patients with STIs in Mutoko (Mashonaland East) showed that 25 percent of pregnant women were HIV positive (Forland and Eriksen, 1994). In two rural areas of Manicaland, prevalence among pregnant women was 14 percent and 24 percent (Gregson et al., 1996).

An ongoing study of male factory workers in Harare found that at the time research was initiated in March 1993, 19 percent of the 2,596 participants tested HIV positive (Mbizvo et al., 1996). A smaller study of 188 male factory workers found 69 (37 percent) were seropositive (Bassett et al., 1992).

Infection with sexually transmitted infections is highly correlated with positive HIV serostatus in Zimbabwe. Nearly all studies of patients presenting at STI clinics show that one-third to three-fourths of the patients are seropositive (Forland and Eriksen, 1994; van den Hombergh n.d.; L'Herminez, 1996; Latif, 1995).

While education campaigns and individual counsellors have stressed the need to use condoms as protection against sexually transmitted infections, their use is neither widespread nor consistent in Zimbabwe. Among 2,109 adults (housewives, employed and unemployed adults, and students over age 16) interviewed in Harare, only 9 percent reported always using condoms. Of married respondents who have other regular partners and those with casual sex contacts, most never use condoms (48 and 41 percent, respectively) (Moyo et al., 1993).

Zimbabwe Demographic and Health Survey

The analysis reported here is based on data from the 1994 ZDHS. The survey is part of a global data collection programme carried out in 60 countries since 1984. The ZDHS is a nationally representative sample of 6,128 women and 2,141 men. The survey was conducted to obtain information on a variety of health, fertility, mortality, and nutrition topics.² Specifically, data were collected on: fertility levels; nuptiality; sexual activity; fertility preferences; awareness and use of family planning methods; breastfeeding practices;

² A description of the survey methodology is presented in the appendix.

nutritional status of mothers and young children; early childhood mortality and maternal mortality; maternal and child health; and awareness of and behaviour regarding AIDS and other sexually transmitted infections.

The AIDS module was included at the request of the Ministry of Health and Child Welfare (MOH&CW) to assess knowledge and behaviour regarding HIV/AIDS and other STIs. This was the first effort to do so among a nationally representative sample of the population in Zimbabwe, and as such represents an important source of information about groups not generally considered at high risk for HIV infection. The questionnaire was modeled on a survey instrument developed by the World Health Organization's Global Programme on AIDS (WHO/GPA), and collects much of the same information as that survey programme.

While the quality of the ZDHS data is considered to be quite good, it is possible that information on particularly sensitive topics may underrepresent certain behaviours, beliefs, or conditions. Data were collected in face-to-face interviews, and respondents may hesitate to be fully open about sexual behaviour, contraceptive use, or exposure to STIs with a stranger. Self-reported incidence of STIs was not validated against medical records.

The standard recode files for females and males were used for the analysis presented in this report. Data were analyzed using the statistical computer software SPSS/PC+. Epi-Info was used to calculate odds ratios for some variables. The odds ratio is used in epidemiological studies to define the odds of disease in exposed individuals relative to the odds of disease among the unexposed ($OR = (A/C)/(B/D) = AD/BC$). If there are more than two categories for a variable, a control, or "referent" category is selected, and the odds of an outcome for the exposed group is interpreted relative to the referent category. An odds ratio of 1.0 represents no association, and large odds ratios indicate strong associations. Confidence limits set the upper and lower boundaries for the interval within which the majority (usually more than 95 percent) of cases fall. Narrow confidence intervals reflect greater precision in the estimated odds ratios.

Research Objectives

There are six main objectives to this research:

- To identify variation in knowledge and behaviour among men and women regarding HIV/AIDS and other STIs;
- To identify demographic and socioeconomic factors associated with reported STIs;
- To develop a profile of perceived risk of infection of HIV/AIDS among a nationally representative sample of men and women;
- To document variation in risk perception by gender according to demographic and socioeconomic characteristics;
- To identify the association between perceived risk and changes in behaviour to avoid HIV/AIDS; and
- To identify determinants of condom use in the general population.

The report contains six chapters. This first chapter introduces the issues of HIV/AIDS, STI incidence, and gender relations in sexual behaviour in Zimbabwe. Chapter 2 presents an analysis of AIDS-related knowledge, attitudes, and behaviours. Chapter 3 looks at the incidence and determinants of self-reported STIs among the ZDHS respondents. Chapter 4 considers condom use as one means of behavioural change to avoid STIs. Perceived risk of contracting HIV/AIDS is explored in Chapter 5, and Chapter 6 provides discussion of the findings and suggestions for programme applications.

CHAPTER 2

ATTITUDES AND BEHAVIOUR VARIATIONS IN STI AND AIDS-RELATED KNOWLEDGE

Knowledge of STIs and AIDS by Demographic Variables

Men and women were asked "Have you heard about diseases that can be transmitted through sex?" If they responded "yes", they were asked (without probing) to name all the diseases that they had heard about. Tables 2.1.1 and 2.1.2 show the distribution of women and men respectively, and their knowledge of STIs (including HIV/AIDS) according to demographic characteristics. Overall, knowledge of STIs is high. Only 9 percent of women and 3 percent of men reported not knowing any STI. However, with the exception of HIV/AIDS, knowledge of particular diseases is very low. Nearly equal proportions of men (84 percent) and women (85 percent) know AIDS is a sexually transmitted disease. Far fewer respondents know of other diseases, and the proportion of men knowing specific STIs is generally higher than that of women. Less than one-third of women have heard of gonorrhoea (32 percent) or syphilis (29 percent). Two-thirds of the men named gonorrhoea as an STI and 4 in 10 identified syphilis. One-third of men also know of chancroid, compared with only 7 percent of women.

Age

Among women, there is little variation in knowledge of AIDS by age, while men age 30 to 49 show less familiarity with the disease than other age groups. Ironically, this is the group hardest hit by the disease. According to the data from the National Public Health Laboratory, half of the cumulative cases among men identified between 1987 and the second quarter of 1996 occurred in this age group (MOH&CW, 1996). With the exception of the youngest women, a greater percentage of women than men report knowing about AIDS. Among respondents who report knowing any STI, the difference is even more pronounced.

More women and men aged 20 to 29 know about gonorrhoea and syphilis than those in other age groups. Familiarity with genital warts and chancroid is highest among those age 30 to 39 for both sexes, though with the exception of men knowing about chancroid, knowledge of both conditions was very low.

Province

One of the objectives of the ZDHS was to determine variations in knowledge of STIs by province. With the exception of Masvingo, and to a lesser extent Matabeleland South, knowledge of any STI is very high among men in all provinces. Knowledge among women is also high, but shows more variation, ranging from 84 percent in Mashonaland Central to 98 percent in Harare.

Residents of Harare show the most knowledge of HIV/AIDS. The ZDHS data also show that about two-thirds of both men and women living in Harare personally know someone with AIDS (CSO and MI, 1995: Tables 10.6.1 and 10.6.2). These findings are consistent with incidence patterns showing that nearly one-fifth of all AIDS cases in the country have occurred in the capital area (MOH&CW, 1996) It is also possible that people living in Harare and Bulawayo are more likely to be exposed to media coverage of AIDS, because they report the highest exposure to newspaper, radio, and television among all provinces (ibid., Tables 2.12.1 and 2.12.2).

Table 2.1.1 Knowledge of STIs: women

Percentage of women who know any STI and specific STIs (including HIV/AIDS) by demographic characteristics, Zimbabwe 1994

Background characteristic	Any STI	Syphilis	Gonorrhoea	AIDS	Genital warts	Chancroid	Other	Don't know any STI	Number of women
Age	***	***	***	***	***	***	ns	ns	
15 - 19	86.8	24.7	24.5	97.5	1.7	4.2	27.9	13.2	1,472
20 - 29	93.3	35.2	39.8	92.2	3.3	7.1	28.7	6.7	2,184
30 - 39	92.6	33.7	39.9	92.5	6.1	9.7	29.2	7.4	1,532
40+	90.3	27.9	33.4	93.8	4.8	8.5	28.9	9.7	940
Province	***	***	***	***	***	***	***	ns	
Manicaland	85.9	31.6	40.2	96.2	2.4	4.2	16.6	14.5	839
Mashonaland Central	84.4	15.9	28.3	92.0	4.2	5.9	39.9	15.6	510
Mashonaland East	93.5	20.8	29.6	93.9	3.7	7.5	41.2	6.5	579
Mashonaland West	85.4	31.8	42.4	92.1	1.6	9.4	24.8	14.6	632
Matabeleland North	84.7	19.0	24.6	87.7	3.5	11.7	41.0	15.3	366
Matabeleland South	90.9	39.7	47.2	95.3	2.0	10.1	10.7	9.1	305
Midlands	95.0	38.0	28.2	94.8	7.5	6.5	28.1	5.0	810
Masvingo	91.3	21.7	20.1	92.8	3.8	17.1	32.4	8.7	652
Harare/Chitungwiza	98.2	40.0	43.4	94.3	4.0	2.7	28.1	1.8	1,048
Bulawayo	96.2	44.9	48.9	94.9	3.7	5.0	25.9	3.8	388
Marital Status	*	ns	***	***	**	***	***	ns	
Never married	90.0	29.1	29.9	96.4	2.5	4.2	24.4	10.0	1,646
Married	91.2	32.0	36.5	92.8	4.3	8.1	30.0	8.8	3,788
Widowed/Divorced	93.2	32.7	41.4	92.7	4.5	10.5	31.0	6.8	692
Residence	***	***	***	ns	ns	***	***	ns	
Urban	96.7	42.9	45.6	94.3	4.6	4.5	25.0	3.3	1,975
Rural	88.5	25.2	29.9	93.2	3.5	8.8	30.5	11.5	4,153
Total	91.1	31.3	35.3	93.6	3.9	7.3	28.6	8.9	6,128

Note: Totals include 2 missing cases for marital status.

Statistical significance: *p<0.05; **p<0.01; ***p<0.001; ns = Not significant

Table 2.1.2 Knowledge of STIs: men

Percentage of men who know any STI and specific STIs (including HIV/AIDS) by demographic characteristics, Zimbabwe 1994

Background characteristic	Any STI	Syphilis	Gonorrhoea	AIDS	Genital warts	Chancroid	Other	Don't know any STI	Number of women
Age	***	***	***	***	***	***	ns	ns	
15 - 19	95.6	26.0	37.7	93.2	2.9	12.7	26.0	4.4	604
20 - 29	98.4	50.7	76.7	86.1	7.7	34.6	22.7	1.6	688
30 - 39	98.2	49.8	82.8	81.1	10.4	49.8	20.2	1.8	436
40+	96.8	40.8	79.9	84.8	7.7	45.7	21.2	3.2	413
Province	***	***	***	***	***	***	***	ns	
Manicaland	97.7	54.8	60.3	86.9	1.8	21.7	14.8	2.3	269
Mashonaland Central	97.4	18.3	43.4	85.8	0.9	23.0	45.2	2.6	181
Mashonaland East	99.0	32.2	63.0	92.3	9.8	41.2	13.5	1.0	190
Mashonaland West	99.2	58.7	83.9	82.6	8.9	50.2	11.2	0.8	264
Matabeleland North	96.9	18.4	47.8	93.1	0.5	3.7	43.5	3.1	100
Matabeleland South	92.4	14.4	56.0	83.3	2.1	20.3	48.3	7.6	91
Midlands	98.4	30.3	66.1	71.7	21.3	37.8	35.5	1.6	265
Masvingo	88.2	41.1	62.4	87.7	2.3	35.5	3.1	11.8	200
Harare/Chitungwiza	98.7	54.9	83.0	94.6	6.2	38.8	20.1	1.3	428
Bulawayo	99.6	43.2	72.6	89.2	5.0	33.2	23.2	0.4	154
Marital Status	ns	***	***	***	***	***	ns	ns	
Never married	96.5	36.2	51.8	90.4	4.8	18.9	24.5	3.5	1,004
Married	98.0	47.6	81.4	84.6	8.4	46.1	21.1	2.0	1,038
Widowed/Divorced	97.6	37.1	84.0	74.3	12.1	52.6	23.6	2.4	99
Residence	***	***	***	*	ns	*	*	ns	
Urban	98.9	51.5	80.9	88.7	7.1	36.7	20.4	1.1	797
Rural	96.3	35.9	59.8	85.6	6.8	32.0	24.3	3.7	1,344
Total	97.3	41.8	67.7	86.8	6.9	33.8	22.8	2.7	2,141

Statistical significance: *p<0.05; **p<0.01; ***p<0.001; ns = Not significant

No consistent regional patterns emerge in looking at knowledge of specific STIs. Indeed, the wide range in knowledge of STIs may indicate a clear need to standardize and systematize education efforts about these diseases.

Residence

Urban men and women were significantly more likely than their rural counterparts to report knowledge of any STI, although the differences in knowledge of HIV/AIDS was less pronounced than for other STIs, particularly syphilis and gonorrhoea.

Knowledge of Ways to Avoid HIV/AIDS by Demographic Variables

ZDHS respondents were asked, "What can a person do to avoid getting the AIDS virus?" Tables 2.2.1 and 2.2.2 show the percentage of women and men who know specific ways of avoiding HIV/AIDS, by demographic characteristics. Women seem to be more fatalistic in their attitudes toward AIDS. Nine percent believe there is no way to avoid contracting AIDS, and another 6 percent think there must be a way to avoid AIDS, but were unable to identify a particular behaviour. Only 4 percent of men think there is no way to avoid the disease, and 3 percent do not know a single way to avoid infection. Significantly more men and women aged 40 and older could not cite a way to avoid contracting HIV/AIDS compared with other age groups. They also did not know ways to avoid AIDS transmission.

Among both men and women, the majority cited using condoms as a way to avoid contracting AIDS (57 and 66 percent, respectively), followed by having one sexual partner (41 percent and 52 percent, respectively). Clearly, the message to use condoms as a means of protection is reaching people. Still, nearly half the women and one-third of the men did not cite this as a way to avoid exposure. Both men and women aged 40 and above were significantly less likely than those in other age groups to believe that using condoms can prevent AIDS transmission, while 15 to 19 year olds were significantly less likely to believe that having one sexual partner can prevent HIV/AIDS transmission.

Among those who could correctly cite a way to avoid contracting HIV/AIDS, there were significant differences in knowledge by province for both men and women. Approximately 1 in 5 women (19 percent) and 1 in 5 men (21 percent) in Matabeleland South think there is no way to avoid AIDS; they were significantly more likely than those living in other provinces to believe this. With this exception, no clear pattern emerges when considering differences by province. Among women, fewer residents of Harare-Chitungwiza and Bulawayo indicated that there was no way to avoid AIDS, and more cited condoms and monogamy as means to avoid infections (with a comparable percentage of Midlands residents also citing monogamy). Among men, two-thirds or more in all provinces except Matabeleland South and Masvingo cited condom use as a way to avoid exposure.

More important than the variations by age, region, marital status, or place of residence are the gender differences in reporting ways to avoid contracting HIV/AIDS. Overall, a larger percentage of men than women report avoidance behaviours having to do with sex—abstinence, condom use, and monogamy. The exception to this is a slightly higher percentage of women reporting avoiding sex with prostitutes. This may be interpreted as an indication of women's perceived lack of control over sexual relations (Meursing and Sibindi, 1995; Pitts et al., 1995; Mbizvo, 1997). It may be that prevention messages that emphasize changes in sexual behaviour are not salient to women, and thus they do not accept those measures as ones they themselves can adopt and act upon.

Table 2.2.1 Knowledge of ways to avoid transmitting HIV/AIDS: women

Percentage of women who know ways to avoid transmitting HIV/AIDS by demographic characteristics, Zimbabwe 1994

Background characteristic	No way to avoid HIV/AIDS	Abstain from sex	Use of condoms	Have one sexual partner	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid blood transfusions	Avoid injections	Do not know any way	Incorrect knowledge of transmitting AIDS ¹	Number of women
Age	***	ns	***	***	ns	ns	ns	ns	***	ns	
15 - 19	9.8	13.7	56.2	34.5	8.7	0.2	2.6	7.2	7.2	0.9	1,472
20 - 29	7.6	9.5	61.5	43.9	7.4	0.1	3.6	7.1	4.6	0.8	2,184
30 - 39	8.9	10.6	58.9	42.1	7.7	0.3	2.8	6.8	6.9	0.9	1,532
40+	13.2	11.2	44.5	37.4	9.2	0.1	1.8	4.9	10.8	0.6	940
Region	***	***	***	***	***	***	***	***	***	ns	
Manicaland	9.5	15.1	53.1	40.0	10.0	0	6.5	15.8	10.7	1.1	839
Mashonaland	16.3	6.1	51.7	24.5	6.3	0.5	1.0	6.0	7.3	0.7	510
Mashonaland East	10.9	7.3	52.4	40.0	6.9	0	0.8	4.6	6.9	0.5	579
Mashonaland West	8.3	12.5	61.0	39.6	47.7	0.2	1.4	9.7	8.9	0.2	632
Matabeleland North	13.8	4.3	44.3	28.5	3.0	0	1.1	2.0	23.9	1.3	366
Matabeleland South	18.5	12.9	60.3	34.5	1.5	0	1.9	6.5	6.3	1.1	305
Midlands	7.0	7.7	62.6	47.4	10.4	0	2.7	5.2	2.7	1.3	810
Masvingo	13.2	11.0	44.6	36.9	4.1	0	1.7	1.2	5.7	1.3	652
Harare/Chitungwiza	2.8	15.4	65.5	46.8	5.8	0	2.8	5.6	1.3	0.3	1,048
Bulawayo	4.3	12.1	67.4	50.3	15.0	1.9	7.9	6.2	2.7	0.9	388
Marital Status	ns	***	***	***	ns	ns	ns	ns	ns	ns	
Never married	8.9	16.0	57.0	35.2	8.6	0.1	3.5	6.8	6.0	0.6	1,646
Married	9.7	8.0	55.5	43.7	7.9	0.2	2.6	6.5	7.1	1.0	3,788
Widowed/Divorced	8.5	15.5	65.0	33.2	7.4	0.3	2.9	7.7	6.6	0.6	692
Residence	***	***	***	***	ns	*	***	ns	***	ns	
Urban	3.6	13.2	67.7	47.7	7.6	0.4	4.8	7.3	1.9	0.5	1,975
Rural	12.1	10.0	51.8	36.6	8.3	0.1	1.9	6.4	9.0	1.0	4,153
Total	9.3	11.0	57.0	40.2	8.1	0.2	2.9	6.7	6.8	0.8	6,128

Note: Information missing on marital status for 2 women; total includes 6 missing cases.

Statistical significance: *p<0.05; **p<0.01; ***p<0.001; ns = Not significant

¹ Includes avoiding kissing, protection from traditional healers.

Table 2.2.2 Knowledge of ways to avoid transmitting HIV/AIDS: men

Percentage of men who know ways to avoid transmitting HIV/AIDS by demographic characteristics, Zimbabwe 1994

Background characteristic	No way to avoid HIV/AIDS	Abstain from sex	Use of condoms	Have one sexual partner	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid blood transfusions	Avoid injections	Do not know any way	Incorrect knowledge of transmitting AIDS ¹	Number of men
Age	***	***	***	***	ns	ns	ns	ns	***	ns	
5 - 19	3.0	21.4	65.5	37.4	8.0	0.2	1.4	5.7	4.7	0.7	604
20 - 29	2.8	15.4	74.4	56.4	6.1	0.8	2.6	3.9	1.6	0.7	688
30 - 39	3.7	14.6	64.0	58.4	7.9	0.6	3.1	7.1	1.3	0.8	436
40+	5.6	12.2	54.3	56.8	8.3	0.0	1.2	3.8	5.2	0.1	413
Region	***	***	***	***	***	*	**	***	***	ns	
Manicaland	3.4	24.2	68.0	56.5	22.3	1.7	1.7	3.5	2.2	1.6	269
Mashonaland	3.5	7.6	69.0	50.3	2.4	0.0	1.2	5.4	0.9	0.4	181
Mashonaland East	3.6	11.3	68.0	46.7	7.0	0.0	1.0	3.6	1.6	1.0	190
Mashonaland West	4.1	29.7	68.9	41.9	2.3	0.0	1.7	3.6	1.1	0.0	264
Matabeleland North	3.6	4.7	70.7	26.9	4.2	0.0	0.0	1.0	9.2	1.5	100
Matabeleland South	20.7	9.5	49.2	26.3	0.0	0.5	1.4	6.3	14.6	1.2	91
Midlands	0.8	13.2	68.8	51.5	5.1	0.0	1.2	14.6	4.3	0.4	265
Masvingo	1.1	11.2	53.5	52.4	5.9	0.0	1.6	0.5	6.5	0.5	200
Harare/Chitungwiza	1.3	18.9	67.4	66.5	9.7	0.9	3.1	2.6	0.0	0.0	428
Bulawayo	7.0	12.0	64.0	55.0	2.9	0.4	7.0	9.5	3.7	0.4	154
Marital Status	*	***	**	***	ns	ns	ns	ns	*	ns	
Never married	2.9	20.2	69.3	42.3	6.6	0.2	1.4	4.9	3.9	0.8	1,004
Married	4.0	12.0	62.7	62.4	8.6	0.7	2.9	5.3	2.0	0.4	1,038
Widowed/Divorced	6.5	22.0	64.7	31.2	4.0	0.0	1.5	3.8	5.7	0.5	99
Residence	***	ns	ns	***	ns	ns	***	ns	***	*	
Urban	2.3	16.9	67.4	62.0	7.3	0.8	3.8	5.9	1.1	0.1	797
Rural	4.3	16.0	65.0	45.3	7.5	0.3	1.1	4.5	4.3	0.9	1,344
Total	3.6	16.3	65.9	51.6	7.4	0.4	2.1	5.0	2.7	0.6	2,141

Note: Totals include 9 missing values except for "incorrect knowledge of transmitting AIDS"; one case missing for "do not know any way."

Statistical significance: *p<0.05; **p<0.01; ***p<0.001; ns = Not significant

¹ Includes avoid kissing, protection from traditional healer.

Only 11 percent of women and 16 percent of men mentioned abstinence as a means of avoiding infection. While people recognize some "safe sex" practices as ways to reduce the risk of infection, it seems that not having sex at all is not perceived as an acceptable protective option. Fewer married men and women, compared with single and widowed or divorced people, mentioned abstinence as a way to avoid AIDS. Virtually no respondents of either sex, regardless of other selective characteristics, mentioned avoiding sex with homosexuals as a means to avoid AIDS, consistent with what is known about transmission patterns in East and Southern Africa.

Only small proportions of respondents, both men and women, mentioned avoiding blood transfusions or hypodermic injections as ways to avoid transmitting AIDS. This may reflect either confidence in the blood supply, or lack of awareness of the dangers of transfusion with contaminated blood, possibly because few people have experience with transfusion procedures. Zimbabwe has a strong history of successful immunization programmes, as well as long-standing treatment of other diseases with medical injections, so it is likely that people are comfortable with hypodermics. The country does not have a high prevalence of injection drug users, so people are probably much less familiar with this as a mode of disease transmission.

Significantly more rural than urban men and women believed that there was no way of avoiding AIDS and did not know a way by which AIDS could be avoided. Urban residents were significantly more likely than rural men and women to state that having one sexual partner and avoiding blood transfusions could prevent them from acquiring AIDS. Men in urban and rural areas were equally knowledgeable on the use of condoms during sexual encounters and also on abstinence as a means of avoiding AIDS transmission. Women showed differences by residence, with significantly more urban than rural women believing that condom use and abstinence were ways of avoiding AIDS.

Knowledge of HIV/AIDS by Socioeconomic Characteristics

Tables 2.3.1 and 2.3.2 examine the socioeconomic status of both men and women in relation to knowledge of HIV/AIDS. Looking broadly at both tables, it is clear that the majority of both men and women are aware that a healthy-looking person can have AIDS, and that the disease is transmitted through sexual intercourse. Fewer respondents specifically mentioned sex with prostitutes or with multiple partners as means of infection. Interestingly, more women than men reported these means: one-third of the women, compared with one-fifth of the men mentioned multiple partners, while 16 percent of women and 11 percent of men mentioned prostitutes.

Virtually no women and only a small percentage of men mentioned homosexual sex as a means of transmission. Homosexuality is thought to be rarely practiced in Zimbabwe, and has not been a feature of AIDS education campaigns in the country. Finally, fewer than 1 in 5 respondents of either sex mentioned blood transfusions or injections as a means of transmission. Again, neither of these procedures has been highlighted in national AIDS education campaigns.

Education

For both men and women, as level of education increases knowledge of HIV/AIDS also increases, and with a few exceptions (intercourse as a means of transmission and multiple partners for men, sex with homosexuals for women), these increases were all statistically significant. As expected, there was a reversal in the pattern for both men and women for those who did not know how AIDS was contracted. Men and women who had no formal education were significantly less likely than those who were more educated to know about AIDS. Both men and women with no education reported being aware of the dangers of contracting HIV/AIDS through sex with multiple partners or with prostitutes at higher proportions than did people with longer durations of education.

Table 2.3.1 Knowledge of HIV/AIDS transmission routes by socioeconomic status: women

Percentage of women who know HIV/AIDS transmission routes by socioeconomic status, Zimbabwe 1994

Background characteristic	Ever heard of AIDS	A healthy looking person can have AIDS	Means of HIV/AIDS transmission						Don't know how to contract AIDS	AIDS can be cured	Knowledge of someone with/died of AIDS	AIDS transmission mother to child	Ever heard of a condom to avoid AIDS	Number of women
			Sexual intercourse	Multiple sex partners	Sex with prostitutes	Sex with homosexuals	Blood transfusion	Injection						
Education	***	***	***	***	***	ns	***	***	***	**	***	***	***	
None	94.7	58.0	60.7	34.5	18.4	0.3	2.6	4.9	5.0	2.8	83.4	35.4	61.1	705
1-7 yrs	98.7	69.8	65.8	36.0	17.2	0.5	5.9	13.5	2.8	2.8	92.2	50.2	81.1	2,982
8+ yrs	99.9	84.5	72.9	30.1	12.7	0.7	18.8	26.3	0.6	3.2	97.4	53.0	92.9	2,433
Occupation	***	***	***	***	***	***	***	***	***	**	***	***	***	
None	97.6	73.2	69.5	31.7	15.4	0.5	10.1	19.4	3.0	3.4	92.3	44.5	78.5	2,748
Prof/Tech/Mgr	100.0	88.4	78.3	22.6	13.8	2.5	35.3	40.3	0.3	3.1	98.4	70.8	94.3	216
Clerical/sales	100.0	87.9	79.1	28.4	6.8	1.2	33.0	25.1	0.3	4.4	98.2	60.5	96.3	192
Agriculture	99.6	68.0	63.3	37.4	20.9	0.3	4.9	9.9	2.1	1.9	90.6	46.3	83.4	1,361
Services	99.7	77.4	67.0	36.4	11.6	0.7	10.9	14.9	1.2	2.8	96.2	56.2	89.8	950
Manual	99.8	79.9	67.4	33.1	14.3	0.0	10.4	21.5	1.4	2.9	96.0	58.2	91.3	659
Religion	***	***	***	ns	***	ns	***	***	***	***	***	***	***	
Traditional	95.6	61.1	57.0	37.8	22.4	0.2	4.7	12.5	6.6	2.8	83.2	39.7	66.6	397
Spiritual	98.7	69.9	67.6	34.6	16.4	0.3	6.9	13.0	2.6	2.7	91.7	48.0	80.0	2,018
Christian	99.4	78.8	70.1	32.5	14.5	0.7	13.7	21.7	1.2	3.1	95.5	2.8	88.5	3,470
Other	94.6	68.4	61.2	31.0	12.5	0.5	8.0	7.3	5.9	2.5	91.5	33.0	76.1	238
Total	98.7	74.4	68.1	33.5	15.5	0.6	10.7	17.7	2.2	2.9	93.3	49.7	83.8	6,128

Note: Totals include missing cases for education (7-16), occupation (4-13), and religion (4-13).
 Statistical significance: *p<0.05; **p<0.01; ***p<0.001, ns = Not significant

Table 2.3.2 Knowledge of HIV/AIDS socioeconomic status: men

Percentage of men according to knowledge of HIV/AIDS transmission routes by socioeconomic status, Zimbabwe 1994

Background characteristic	Ever heard of AIDS	A healthy looking person can have AIDS	Means of HIV/AIDS transmission						Don't know how to contract AIDS	AIDS can be cured	Knowledge of someone with/died of AIDS	AIDS transmission mother to child	Ever heard of a condom to avoid AIDS	Number of men
			Sexual intercourse	Multiple sex partners	Sex with prostitutes	Sex with homosexuals	Blood transfusion	Injection						
Education	**	***	ns	ns	**	***	***	***	***	**	***	***	***	
None	97.9	66.0	73.0	22.5	16.0	3.3	0.0	0.0	6.0	7.6	79.9	40.6	88.9	99
1-7 yrs	99.4	78.0	76.6	19.6	13.2	0.3	5.7	12.1	2.3	2.7	87.4	45.2	92.4	886
8+ yrs	100.0	92.7	79.0	21.9	9.2	2.1	21.7	27.1	0.2	2.2	97.7	52.9	98.9	1,146
Occupation	ns	***	ns	**	ns	***	***	***	ns	ns	***	***	***	
None	99.4	81.0	77.6	19.2	11.8	0.8	12.0	20.5	1.8	2.1	90.1	40.7	91.9	612
Prof/Tech/Mgr	100.0	94.9	80.5	21.0	8.5	7.0	38.0	31.5	0.0	2.7	97.9	69.7	99.6	208
Clerical/sales	100.0	92.6	80.8	31.8	8.6	3.4	23.1	27.4	0.0	0.6	98.8	68.0	100.0	93
Agriculture	99.3	81.2	80.8	16.6	13.2	0.7	8.6	12.8	1.8	2.8	89.7	43.6	96.4	505
Services	99.8	81.8	74.6	20.7	11.7	1.0	10.3	16.7	0.8	2.4	91.5	49.9	96.0	252
Manual	100.0	91.9	74.3	25.6	9.5	0.5	12.5	20.7	1.3	3.7	95.6	52.5	97.5	471
Religion	ns	***	ns	**	*	**	***	**	**	ns	**	*	***	
Traditional	100.0	83.6	73.6	23.2	15.1	1.3	9.4	15.5	1.2	3.2	90.3	44.9	96.1	319
Spiritual	99.3	84.7	80.4	20.0	8.7	0.7	13.3	18.6	1.2	2.6	90.5	47.4	93.0	575
Christian	99.9	88.4	77.5	22.5	11.7	1.6	17.2	22.6	0.9	2.3	95.0	52.8	97.7	1,061
Other	98.9	73.3	77.9	10.6	9.4	3.1	7.3	13.2	4.4	4.1	89.1	40.4	93.2	187
Total	99.6	85.4	77.7	20.9	11.2	1.4	14.1	19.7	1.3	2.7	92.5	49.1	95.8	2,141

Note: Totals include 11 men for whom information on education was missing.
 Statistical significance: *p<0.05; **p<0.01; ***p<0.001, ns = Not significant

Occupation

Virtually all respondents, regardless of occupation, had heard of AIDS. Generally, among both men and women, people employed in professional and clerical/sales occupations were more knowledgeable than their less-skilled counterparts. Notable exceptions occurred among women, where higher percentages of agricultural and service workers reported knowing that sex with multiple partners might cause AIDS. Sex with prostitutes as a way to transmit the disease was noted by a comparatively higher percentage of female agricultural workers, and among male agricultural and service workers.

Religion

Christian men and women interviewed in the ZDHS were significantly the most knowledgeable that a healthy-looking person could harbour the AIDS virus, that AIDS could be transmitted through blood transfusions and injections, and that AIDS could be transmitted from mother to infant. They were also more likely to know (or to have known) someone with AIDS. Significantly more Christians than those of other religions also reported having heard of the use of condoms to avoid AIDS. Men of all religions said they believed that AIDS could be transmitted through sexual intercourse.

Summary

Knowledge of STIs in general is very high in Zimbabwe. With the exception of HIV/AIDS, however, significant percentages of men and women are far less familiar with other sexually transmitted infections. For example, nearly 60 percent of men and 71 percent of women did not know syphilis when asked to name an STI.

Knowledge of ways to prevent STIs is also limited. While half of the women interviewed and two-thirds of the men cited using condoms as a means to avoid AIDS, the inverse is that more than 40 percent of women and one-third of the men did not mention condoms. It is not possible to determine if they truly are unaware of the protective function of condoms, or if using condoms is not personally realistic and so goes unmentioned.

The gender differences in reporting ways to avoid contracting HIV/AIDS must be underscored. More men than women know that engaging in safer sexual practices, such as abstinence, condom use, and monogamy, will reduce their exposure to HIV/AIDS. Fewer women report these practices, either because they are not known to them, or because they are not feasible in their personal lives.

CHAPTER 3

INCIDENCE AND DETERMINANTS OF SELF-REPORTED SEXUALLY TRANSMITTED INFECTIONS (STIs)

Introduction

Sexually transmitted infections (STIs) present a serious health challenge in Zimbabwe. If left untreated, complications may be serious and among women, may impair their ability to bear children. If infection persists during pregnancy, it can be transferred to the foetus and neonate, jeopardizing the health of the newborn. Important in their own right, STIs have also been linked with an increased risk of contracting HIV/AIDS, mainly due to the presence of lesions in the genital area that may facilitate the transmission of the disease from an infected partner.

The incidence of STIs reached a peak in 1991, with more than 1.24 million episodes recorded¹ (MOH&CW, 1996). Between 1992 and 1995, cases dropped to between 814,000 and 879,000. It is not yet clear whether this represented a true decline in incidence, or whether during this period of drought and economic hardship (perhaps related to the introduction of an Economic Structural Adjustment Programme) people did not seek treatment.

The ZDHS asked respondents if they had heard about diseases that are transmitted through sex. Those who knew about STIs were then asked whether they had had any sexually transmitted infections during the preceding 12 months. If yes, they were asked to name the infection, and to report what action (if any) was taken during the most recent occurrence. Among sexually active respondents, 97 men (6 percent of 1,642) and 167 women (4 percent of 4,453) reported having had an STI.

As mentioned in Chapter 1, these figures likely underestimate the actual prevalence of STIs in the survey sample. Respondents may avoid reporting such sensitive, private information to an interviewer. Also, some STIs may remain undiagnosed until the individual seeks care for other medical conditions, particularly so for women. Many commonly occurring STIs have asymptomatic phases, including chancroid, syphilis, herpes, chlamydia, bacterial vaginosis, and HIV (Dixon-Mueller and Wasserheit, 1991). Women and men may not know they have these infections until they have suffered serious reproductive and systemic health consequences.

Prevalence and Association of Demographic Factors With STIs

Age

The prevalence and association of demographic factors with STIs are shown in Table 3.1. About half of the men who reported having had an STI were aged 20 to 29; nearly 9 percent of men in this age group had an STI during the previous 12 months. Compared with male respondents aged 40 or more years, male respondents in their twenties and thirties were three times and two times more likely to report an STI, respectively. Among women reporting an STI, nearly half (45 percent) were also aged 20 to 29. Within age

¹ This figure does not include patients treated by private providers, who are not yet required to report treatment of STIs to central authorities.

Table 3.1 Demographic characteristics associated with self-reported sexually transmitted infections

Percentage of sexually active men and women reporting a sexually transmitted infection in the preceding 12 months, by selected demographic characteristics, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Demographic characteristic	Sexually transmitted infection reported in preceding 12 months							
	Men				Women			
	%	OR	95% CI	No. of men	%	OR	95% CI	No. of women
Age								
15-19	3.1	1.1	0.3-3.4	194	2.6	1.0	0.4-2.3	381
20-29	8.5	3.3	1.6-6.7	622	4.2	1.6	1.0-2.7	1,806
30-39	6.1	2.3	1.1-5.0	426	4.3	1.7	1.0-2.9	1,406
40-54	2.8		<i>Referent</i>	397	2.6		<i>Referent</i>	846
Marital status								
Never married	6.6	1.4	0.9-2.3	528	0.9	0.2	0.0-0.6	352
Widow/divorced	14.6	3.4	1.7-6.8	96	4.3	1.1	0.7-1.7	645
Married	4.7		<i>Referent</i>	1,016	4.0		<i>Referent</i>	3,440
Residence								
Urban	5.6	0.9	0.6-1.4	673	2.7	0.6	0.4-0.9	1,464
Rural	6.1		<i>Referent</i>	967	4.3		<i>Referent</i>	2,975
Province								
Manicaland	3.4	1.5	0.3-15.1	174	5.9	1.9	0.9-4.3	555
Mashonaland Central	4.9	2.1	0.4-21.2	143	4.8	1.5	0.6-3.7	354
Mashonaland East	6.1	2.7	0.5-25.9	147	3.5	1.1	0.4-2.8	423
Mashonaland West	8.3	3.7	0.9-33.9	204	4.5	1.4	0.6-3.4	464
Matabeleland South	8.1	3.6	0.6-38.7	62	2.5	0.8	0.2-2.4	240
Matabeleland North	2.4		<i>Referent</i>	84	3.3		<i>Referent</i>	277
Midlands	6.7	3.0	0.7-27.3	208	2.8	0.9	0.4-2.1	610
Masvingo	4.2	1.8	0.3-19.4	118	5.0	1.6	0.7-3.7	460
Harare/ Chitungwiza	5.7	2.5	0.6-22.4	336	2.9	0.9	0.4-2.1	767
Bulawayo	7.5	3.3	0.7-31.9	133	1.7	0.5	0.1-1.8	290

Note: Totals include 2 missing cases for men and 14-17 missing cases for women.

groups, women aged 20 to 29 and those aged 30 to 39 both reported comparable rates of incidence (4 percent). These women were 60 and 70 percent more likely to report an STI than women aged 40 or older.

Marital Status

The ZDHS data showed that more than 4 in 5 women infected with an STI were married, compared with just under half of the infected men. Within marital categories, reported STIs were highest among widowed or divorced men (15 percent), and nearly equal for married and widowed or divorced women (4 percent). Widowed or divorced men were three times more likely to report an STI than married male respondents, but there was no significant difference between the proportion of never-married and married men reporting an STI.

Residence and Province

Both rural and urban men reported similar proportions having had an STI: 6 percent. A slightly higher percentage of rural female residents reported having an STI than their urban counterparts (4.3 percent and 2.7 percent, respectively). Female urban residents were about 40 percent less likely to report an STI than female rural residents.

Unlike many diseases which are closely associated with particular environmental conditions, STIs are mainly a function of personal behaviour. As such, it is not surprising that there was no significant difference in the reporting of STIs among the provinces for respondents of either sex.

Prevalence and Association of Social and Economic Factors With STIs

There is little variation in the prevalence of STIs by education and religion, as shown in Table 3.2. Occupation, on the other hand, is significantly related to STI prevalence.

Occupation

Sexually active men employed as clerical or sales staff were five times more likely, and skilled or unskilled manual workers were three times more likely to have reported an STI in the last 12 months than professionally employed men. Compared with women employed in clerical and sales occupations, other women were 60 to 90 percent more likely to have had an STI.

Marital and Sexual Behavioural Factors Associated With STIs

As noted above, more than 80 percent of the women and half of the men who reported having recently had an STI are married. An additional 17 percent of women and 14 percent of men are widowed or divorced, and may have been exposed to their STI by their spouse. Marital patterns may provide some useful information to identify partners most at risk.

Number of Other Wives

Table 3.3 shows several marital characteristics and their associations with reports of a recent STI. The highest prevalence of reported STIs appeared among women with at least one co-wife. These women were more than twice as likely as those who were the only wife to report having had an STI. Male respondents with two or more wives were 50 percent less likely to report an STI compared with male respondents with only one wife.

Age at First Marriage and Years Since First Marriage

Men and women younger than age 20 at their first marriage had the highest self-reported STI prevalence: 10 and 5 percent, respectively (Table 3.3). Men who married younger than 20 were nearly 3 times as likely to report an STI compared with those marrying at an older age. Similarly, women who married younger than 20 were four times more likely to have had an STI compared with those first marrying at 25 or older.

For both men and women, the period 5-9 years following marriage is the time of highest reported STI prevalence; however, this pattern is not statistically significant.

Gave or Received Gift in Exchange for Sex

All sexually active respondents were asked if they had exchanged gifts for sex with a partner, and whether they had used condoms as a means to protect against STIs (Table 3.4). Male respondents who had given a gift in exchange for sex had a higher prevalence of self-reported STIs (15 percent vs 5 percent) than those who had not. The same relationship is apparent for women, but it is weaker and the odds ratio is not statistically significant.

Table 3.2 Socioeconomic characteristics associated with self-reported sexually transmitted infection

Percentage of sexually active men and women reporting a sexually transmitted infection in the preceding 12 months, by selected socioeconomic characteristics, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Socioeconomic characteristic	Sexually transmitted infections reported in preceding 12 months							
	Men				Women			
	%	OR	95% CI	No. of men	%	OR	95%CI	No. of women
Education								
None	3.6		<i>Referent</i>	84	3.4		<i>Referent</i>	532
1-7	5.8	1.7	0.5-8.6	676	4.4	1.3	0.8-2.3	2,309
8-19	6.3	1.8	0.6-9.3	872	3.0	0.9	0.5-1.6	1,592
Occupation								
Prof/Tech/Mgr	2.4		<i>Referent</i>	200	0.0	0.0	0.0-1.3	199
Clerical-sales	11.6	5.0	1.4-19.6	79	2.3		<i>Referent</i>	171
Agric.-self employed	5.7	2.4	0.9-8.0	437	3.8	1.6	0.6-6.4	1,089
Services	6.3	2.6	0.9-9.4	224	4.4	1.9	0.7-7.5	688
Skilled/Unskilled	7.1	3.0	1.1-9.9	452	4.0	1.7	0.6-6.9	581
Not working	4.7	2.0	0.6-7.3	248	4.0	1.7	0.6-6.6	1,707
Religion								
Traditional	6.6	1.3	0.5-3.6	274	3.6	0.8	0.3-2.3	278
Spiritual	4.6	0.9	0.4-2.6	410	4.7	1.1	0.5-2.4	1,418
Christian	6.5	1.3	0.6-3.5	818	3.2	0.7	0.3-1.6	2,560
Other	5.1		<i>Referent</i>	138	4.4		<i>Referent</i>	180

Note: There were no women in the professional/technical/managerial category reporting an STI; clerical/sales was selected as an alternative referent category. Totals include 12, 2, and 2 missing cases, respectively, for men, and 21, 16, and 17 missing cases, respectively, for women.

Current Condom Use

Men using a condom during their most recent intercourse had a higher prevalence of STIs (8 percent) compared with those who did not use a condom. They were also 70 percent more likely to report an STI than their respective counterparts who did not use condoms. This could be due to these men correctly recognizing that their behaviour puts them at risk of infection and therefore were using condoms. However, because of not using condoms all the time, they would also be at increased risk of STIs.

Ever Used Condom to Avoid AIDS

Higher rates of STIs were reported among men and women (9 percent and 7 percent, respectively) who had ever used condoms to avoid AIDS than among those who had never used them to avoid infection (2 percent and 3 percent, respectively). Men and women who had ever used condoms were 6 and 3 times more likely to have had an STI than nonusers. Unfortunately, the data do not permit an assessment of causality. It is difficult to determine whether people use condoms because they engage in risky behaviour and expose themselves to the possibility of contracting an STI, or whether they begin using them after they have been diagnosed with an infection and attempt to protect their partners from infection and themselves from reinfection.

Table 3.3 Percentage of sexually active, married men and women reporting sexually transmitted infections in the 12 months preceding the survey, by marital characteristics, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Marital characteristic	Sexually transmitted infection reported in preceding 12 months							
	Men				Women			
	%	OR	95% CI	No. of men	%	OR	95% CI	No. of women
Number of spouses								
1	5.0		<i>Referent</i>	925	3.4		<i>Referent</i>	2,831
2 +	2.3	0.5	0.1-1.8	86	6.4	2.3	1.3-2.9	597
Age at first marriage								
<20	10.1	2.8	1.2-6.3	129	4.6	4.3	1.2-36.4	2,304
20-24	4.0	1.1	0.5-2.2	471	2.9	2.7	0.7-23.6	954
25-49	3.9		<i>Referent</i>	415	1.1		<i>Referent</i>	181
Years since first marriage								
<1	6.7	1.9	0.5-5.9	75	1.7	0.4	0.1-1.2	236
1-4	4.3	1.2	0.5-3.0	232	3.6	1.0	0.5-1.6	645
5-9	7.4	2.1	0.9-4.9	190	4.8	1.3	0.8-2.0	690
10-14	3.1	0.9	0.2-2.6	161	4.5	1.1	0.7-2.0	572
15 +	3.6		<i>Referent</i>	357	3.9		<i>Referent</i>	1,296

Note: Totals include 7, 2, and 2 missing cases, respectively, for men, and 23, 12, and 12 missing cases, respectively, for women.

Table 3.4 Percentage of sexually active men and women reporting a sexually transmitted infection in the 12 months preceding the survey, by pattern of sexual gift exchange and condom use, Zimbabwe 1994

Gift exchange/ condom use	Sexually transmitted infection reported in preceding 12 months							
	Men				Women			
	%	OR	95% CI	No. of men	%	OR	95% CI	No. of women
Gave/received gift for sex								
Yes	14.9	3.2	1.8-5.8	114	6.7	1.9	0.9-3.8	150
No	5.2		<i>Referent</i>	1,523	3.7		<i>Referent</i>	4,288
Current condom use								
Yes	8.1	1.7	1.1-2.6	482	5.0	1.4	0.9-2.2	441
No	5.0		<i>Referent</i>	1,156	3.7		<i>Referent</i>	3,989
Ever used condom								
Yes	8.9	5.9	3.1-11.9	962	7.4	2.6	1.8-3.6	757
No	1.6		<i>Referent</i>	677	3.0		<i>Referent</i>	3,681

Note: Totals include 4, 4, and 3 missing cases, respectively, for men, and 15, 24, and 15 missing cases, respectively, for women.

Table 3.5 Percentage of sexually active men and women knowing ways to transmit HIV/AIDS, by whether they had an STI during the preceding 12 months, Zimbabwe 1994

Knowledge of ways to transmit HIV/AIDS	Had STI during preceding 12 months			
	Men		Women	
	Yes	No	Yes	No
Sexual intercourse	80.4	77.4	78.0*	69.2
Multiple sexual partners	18.2	21.7	33.2	35.5
Sex with prostitute	13.1	11.5	13.5	16.2
Sex with homosexual	0.0	1.6	1.0	0.7
Blood transfusion	9.1	14.8	11.7	11.4
Injection	14.6	19.8	20.8	17.5
Inaccurate knowledge ¹	3.3	3.4	0.8*	1.6
Doesn't know a mode	0.0	0.9	0.0	1.2
Number of men/women	97	1,548	168	4,276

Note: Totals include 1 missing case for men and 6 missing cases for women.

Statistical significance: *p<0.05; **p<0.01; ***p<0.001.

¹ Includes avoiding kissing and mosquito bites.

Knowledge of HIV/AIDS According to STI History in the Last 12 months

Tables 3.5 and 3.6 show the percentage of sexually active women and men who have knowledge of ways of acquiring HIV/AIDS and knowledge of AIDS-related health issues by whether or not they had been diagnosed with an STI during the 12 months preceding the interview. Significantly, a larger proportion of women who reported having had STIs (78 percent) than those not reporting STIs (69 percent) knew that AIDS could be transmitted through sexual intercourse. Knowledge of other means of transmission were similar for both groups of women, with no significant difference in their awareness of transmission routes. Fewer women who reported having STIs (92 percent) than those not having STIs (95 percent) believed that AIDS could be transmitted from mother to child. The male data display similar patterns.

Summary

Only a small proportion of sexually active respondents reported having had an STI during the year preceding the survey. Men and women in their twenties and thirties were more likely to report an infection than those older than 40. More than 80 percent of the women reporting infections were married, compared with less than half of the men. Given that so few women report having had extramarital partners (though this may be underreported as it is disapproved of in Shona and Ndebele society), it is probable that most women contract these infections from their husbands.

Similarly, men who give gifts in exchange for sex are three times more likely than those not exchanging gifts to have had an STI, while the difference is smaller and non-significant among women. Again, this can be taken as evidence that most STIs in women may be contracted within their regular sexual relations, and not as a function of commercial sex.

Men using condoms, supposedly engaging in protective behaviour, had higher prevalence of STIs than men who did not use condoms. While these findings appear contradictory, it is plausible that men are using condoms because they contracted an infection in the past. That is, they have learned their lesson through personal experience, and are now using protection against subsequent reinfection, or to avoid infecting a partner.

Table 3.6 Percentage of sexually active men and women who know about AIDS-related health conditions, by whether they had an STI during the preceding 12 months, Zimbabwe 1994

Knowledge of AIDS-related health conditions	Had STI during preceding 12 months			
	Men		Women	
	Yes	No	Yes	No
Has heard of AIDS ¹	100.0	100.0	100.0	99.8
Healthy looking person can have AIDS	86.2	87.0	78.0	77.3
AIDS can be cured	3.7**	2.5	6.8**	2.8
AIDS transmitted from mother to child	95.2***	93.7	92.6***	95.2
Know someone with AIDS or who died of AIDS	59.5	54.0	55.5	54.2
Number of men/women	97	1,548	168	4,276

Note: Totals include 4 missing cases for men and 12 missing cases for women.
 Statistical significance of bivariate relationships: *p<0.05; **p<0.01; ***p<0.001

¹ Questions on health conditions asked of those having heard of AIDS.

CHAPTER 4

CONDOM USE AND SEXUALLY TRANSMITTED INFECTIONS

Ever Use of Condoms and Sexually Transmitted Infections

Incidence of HIV/AIDS is linked to the prevalence of sexually transmitted infections (STIs) (Grosskurth et al., 1995). However, "the association between HIV infection and sexually transmitted disease seems to be poorly appreciated" (Moyo et al., 1993). In view of this, health officials in Zimbabwe are launching a more aggressive programme of diagnosis and treatment of STIs, with the twin goals of improving reproductive health and reducing the opportunities for transmitting the HIV virus.

A major element of this programme is to encourage people to use condoms to guard against infection by all STIs, including HIV/AIDS. Efforts are being made to make condoms widely available at little or no cost to users, and to promote their regular use. Health care workers are advised to counsel STI clients of the dangers of transmitting an STI to their partners, and to take precautions to avoid their own reinfection.

Survey respondents who had heard of AIDS were asked "Have you ever used a condom during sex to avoid getting or transmitting diseases, such as the AIDS virus?" Table 4.1 shows condom use to avoid AIDS among respondents by whether they had an STI in the preceding 12 months. Sexually active men who had ever used a condom to avoid AIDS were six times more likely to have had an STI in the 12 months before the survey than those who had never used a condom. Women who reported having ever used a condom to avoid AIDS were nearly three times more likely (OR = 2.6) to have had an STI than those who had never used a condom.

Table 4.1 Condom use and STIs: men and women

Percentage of sexually active men and women who reported having had an STI in the preceding 12 months, by ever use of condoms to avoid AIDS, odds ratios (OR) and 95% confidence intervals (CI), Zimbabwe 1994

Ever used condom to avoid AIDS	%	OR	95% CI	No. of men/women
Men				
Yes	8.9	5.9	3.1-11.9	962
No	1.6		<i>Referent</i>	677
Total				1,642
Women				
Yes	7.4	2.6	1.8 - 3.6	757
No	3.0		<i>Referent</i>	3,681
Total				4,453

Note: Totals include 3 missing cases for men and 15 missing cases for women.

These results are consistent with the findings of a recent study of male factory workers in Harare, in which Mbizvo et al. (1994) showed that significantly more condom users had a history of STIs than nonusers; however, the question of causality is not answered. Do people with STIs use condoms because they do not wish to infect their partners, or have they become infected because they engage in risky sexual behaviour and use condoms, though perhaps inconsistently, to protect themselves from possible infection?

Current Condom Use and Sociodemographic Factors

Three times as many sexually active men (29 percent) as women (10 percent) reported using a condom during their most recent act of intercourse. Tables 4.2.1 and 4.2.2 show the percentage of condom users among men and women by sociodemographic characteristics. The gender difference in reported condom use, with far fewer women reporting recent use, remains consistent for most characteristics, with the differences less pronounced for several occupational groups.

Age

Age and recent condom use show some of the strongest associations among socioeconomic variables. The youngest respondents showed the highest recent condom use, though with radical differences between the sexes: half of the men aged 15 to 19, and 12 percent of the girls in that group had used condoms. Males in the youngest age group were 6 times more likely to have used a condom in their most recent intercourse when compared with men in the oldest group, 40 to 54 years. Men in their twenties were more than 4 times more likely to have used a condom, compared with the eldest respondents. Younger women were also 2 to 3 times more likely to have used a condom than the older females.

Marital Status

As expected from the earlier analysis, never-married and widowed or divorced men were 10 and 6 times more likely to have used the condom in their most recent sexual intercourse than married men. Women who were never married and those who were widowed or divorced were 6 and 5 times more likely to have used the condom, respectively, than married women. Condom use was most prevalent among never-married men (58 percent) and women (28 percent).

Residence

Consistent with the overall pattern, condom use among urban men was 33 percent, whereas that of urban women was 12 percent. While urban men were one-third more likely to have used the condom than their counterparts in the rural areas, urban women were nearly 50 percent more likely to have used the condom than their rural counterparts.

Province

Although there was no association between condom use and province of residence among men (except for higher use in Harare-Chitungwiza), women residing in Mashonaland Central and West, Midlands, Harare-Chitungwiza, Bulawayo, and Matabeleland South were about twice as likely to have used the condom as those residing in Matabeleland North and Manicaland.

Education

Male respondents who attained 8 or more years of education were 3 times more likely to have used the condom in their most recent sexual intercourse compared with those with no formal education. Similarly, the most educated women were also 3 times more likely to have used the condom than their counterparts with no formal education. Female respondents with 1 to 7 years of education were 81 percent more likely to have used condoms than those with no formal education. Among condom users, 69 percent of men and 48 percent of women had 8 or more years of education; this is greater than the percentages of men and women achieving higher education among the sexually active population (53 percent for men and 34 percent for women). It appears that men and women with more education better understand the messages about safe sex and the

Table 4.2.1 Use of condom during most recent sexual intercourse: men

Percentage of sexually active men who used a condom during their most recent sexual intercourse, by background characteristics, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Background characteristic	Percentage of men who used a condom at last intercourse	OR	95% CI	No. of men
Age				
15-19	49.2	6.2	4.1 - 9.5	197
20-29	40.1	4.3	3.1 - 6.1	628
30-39	18.7	1.5	1.0 - 2.2	434
40-54	13.4		<i>Referent</i>	409
Marital status				
Never married	58.6	10.3	7.9 - 13.3	536
Widowed-divorced	46.9	6.4	4.1 - 10.2	98
Married	12.1		<i>Referent</i>	1,034
Residence				
Urban	32.5	1.3	1.1 - 1.7	679
Rural	26.7		<i>Referent</i>	990
Province				
Manicaland	26.6	1.2	0.6 - 2.3	177
Mashonaland Central	28.8	1.3	0.7 - 2.6	146
Mashonaland East	33.8	1.7	0.9 - 3.2	145
Mashonaland West	29.3	1.4	0.7 - 2.6	205
Matabeleland South	26.2	1.2	0.5 - 2.6	65
Matabeleland North	23.3		<i>Referent</i>	86
Midlands	29.9	1.4	0.8 - 2.6	211
Masvingo	19.8	0.8	0.4 - 1.7	131
Harare-Chitungwiza	34.8	1.8	1.0 - 3.1	369
Bulawayo	24.8	1.1	0.6 - 2.2	133
Education				
None	15.4		<i>Referent</i>	91
1-7 years	19.7	1.4	0.7 - 2.6	690
8 or more years	37.9	3.4	1.8 - 6.3	878
Occupation				
Prof-tech-manager	25.2		<i>Referent</i>	202
Clerical-sales	25.9	1.0	0.6 - 1.9	81
Agric-self employed	24.4	1.0	0.6 - 1.4	450
Services	27.3	1.1	0.7 - 1.8	231
Skilled/unskilled manual	29.7	1.3	0.9 - 1.9	454
None	42.0	2.1	1.4 - 3.3	250
Religion				
Traditional	24.5	0.7	0.4 - 1.1	277
Spiritual	26.7	0.8	0.5 - 1.2	415
Christian	31.2	1.0	0.7 - 1.4	826
Other	32.0		<i>Referent</i>	150
Total	29.0			1,678

Note: Totals include up to 19 missing cases.

Table 4.2.2 Use of condom during most recent sexual intercourse: women

Percentage of sexually active women who used a condom during their most recent sexual intercourse, by background characteristics, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Background characteristic	Percentage of women who used a condom at last intercourse	OR	95% CI	No. of women
Age				
15-19	12.1	2.5	1.6 - 3.8	437
20-29	11.4	2.3	1.7 - 3.3	1,940
30-39	9.2	1.8	1.3 - 2.6	1,519
40-49	5.2		<i>Referent</i>	934
Marital status				
Never married	27.9	6.6	5.0 - 8.6	369
Widowed-divorced	21.9	4.8	3.8 - 6.0	689
Married	5.6		<i>Referent</i>	3,770
Residence				
Urban	12.0	1.5	1.2 - 1.8	1,503
Rural	8.5		<i>Referent</i>	3,327
Province				
Manicaland	6.5	1.2	0.7 - 2.2	642
Mashonaland Central	10.1	1.9	1.0 - 3.5	416
Mashonaland East	9.4	1.8	1.0 - 3.3	445
Mashonaland West	10.3	1.9	1.1 - 3.5	536
Matabeleland South	13.6	2.7	1.4 - 5.0	264
Matabeleland North	5.6		<i>Referent</i>	323
Midlands	11.3	2.2	1.2 - 3.8	637
Masvingo	7.3	1.3	0.7 - 2.5	492
Harare-Chitungwiza	10.7	2.0	1.2 - 3.6	776
Bulawayo	13.0	2.5	1.4 - 4.7	301
Education				
None	4.8		<i>Referent</i>	695
1-7 years	8.3	1.8	1.2 - 2.7	2,507
8 or more years	13.7	3.2	2.1 - 4.7	1,624
Occupation				
Prof-tech-manager	15.9		<i>Referent</i>	201
Clerical-sales	18.1	1.2	0.7 - 2.1	177
Agric-self employed	7.5	0.4	0.3 - 0.7	1,244
Services	14.9	0.9	0.6 - 1.5	707
Skilled/unskilled manual	9.1	0.5	0.3 - 0.9	602
None	7.7	0.4	0.3 - 0.7	1,898
Religion				
Traditional	8.1	1.4	0.7 - 2.9	358
Spiritual	7.3	1.2	0.7 - 2.3	1,576
Christian	11.5	2.1	1.1 - 3.8	2,678
Other	6.0		<i>Referent</i>	216
Total	9.6			4,838

Note: Totals include up to 12 missing cases.

protective functions of condoms and are applying them to their personal behaviour more frequently than people with less education.

Occupation

For most of the occupational groups, about one-quarter of the men reported using condoms during their most recent intercourse. Forty-two percent of those with no occupation had recently used condoms. Men with no occupation were twice as likely to have used a condom as professionals/technicians/managers. Occupation was cross-tabulated with education, and more than half of the unemployed men had completed eight or more years of education (data not shown). Presumably, if employed, these men would be distributed across occupational categories, and show similar condom use patterns to those groups.

A similar pattern emerges among women, with recent condom use most prevalent among those with no occupation (32 percent) and those self-employed in agriculture (20 percent), as well as women working in service occupations (23 percent). While numerically these groups were comparatively large, within their respective occupational group, they were less likely to have used condoms than their professional/technical/managerial counterparts.

Religion

Although there was no association between religious affiliation and male condom use, Christian women were twice as likely to have used condoms at their last intercourse as women of other religions.

Knowledge of HIV/AIDS and Condom Use to Avoid AIDS

Two key elements of the Zimbabwe AIDS control programme have been increased—education about the disease and its modes of transmission, and promotion of condoms as a means to avoid infection. Tables 4.3 and 4.4 show the percentage of sexually active women and men with knowledge of specific ways of acquiring HIV/AIDS and knowledge of AIDS-related health issues by ever use of a condom to avoid AIDS.

Table 4.3 Percentage of sexually active men and women who know ways to transmit HIV/AIDS, by ever use of a condom to avoid AIDS, Zimbabwe 1994

Knowledge of ways to transmit HIV/AIDS	Ever used a condom to avoid HIV/AIDS			
	Men		Women	
	Yes	No	Yes	No
Sexual intercourse	79.8	74.7	71.8*	67.6
Multiple sexual partners	19.9	23.3	32.7	35.4
Sex with prostitutes	10.3	13.0	15.9	16.0
Sex with homosexuals	1.4	1.8	0.8	0.6
Blood transfusion	15.8	12.4	11.8	10.5
Injections	21.7**	15.7	18.6	16.4
Inaccurate knowledge ¹	3.9	2.6	1.6	1.6
Don't know	0.1***	2.5	0.9*	2.4
Number of men/women	969	698	785	3,994

Note: Totals exclude men and women who did not know of AIDS. Totals include 1 missing case for men and 2 missing cases for women.

Statistical significance *p<0.05 (women); **p<0.01 (men); ***p<0.001 (men)

¹ Includes avoiding kissing, mosquito bites.

Table 4.4 Percentage of sexually active men and women who know about AIDS-related health conditions, by ever use of a condom to avoid AIDS, Zimbabwe 1994

Knowledge of AIDS-related health conditions	Ever used a condom to avoid HIV/AIDS			
	Men		Women	
	Yes	No	Yes	No
Has heard of AIDS ¹	100.0*	99.6	99.7*	98.6
Healthy looking person can have AIDS	90.0***	91.9	81.9***	74.0
AIDS can be cured	2.0**	3.6	2.5*	3.0
AIDS transmitted from mother to child	96.0***	89.4	97.2***	92.8
Know someone with AIDS or died of AIDS	55.7	51.7	57.6**	51.1
Number of men/women	970	706	768	4,057

Note: Totals include 4 missing cases for men and 8 missing cases for women.
 Statistical significance of bivariate relationship: *p<0.05; **p<0.01; ***p<0.001
¹ Questions on AIDS conditions asked only of those having heard of AIDS.

Among women, significantly more condom users than nonusers (72 percent vs 68 percent) believe that AIDS can be spread through sexual intercourse, and may be taking care to protect themselves. Users and nonusers of condoms are not significantly different in knowing other means of transmission. Condom users are more likely to know that a healthy looking person can have AIDS (82 percent vs 74 percent). More condom users also know that AIDS can be transmitted from mother to child, and know someone with AIDS.

Among men, there are few significant differences between condom users and nonusers in knowing means of transmission. The percentage of users and nonusers is similar, with the majority knowing that HIV/AIDS is transmitted through intercourse, and far fewer knowing other means of transmission. The only significant differences regarding means of transmission are that more condom users than nonusers (22 percent vs 16 percent) believe that AIDS can be transmitted through injections, and virtually no condom users report not knowing any way to transmit the disease. Significantly more male condom users believe that a healthy looking person can have the AIDS virus, and that AIDS can be transmitted from mother to child.

Current Condom Use and Knowledge of AIDS Transmission

Tables 4.5.1 and 4.5.2 show how knowledge of AIDS transmission relates to condom use during the most recent sexual intercourse. For both men and women, there is very little difference in the percentage reporting use of condoms regardless of knowledge of transmission. Between 25 and 30 percent of all men have used condoms, whether they know specific means of transmission or not. The very slight differences that emerged for men knowing that AIDS is transmitted through intercourse or through sex with prostitutes are not significant.

A similar pattern exists among women, albeit at a lower frequency of condom use. Those who know that HIV can be transmitted through sexual intercourse are 20 percent more likely to have used a condom than those who do not know this means of transmission.

Current Condom Use and Sexual Behavioural Factors

Tables 4.6.1 and 4.6.2 show the proportion of men and women reporting condom use during their most recent sexual intercourse by associated sexual behaviour. Considering the tables jointly, the recurrent pattern observed in this analysis is maintained. Men report condom use at most recent intercourse at levels 10 and 20 percentage points higher than women for virtually all categories.

Table 4.5.1 Condom use by knowledge of AIDS transmission: men

Percentage of sexually active men who used a condom during their most recent sexual intercourse, by knowledge of AIDS transmission, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Knowledge of AIDS transmission	Percentage of men who used a condom at last intercourse	OR	95% CI	No. of men
Sexual intercourse				
Yes	30.0	1.2	0.9 - 1.6	1,292
No	26.2		<i>Referent</i>	374
Sex with multiple partners				
Yes	29.2	1.0	0.8 - 1.3	356
No	29.1		<i>Referent</i>	1,310
Sex with prostitute				
Yes	24.6	0.8	0.5 - 1.1	191
No	29.7		<i>Referent</i>	1,475

Note: Totals include 2 missing cases.

Table 4.5.2 Condom use by knowledge of AIDS: women

Percentage of sexually active women who used a condom during their most recent sexual intercourse by knowledge of AIDS transmission, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Knowledge of AIDS transmission	Percentage of women who used a condom at last intercourse	OR	95% CI	No. of women
Sexual intercourse				
Yes	10.3	1.2	1.0 - 1.6	3,256
No	8.5		<i>Referent</i>	1,513
Sex with multiple partners				
Yes	8.9	0.9	0.7 - 1.1	1,664
No	10.1		<i>Referent</i>	3,104
Sex with prostitute				
Yes	9.6	1.0	0.8 - 1.3	762
No	9.7		<i>Referent</i>	4,006

Note: Totals include 10 missing cases.

With the exception of giving or receiving a gift in exchange for intercourse, indicators of onset of intercourse or number of marital partners have only weak and insignificant association with the use of condoms during the most recent intercourse. Among men, those who gave a gift, money, or favours in exchange for sex in the preceding four weeks were more than twice as likely to use a condom during last intercourse as those who did not. For women, the difference is far greater: women who received gifts, money, or favours were five times more likely to use a condom than women who did not receive some compensation.

Table 4.6.1 Condom use by associated sexual behaviour: men

Percentage of sexually active men who used a condom during their most recent sexual intercourse, by characteristics associated with sexual behaviours, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Characteristic	Percentage of men who used a condom at last intercourse	OR	95% CI	No. of men
Number of wives				
1	12.6		<i>Referent</i>	942
2 +	6.8	0.5	0.2 - 1.2	88
Age at first marriage				
<20	18.9	1.9	1.1 - 3.3	138
20-24	10.9	1.0	0.6 - 1.5	478
25 +	11.1		<i>Referent</i>	423
Years since first marriage				
<1	7.9	0.7	0.2 - 1.7	76
1-4	15.0	1.4	0.8 - 2.3	234
5-9	11.5	1.0	0.6 - 1.9	192
10-14	12.2	1.1	0.6 - 2.0	164
15 +	11.1		<i>Referent</i>	368
Age at first sexual intercourse				
<15	9.6		<i>Referent</i>	52
15-19	14.6	1.6	0.6 - 5.4	526
20-24	9.0	0.9	0.3 - 3.2	356
25 +	11.8	1.3	0.4 - 4.8	102
Gave gift in exchange for sex				
Yes	47.0	2.3	1.5 - 3.4	115
No	27.8		<i>Referent</i>	1,551

Note: Number of wives, age at first marriage, and years at first marriage include only ever-married men.

Summary

As seen in the previous chapter, condom use, in this case to avoid AIDS, is linked with prior history of STIs. Men who had used a condom to avoid AIDS were six times as likely to have had an STI in the preceding year, and women were more than twice as likely, compared with their counterparts who had never used a condom. Unfortunately, these data do not allow the suggestion of causality. It is not known if people begin using condoms because they have been infected and wish to avoid a recurrence or exposure to another disease, or if they had used condoms (but irregularly or incorrectly) because they were engaging in risky sexual practices, and subsequently became infected.

About 30 percent of men and 10 percent of women reported using a condom during their most recent intercourse. The gender difference remains consistent across all the sociodemographic characteristics considered. Gender differences are established early: half of the sexually active young men aged 15 to 19 have used condoms, compared with only 12 percent of girls the same age. Women who were never married, or who were divorced, or widowed were 6 and 5 times more likely to use condoms than married women, implying a greater level of negotiation being possible between nonspouse partners than between spouses.

For women, knowledge about AIDS is linked to condom use. Significantly more condom users than nonusers believe that AIDS can be spread through sexual intercourse. Condom users also are more likely to know that a healthy looking person can have AIDS. Among men, there are few significant differences between condom users and nonusers in knowing means of transmission.

Table 4.6.2. Condom use by associated sexual behaviour: women

Percentage of sexually active women who used a condom during their most recent sexual intercourse, by characteristics associated with sexual behaviour, odds ratios (OR), and 95% confidence intervals (CI), Zimbabwe 1994

Characteristic	Percentage of women who used a condom at last intercourse	OR	95% CI	No. of women
Number of co-wives				
0	5.8		<i>Referent</i>	3,066
1 +	4.3	0.7	0.5 - 1.1	693
Age at first marriage				
<20	5.2	0.7	0.4 - 1.4	2,553
20-24	6.4	0.9	0.5 - 1.8	1,014
25 +	6.9		<i>Referent</i>	204
Years since first marriage				
<1	4.9	1.1	0.6 - 2.1	266
1-4	8.3	1.9	1.3 - 2.8	696
5-9	6.1	1.4	0.9 - 2.1	752
10-14	4.5	1.0	0.6 - 1.6	620
15 +	4.5		<i>Referent</i>	1,436
Age at first sexual intercourse				
<15	4.7		<i>Referent</i>	401
15-19	5.5	1.2	0.7 - 2.0	2,501
20-24	5.8	1.2	0.7 - 2.2	774
25 +	9.5	2.1	0.9 - 5.1	95
Received gift in exchange for sex				
Yes	32.5	5.0	3.5 - 7.2	4,673
No	8.8		<i>Referent</i>	167

Note: Number of co-wives, age at first marriage, and years at first marriage includes only ever-married women.

CHAPTER 5

SELF-REPORTED PERCEPTION OF HIV/AIDS RISK

Respondents' Perception of Risk Levels

Knowledge about HIV/AIDS, while important, is not the sole factor that influences behavioural change. People must make an assessment about their own behaviour to determine whether they engage in activities that place themselves at risk of contracting the disease. Then using knowledge coupled with their personal risk assessment, decisions can be made about behavioural and life style changes that will limit this risk.

Perceived risk is an individual determination, which may be based on a correct identification of very real, actual danger. Perceived risk may also be shaped by an individuals' possibly inaccurate interpretation of reality, personal fears, and biases. Behavioural changes may be undertaken by people who perceive themselves to be at risk, when in reality they are not. Similarly, people may correctly assess their risk, but be unwilling or unable to alter the situation to reduce their risk.

In the ZDHS, respondents were asked whether their "chances of getting the AIDS virus" were great, moderate, small, or nil. Table 5.1 shows results for all men and women, and for sexually active men and women.¹ For both all men and sexually active men, over 85 percent see themselves having no risk or at small risk of contracting AIDS. Only 12 percent of sexually active men perceive a moderate or high risk. More than twice as many sexually active women (28 percent) assess their risk to be moderate or high, with corresponding reductions in the percentages thinking themselves at no or small risk.

Table 5.1 Perception of the risk of getting AIDS

Percent distribution of all men and women and sexually active men and women, by self-reported perception of the risk of getting AIDS, Zimbabwe 1994

Perceived risk of getting AIDS	Men		Women	
	All	Sexually active	All	Sexually active
No risk at all	49.6	56.0	46.8	39.0
Small	35.7	31.6	29.8	33.4
Moderate	11.0	9.3	16.9	20.2
Great	3.7	3.1	6.5	7.4
Total	100.0	100.0	100.0	100.0
Number of men/women	2,130	1,670	6,047	4,839

Note: Excludes men and women who have never heard of AIDS.

¹Excludes men and women who did not know of AIDS.

Risk Perception by Influential Factors

Interviewers posed a follow-up question to respondents, asking them why they thought their chances of contracting AIDS were small/nil or great/moderate. The reasons mentioned are shown in Tables 5.2.1 and 5.2.2. Having a single sexual partner was the reason mentioned most frequently by both men (47 percent) and women (52 percent) who perceived themselves as having no chance of getting AIDS. Abstaining from sex was mentioned by one-third of the men and 37 percent of the women.

Table 5.2.1 Reasons for perceiving no or small risk of contracting AIDS

Percent distribution of men and women who perceive themselves at no or small risk of contracting AIDS, by reason for that perception, Zimbabwe 1994

Reason	Perceived risk of contracting AIDS			
	No risk		Small risk	
	Men	Women	Men	Women
Abstain from sex	33.2	37.2	15.5	13.1
Use condoms	21.5	4.4	32.4	6.9
Have one sex partner	46.6	52.4	48.7	69.9
Limited number of partners	7.6	2.1	16.8	4.4
No homosexual contact	0.2	0.2	0.2	0.1
No blood transfusion	0.3	0.8	1.6	1.8
No injections	1.1	1.6	2.2	2.8
Other	7.5	6.8	14.6	12.4
Don't know	0.8	1.4	0.4	0.6
Total	100.0	100.0	100.0	100.0
Number of men/women	1,181	2,829	687	1,801

Note: Excludes men and women who have never heard of AIDS.

Table 5.2.2 Reasons for perceiving moderate or great risk of contracting AIDS

Percent distribution of men and women who perceive themselves at moderate or great risk of contracting AIDS, by reason for that perception, Zimbabwe 1994

Reason	Perceived risk of contracting AIDS			
	Moderate risk		Great risk	
	Men	Women	Men	Women
Do not use condom	11.7	8.7	24.0	7.1
Have many sex partners	27.7	7.9	37.7	8.9
Spouse has other partners	1.8	60.4	1.5	57.1
Have homosexual partners	0.0	0.5	0.0	0.0
Had blood transfusion	1.0	2.8	4.2	3.7
Had injections	5.5	4.0	2.6	5.7
Other	55.4	24.5	53.2	25.7
Don't know	1.6	0.9	3.7	2.9
Total	100.0	100.0	100.0	100.0
Number of men/women	198	1,023	66	394

Note: Excludes women and men who have never heard of AIDS.

The most dramatic gender difference is in use of condoms: more than 1 in 5 men consider themselves at no risk because they use condoms, while fewer than 1 in 20 women report this. The disparity in condom use remains high among those reporting themselves as having small risks, with again nearly five times as many men as women citing this as a reason.

Having a single partner was mentioned by 70 percent of the women believing themselves at small risk of AIDS, and by half of the men. Interestingly, this implies that even though so many women are in monogamous relations, they consider themselves still at some risk of AIDS rather than being protected and at no risk as they might be with a partner they perceive as being faithful.

Concern about a spouse having other partners was by far the dominant reason cited by women who believe themselves at moderate or high risk of AIDS. In a response that highlights the disparities in marital sexual activity in Zimbabwe, fewer than 2 percent of men thought themselves to be at risk because their wives might have other partners, while about 60 percent of women mentioned this fear. In fact, 28 percent of men identifying themselves at moderate risk, and 38 percent of those at great risk note that they do have many sexual partners.

Risk Perception and Sociodemographic Characteristics

Table 5.3 shows the association of sociodemographic characteristics with level of perceived risk. For nearly all categories, more women than men consider themselves at higher levels of risk.

Age

In Zimbabwe, AIDS is striking most frequently among women aged 20 to 29 and men aged 30 to 39. The ZDHS data show that one-quarter of women in the 20 to 29 age group and 17 percent of men 30 to 39 consider themselves at moderate or high risk of contracting AIDS. For every age group, a higher percentage of women than men view themselves at moderate or high risk.

Marital status

Twice as many married women reported a moderate-to-great chance of getting the AIDS virus as married men. Of the never-married respondents, about two-thirds of both men and women reported they were at no risk.

Residence

More rural residents, both men and women, reported having no risk of AIDS than urban residents, though the difference among men is more pronounced. Although for women there was a significant association ($p = 0.037$) between urban-rural residence and perceived chances of getting the AIDS virus, the percentages in all the reported chances of getting the AIDS virus did not differ by more than 3 percent.

Province

The highest percentages of men (83 percent) and women (63 percent) who reported having no chance at all of getting the AIDS virus were in Mashonaland Central. For men, this exceeds the proportion of the total sample believing themselves at no risk (50 percent) by more than 30 percentage points. The 11 percent of men in the province who reported being at low risk also falls far below the sample proportion (38 percent). Less than 1 percent of men living in this region perceive themselves to be at great risk of AIDS, compared with the total of 3.7 percent. Yet as seen in Chapter 4, there is little difference in reported STIs by province.

Education, Occupation, Religion

Twice as many women as men with 1 to 7 years of education reported having a moderate-to-great chance of getting the AIDS virus. Still, for both men and women, risk perception is not significantly associated with level of education.

Table 5.3 Perceived risk of contracting AIDS among men and women by sociodemographic characteristics, Zimbabwe 1994

Characteristic	Perceived risk of contracting AIDS							
	No risk		Small		Moderate		Great	
	Men	Women	Men	Women	Men	Women	Men	Women
Age								
15-19	72.3	70.1	20.4	20.6	4.9	6.3	2.5	3.1
20-29	49.9	42.4	37.4	31.9	10.0	18.1	2.8	7.6
30-39	43.7	32.8	39.7	34.5	13.3	24.5	3.3	8.2
40-54	52.3	43.2	32.9	31.7	10.3	18.6	4.4	6.6
Marital status								
Never married	62.7	68.2	28.0	20.9	7.0	6.7	2.4	4.2
Married	50.0	37.8	35.4	33.1	11.2	21.4	3.3	7.6
Widowed/divorced	37.9	44.7	41.7	32.8	12.4	16.5	8.1	6.1
Residence								
Urban	44.6	44.8	39.3	30.3	12.1	17.3	3.9	7.6
Rural	61.9	47.7	28.0	29.5	7.6	16.7	2.6	6.0
Region								
Manicaland	64.2	44.6	27.7	38.6	4.2	7.3	4.0	9.5
Mashonaland Central	83.3	63.3	10.9	11.5	5.4	23.1	0.4	2.0
Mashonaland East	66.8	47.7	20.0	27.9	11.1	19.1	2.1	5.3
Mashonaland West	40.5	45.1	47.6	32.8	9.3	14.9	2.6	7.2
Matabeleland South	47.0	42.4	34.5	33.0	9.5	13.7	8.9	11.0
Matabeleland North	47.6	43.3	35.0	38.6	13.7	11.3	3.7	6.8
Midlands	51.2	48.0	47.4	25.8	1.0	20.5	0.4	5.7
Masvingo	64.3	41.4	18.9	31.5	15.4	23.5	1.5	3.7
Harare/Chitungwiza	46.7	46.3	34.4	25.7	13.7	20.8	5.3	7.2
Bulawayo	48.8	45.3	36.0	39.4	11.6	7.9	3.7	7.4
Education								
None	47.9	42.9	36.0	31.6	13.0	19.1	3.0	6.5
1-7 years	61.8	45.4	26.0	30.2	8.8	17.6	3.4	6.8
8 or more years	51.2	49.5	36.5	28.8	9.4	15.5	2.9	6.2
Occupation								
Prof/Tech/Manager	40.3	30.7	46.3	36.1	9.0	22.5	4.4	10.6
Clerical/sales	41.8	33.4	35.8	35.0	15.9	24.0	6.5	7.6
Agric.-self employed	61.4	45.5	27.8	25.8	8.4	24.0	2.4	4.6
Services	49.6	49.0	40.0	29.8	8.6	14.2	1.7	7.0
Skilled/ unskilled manual	48.7	38.4	35.3	31.9	11.4	22.6	4.7	7.1
None	65.3	50.9	24.9	30.4	7.7	12.0	2.1	6.7
Religion								
Traditional	58.6	47.7	28.3	27.3	10.5	16.5	2.6	8.5
Spiritual	56.7	49.2	31.2	28.2	8.5	16.4	3.6	6.2
Christian	53.3	45.5	34.6	30.9	9.1	17.1	3.0	6.5
Other	57.9	43.6	28.7	30.7	10.5	19.5	2.9	6.2

About half of the women and 65 percent of the men who were unemployed reported having no chance of getting the AIDS virus.

There was no association between religion and perceived chances of getting the AIDS virus for either men ($p = 0.512$) or women ($p = 0.202$).

Characteristics Associated With Sexual Behaviour, and Perceived Risk of AIDS

Table 5.4 shows the association of sexual behaviour with perceived chances of getting the AIDS virus. More women with one or more co-wives believe they have a moderate-to-great chance of getting the AIDS virus than women who have no co-wives ($p < 0.001$). Meanwhile, more men with two or more wives believe they have a non-zero chance (i.e., small to great) of getting the AIDS virus than men who have one wife ($p < 0.001$).

Significantly more women who received a gift in exchange for sex perceive a moderate-to-great chance of getting the AIDS virus than women who did not ($p = 0.003$), and more men who gave a gift in exchange for sex perceive a non-zero chance (i.e., small to great) of getting the AIDS virus than men who did not ($p < 0.001$).

Lastly, more men and women who ever used a condom to avoid AIDS perceive a non-zero chance (i.e., small to great) of getting the AIDS virus than men and women who never used a condom ($p < 0.001$ for both men and women).

Table 5.4 Perceived risk of contracting AIDS among men and women, by characteristics associated with sexual behaviour, Zimbabwe 1994

Characteristic	Perceived risk of contracting AIDS							
	No risk		Small		Moderate		Great	
	Men	Women	Men	Women	Men	Women	Men	Women
Number of co-wives¹								
0	na	38.5	na	33.8	na	20.5	na	7.3
1	na	33.9	na	32.1	na	24.9	na	9.0
2+	na	37.7	na	23.5	na	29.4	na	9.4
Number of wives²								
1	60.5	na	29.2	na	7.5	na	2.9	na
2	50.1	na	35.3	na	11.5	na	3.1	na
3+	49.6	na	35.5	na	8.7	na	6.2	na
Gift in exchange for sex								
Yes	27.7	32.9	44.8	29.2	16.9	29.1	10.6	8.8
No	51.2	39.3	35.0	33.5	10.6	19.9	3.2	7.3
Ever used condom to avoid AIDS								
Yes	45.8	32.6	38.8	34.1	11.7	24.0	3.6	9.2
No	54.8	40.3	31.4	33.2	10.0	19.4	3.8	7.0

na = Not applicable

¹ Based on currently married women

² Based on currently married men

CHAPTER 6

SUMMARY AND CONCLUSIONS

This analysis, using a nationally representative sample, provides some useful insight into knowledge about sexually transmitted infections, perceived risk awareness, and use of condoms in Zimbabwe. Overall, knowledge of STIs is high. Only 9 percent of women and 3 percent of men report not knowing any STI. However, with the exception of HIV/AIDS, knowledge of particular STIs is very low. Nearly equal proportions of men (84 percent) and women (85 percent) know AIDS as a sexually transmitted infection. Far fewer respondents know other diseases, and the proportion of men knowing specific STIs is generally higher than that of women.

One of the objectives of the ZDHS was to determine variations in knowledge of STIs by province. With the exception of Masvingo, and to a lesser extent Matabeleland South, knowledge of any STI is very high among men in all provinces. Knowledge among women is also high, but shows more variation. No consistent regional patterns emerge in looking at knowledge of specific STIs. Indeed, the wide range in knowledge of STIs may indicate a clear need to standardize and systematize education efforts about these diseases.

Consistent gender differences were observed in all the analyses in this report. Women seem to be more fatalistic in their attitudes toward AIDS. Nine percent believe there is no way to avoid contracting AIDS, and another 6 percent think there must be a way to avoid AIDS, but were unable to identify a particular behaviour. Only 4 percent of men think there is no way to avoid contracting the disease, and 3 percent do not know a single way to avoid infection.

Among both men and women, the majority cited using condoms as a way to avoid contracting AIDS (57 and 66 percent, respectively), followed by having one sexual partner (41 percent and 52 percent, respectively). Clearly, the message to use condoms as a means of protection is reaching people. Still, nearly half the women and one-third of the men did not cite condoms as a way to avoid exposure, perhaps because use of condoms is not part of the daily lives of these individuals.

The gender differences carry through in reporting ways to avoid contracting HIV/AIDS. Proportionately, more men than women report avoidance behaviours having to do with sex—abstinence, condom use, and monogamy. A slightly higher percentage of women report avoiding sex with prostitutes. This may be interpreted as an indication of women's perceived lack of control over sexual relations. It may be that prevention messages that emphasize changes in sexual behaviour are not salient to women, and thus they do not accept those measures as ones they themselves can adopt and act upon.

Incidence of STIs

Both rural and urban men reported similar proportions having had an STI: 6 percent. A slightly higher percentage of rural female residents reported having an STI than their urban counterparts (4.3 percent and 2.7 percent, respectively). Unlike other diseases closely associated with prevailing environmental conditions, STIs are mainly a function of personal behaviour. As such, it is not surprising that there was no significant difference in the reporting of STIs among the provinces for respondents of either sex. Nor is there much variation among socioeconomic characteristics in the reporting of STIs; occupation is the only indicator to show significant differences.

Condom Use

Sexually active men who had ever used a condom to avoid AIDS were six times more likely to have had an STI in the 12 months before the survey than those who had never used a condom. Women who report having ever used a condom to avoid AIDS were about three times more likely to have had an STI than those who had never used the condom. As discussed earlier, it is not known if people use condoms as a consequence of having been diagnosed with an STI, or if they contracted the STI while practicing a pattern of incorrect or inconsistent condom use.

Three times as many sexually active men (29 percent) as women (10 percent) reported using a condom during their most recent act of intercourse, and again, this gender difference remains consistent for most characteristics, with the differences less pronounced for several occupational groups.

The relation of age and recent condom use showed some of the strongest associations among socioeconomic variables. The youngest respondents showed the highest recent condom use, though with radical differences between the sexes: half of the men aged 15 to 19, and 12 percent of the girls in that group had used condoms. As expected from the earlier analysis, never-married and widowed or divorced men were 10 and 6 times more likely to have used the condom in their most recent sexual intercourse than married men. Women who were never married and those who were widowed or divorced were 6 and 5 times more likely to have used the condom, respectively, than married women.

For both men and women, there is little difference in the percentage reporting use of condoms, according to one's knowledge of AIDS transmission routes. Between 25 and 30 percent of all men had used condoms, whether they knew specific means of transmission or not. The very slight differences that emerged for men knowing that AIDS is transmitted through intercourse or through sex with prostitutes were not significant.

Among women, more condom users believe that AIDS can be spread through sexual intercourse than nonusers, and may be using condoms to protect themselves. They are also more likely to know that a healthy-looking person could have HIV. More condom users also know that HIV can be transmitted from mother to child, and know someone with AIDS. In this case it appears that, for women, better knowledge and condom use are related.

Perceived Risk of HIV/AIDS

Among all men and sexually active men, over 85 percent see themselves having no risk or small risk of contracting AIDS. Only 12 percent of sexually active men perceive a moderate or high risk. More than twice as many sexually active women (28 percent) assess their risk to be moderate or high, yet fewer women apparently engage in behaviours typically associated with AIDS. It is possible that these women fear contracting AIDS from their regular partners, whom they assume to be engaging in the very behaviours (multiple partners, unprotected intercourse) they try to avoid. Less than 2 percent of men, but 60 percent of women thought they were at risk because of the sexual activity of their spouse.

There is a marked difference by gender when looking at use of condoms as a reason for the perception of no AIDS risk. More than 1 in 5 men consider themselves at no risk because they use condoms, while fewer than 1 in 20 women report this. The disparity in condom use remains high among those reporting themselves as having small risk, with again nearly five times as many men as women citing this as a reason.

This report indicates that gender differences far exceed differences attributable to other socio-demographic characteristics in knowledge of STIs and AIDS, perceived risk awareness, and condom use. While people know about AIDS, they are less informed about the STIs that greatly increase their susceptibility

to HIV infection. Women believe themselves to be at greater risk of contracting AIDS than men, yet it is as a consequence of the behaviour of men, and thus not directly within their control. Finally, while condoms are known by many as a means to protect against STIs and AIDS, they are still not reported by a significant minority of respondents. Furthermore, knowledge has not been translated into use—many sexually active adults, particularly women, still do not routinely use condoms.

The findings summarized here can be used to better target information and education campaigns about condom use, about risk of contracting HIV, and about improving awareness of other STIs and their dangerous link with AIDS.

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APPENDIX

ZDHS METHODOLOGY

Organization and Objectives of the Survey

The 1994 ZDHS is one of a series of surveys undertaken by the Central Statistical Office (CSO) as part of the Zimbabwe National Household Survey Capability Programme (ZNHSCP) and the worldwide DHS programme. The Zimbabwe National Family Planning Council (ZNFPC) and the Ministry of Health and Child Welfare (MOH&CW) contributed to the technical development of the study design, implementation, and analysis of results. The 1994 ZDHS was funded by the U.S. Agency for International Development (USAID), and technical assistance was provided by Macro International Inc. through its contract with USAID.

Four questionnaires were used in the survey, but data from only two are used in this report. The Household Questionnaire was used to list usual members and visitors in the household, to identify women and men eligible for individual interviews. The Women's Questionnaire included questions on the following topics:

- Background characteristics (education, residential history, etc.)
- Reproductive history
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care
- Breastfeeding and weaning practices
- Vaccinations and health of children under age 3
- Marriage and sexual activity
- Women's status and husband's occupation
- Awareness and behaviour regarding AIDS and other sexually transmitted diseases
- Adult mortality, including maternal mortality.

The Men's Questionnaire collected much of the same information, but did not include reproductive history and maternal and child health. The final questionnaire, the Service Availability Questionnaire, was administered to community leaders. It collected information on the nearest health and family planning services available to the sample households.

Sample Design

The area sampling frame used for the 1994 ZDHS was the 1992 Zimbabwe Master Sample (ZMS92) developed by the CSO following the 1992 Population Census. The ZMS92 included 395 enumeration areas (EAs) stratified by province and land use sector. For purposes of the ZDHS, 18 sampling strata were identified: urban and rural strata for each of the 8 provinces, plus Harare (including Chitungwiza) and Bulawayo, which are exclusively urban strata.

The sample for the 1994 ZDHS was selected in two stages. In the first stage, 230 EAs were selected with equal probability. Then, within each of these 230 EAs, a complete household listing and mapping exercise was completed in March 1994, forming the basis for the second-stage sampling. For the listing exercise, permanent CSO enumerators were trained in ZDHS listing and cartographic methods over a three-day period. Institutional populations (army barracks, hospitals, police camps, etc.) were not listed.

From these household lists, households were selected for inclusion in the ZDHS, with the sample "take" from each EA being proportional to its size based on the household listings. All women aged 15-49 years in those households were eligible to be interviewed in the ZDHS. Also, a 40 percent systematic subsample of these households was selected, within which interviews with all males aged 15-54 were to be conducted as well.

Since the objective of the survey was to produce estimates of specific demographic and health indicators for each of Zimbabwe's 10 provinces, the sample design allowed for an oversample of smaller ZDHS strata. The overall target sample was 6,000 women and approximately 2,200 men. The ZDHS sample is not self-weighting at the national level; weights are required to estimate national-level indicators.¹

A total of 6,483 households were selected in the sample, of which 6,075 were currently occupied. Of these, 5,984 were interviewed. In the interviewed households, 6,408 eligible women were identified and 6,128 were interviewed, yielding a response rate of 96 percent. In the 40 percent subsample of households, 2,339 eligible men were identified, of which 2,141 were successfully interviewed (a response rate of 92 percent). The main reason for nonresponse among both women and men was absence from the household, despite repeated visits. The refusal rate was less than 1 percent for both women and men. Rural response rates were higher than urban rates, particularly among men. In rural areas, 93 percent of men were interviewed, compared with 89 percent in urban areas.

Field Data Collection

The ZDHS questionnaires were pretested in April 1994. Twenty nurses were trained to conduct the pretest during a three-week training period. Three language versions of the questionnaires were produced: Shona, Ndebele, and English. The pretest fieldwork was conducted during one week in an area surrounding Gweru in central Zimbabwe, where both Shona and Ndebele households could be easily identified. Approximately 150 pretest interviews were conducted, debriefing sessions were held with the field staff, and the questionnaires were modified based on the field results. The pretest interviewers later served as field editors and team supervisors during the main survey.

Field staff training for the main survey was carried out for four weeks during June-July 1994. CSO staff trained 70 interviewer trainees, most of whom were nurses. Trainees who performed well in the programme were selected as interviewers, while the remainder were retained to assist in office operations. During this same period, field editors and team supervisors received additional training in methods of field editing, data quality control procedures, and coordination of fieldwork.

Actual fieldwork was carried out by 10 interviewing teams, one for each province. Each team consisted of one supervisor, one field editor, five or six female interviewers, one or two male interviewers, and one driver. Six senior CSO staff coordinated and supervised fieldwork activities. Data collection took place during a four-month period from 20 July to 28 November 1994.

Data Management and Analysis

All questionnaires were returned to the CSO for data processing, which consisted of office editing, coding of open-ended questions, data entry, and editing computer-identified errors. The data were processed on five microcomputers. Data entry and editing were accomplished using the program Integrated System for Survey Analysis (ISSA). Data processing began on 1 August and was completed on 14 December 1994.

¹Detailed information about the sampling process can be found in the main survey report, CSO and MI (1995).