

FAMILY HEALTH INTERNATIONAL



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ROUND 2

**BEHAVIOURAL SURVEILLANCE
SURVEY**

ZAMBIA, 2003:

**LONG DISTANCE TRUCK DRIVERS, LIGHT TRUCK
AND MINIBUS DRIVERS AND UNIFORMED
PERSONNEL IN TRANSPORTATION BORDER
ROUTES**

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EXECUTIVE SUMMARY

Background

Zambia is one of the countries hardest hit by the HIV epidemic with a national prevalence of 16 percent among the 15-49 year age group. HIV/AIDS has not only compounded the country's health problems, but has had far-reaching socio-economic consequences. The increasing poverty levels, partly a result of high unemployment levels, have fuelled the spread of the epidemic especially among women. HIV rates are particularly high along major highways and border posts.

In 1999, the Corridors of Hope Project (formerly called the Cross Border Initiative Project) was initiated to target long distance truck drivers, uniformed personnel and female sex workers in seven of the major border sites and truck stops in Zambia. These sites are; Chirundu, Kapiri Mposhi, Kasumbalesa, Katete/Chanida, Livingstone/Kazungula and Nakonde. The project, funded by USAID and JICA, is implemented by a partnership between World Vision, Society for Family Health and Zambia Health Education Communication Trust through Family Health International. The project aims at behaviour change, social marketing of condoms and improved management of sexually transmitted infections in the targeted sites.

During the initial stages of the HIV epidemic in Zambia, sentinel surveillance systems were used as a monitoring tool. However, as the epidemic matures, sentinel surveillance systems are found to be insufficient and need to be supplemented by Behaviour Surveillance Surveys (BSS), which when carried out repeatedly, can capture trends in behavioural changes.

As a means of monitoring the Corridors of Hope (COH) project, behavioural surveillance is done through repeated behavioural surveys among female sex workers (FSW) and their male clients. The Round One BSS was conducted in 2000 and included truck drivers only. The Round Two BSS, conducted in 2003, included truck drivers, uniformed personnel, light truck and mini bus drivers. The aim of this survey was to monitor and document the behavioural trends among these male populations.

The Institute for Social and Economic Research (INESOR) was contracted to conduct the survey with technical assistance from Family Health International's (FHI) IMPACT project and MEASURE/Evaluation - Tulane University. The general objective of this second round of BSS was:

To monitor the outcomes of existing prevention interventions through a cross-sectional assessment of risk behaviours among men at high risk for sexually transmitted infections, including HIV.

Secondary objectives included:

- To add and strengthen the monitoring system that will track behavioural trend data for high risk and vulnerable target groups;
- To provide information on behavioural trends of key target groups in some of the catchments areas of the project;
- To provide information to help guide HIV prevention programme planning;
- To provide evidence of the relative success of the combination of HIV prevention efforts taking place in selected sites;

- To obtain data in a standardised format, which will enable comparison with other BSS, carried out in other countries

Methodology

The BSS consisted of a cross sectional survey conducted among three groups of men: long distance truck drivers; uniformed personnel; and light trucks and minibus drivers. The uniformed personnel included males from the Zambia Revenue Authority (ZRA), Immigration, and the Police Service. The light truck and minibus drivers, who are not directly targeted by the COH intervention but are considered to be clients of FSW, were selected as a comparison group for this study. The three selected project sites were:

- (1) Chirundu and Livingstone, which border with Zimbabwe;
- (2) Kapiri Mposhi, which is a non-border site but is an internal trucking town at the junction of the two railway routes; and
- (3) Nchelenge, a non-COH project site that borders with Democratic Republic of Congo (Congo DRC). Nchelenge is a rural fishing town selected for comparison purposes.

A “take-all” sampling approach was used in each of the selected sites over the course of the survey because the numbers enumerated during the mapping exercise were less than the desired sample sizes. All of the truck drivers, mini bus and light truck drivers aged 18 years and above who were passing through or found at their places of operation were invited to participate in the survey. Uniformed officers were interviewed from their offices or places of operations. Interviews were conducted after obtaining an oral consent using a standard BSS questionnaire. The survey was conducted from 1st June to 31st July 2003 and a total of 14 days were spent in each survey site. The same team of researchers moved from one site to another.

Results

In total 1,361 men were contacted at the four sites. Of them, 1263 (93%) men were successfully interviewed. The total sample was comprised of 54 percent truck drivers, 28 percent uniformed personnel and 18 percent minibus and light truck drivers.

Demographics

Overall, the mean age of the respondents was 35 years, with the mini bus and light truck drivers being the youngest. The great majority (70%) had a secondary level of education, with up to 99 percent having some primary education. The uniformed personnel had higher educational levels than the other two groups. All uniformed personnel had some level of formal education, while one percent of truck drivers and two percent of minibus drivers had no formal education.

Ninety-four percent of the respondents were Christians and 78 percent were married and living with a spouse. Over half of all truck drivers (59%) were Zambians, 32 percent Zimbabweans, and four percent South Africans.

Risk Behaviours

Of all the respondents, 14 percent said they consumed alcohol daily in the last four weeks (approximately 11% of uniformed, 13% of truck drivers, 22% of minibus drivers consumed alcohol daily), and 20 percent reported ever having tried drugs. The most common drug tried was *dagga* (marijuana), and the distribution among those

who had ever used dagga was 25 percent for uniformed, 22 percent minibus and 16 percent truck drivers.

The great majority of respondents were sexually active with 99 percent having ever had sexual intercourse. Fifteen percent of all respondents reported having had sex before the age of 15 years, with the highest proportion among the minibus drivers. The median and mean age at first sexual intercourse was 18 years. Nearly 20 percent of all respondents had at least one commercial sex partner last 12 months.

Knowledge about condoms was high, with 99 percent having heard about condoms in all the survey sites. However, only 64.2 percent of all the respondents reported having ever used a condom. Among those who had ever used a condom, condom use at last sex was 70 percent with a regular partner (girlfriend), 73 percent with a non-regular partner, and 88 percent with commercial sexual partners. Consistent condom use with commercial sex workers in the past 12 months was 85 percent for truck drivers, 56 percent minibus drivers and 84 percent for uniformed services.

STIs

Knowledge of STIs was high among the men interviewed, with 93 percent of the total respondents having heard of STIs. Approximately 13 percent of all respondents reported having suffered from a genital discharge or ulcer in the past twelve months. A relatively higher proportion (23.1 %) of reported STI symptoms was recorded from minibus drivers, 12.7 percent from truck drivers and 5.8 percent from uniformed personnel. Only 25.6 percent among truck drivers, 16.7 percent among the uniformed personnel, and 7.7 percent among mini bus drivers had informed their partners about their STIs.

Knowledge and Attitudes of HIV/AIDS

All the respondents had heard of HIV/AIDS. The means by which respondents thought infection could be avoided were abstinence (92%), faithfulness (88%) and use of condoms (78%). Among those that knew condoms reduced the risk of HIV infection, 11 percent of truck drivers, 36 percent of minibus drivers, and 16 percent of uniformed personnel did not consistently use condoms with commercial sex partners. The proportions of those who said they were counselled and tested for HIV were 34.4 percent for truck drivers, 22 percent for mini bus driver and 21.9 percent for uniformed personnel. However, only a quarter of these respondents actually received the test results.

With regards to stigma and discrimination towards those living with HIV/AIDS, the results showed that mini bus drivers were most likely to prefer that HIV positive students not be allowed to continue schooling (17.9%), while the percentages for truck drivers and uniformed personnel were 4.9 percent and 1.2 percent respectively. Twenty-one percent of mini bus drivers, seven percent of truck drivers and 1.4 percent of uniformed personnel were of the view that teachers who were HIV-positive should not be allowed to continue teaching. Similarly, more mini bus drivers (37.3%) said that they would not be willing to take care of an HIV-positive relative in their household, while truck drivers and uniformed personnel were reported at 1.5 percent and 1.2 percent respectively. Forty-eight percent of mini bus drivers, 29.5 percent of truck drivers and 23.8 percent of the uniformed personnel would not be willing to buy food from an HIV-positive shopkeeper. Over half of all the respondents said they would want the status of an HIV-positive relative to be disclosed.

Exposure to COH Intervention

Sixty-three percent of all the respondents reported ever talking to a staff member of the COH project. However, only fourteen percent said they had ever visited one of the project's drop-in centres. Peer educators were the main source of information about the COH project, followed by friends. Respondent comparisons show that minibus drivers were the least likely to have talked to a staff member of COH project and also to have visited a drop-in-centre.

Discussion and conclusion

This survey clearly shows that there are gaps between the knowledge and sexual behaviours necessary to curb the spread of HIV. The findings of this survey show that many of the men are married, but a large proportion of these men also engage in daily alcohol consumption and high-risk sex with commercial and non-regular partners. To compound this issue, consistent condom use with high-risk groups remain low, therefore, levels of risk behaviours to HIV is still high.

Misconceptions concerning HIV transmission and high levels of stigma toward people living with HIV/AIDS still exist among some groups, so there is a need to direct BCC efforts to address both misconceptions and stigma-related issues. Uptake of VCT services is not yet optimal among all high-risk men, therefore expanded efforts within the COH project are needed to promote the importance of HIV testing and knowing the result. The COH project, while bearing some fruits with regards to consistent condom use, knowledge of HIV and STI symptoms among truck drivers and uniformed personnel, many men are still not accessing the COH drop-in centre. Therefore, the project must begin to think about expanding its reach to cover a wider range of the target group with both STI and behaviour change interventions services.

Recommendations

Since the majority of the participating men were married, messages should promote faithfulness in order that they protect their spouses from HIV infection. Men should be made aware of the immense responsibilities they have on the wives and family.

Though low percentage of respondents cited peer educators from the project as a source of condoms this should spur programme managers to strengthen peer educators' capacity as condom promoters and explore the multiple avenues that are available as a source for condom supplies and for condom promotion with view of forming linkages.

There are important barriers that continue to impede the consistent use of condoms among the men at high risk that need to be overcome. Further investigations are needed to explore some of the factors promoting barriers and the extent to which they impede consistent use of condoms.

In view of the continual existence of misconceptions around HIV transmission, there is a need to develop better ways and strategies for correcting them.

There is an increasing recognition that misuse of alcohol and drugs has an impact on behaviour and HIV transmission and therefore the COH needs to begin addressing drug and alcohol abuse as some of the direct issues for the BCI campaign messages.

Given the levels of reported STIs among men, the COH project should consider providing STI treatment to all men, beyond truck drivers and uniformed personnel, who are clients of female sex workers. More specifically, minibuss drivers are an important part of the sexual network and therefore should be provided with STI treatment services so that HIV/AIDS prevention efforts are not frustrated. There should also be a deliberate effort to directly target other groups of high risk men such as taxi drivers, clearing agents and money changers at border sites. In addition, there is a need to conduct biologic studies among these men to validate the reported prevalence of STIs. This will strengthen the argument for or against providing treatment to the male populations at border areas.

Though most respondents reported having access to a confidential HIV test, the proportion of the respondents who reported having taken an HIV test was lower than expected. VCT should be encouraged and promoted among these high-risk men and they should also be counselled and urged to collect their test results so that they can know their HIV status. VCT should be promoted in a comprehensive manner and within a continuum of care.

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We hope that everyone, who in one way or another facilitated and/or participated in this study, will find some information in this report which can be used to inform their respective HIV-related line of activities.

List of Abbreviations

AIDS	Acquired Immune-Deficiency Syndrome
ANC	Antenatal Care
ARC	AIDS Related Complex
ARV	Anti Retroviral
BSS	Behavioural Surveillance Survey
BBSS	Biologic and Behavioural Surveillance Survey
CBI	Cross Border Initiative
CBO	Community Based Organisation
COH	Corridors of Hope
CSO	Central Statistics Office
CSW	Commercial Sex Worker
DHS	Demographic Health Survey
DHMT	District Health Management Team
DRC	Democratic Republic of Congo
FSW	Female Sex Worker
FHI	Family Health International
GRZ	Government of the Republic of Zambia
HBC	Home Based Care
HIV	Human Immune-Deficiency Virus
IEC	Information, Education and Communication
IMF	International Monetary Fund
IMPACT	Implementing AIDS Prevention and Care project
INESOR	Institute of Economic and Social Research
JICA	Japanese International Co-operation Agency
MOH	Ministry of Health
MTCT	Mother To Child Transmission
NACS	National AIDS Council and Secretariat
NGO	Non-Governmental Organisation
SAP	Structural Adjustment Programs
SFH	Society for Family Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
TDRC	Tropical Diseases Research Centre
UNZA	University of Zambia
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation
WVI	World Vision International
ZDHS	Zambia Demographic and Health Survey
ZIHP	Zambia Integrated Health Project
ZSBS	Zambia Sexual Behaviour Survey

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1 INTRODUCTION

Zambia is one of the countries hardest hit by the HIV epidemic, with one of the highest national prevalence rates in sub-Saharan Africa.¹ HIV/AIDS has not only compounded the country's health problems, but has had far-reaching socio-economic consequences.

In Zambia, HIV infections are predominantly transmitted through heterosexual contact. There are identifiable predisposing conditions that facilitate the transmission of HIV infection, including a high prevalence of sexually transmitted infections, multiple sexual partner and low condom use.

The increasing poverty levels, largely a result of structural adjustment programs (SAP) from multilateral money lending institutions such as the International Monetary Fund (IMF) and the World Bank, have fuelled unemployment levels in all sectors of the economy. Related to poverty is the low social and economic status of women, which enhance their vulnerability to risk situations. The high level of urbanisation, where a high proportion of the population live in dense urban settlements, which are connected by road and rail networks accentuates the rate at which infection may spread.

Zambia has used the Antenatal Care (ANC) sentinel surveillance data as a principal means of monitoring the spread of HIV in antenatal attendees. These ANC sentinel sites are in both urban and rural areas, with at least two sites in each province. According to the 2002 results of the sentinel survey, HIV prevalence in antenatal attendees ranges from 11 percent to 25 percent. The most affected regions are those along the rail lines, which include the Copperbelt, Lusaka, Central and Southern Provinces. Rural HIV prevalence rates are lower on average than urban rates, ranging between 11 percent and 13 percent compared to between 20 percent and 25 percent in urban and peri-urban sites².

Population-based HIV surveys have also been used in Zambia. The 2001-2002 Demographic Health Survey (DHS) was the first nationally representative population based survey to estimate the prevalence of HIV. The results show that 16 percent of adults aged 15 to 49 years tested were found to be HIV positive. Women have a higher (18%) prevalence rate than men (13%). As with the sentinel surveys, the urban areas have a higher (23%) prevalence than rural areas (11%)³.

The epidemic has increased the death rate for almost all ages. However, the impact is most severe among adults in the prime reproductive age and among children under the age of five.

¹ MOH (1999), HIV/AIDS in Zambia: Background, Impact, Projections and Interventions. Lusaka.

² ANC Sentinel Surveillance of HIV/syphilis Trends in Zambia 1994- 2002

³ Zambia Demographic and Health Survey (ZDHS) 2001-2002, Lusaka,

According to the HIV/AIDS impact model of the Central Board of Health the annual number of deaths among adults aged 15-49 in the country was expected to increase slowly after 1999 as a result of population growth, but the increase in AIDS cases has confounded this and has resulted in a dramatic increase in the number of deaths⁴.

In the light of the epidemic and consequent HIV/AIDS prevention programmes, surveys have been undertaken to assess changes in HIV risk behaviours. Results from the Zambia Sexual Behaviour Survey (ZSBS) and Zambia Demographic and Health Survey (ZDHS) show that knowledge about HIV/AIDS is virtually universal. About four in every five adults know that people can take positive actions to avoid transmission of the virus. Similarly, more than 80 percent of adults know that an otherwise healthy looking person can be HIV-infected. About 70 percent know of someone who has died from AIDS. However, misconceptions about HIV transmission persist. And, furthermore, only about six percent of adults have been tested for HIV and know the results^{5,6}.

1.1 Sexually transmitted infections

STIs are not well documented in Zambia. The available sources show that the number of reported STI cases at government health institutions rose from 190,344 in 1981 to 307,957 in 1992. In 1992, over half of STI cases occurred in two provinces: Lusaka (34.6%) and Copperbelt (18.3%). The World Health Organisation (WHO) estimated that in 1995 in Zambia, 1,079,000 STI cases occurred, including 500,000 cases of trichomoniasis, 260,000 cases of Chlamydia infection, 260,000 cases of gonorrhoea and 59,000 cases of syphilis. In community surveys, up to 10 percent of men report having an STI in the past year. In a 1997 survey of 66,000 pregnant women screened in five districts – Chipata, Kitwe, Livingstone, Lusaka, and Ndola – 10 to 15 percent, with a mean of 12 percent, had reactive syphilis serology. In 2001, the multi-centre study of four African cities revealed that, in Ndola, gonorrhoea prevalence rates were 2.1 percent in men and 2.9 percent in women. Syphilis seroreactivity was over 10 percent in both men and women (11.3% in men and 14.0% in women) with high trichomoniasis infection rate among women of 40 percent⁷.

The Zambia Sexual Behaviour Survey (ZSBS) of 2000, found that five percent of the men and one percent of the women interviewed had a reported history of genital ulcers in the past 12 months, but only half of these men and women interviewed listed genital ulcers as being symptoms of an STI. In this survey, only 23-25 percent of women and men said that they used a condom at the time they had an STI. Despite the paucity of data, it appears that sexually transmitted infections remain a major public health problem in Zambia and that many people who are sexually active engage in high-risk sexual encounters.

1.2 The setting for the survey

One striking characteristic of the HIV/AIDS epidemic in Zambia is that it is concentrated along the rail lines and the major highways. Zambia's major highways run alongside the two major rail lines, from Livingstone (border with Zimbabwe) to Kasumbalesa (border with DR Congo) and from Kapiri Mposhi to Nakonde (border with Tanzania). The major trucking borders are Chirundu, Livingstone, Kazungula, Katete/Chanida, Nakonde and Kasumbalesa and the major internal trucking town is

⁴ MOH (1999), HIV/AIDS in Zambia: Background, Impact, Projections and Interventions. Lusaka.

⁵ CSO (1999) ZSBS, Lusaka

⁶ CSO (1997) DHS, Lusaka

⁷ Buve et al. (2001) The epidemiology of gonorrhoea, Chlamydial infection and syphilis in four African cities. *AIDS* 15(Supl 4). Behavior Surveillance Survey Zambia 2003 – Male Report

Kapiri Mposhi, at the junction of the two railway routes. In all these sites, there is either a government hospital/health centre or a mission hospital with laboratory services. Because of the high prevalence of HIV/AIDS along major highways and a concentration of high-risk groups in border areas, USAID/JICA through FHI/IMPACT and their implementing partners - World Vision, Society for Family Health and Zambia Health Education Communication Trust - have been implementing a Corridors of Hope (COH) project targeting female sex workers and their clients with behavioural change messages and STI care in border sites since 1999.

As part of the intervention activities at project sites, behaviour surveys are carried out to monitor behavioural change over time. The need for behaviour surveys is established in the case of a mature epidemic such as the case in Zambia's, as it complements the sentinel surveillance surveys in monitoring the epidemic. This is because HIV prevalence changes very slowly in response to behavioural changes due to the chronic nature of HIV infection. Thus, sentinel surveillance data does not paint the whole picture. For example, it cannot indicate whether prevention interventions are having their desired short to medium-term effects of changing behaviours. Repeated behavioural surveys, on the other hand, can capture trends in behavioural changes which lead to reduced HIV infections, exemplified by reduced number of sexual partners and increased condom use.

Two of the most commonly used repeated behavioural survey designs are those which measure and track trends in representative samples of the general population and those that do the same in specific high-risk or vulnerable subsets of the population. Behavioural Surveillance Surveys (BSS) are target group-specific surveys that are done outside of the household. These are an important component of national monitoring systems because they focus on the most vulnerable and high-risk segments of the population, whose behaviours can have the most effect on the course of the epidemic. Furthermore, the BSS surveys provide indications of the extent of behaviour change in these high-risk populations.

The Institute for Social and Economic Research (INESOR) and Tropical Diseases Research Centre (TDRC) carried out the survey with technical assistance from FHI's IMPACT project and MEASURE/Evaluation Project.

This report presents the results of the second round of behavioural surveillance of long distance truck drivers, mini-bus and light truck drivers and uniformed personnel. The first round of BSS targeted long distance truck drivers only.

2 OBJECTIVES

Primary objective:

To monitor the outcomes of the existing prevention interventions, through a cross-sectional assessment of risk behaviour variables among men at high risk of STIs and HIV.

Secondary objectives:

1. To add and strengthen the monitoring system that will track behavioural trend data for high-risk and vulnerable target groups.
2. To provide information on behavioural trends of key target groups in some of the same catchment's areas where voluntary counselling and testing (VCT) for HIV is being offered.
3. To provide information to help guide HIV prevention programme planning.
4. To provide evidence of the relative success of the combination of HIV prevention efforts taking place in selected sites
5. To obtain data in a standardised format, which will enable comparison with other behavioural surveillance studies, carried out in other countries?

3 METHODOLOGY

3.1 Sample sizes, sampling and survey procedures

3.1.1 Sample size

To determine the sample size necessary to detect an increase of 10 percentage points in condom use with commercial sex partners, the initial value of P_1 was estimated at 50 percent. The design effect was estimated at 1.2 because of the cluster design used to sample the target groups and based on the data from the 2000 BSS survey on truckers. The level of precision was set at 0.05 and the power at 0.08.

Using this formula, and taking into account the fact that not all men will have had commercial sex partners in the last 12 months, and the chance that some of the randomly chosen men will not consent to be interviewed, the required sample size was 915 for each category of men. However, prior to commencement of data collection, a mapping exercise was carried out in the survey sites to determine existing population sizes. From this mapping exercise, it was estimated that there were only about 300 truck drivers, 230 uniformed personnel and 230 light truck and minibus drivers per site. Due to the limited number of respondents for all the target populations, it was not possible to obtain these numbers; consequently a "take-all" sampling procedure was used, where all eligible and identified respondents were recruited for participation in the survey.

3.1.2 Sampling and Survey procedure

The survey was a cross sectional survey conducted among three groups of men: long distance truck drivers, minibus and light truck drivers and uniformed personnel (Zambia Revenue Authority, Immigration and Police Service). In this survey, the minibus and light truck drivers, who were not directly targeted by the COH project but were considered to be clients of female sex workers, were selected as a comparison group. The survey was carried out in three of the seven project sites and one non-project area. The three project sites included the border sites of Chirundu and Livingstone in the Southern province, and one inland site of Kapiri Mposhi in the Central province. Nchelenge, a non-project site bordering DR Congo in the Northern part of Zambia, was included for comparison. Nchelenge is a fish trading area in the Luapula province of Zambia. Chirundu and Livingstone were selected because they participated in the 2000 round one survey. Kapiri Mposhi was selected because it is a non-border site but is at the intersection of the major road and rail routes.

The main places where truck, minibus and light truck drivers congregated were identified in each site. This was mainly at border sites for truck drivers, bus stops for minibus drivers and at places where light truck drivers carry passengers with goods to deliver. Interviewers sought uniformed personnel from their offices but conducted interviews at times and places of the participants' choice.

All long distance truck drivers, minibus and light truck drivers and uniformed personnel aged 18 years and over who were found in the primary sampling units during the survey periods were invited to participate. The interviewers moved or made appointments with long distance truck, bus and light truck drivers and uniformed personnel to an agreed place for an interview. At the time and place of the interview the study survey was explained in detail to all participants and informed consent was obtained. Respondents were issued cards to present to any other interviewer who asked for an interview at another or same site to avoid being interviewed twice at any of the survey sites they would be passing.

3.2 Data Collection Instruments and Process

3.2.1 Data Collection Instruments

Family Health International's standard surveillance questionnaires, which have been adopted by WHO and UNAIDS, were modified to suit the Zambian context. The semi-structured questionnaire consisted of primarily pre-coded and close-ended questions. The instrument contained questions addressing socio-demographic factors, sexual history, condom use, knowledge and history of STIs, knowledge surrounding HIV, service utilisation, and exposure to interventions offered by the COH project. The questionnaire was identical to the one used in 2000 during the first round of the BSS although it included additional questions addressing exposure to COH interventions, and stigma and discrimination against people living with HIV/AIDS. The questionnaire was translated into Chibemba and Chinyanja before the start of the survey in order to facilitate the interviews with those respondents who did not speak English.

3.2.2 Data Collection Process

Data collection was done over a period of eight weeks from 1st June to 31st July, 2003. Before the commencement of data collection, a five-day training workshop was held for the research assistants, where interviewing principles and techniques were taught. The issues that were covered during the training included orientation on COH project, survey purpose, consent procedures, confidentiality, roles and responsibilities of the team members. Practical exercises were done, where interviewers performed role-plays. The last two days of the workshop were used to pre-test the instrument. Truck depots and bus stops were identified within Lusaka where the research assistants interviewed truck and minibus drivers.

Six trained male research assistants conducted the interviews. The data collection started with Kapiri Mposhi, then on to Nchelenge, Livingstone and Chirundu. In Nchelenge, which is a non-COH project site, SFH peer educators facilitated the recruitment of the participants. In the three COH sites, the project outreach workers and peer educators helped to introduce the interviewers to the respondents. The interviewers then administered the questionnaire after obtaining consent. The interviews were conducted privately on a one-to-one basis. Each interview lasted for

an average of 30 minutes. Editors went through all the completed questionnaires to ensure accuracy in recorded responses and ultimately good quality data. The editors were also responsible for coordinating the interviewers' daily activities, ensuring that the survey requirements were strictly followed, and supporting the interviewers whenever there were concerns or questions. A maximum of 14 days were spent in each site before moving to the next one.

3.3 Informed Consent and Confidentiality

This survey addressed issues of sex and sexuality, partners outside of marriage, and STIs including HIV/AIDS. Therefore, it dealt with a sensitive subject matter that needed privacy and confidentiality. The respondents were assured of confidentiality. The interviewers were obligated to obtain informed consent and to ensure that all the information gathered remained confidential. All information was collected without names or other identifiers on the forms.

3.4 Data Analysis

The completed questionnaires were edited in the field and transported to INESOR for data processing at the end of each interview stage at the survey sites. The questionnaires were then coded and entered into the database using Epi-Info Version 6. The files were converted into the Statistical Package for the Social Sciences (SPSS) for analysis. First level analysis consisted of descriptive statistics that computed frequencies, means and median for comparison among and between sites and respondent categories. Cross tabulations and p-values were calculated for some core variables. The truck driver data from both the 2000 and 2003 survey, were compared for trend analysis.

4 RESULTS

A total of 1,361 men were initially contacted, and of them 1263 men were successfully interviewed. The remaining 98 respondents were not interviewed for various reasons. A language barrier (48%) was the main reason why some truck drivers could not participate, as some of them could speak neither English nor any of the Zambian languages. Another reason was the limited time for interviews (24%), as some drivers rushed to continue with their journeys. Unwillingness to be interviewed was yet another reason (11%), because some truck drivers claimed to be tired of being interviewed at border posts. Finally, there was a concern from potential respondents about the lack of medical attention provided to the male respondents.

The total sample was comprised of 54 percent long distance truck drivers, 18 percent minibus and light truck drivers, and 28 percent uniformed personnel. **Table 1** shows the breakdown of respondents by site and by category.

Table 1: Breakdown by site and by category of men

SITES	RESPONDENT CATEGORY			
	Truck Drivers	Minibus and light truck drivers	Uniformed Personnel	Total
Kapiri Mposhi	67	136	61	264
Nchelenge	27	25	41	93
Livingstone	128	48	172	348
Chirundu	464	19	75	558
Totals	686 (54%)	228 (18%)	349 (28%)	1263

4.1 Socio-demographic Characteristics of Survey Population

This section and **Table 2** present information on socio-demographic characteristics of the participants.

4.1.1 Age

The mean age of all the respondents was 35 years; more than half (52.2%) of the truck drivers were over 35, while the largest proportion of minibus drivers and uniformed personnel were less than 30 (47.4% and 43.6 % respectively). The results show a significant difference between the ages of the respondent groups ($p < 0.001$).

4.1.2 Educational Background

The average number of years spent in school was 11. The uniformed personnel had a significantly higher educational level relative to other respondent categories ($P\text{-value} < 0.001$). The proportion of uniformed personnel with a secondary or higher level of education was 99.2 percent, while 77.8 percent and 73.7 percent of the truck driver and minibus drivers had a secondary or higher level of education.

4.1.3 Religion

The findings on religious background of the respondents show that Christianity was predominant. Over 95 percent of the respondents were Christian in each of the categories.

Table 2: Age and education levels

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Age Distribution					
Kapiri Mposhi	<30	8 (11.9)	67 (49.3)	21 (34.4)	<0.001
	30-34	16 (23.9)	37 (27.2)	13 (21.3)	
	35+	43 (64.2)	32 (23.5)	27 (44.3)	
	Total	67 (100.0)	136 (100.0)	61 (100.0)	
Nchelenge	<30	4 (14.8)	8 (32.0)	15 (36.6)	0.182
	30-34	10 (37.0)	11 (44.0)	11 (26.8)	
	35+	13 (48.1)	6 (24.0)	15 (36.6)	
	Total	27 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	<30	101 (21.8)	12 (63.2)	31 (41.3)	<0.001
	30-34	139 (30.0)	3 (15.8)	27 (36.0)	
	35+	224 (48.3)	4 (21.1)	17 (22.7)	
	Total	464 (100.0)	19 (100.0)	75 (100.0)	
Livingstone	<30	13 (10.2)	21 (43.8)	85 (49.4)	0.001
	30-34	37 (28.9)	18 (37.5)	33 (19.2)	
	35+	78 (60.9)	9 (18.8)	54 (31.4)	
	Total	128 (100.0)	48 (100.0)	172 (100.0)	
TOTAL Sites	<30	126 (18.4)	108 (47.4)	152 (43.6)	<0.001
	30-34	202 (29.5)	69 (30.3)	84 (24.1)	
	35+	358 (52.2)	51 (22.4)	113 (32.4)	
	Total	686 (100.0)	228 (100.0)	349 (100.0)	
Highest Level of Education					
Kapiri Mposhi	None/Primary	31 (46.3)	39 (28.7)	1 (1.6)	<0.001
	Secondary/higher	36 (53.7)	97 (71.3)	60 (98.4)	
	Total	67 (100.0)	136 (100.0)	61 (100.0)	
Nchelenge	None/Primary	4 (14.8)	8 (32.0)	0 (0)	*
	Secondary/higher	23 (85.2)	17 (68.0)	41 (100.0)	
	Total	27 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	None/Primary	86 (18.5)	3 (15.8)	0 (0)	<0.001
	Secondary/higher	378 (81.5)	16 (84.2)	75 (100.0)	
	Total	464 (100.0)	19 (100.0)	75 (100.0)	
Livingstone	None/Primary	31 (24.2)	10 (20.8)	2 (1.2)	<0.001
	Secondary/higher	97 (75.8)	38 (79.2)	170 (98.8)	
	Total	128 (100.0)	48 (100.0)	172 (100)	
TOTAL sites	None/Primary	152 (22.2)	60 (26.3)	3 (10.8)	<0.001
	Secondary/higher	534 (77.8)	168 (73.7)	346 (99.2)	
	Total	686 (100.0)	228 (100.0)	349 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.1.4 Marital Status

Table 3 presents the marital status of the respondents. A majority (86.5%) of all the respondents had reported ever being married. However, there were significant differences among the groups with respect to the proportion of respondents ever married. Truck drivers had the largest proportion of respondents that have been married (92.3%), while 82.9 percent of the minibus drivers and 77.7 percent of the uniformed personnel reported ever being married.

Approximately 83.4 percent of all respondents were currently married. Once again, there were significant differences between the groups with respect to the proportion of respondents who were currently married ($p < 0.001$). The truckers had the highest amount of respondents that were currently married (89.9%) followed by the minibus drivers (77.2%) and uniformed personnel (74.7%). The majority of respondents (80%) reported having one wife in the past 12 months. Truck drivers had the highest proportion, with 82.3 percent reporting one wife in the past 12 months, while minibus drivers had the lowest proportion, 73.6 percent. The mean age at first marriage was not very different for the various respondent categories, having been lowest (23 years) among minibus drivers and either 24 or 25 years among the other target groups.

Table 3. Marital situation

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Marriage					
Kapiri Mposhi	Ever Married				0.085
	Yes	64 (95.5)	116 (85.3)	52 (85.2)	
	No	3 (4.5)	20 (14.7)	9 (14.8)	
	Total	67 (100)	136 (100)	61 (100)	
Nchelenge	Ever Married				*
	Yes	27 (100)	20 (80.0)	36 (87.8)	
	No	0 (0)	5 (20.0)	5 (12.2)	
	Total	27 (100)	25 (100)	41 (100)	
Chirundu	Ever Married				<0.001
	Yes	422 (90.9)	16 (84.2)	52 (69.3)	
	No	42 (9.1)	3 (15.8)	23 (30.7)	
	Total	464 (100)	19 (100)	75 (100)	
Livingstone	Ever Married				<0.001
	Yes	120 (93.8)	37 (77.1)	131 (76.2)	
	No	8 (6.3)	11 (22.9)	41 (23.8)	
	Total	128 (100)	48 (100)	172 (100)	
TOTAL sites	Ever Married				< 0.001
	Yes	633 (92.3)	189 (82.9)	271 (77.7)	
	No	53 (7.7)	39 (17.1)	138 (22.3)	
	Total	686 (100.0)	228 (100.0)	349 (100.0)	
Current Marriage Status					
Kapiri Mposhi	Currently married				0.064
	Yes	61 (92.4)	108 (79.4)	51 (83.6)	
	No	5 (7.6)	28 (20.6)	10 (16.4)	
	Total	66 (100)	136 (100)	61 (100)	
Nchelenge	Currently married				*
	Yes	27 (100)	17 (68.0)	34 (82.9)	
	No	0(0)	8 (32.0)	7 (17.1)	
	Total	27 (100)	25 (100)	41 (100)	
Chirundu	Currently married				<0.001
	Yes	410 (88.6)	16 (84.2)	48 (64.9)	
	No	53 (11.4)	3 (15.8)	26 (35.1)	
	Total	463 (100)	19 (100)	74 (100)	
Livingstone	Currently married				<0.001
	Yes	114 (91.2)	35 (72.9)	127 (73.8)	
	No	11 (8.8)	13 (27.1)	45 (26.2)	
	Total	125 (100)	48 (100)	172 (100)	
TOTAL sites	Currently married				< 0.001
	Yes	612 (89.9)	176 (77.2)	260 (74.7)	
	No	69 (10.1)	52 (22.8)	88 (25.3)	
	Total	681 (100.0)	100 (100.0)	348 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.1.5 Drivers' country of origin and mobility

The BSS sought to find out the country of origin of the truck drivers. Nearly two-thirds (59%) were Zambians, 32 percent were Zimbabweans, 4 percent were South

Africans, three percent were Tswana and only one percent were Malawians. In Nchelenge, most of the respondents were Zambians, while Kapiri Mposhi had more truck drivers from Somalia and Tanzania, in addition to Zambians.

4.2 General Risk Behaviours of Study Population

4.2.1 Alcohol consumption in the last 4 weeks and drug use

Alcohol and drug use have a high correlation with increased risk of infection with HIV and other STIs. Because of this correlation, the respondents were asked the frequency of alcohol consumption in the last four weeks. The overall response showed that 14.1 percent of the total respondents had alcoholic drinks everyday in the last four weeks, 29.3 percent had alcoholic drinks at least once a week and 56.6 percent had alcoholic drinks less than once a week or never. However, as shown in **Table 4**, there are differences among the respondent categories. The uniformed personnel were the least likely to report drinking alcohol daily (10.6%) while truck drivers (13.4%) and minibus drivers (21.9%) were more likely to drink alcohol daily. The difference in alcohol consumption between the three groups is statistically significant ($p < 0.001$).

People interviewed were given a list of drugs to which they responded either affirmatively or negatively to having ever used them. The drugs included *dagga* (marijuana), heroin, cocaine, and mandrax drugs. Only 20 percent reported having tried dagga, while less than 0.5 percent had tried cocaine, and no one reported ever having used heroine or mandrax. As seen in **Table 4**, there was a significant difference ($p = 0.001$) between respondent categories with regards to drug use. More uniformed personnel (25%) than minibus drivers (22.4%) and truck drivers (15.8%) reported ever having used drugs. However, of those that had tried drugs, more minibus drivers (35.4%), followed by truck drivers (15.4%) and uniformed personnel (4.8) reported using drugs on a daily basis. In geographical terms, the frequency of use of drugs was lower among Livingstone and Nchelenge respondents as compared to the other sites.

Table 4. Alcohol and drug use

Site	Characteristic	Truckers N (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Alcohol Consumption in Last 4 Weeks					
Kapiri Mposhi	Everyday	9 (13.4)	21 (15.4)	2 (3.3)	0.166
	At least once a week	18 (26.9)	40 (29.4)	22 (36.7)	
	Less than once a week or never	40 (59.7)	75 (55.1)	36 (60.0)	
	TOTAL	67 (100)	136 (100)	60 (100)	
Nchelenge	Everyday	5 (18.5)	5 (20.0)	4 (9.8)	*
	At least once a week	13 (48.1)	10 (40.0)	20 (48.8)	
	Less than once a week or never	9 (33.3)	10 (40.0)	17 (41.5)	
	TOTAL	27 (100)	25 (100)	41 (100)	
Chirundu	Everyday	53 (11.5)	3 (15.8)	16 (21.3)	*
	At least once a week	100 (21.7)	8 (42.1)	24 (32.0)	
	Less than once a week or never	308 (66.8)	8 (42.1)	35 (46.7)	
	TOTAL	461 (100)	19 (100)	75 (100)	
Livingstone	Everyday	24 (18.9)	21 (43.8)	15 (8.7)	<0.001
	At least once a week	42 (33.1)	10 (20.8)	61 (35.5)	
	Less than once a week or never	61 (48.0)	17 (35.4)	96 (55.8)	
	TOTAL	127 (100)	48 (100)	172 (100)	
TOTAL sites	Everyday	91 (13.4)	50 (21.9)	37 (10.6)	< 0.001
	At least once a week	173 (25.4)	68 (29.8)	127 (36.5)	
	Less than once a week or never	418 (61.3)	110 (48.25)	184 (52.9)	
	TOTAL	682 (100.0)	228 (100.0)	348 (100.0)	
Drug Use – Dagga					
Kapiri Mposhi	Ever Used				0.075
	Yes TOTAL	9 (13.4) 67 (100)	29 (21.3) 136 (100)	18 (30.0) 60 (100)	
Nchelenge	Ever Used				0.094
	Yes TOTAL	2 (7.4) 27 (100)	6 (24.0) 25 (100)	12 (29.3) 41 (100)	
Chirundu	Ever Used				0.077
	Yes TOTAL	82 (17.7) 462 (100)	6 (31.6) 19 (100)	20 (26.7) 75 (100)	
Livingstone	Ever Used				0.061
	Yes TOTAL	15 (11.7) 128 (100)	10 (20.8) 48 (100)	38 (22.1) 172 (100)	
TOTAL sites	Ever Used				0.001
	Yes TOTAL	108 (15.8) 684 (100.0)	51 (22.4) 228 (100.0)	88 (25.3) 348 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.2.2 Sexual Behaviour and Partners

The survey findings showed that the vast majority of the respondents were sexually active in the past 12 months preceding the survey. **Table 5** presents the age at first sex for all respondents. By the age of 20, nearly 70 percent of the respondents had had sexual intercourse. A greater proportion of minibus drivers reported their age at first sex to be younger than 15 years (21.5%). This was a significantly higher proportion ($p = 0.013$) than the uniformed personnel and truck drivers with 15.5 percent and 12.4 percent of the respondents reporting age at first sex to be younger than 15 years.

Table 5: Age at first sex

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Age at First Sex					
Kapiri Mposhi	<15	8 (12.7)	17 (15.5)	10 (16.9)	0.184
	15-19	43 (68.3)	67 (60.9)	28 (47.5)	
	20+	12 (19.0)	26 (23.6)	21 (35.6)	
	Total	63 (100)	110 (100)	59 (100)	
Nchelenge	<15	3 (11.5)	4 (19.0)	5 (12.5)	*
	15-19	20 (76.9)	13 (61.9)	23 (57.5)	
	20+	3 (11.5)	4 (19.0)	12 (30.0)	
	Total	26 (100)	21 (100)	40 (100)	
Chirundu	<15	51 (11.8)	7 (36.8)	17 (23.9)	0.003
	15-19	227 (52.3)	7 (36.8)	34 (47.9)	
	20+	156 (35.9)	5 (26.3)	20 (28.2)	
	Total	434 (100)	19 (100)	71 (100)	
Livingstone	<15	18 (14.8)	14 (31.1)	20 (12.1)	0.016
	15-19	81 (66.4)	24 (53.3)	101 (61.2)	
	20+	23 (18.9)	7 (15.6)	44 (26.7)	
	Total	122 (100)	45 (100)	165 (100)	
TOTAL sites	<15	80 (12.4)	42 (21.5)	52 (15.5)	0.013
	15-19	371 (57.4)	111 (56.9)	186 (55.5)	
	20+	194 (30.0)	42 (21.5)	97 (29.0)	
	Total	645 (100.0)	195 (100.0)	335 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

Table 6 below present the numbers of live-in and regular partners (girlfriends) by target group and site.

4.2.2.1 Live-In Sexual Partners

Only 9.5 percent of the total respondents reported having a live-in sexual partner over the last 12 months. Truck drivers had the highest proportion having had a live-in partner (13.0%), followed by minibus drivers (5.8%) and uniformed personnel (4.6%).

4.2.2.2 Regular Partners

Approximately 40 percent of all the respondents reported having a regular sexual partner⁸ (girlfriend) in last twelve months. The group with the highest proportion

⁸ A regular was defined as a girl friend not living with respondent in last 12 months

having a regular partner was the uniformed personnel (44.3%), followed by Minibus drivers (41.8 %) and by truck drivers (37.1%).

Table 6. Number of live-in and regular partners in the last 12 months

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Number of Live-In Sexual Partners in the Past 12 months					
Kapiri Mposhi	0	53 (79.1)	127 (94.1)	56 (94.9)	*
	1	10 (14.9)	7 (5.2)	3 (5.1)	
	2+	4 (6.0)	1 (0.7)	0 (0)	
	Total	67 (100)	135 (100)	59 (100)	
Nchelenge	0	25 (92.6)	23 (100)	40 (97.6)	*
	1	2 (7.4)	0 (0)	0 (0)	
	2+	0 (0)	1 (4.2)	1 (2.4)	
	Total	27 (100)	24 (100)	41 (100)	
Chirundu	0	400 (88.9)	18 (100)	62 (98.4)	*
	1	47 (10.4)	0 (0)	1 (1.6)	
	2+	3 (0.7)	0 (0)	0 (0)	
	Total	450 (100)	18 (100)	63 (100)	
Livingstone	0	104 (82.5)	44 (91.7)	153 (93.9)	*
	1	21 (16.7)	4 (8.3)	10 (6.1)	
	2+	1 (0.8)	0 (0)	0 (0)	
	Total	126 (100)	48 (100)	163 (100)	
TOTAL sites	0	582 (86.9)	212 (94.2)	311 (95.4)	<0.001
	1	80 (11.9)	11 (4.9)	14 (4.6)	
	2+	8 (1.2)	2 (0.9)	1 (0.3)	
	Total	670 (100.0)	225 (100.0)	326 (100.0)	
Number of Regular Sexual Partners (girlfriends) in the Past 12 Months					
Kapiri Mposhi	0	44 (69.8)	83 (62.4)	33 (55.9)	*
	1	13 (20.6)	40 (30.1)	26 (44.1)	
	2+	6 (9.5)	10 (7.5)	0 (0)	
	Total	63 (100)	133 (100)	59 (100)	
Nchelenge	0	18 (66.7)	11 (50.0)	22 (56.4)	*
	1	7 (25.9)	9 (40.9)	15 (38.5)	
	2+	2 (7.4)	2 (9.1)	2 (5.1)	
	Total	27 (100)	22 (100)	39 (100)	
Chirundu	0	285 (63.6)	8 (44.4)	28 (44.4)	0.006
	1	123 (27.5)	9 (50.0)	23 (36.5)	
	2+	40 (8.9)	1 (5.6)	12 (19.0)	
	Total	448 (100)	18 (100)	63 (100)	
Livingstone	0	71 (56.8)	26 (55.3)	97 (59.9)	0.195
	1	38 (30.4)	20 (42.6)	50 (30.9)	
	2+	16 (12.8)	1 (2.1)	15 (9.3)	
	Total	125 (100)	47 (100)	162 (100)	
TOTAL sites	0	418 (63.1)	128 (58.2)	180 (55.7)	0.034
	1	181 (27.3)	78 (35.5)	114 (35.3)	
	2+	64 (9.7)	14 (6.3)	29 (9.0)	
	Total	663 (100.0)	220 (100.0)	323 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.2.2.3 Commercial Sexual Partners

Table 7 shows that there is a significant difference ($p = 0.002$) between respondent categories in reported sexual activity in the last 12 months with a commercial sex worker. Approximately 15 percent of all the men had sex with a commercial sex worker or someone with whom he had exchanged money or gifts for sex. Uniformed personnel reported the least contact with commercial sex workers (8.7 %) followed by the truck drivers (16.7 %). Minibus and light truck drivers reported the highest sexual contact with commercial sexual partner (20.0 %). About 6.5 percent of the respondents had been with two or more commercial sex partners in the past 12 months. Both minibus drivers and truckers had just over seven percent of the respondents having two or more commercial partners in the past year as compared to the uniformed personnel with 4.3 percent (**Table 7**).

The respondents were further asked how many times they had sex with a commercial partner in the past 30 days preceding the survey. The responses ranged from an average of 1.3 times among uniformed personnel, to 2 times among truck drivers, to almost 3 times among minibus drivers.

4.2.2.4 Non-Regular Partners

Approximately six percent of the men had sex with a non-regular⁹ partner in past 12 months, however the proportion of respondents varied significantly between groups ($p < 0.001$). The minibus drivers, uniformed personnel and truck drivers represented 9.9 percent, 7.4 percent and 2.1 percent of sexual contacts with non-regular partners respectively (**Table 7**).

The respondents were further asked how many times they had engaged in sexual intercourse with a non-regular, non-commercial partner in the 12 months before the survey. The responses showed, on the average, one time for uniformed personnel and 2 times for minibus and truck drivers.

⁹ For the purpose of this survey, a non-regular partner was defined as a partner with whom the respondent has had sex with in the past 12 months. Partners who are spouses, long standing girlfriends (regular), living with the respondent, or with whom they have exchanged sex for money (commercial sex workers) are not defined as non-regular partners.

Table 7. Number of commercial sex and non-regular partners in the last 12 months

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Number of Commercial Sex Partners in the Past 12 months					
Kapiri Mposhi	0	56 (90.3)	107 (84.9)	60 (100)	*
	1	3 (4.8)	13 (10.3)	0 (0)	
	2+	3 (4.8)	6 (4.8)	0 (0)	
	Total	62 (100)	126 (100)	60 (100)	
Nchelenge	0	22 (88.0)	17 (73.9)	34 (85.0)	*
	1	0 (0)	4 (17.4)	4 (10.0)	
	2+	3 (12.0)	2 (8.7)	2 (5.0)	
	Total	25 (100)	23 (100)	40 (100)	
Chirundu	0	350 (82.7)	13 (81.3)	52 (85.2)	*
	1	46 (10.9)	1 (6.3)	4 (6.6)	
	2+	27 (6.4)	2 (12.5)	5 (8.2)	
	Total	423 (100)	16 (100)	61 (100)	
Livingstone	0	97 (80.8)	30 (68.2)	149 (92.0)	*
	1	9 (7.5)	9 (20.5)	6 (3.7)	
	2+	14 (11.7)	5 (11.4)	7 (4.3)	
	Total	120 (100)	44 (100)	162 (100)	
TOTAL sites	0	525 (83.3)	167 (80.0)	295 (91.3)	0.002
	1	58 (9.2)	27 (12.9)	14 (4.3)	
	2+	47 (7.5)	15 (7.2)	14 (4.3)	
	Total	630 (100.0)	209 (100.0)	323 (100.0)	
Number of Non-regular Sexual Partners in the Past 12 Months					
Kapiri Mposhi	0	36 (94.0)	121 (90.3)	48 (80.0)	*
	1	2 (3.0)	12 (9.0)	12 (20.0)	
	2+	2 (3.0)	1 (0.7)	0 (0)	
	Total	67 (100)	134 (100)	60 (100)	
Nchelenge	0	26 (96.3)	22 (91.7)	31 (79.5)	*
	1	1 (3.7)	2 (8.3)	4 (10.3)	
	2+	0 (0)	0 (0)	4 (10.3)	
	Total	27 (100)	24 (100)	39 (100)	
Chirundu	0	440 (97.8)	18 (100)	61 (98.4)	*
	1	9 (2.0)	0 (0)	1 (1.6)	
	2+	1 (0.2)	0 (0)	0 (0)	
	Total	450 (100)	18 (100)	62 (100)	
Livingstone	0	125 (100)	40 (85.1)	161 (98.2)	*
	1	0 (0)	6 (12.8)	2 (1.2)	
	2+	0 (0)	1 (2.1)	1 (0.6)	
	Total	125 (100)	47 (100)	164 (100)	
TOTAL sites	0	627 (97.7)	201 (90.1)	301 (92.6)	<0.001
	1	12 (1.9)	20 (9.0)	19 (5.9)	
	2+	3 (0.4)	2 (0.9)	5 (1.5)	
	Total	642 (100.0)	223 (100.0)	325 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

The men who reported having sexual intercourse with their wives, live-in partners, regular, commercial or non-regular sexual partners were asked about the frequency of sexual intercourse with their partners in the last 30 days. The frequencies appear to be quite similar between groups, although the minibus drivers report having sex with their commercial sex partner more times than the other groups. **Table 8** presents the frequencies of sex with wives, live in partner, girlfriends, commercial and non-regular sexual partners in the past month.

Table 8: Frequency of sex in the past month, by partner type

Characteristic	Total sample		Truckers		Minibus Drivers		Uniformed Personnel	
	N	median	N	median	N	median	N	median
Wives								
Frequency	986	5.00	570	4.00	165	5.00	251	7.00
Live-In Partner								
Frequency	97	2.00	75	2.00	12	3.00	10	2.00
Girlfriends								
Frequency	495	2.00	246	2.00	97	2.00	152	1.00
Commercial Partners								
Frequency	229	1.00	139	1.00	58	2.00	32	1.00
Non-regular, Non commercial Partner								
Frequency	69	1.00	15	1.00	26	1.00	28	1.00

4.3 Knowledge, Availability and Accessibility of Condoms

Table 9 presents the findings of knowledge and availability of condoms. Knowledge about male condoms was high, in that over 98 percent of all respondents had heard about condoms at all the survey sites. The high knowledge levels are observed among all the respondent categories. However, there was a wide gap between knowledge and the use of condoms. While over 98 percent of respondents from all survey sites had heard of a condom, less than two-thirds reported ever using condoms. The rates of those ever using a condom differed significantly between groups ($p = 0.029$). The proportion ever having used a condom was lowest among truck drivers (58.0%) and highest among the uniformed personnel (70.9%).

Approximately 87 percent of respondents from all the sites knew of a place from which to obtain condoms, though the difference in proportions across groups was statistically significant ($p = 0.003$). The minibus drivers had the lowest proportion (73.6%) of respondents knowing where to obtain a condom. The most commonly cited places for obtaining condoms were shops, bars/guesthouses/hotels and clinics/hospitals. While all three groups were likely to obtain condoms from shops and bars/guesthouses, the uniformed personnel were also likely to go to a hospital or clinic. Truck drivers were the most likely to use peer educators as a source of condoms.

Table 9: Knowledge and availability of male condoms

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Ever heard of a male condom					
Kapiri Mposhi	Yes	33 (100.0)	84 (100.0)	26 (100.0)	*
	Total	33 (100.0)	84 (100.0)	26 (100.0)	
Nchelenge	Yes	14 (100.0)	16 (94.1)	19 (100.0)	*
	Total	14 (100.0)	17 (100.0)	19 (100.0)	
Chirundu	Yes	184 (96.4)	7 (100.0)	20 (100.0)	*
	Total	192 (100.0)	7 (100.0)	20 (100.0)	
Livingstone	Yes	62 (100.0)	16 (100.0)	87 (100.0)	*
	Total	62 (100.0)	16 (100.0)	87 (100.0)	
TOTAL sites	Yes	293 (97.4)	123 (99.2)	152 (100.0)	*
	Total	301 (100.0)	124 (100.0)	152 (100.0)	
Ever used a male condom					
Kapiri Mposhi	Yes	16 (48.5)	45 (53.6)	14 (53.8)	*
	Total	33 (100.0)	84 (100.0)	26 (100.0)	
Nchelenge	Yes	4 (28.6)	14 (82.4)	14 (73.7)	*
	Total	14 (100.0)	17 (100.0)	19 (100.0)	
Chirundu	Yes	124 (64.2)	6 (85.7)	17 (85.0)	*
	Total	193 (100.0)	7 (100.0)	20 (100.0)	
Livingstone	Yes	33 (53.2)	12 (75.0)	62 (72.1)	*
	Total	62 (100.0)	16 (100.0)	86 (100.0)	
TOTAL sites	Yes	177 (58.0)	77 (62.1)	107 (70.9)	0.029
	Total	305	124	151	
Knows where to obtain a male condom					
Kapiri Mposhi	Yes	11 (84.6)	24 (72.7)	20 (95.2)	*
	Total	13	33	21	
Nchelenge	Yes	9 (100.0)	4 (57.2)	10 (90.9)	*
	Total	9	7	11	
Chirundu	Yes	126 (88.1)	2 (100.0)	8 (88.9)	*
	Total	143	2	9	
Livingstone	Yes	25 (80.7)	9 (81.8)	46 (93.9)	*
	Total	31	11	49	
TOTAL sites	Yes	171 (87.3)	39 (73.6)	84 (93.3)	0.003
	Total	196	53	90	

* Chi Square test not valid – expected frequencies less than 5

Most of the respondents reported they had bought a condom before (**Table 10**). The proportion of those who had ever bought a condom was highest amongst the minibus drivers (90.8%), and lowest amongst the uniformed services (85.6%). There was no significant difference in proportions having bought a condom between sites ($p = 0.455$).

When asked how long it typically took them to obtain a condom, approximately 96 percent of the minibus drivers reported that it took them less than 15 minutes to obtain

a condom, whereas only 83.3 percent of truck drivers and 76.0 percent of uniformed personnel said it takes less than 15 minutes (**Table 10**). When asked if the respondents had a condom on hand at the time of the interview, only 47.7 percent of truck drivers, 30.4 percent of uniformed personnel, and 17.5 percent of minibus drivers had a condom. The different proportions between groups of those with a condom on hand are statistically significant ($p < 0.001$).

Table 10. Knowledge and availability of male condoms -continued

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel N (%)	p value
Ever bought a male condom					
Kapiri Mposhi	Yes	30 (96.8)	44 (91.7)	26 (78.8)	*
	Total	31 (100.0)	48 (100.0)	33 (100.0)	
Nchelenge	Yes	10 (83.3)	8 (100.0)	18 (81.8)	*
	Total	12 (100.0)	8 (100.0)	22 (100.0)	
Chirundu	Yes	214 (85.9)	11 (100.0)	38 (95.0)	*
	Total	249 (100.0)	11 (100.0)	40 (100.0)	
Livingstone	Yes	60 (92.3)	26 (83.9)	61 (84.7)	*
	Total	65 (100.0)	31 (100.0)	72 (100.0)	
TOTAL sites	Yes	314 (88.0)	89 (90.8)	143 (85.6)	0.455
	Total	357 (100.0)	98 (100.0)	167 (100.0)	
Time it takes to obtain a condom					
Kapiri Mposhi	< 15 minutes	49 (89.1)	103 (95.4)	54 (94.7)	*
	15 – 30 minutes	6 (10.9)	4 (3.7)	3 (5.3)	
	31 – 60 minutes	0 (-)	1 (0.9)	0 (-)	
	> 60 minutes	0 (-)	0 (-)	0 (-)	
	TOTAL	55 (100.0)	108 (100.0)	57 (100.0)	
Nchelenge	< 15 minutes	19 (82.6)	20 (100.0)	28 (73.7)	*
	15 – 30 minutes	4 (17.4)	0	6 (15.8)	
	31 – 60 minutes	0 (-)	0	4 (10.5)	
	> 60 minutes	0 (-)	0	0 (-)	
	TOTAL	23 (100.0)	20 (100.0)	38 (100.0)	
Chirundu	< 15 minutes	311 (84.3)	15 (88.2)	22 (37.9)	*
	15 – 30 minutes	51 (13.8)	1 (5.9)	35 (60.3)	
	31 – 60 minutes	4 (1.1)	1 (5.9)	0 (-)	
	> 60 minutes	0 (-)	0 (-)	1 (1.7)	
	TOTAL	369 (100.0)	17 (100.0)	58 (100.0)	
Livingstone	< 15 minutes	74 (74.0)	41 (97.6)	124 (82.1)	0.004
	15 – 30 minutes	19 (19.0)	1 (2.4)	23 (15.2)	
	31 – 60 minutes	4 (4.0)	0 (-)	2 (1.3)	
	> 60 minutes	3 (3.0)	0 (-)	2 (1.3)	
	TOTAL	100 (100.0)	42 (100.0)	151 (100.0)	
TOTAL sites	< 15 minutes	453 (83.3)	179 (96.2)	228 (76.0)	<0.001
	15 – 30 minutes	80 (14.7)	6 (3.2)	67 (22.3)	
	31 – 60 minutes	8 (1.5)	1 (0.6)	2 (0.7)	
	> 60 minutes	3 (0.5)	0 (-)	3 (1.0)	
	TOTAL	544 (100.0)	186 (100.0)	300 (100.0)	
Has a condom on hand at time of interview					
Kapiri Mposhi	Yes	7 (53.9)	28 (80.0)	8 (38.1)	*
	Total	13 (100.0)	35 (100.0)	21 (100.0)	
Nchelenge	Yes	4 (44.4)	5 (71.4)	7 (63.6)	*
	Total	9 (100.0)	7 (100.0)	11 (100.0)	
Chirundu	Yes	68 (46.3)	0 (-)	2 (20.0)	*
	Total	147 (100.0)	2 (100.0)	10 (100.0)	
Livingstone	Yes	4 (13.3)	10 (90.9)	22 (40.7)	*
	Total	30 (100.0)	11 (100.0)	54 (100.0)	
TOTAL sites	Yes	83 (41.7)	43 (78.2)	39 (40.6)	<0.001
	Total	199 (100.0)	55 (100.0)	96 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

Condom Use

4.3.1 Condom Use with Wives

Not surprisingly, condom use at last sex with a wife was low (9.2%) for all married respondents surveyed. Truck drivers had the lowest proportion (6.4%) of men reporting condom use at last sex, while uniformed personnel had the highest proportion (14.1%). Consistent condom use with a wife in the previous 12 months was even lower - only 1.8 percent of all respondents reported using a condom consistently with their wives during the previous 12 months. **Table 11** presents the findings of condom use with wives.

Table 11: Condom use with wives

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Condom used at last sex with wife					
Kapiri Mposhi	Yes	3 (5.0)	14 (13.1)	11 (22.0)	0.030
	Total	60	107	50	
Nchelenge	Yes	1 (3.7)	2 (11.1)	2 (6.1)	*
	Total	27	18	33	
Chirundu	Yes	28 (6.9)	2 (12.5)	9 (18.8)	*
	Total	404	16	48	
Livingstone	Yes	7 (6.1)	3 (8.6)	14 (11.3)	*
	Total	115	35	124	
TOTAL sites	Yes	39 (6.4)	21 (11.9)	36 (14.1)	0.001
	Total	606	176	255	
Consistent condom use with wife					
Kapiri Mposhi	Consistently	1 (1.7)	2 (1.9)	3 (6.1)	*
	Total	60	108	49	
Nchelenge	Consistently	1 (3.7)	0 (0.0)	0 (0.0)	*
	Total	27	18	33	
Chirundu	Consistently	5 (1.2)	1 (6.3)	1 (2.1)	*
	Total	405	16	48	
Livingstone	Consistently	0 (0.0)	0 (0.0)	5 (4.0)	*
	Total	115	35	124	
TOTAL sites	Consistently	7 (1.2)	3 (1.7)	9 (3.5)	*
	Total	607	177	254	

* Chi Square test not valid – expected frequencies less than 5

4.3.2 Condom Use with Regular Partners (Girlfriends)

Table 12 presents the condom use among respondents and their regular partners. Condom use at last sex with a regular partner was higher, with 70.4 percent of all respondents with a regular partner reporting condom use at last sex. In this situation, the truck drivers had the highest proportion (73.4%) of respondents reporting condom use at last sex, while the minibuses drivers had the lowest proportion (60.8%). Slightly over half of the truck drivers and uniformed personnel reported consistent condom use with a regular partner during the previous 12 months, but the proportion of minibuses drivers (32.0%) reporting consistent condom use was significantly lower ($p = 0.002$).

Table 12. Condom use with regular partners

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Condom used at last sex with regular partner					
Kapiri Mposhi	Yes	15 (60.0)	35 (68.6)	21 (75.0)	0.502
	Total	25	51	28	
Nchelenge	Yes	6 (66.7)	6 (42.9)	12 (63.2)	0.411
	Total	7	14	19	
Chirundu	Yes	123 (76.4)	6 (60.0)	27 (81.8)	0.362
	Total	161	10	33	
Livingstone	Yes	38 (71.7)	12 (54.5)	49 (68.1)	0.348
	Total	53	22	72	
TOTAL sites	Yes	182 (73.4)	59 (60.8)	109 (71.7)	0.065
	Total	248	97	152	
Consistent condom use with regular partner					
Kapiri Mposhi	Consistently	10 (40.0)	17 (33.3)	18 (64.3)	0.027
	Total	25	51	28	
Nchelenge	Consistently	2 (22.2)	4 (28.6)	8 (42.1)	*
	Total	9	14	19	
Chirundu	Consistently	89 (55.3)	4 (40.0)	16 (48.5)	*
	Total	161	10	33	
Livingstone	Consistently	23 (43.4)	6 (27.3)	39 (54.2)	0.075
	Total	53	22	72	
TOTAL sites	Consistently	124 (50.0)	31 (32.0)	81 (53.5)	0.002
	Total	248	97	152	

* Chi Square test not valid – expected frequencies less than 5

4.3.3 Condom Use with Commercial Sexual Partners

Table 13 presents the results of condom use at last sex with commercial sex partners. Condom use at last sexual intercourse with a commercial sex partner was over 80 percent among all groups. Only the minibus drivers reported less than 75 percent condom use at last sex with a commercial sexual partner while the proportions among uniformed personnel and truck drivers was 93.8 percent and 93.5 percent respectively. The decision to use condoms was mostly initiated by men, followed by those for whom the decision was jointly made. Truck drivers were more likely to have proposed condoms at last sex (84.6%) than the minibus drivers (76.7%) or uniformed personnel (77.4 %).

Table 13. Condom use at last sex with commercial sex partners

Site	Characteristic	Truckers n (%)	Minibus drivers N (%)	Uniformed personnel n (%)	P value
Condom used at last sex					
Kapiri Mposhi	Yes	11 (100.0)	23 (82.2)	na	*
	Total	11 (100.0)	28 (100.0)	na	
Nchelenge	Yes	5 (100.00)	3 (37.5)	7 (100.0)	*
	Total	5 (100.0)	8 (100.0)	7 (100.0)	
Chirundu	Yes	90 (94.7)	3 (60.0)	9 (90.0)	*
	Total	95 (100.0)	5 (100.0)	10 (100.0)	
Livingstone	Yes	24 (85.7)	14 (77.8)	14 (93.3)	*
	Total	28 (100.00)	18 (100.0)	15 (100.0)	
TOTAL sites	Yes	130 (93.5)	43 (72.9)	30 (93.7)	*
	Total	139 (100.0)	59 (100.0)	32 (100.0)	
Who suggested condom at last sex					
Kapiri Mposhi	Myself	8 (72.7)	19 (82.6)	Na	*
	Partner	1 (9.1)	1 (4.4)	Na	
	Joint	2 (18.2)	3 (13.0)	Na	
	Total	11 (100.0)	23 (100.0)	Na	
Nchelenge	Myself	3 (60.0)	2 (66.7)	6 (85.7)	*
	Partner	0 (0.0)	0 (0.0)	1 (14.3)	
	Joint	2 (40.0)	1 (33.3)	0 (0.0)	
	Total	5 (100.0)	3 (100.0)	7 (100.0)	
Chirundu	Myself	77 (85.6)	2 (66.7)	9 (90.00)	*
	Partner	3 (3.3)	1 (33.3)	0 (0.0)	
	Joint	10 (11.1)	0 (0.0)	1 (10.0)	
	Total	90 (100.0)	3 (100.0)	10 (100.0)	
Livingstone	Myself	22 (91.7)	10 (71.4)	9 (64.3)	*
	Partner	0 (0.0)	2 (14.3)	0 (0.0)	
	Joint	2 (8.3)	2 (14.3)	5 (35.7)	
	Total	24 (100.0)	14 (100.0)	14 (100.0)	
TOTAL sites	Myself	110 (84.6)	33 (76.7)	24 (77.4)	*
	Partner	4 (3.1)	4 (9.3)	1 (3.2)	
	Joint	16 (12.3)	6 (14.0)	6 (19.4)	
	Total	130 (100.0)	43 (100.0)	31 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

In instances where condoms were not used, the reasons varied. **Table 14** presents the major reasons for not using condoms with commercial sex partners. The major reason for non-use reported by all three groups was that the condoms were not available (39.3%).

Table 14. Reasons for no condom use with commercial sex workers

Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	Total Respondents n (%)
Reasons for no condom use				
Not available	5 (45.5)	6 (40.0)	0 (0.0)	11 (39.3)
-total	11	15	2	28
Don't like them	1 (9.1)	4 (26.7)	1 (50.0)	6 (21.4)
-total	11	15	2	28
Didn't think it necessary	1 (9.1)	4 (26.7)	1 (50.0)	6 (21.4)
-total	11	15	2	28
Partner objected	4 (36.4)	1 (6.7)	0 (0.0)	5 (17.9)
-total	11	15	2	28

Table 15 presents the findings of consistent condom use with commercial sex partners. Consistent condom use with commercial sex partners, defined as using a condom during every act of sexual intercourse with commercial partners in the past 12 months, was significantly higher ($p < 0.001$) among the truck drivers and uniformed personnel, but was still relatively low for the minibus drivers. Consistent condom use was 85.0 percent among trucker drivers, 84.4 percent among uniformed personnel, and only 42.9 percent among the minibus drivers.

Table 15. Consistent condom use with commercial sex partners in past 12 months

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Consistent condom use in past 12 months					
Kapiri Mposhi	Consistently	11 (100.0)	13 (52.0)	Na	*
	Total	11	25 (100.0)	Na	
Nchelenge	Consistently	5 (100.0)	2 (25.0)	6 (85.7)	*
	Total	5 (100.0)	8 (100.0)	7 (100.0)	
Chirundu	Consistently	82 (86.3)	3 (60.0)	9 (90.0)	*
	Total	95 (100.0)	5 (100.0)	10 (100.0)	
Livingstone	Consistently	20 (71.4)	6 (33.3)	12 (80.0)	*
	Total	28 (100.0)	18 (100.0)	15 (100.0)	
TOTAL sites	Consistently	118 (85.0)	24 (42.9)	27 (84.4)	<0.001
	Total	139 (100.0)	56 (100.0)	32 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.3.4 Condom Use with Non-regular Partners

Among the respondents who had reported having sex with a non-regular partner, minibus drivers reported the lowest levels of condom use at last sex with a non-regular partner. Sixty-three percent of the minibus drivers reported that they used a condom during last intercourse, while 67.9 percent of the uniformed personnel and 100 percent of the truck drivers reported condom use at last sex.

Approximately 82 percent of all respondents who used a condom at last sex with a non-regular partner reported that it was they themselves who suggested the condom use. This varied between target groups; 94.1 percent of the minibus drivers suggesting condom use, while 79 percent and 73.7 percent of the uniformed personnel and truck drivers suggested condom use.

Table 16: Condom use at last sex with non-regular partners

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Condom used at last sex					
Kapiri Mposhi	Yes	4 (100.0)	10 (62.5)	7 (63.6)	*
	Total	4 (100.0)	16 (100.0)	11 (100.0)	
Nchelenge	Yes	1 (100.0)	2 (66.7)	8 (72.7)	*
	Total	1 (100.0)	3 (100.0)	11 (100.0)	
Chirundu	Yes	9 (100.0)	0 (-)	1 (50.0)	*
	Total	9 (100.0)	0 (-)	2 (100.0)	
Livingstone	Yes	1 (100.0)	5 (62.5)	3 (75.0)	*
	Total	1 (100.0)	8 (100.0)	4 (100.0)	
TOTAL sites	Yes	15 (100.0)	17 (63.0)	19 (67.9)	*
	Total	15 (100.0)	27 (100.0)	28 (100.0)	
Who suggested condom at last sex					
Kapiri Mposhi	Myself	3 (75.0)	10 (100.0)	5 (71.4)	*
	Partner	0 (-)	0	1 (14.3)	
	Joint	1 (25.0)	0	1 (14.3)	
	Total	4 (100.0)	10 (100.0)	7 (100.0)	
Nchelenge	Myself	1 (100.0)	2 (100.0)	6 (75.0)	*
	Partner	0	0	0 (-)	
	Joint	0	0	2 (25.0)	
	Total	1 (100.0)	2 (100.0)	8 (100.0)	
Chirundu	Myself	7 (77.8)	0	1 (100.0)	*
	Partner	0 (-)	0	0	
	Joint	2 (22.2)	0	0	
	Total	9 (100.0)	0	1 (100.0)	
Livingstone	Myself	0 -	4 (80.0)	3 (100.0)	*
	Partner	0 -	1 (20.0)	0	
	Joint	1 (100.0)	0 (-)	0	
	Total	1 (100.0)	5 (100.0)	3 (100.0)	
TOTAL sites	Myself	11 (73.3)	16 (94.1)	15 (79.0)	*
	Partner	0 (0.0)	1 (5.9)	1 (5.3)	
	Joint	4 (26.7)	0 (0.0)	3 (15.8)	
	Total	15 (100.0)	17 (100.0)	19 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

In instances where condoms were not used at last sex with non-regular partners, the respondents varied in their reasons for non-use. **Table 17** presents the major reasons why condoms were not used at last sex with a non-regular partner. The two of the most commonly cited reasons for non-use reported by all three groups were that they did not think it was necessary (35.3%) and that they didn't think about it (35.3%).

Table 17. Reasons for no condom use with non-regular partners

Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	Total Respondents n (%)
Reasons for no condom use				
Not available -total	Na	2 (25.0) 8	3 (33.3) 9	5 (29.4) 17
Don't like them -total	Na	2 (25.0) 8	2 (22.2) 9	4 (23.5) 17
Didn't think it necessary -total	Na	1 (12.5) 8	5 (55.6) 9	6 (35.3) 17
Didn't think about it -total	Na	4 (50.0) 8	2 (22.2) 9	6 (35.3) 17
Partner objected -total	Na	8 (100.0) 8	9 (100.0) 9	17 (100.0) 17

*Note – respondents gave more than 1 response

Table 18 presents the results of consistent condom use with non-regular partners. Consistent condom use with non-regular sex partners, defined as using a condom during every act of sexual intercourse with non-regular partners in the past 12 months, varied significantly between groups ($p = 0.025$). Consistent condom use was higher among the truck drivers (68.7%) and uniformed personnel (64.3%) and significantly lower among the minibus drivers (34.6%). Overall, consistent condom use was 55.1 percent among all respondents.

Table 18. Consistent condom use with non-regular sex partners in past 12 months

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Consistent condom use in past 12 months					
Kapiri Mposhi	Consistently	3 (75.0)	7 (46.7)	7 (63.6)	*
	Total	4 (100.0)	15 (100.0)	11 (100.0)	
Nchelenge	Consistently	1 (100.0)	0 (0.0)	7 (63.6)	*
	Total	2 (100.0)	3 (100.0)	11 (100.0)	
Chirundu	Consistently	6 (66.7)	0 (0.0)	1 (50.0)	*
	Total	9 (100.0)	0	2 (100.0)	
Livingstone	Consistently	1 (100.0)	2 (25.0)	3 (75.0)	*
	Total	1 (100.0)	8 (100.0)	4 (100.0)	
TOTAL sites	Consistently	11 (68.7)	9 (34.6)	18 (64.3)	0.025
	Total	16 (100.0)	24 (100.0)	28 (100.0)	

* Chi Square test not valid – expected frequencies less than 5

4.4 Knowledge, Attitudes and Practices Related to STIs

4.4.1 Knowledge and Respondent History of STIs

Table 19 presents the results of the knowledge of STIs among the respondents. Knowledge related to STIs was relatively high, with 93 percent of the respondents ever having heard of STIs. The most commonly known STI symptoms in both men and women were genital discharges. Respondents also knew that genital ulcers and abdominal pain were signs of STIs in women, and that genital ulcers were an indicator of STIs in men. Not surprisingly, a higher proportion of respondents knew about symptoms in men than in women (81.7% compared to 69.5%).

Table 19: Knowledge of STIs

Site	Characteristic	Truckers n (%)	Minibus drivers N (%)	Uniformed personnel n (%)	p value
Ever heard of an STI					
Kapiri Mposhi	Yes	63 (96.9)	119 (89.5)	57 (95.0)	*
	Total	65 (100.0)	133 (100.0)	60 (100.0)	
Nchelenge	Yes	25 (100.0)	24 (96.0)	40 (97.6)	*
	Total	25 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	Yes	417 (91.2)	15 (78.9)	69 (92.0)	*
	Total	457 (100.0)	19 (100.0)	75 (100.0)	
Livingstone	Yes	118 (93.7)	43 (91.5)	163 (97.0)	0.206
	Total	126 (100.0)	47 (100.0)	168 (100.0)	
TOTAL sites	Yes	623 (92.6)	201 (89.7)	329 (95.6)	0.024
	Total	673 (100.0)	224 (100.0)	344 (100.0)	
Can name 2 or more STI symptoms in men					
Kapiri Mposhi	Yes	49 (77.8)	83 (72.8)	50 (87.7)	0.087
	Total	63 (100.0)	114 (100.0)	57 (100.0)	
Nchelenge	Yes	23 (92.0)	20 (83.3)	31 (77.5)	*
	Total	25 (100.0)	24 (100.0)	40 (100.0)	
Chirundu	Yes	325 (78.7)	11 (73.3)	55 (79.7)	0.861
	Total	413 (100.0)	15 (100.0)	69 (100.0)	
Livingstone	Yes	108 (91.5)	41 (95.3)	138 (84.7)	0.066
	Total	118 (100.0)	43 (100.0)	163 (100.0)	
TOTAL sites	Yes	505 (81.6)	155 (79.1)	274 (83.3)	0.484
	Total	619 (100.0)	196 (100.0)	329 (100.0)	
Can name 2 or more STI symptoms in women					
Kapiri Mposhi	Yes	38 (66.7)	63 (65.6)	27 (56.3)	0.467
	Total	57 (100.0)	96 (100.0)	48 (100.0)	
Nchelenge	Yes	17 (94.4)	16 (76.2)	23 (69.7)	*
	Total	18 (100.0)	21 (100.0)	33 (100.0)	
Chirundu	Yes	233 (70.2)	5 (21.4)	38 (62.3)	*
	Total	332 (100.0)	7 (100.0)	61 (100.0)	
Livingstone	Yes	82 (82.1)	39 (90.7)	88 (60.3)	< 0.001
	Total	101 (100.0)	43 (100.0)	146 (100.0)	
TOTAL sites	Yes	370 (72.8)	123 (73.7)	176 (61.1)	0.001
	Total	508 (100.0)	167 (100.0)	288 (100.0)	

* Reflected frequencies less than 5

Table 20 presents the results of STI history among the respondents. The proportion of respondents who reported a history of an STI in the past twelve months was low among truck drivers and uniformed personnel. However, minibus drivers recorded significantly higher proportions of reported STI symptoms ($p < 0.001$); 23 percent of them had either a genital discharge or ulcer, compared to 12.7 percent of truckers and 5.8 percent of uniformed. It should be noted that the proportion of minibus drivers reporting any STI symptom was significantly higher in Livingstone.

Table 20. STI Symptoms in the past 12 months

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Genital Discharge					
Kapiri Mposhi	Yes	9 (13.8)	22 (16.5)	2 (3.3)	0.038
	Total	65 (100.0)	133 (100.0)	60 (100.0)	
Nchelenge	Yes	7 (25.9)	3 (12.0)	0 (0.0)	*
	Total	27 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	Yes	21 (4.6)	1 (5.3)	3 (4.0)	*
	Total	437 (100.0)	18 (100.0)	72 (100.0)	
Livingstone	Yes	11 (8.6)	16 (33.3)	6 (3.6)	<0.001
	Total	128 (100.0)	48 (100.0)	169 (100.0)	
TOTAL sites	Yes	48 (7.3)	42 (18.8)	11 (3.2)	<0.001
	Total	657 (100.0)	224 (100.0)	342 (100.0)	
Genital Ulcers/sores					
Kapiri Mposhi	Yes	4 (6.2)	19 (14.2)	1 (1.7)	0.013
	Total	65 (100.0)	134	60 (100.0)	
Nchelenge	Yes	3 (11.1)	4 (16.0)	2 (4.9)	*
	Total	27 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	Yes	31 (6.8)	1 (5.3)	4 (5.3)	*
	Total	459 (100.0)	19 (100.0)	75 (100.0)	
Livingstone	Yes	16 (12.5)	16 (33.3)	7 (4.1)	<0.001
	Total	128 (100.0)	48 (100.0)	169	
TOTAL sites	Yes	54 (8.0)	40 (17.7)	14 (4.1)	<0.001
	Total	679 (100.0)	226 (100.0)	345 (100.0)	
Genital Ulcer or Discharge					
Kapiri Mposhi	Yes	10 (15.4)	29 (21.8)	2 (3.3)	0.005
	Total	65 (100.0)	133 (100.0)	60 (100.0)	
Nchelenge	Yes	7 (25.9)	5 (20.0)	2 (4.9)	*
	Total	27 (100.0)	25 (100.0)	41 (100.0)	
Chirundu	Yes	47 (10.2)	2 (10.5)	6 (8.0)	0.832
	Total	459 (100.0)	19 (100.0)	75 (100.0)	
Livingstone	Yes	22 (17.2)	16 (33.3)	10 (6.0)	<0.001
	Total	128 (100.0)	48 (100.0)	168 (100.0)	
TOTAL sites	Yes	86 (12.7)	52 (23.1)	20 (5.8)	<0.001
	Total	679 (100.0)	225 (100.0)	344 (100.0)	

* Expected frequencies less than 5

4.4.2 Health Seeking Behaviour for STIs

Table 21 presents the results of the health seeking behaviour among the respondents. When asked where they went to seek treatment for their last STI, most respondents reported going to a private or government health centre, or the pharmacy. Among truck drivers, the most common places mentioned were private (56.5%) and government (53%) health centres. A large proportion of truck drivers also reported going to a traditional healer (41.2%). Among the minibus drivers, the place most mentioned was the government health centre followed by the pharmacy (30.8%).

Uniformed personnel most often went to the government (55.0%) or private (42.1%) health centre. Only 8.3 percent of all respondents reported seeking treatment at the COH/Blue House for their last STI.

Table 21. Place where treatment was sought for last STI

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Government Health Centre					
Kapiri Mposhi	Yes	7 (70.0)	20 (69.0)	2 (100.0)	*
	Total	10 (100.0)	29 (100.0)	2 (100.0)	
Nchelenge	Yes	2 (28.6)	3 (60.0)	1 (50.0)	*
	Total	7 (100.0)	5 (100.0)	2 (100.0)	
Chirundu	Yes	27 (58.7)	0 (0)	2 (33.3)	*
	Total	46 (100.0)	2 (100.0)	6 (100.0)	
Livingstone	Yes	9 (40.9)	14 (87.5)	6 (60.0)	*
	Total	22 (100.0)	16 (100.0)	10 (100.0)	
TOTAL sites	Yes	45 (53.0)	37 (71.2)	11 (55.0)	0.100
	Total	85 (100.0)	52 (100.0)	20 (100.0)	
Private Health Centre					
Kapiri Mposhi	Yes	5 (50.0)	7 (6.9)	0 (0)	*
	Total	10 (100.0)	29 (100.0)	2 (100.0)	
Nchelenge	Yes	6 (85.7)	2 (40.0)	1 (50.0)	*
	Total	7 (100.0)	5 (100.0)	2 (100.0)	
Chirundu	Yes	22 (47.8)	1 (50.0)	4 (66.7)	*
	Total	46 (100.0)	2 (100.0)	6 (100.0)	
Livingstone	Yes	15 (68.2)	4 (25.0)	3 (33.3)	*
	Total	22 (100.0)	16 (100.0)	9 (100.0)	
TOTAL sites	Yes	48 (56.5)	14 (26.9)	8 (42.1)	0.003
	Total	85 (100.0)	52 (100.0)	19 (100.0)	
COH/Blue House					
Kapiri Mposhi	Yes	3 (30.0)	0 (0)	1 (50.0)	*
	Total	10 (100.0)	29 (100.0)	2 (100.0)	
Nchelenge	Yes	0 (0)	0 (0)	0 (0)	*
	Total	7 (100.0)	5 (100.0)	2 (100.0)	
Chirundu	Yes	6 (13.1)	0 (0)	0 (0)	*
	Total	46 (100.0)	2 (100.0)	6 (100.0)	
Livingstone	Yes	1 (4.5)	1 (6.3)	1 (11.1)	*
	Total	22 (100.0)	16 (100.0)	9 (100.0)	
TOTAL sites Denom. doesn't include Nchelenge	Yes	10 (12.8)	1 (2.2)	2 (13.3)	*
	Total	78 (100.0)	45 (100.0)	15 (100.0)	
Pharmacy					
Kapiri Mposhi	Yes	4 (40.0)	10 (34.5)	0 (0)	*
	Total	10 (100.0)	29 (100.0)	2 (100.0)	
Nchelenge	Yes	1 (14.3)	1 (20.0)	0 (0)	*
	Total	7 (100.0)	5 (100.0)	2 (100.0)	

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Chirundu	Yes	15 (32.6)	2 (100.0)	2 (33.3)	*
	Total	46 (100.0)	2 (100.0)	6 (100.0)	
Livingstone	Yes	6 (27.3)	3 (18.8)	1 (11.1)	*
	Total	22 (100.0)	16 (100.0)	9 (100.0)	
TOTAL sites	Yes	26 (30.6)	16 (30.8)	3 (15.8)	0.407
	Total	85 (100.0)	52 (100.0)	19 (100.0)	
Traditional Healer					
Kapiri Mposhi	Yes	4 (40.0)	7 (24.1)	0 (0)	*
	Total	10 (100.0)	29 (100.0)	2 (100.0)	
Nchelenge	Yes	3 (42.9)	1 (20.0)	1 (50.0)	*
	Total	7 (100.0)	5 (100.0)	2 (100.0)	
Chirundu	Yes	16 (34.8)	1 (50.0)	1 (16.7)	*
	Total	46 (100.0)	2 (100.0)	6 (100.0)	
Livingstone	Yes	12 (54.6)	4 (25.0)	1 (11.1)	*
	Total	22 (100.0)	16 (100.0)	9 (100.0)	
TOTAL sites	Yes	35 (41.2)	13 (25.0)	3 (15.8)	0.036
	Total	85 (100.0)	52 (100.0)	19 (100.0)	

* Expected frequencies less than 5

Respondents were also asked about their sexual behaviour when they had an STI. Despite the fact that the minibus drivers had the highest reported history of STIs, they were the least likely to tell their partner about the STI, stop having sex, or consistently use condoms during the STI symptom. The truck drivers were more likely than the other groups to tell their partner about the STI, stop having sex, or always use a condom. However, **Table 22** below shows that the proportion of truck drivers taking these actions was still quite low.

Table 22. Sexual behaviours with an STI

Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Told partner about STI				*
Yes	21 (25.6)	4 (7.7)	3 (16.7)	
Total	82 (100.0)	52 (100.0)	18 (100.0)	
Stopped having sex				*
Yes	13 (15.3)	3 (5.8)	2 (10.5)	
Total	85 (100.0)	52 (100.0)	19 (100.0)	
Always used a condom				*
Yes	8 (9.5)	0 (0)	1 (5.3)	
Total	84 (100.0)	52 (100.0)	19 (100.0)	

* Expected frequencies less than 5

4.5 Knowledge and Beliefs About HIV/AIDS

4.5.1 Awareness of HIV/AIDS

As with knowledge on condoms and STIs, knowledge on HIV/AIDS¹⁰ was almost universal, with 100 percent saying they had heard of HIV/AIDS (**Table 23**). Furthermore, very high proportions across the sites knew of someone that had died of AIDS, just as they had lost a close friend or relative to HIV/AIDS.

Table 23: Awareness of HIV/AIDS

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Ever heard of HIV/AIDS					
Kapiri Mposhi	Yes	65 (100.0)	134 (100.)	60 (100.0)	*
	Total	65	134	60	
Nchelenge	Yes	27 (100.0)	25 (100.0)	41 (100.0)	*
	Total	27	25	41	
Chirundu	Yes	458 (100.0)	19 (100.0)	74 (100.0)	*
	Total	458	19	74	
Livingstone	Yes	128 (100.0)	48 (100.0)	171 (100.0)	*
	Total				
TOTAL sites	Yes	678 (100.0)	226 (100.0)	346 (100.0)	*
	Total	678	226	346 (100.0)	
Knows someone living with HIV/AIDS					
Kapiri Mposhi	Yes	59 (90.8)	103 (78.6)	46 (79.3)	0.097
	Total	65	131	58	
Nchelenge	Yes	22 (81.5)	19 (79.2)	28 (68.3)	0.404
	Total	27	24	41	
Chirundu	Yes	395 (87.4)	11 (57.9)	57 (77.0)	<0.001
	Total	452	19	74	
Livingstone	Yes	117 (91.4)	39 (90.7)	134 (80.2)	0.015
	Total	128	43	167	
TOTAL sites	Yes	593 (88.3)	172 (79.3)	265 (80.00)	<0.001
	Total	672	217	340	

* Expected frequencies less than 5

4.5.2 Knowledge and Misconceptions About HIV Transmission

Table 24 presents the findings of knowledge of HIV transmission. The levels of knowledge varied significantly between groups. Most of the respondents knew that HIV could be spread through using infected needles. More than 96 percent of the uniformed personnel and truck drivers knew that infected needles can transmit HIV, while 90 percent of the minibus drivers knew about infected needles. The majority of respondents also knew that HIV could be transmitted through mother-to-child transmission. However, misconceptions about HIV transmission still exist. A significantly higher proportion of minibus drivers (43.1%) thought that mosquitoes

¹⁰ The knowledge indicators are composite indicators, the “knowledge of prevention methods” indicator tested complete knowledge of the most common HIV prevention methods (abstinence, be faithful to one uninfected partner and condom use). The “No Incorrect Beliefs about AIDS” indicator tested correct understanding regarding the most common misconceptions about HIV. To achieve a pass in that indicator, the respondent had to answer that: a healthy looking person can be HIV infected; you cannot be infected by a mosquito, or by sharing a meal with an infected person. Comprehensive knowledge about AIDS was defined as having answered all the questions in the two composite indicators above correctly. The criteria for accepting attitudes towards people with HIV were also strict. To achieve a pass mark in that indicator, respondents had to state: that they would be willing to care for a member of their family in their household if they became sick with AIDS, that a teacher who has the AIDS virus but is not sick should be allowed to continue teaching in school and that they would buy food from a shopkeeper or food seller who had the AIDS virus.

can transmit HIV ($p < 0.001$). Approximately one quarter of the truck drivers also thought that mosquitoes can transmit HIV. A significantly higher proportion of minibus drivers ($p = 0.001$) also thought that sharing a meal with someone who was HIV-positive could transmit HIV.

Table 24: Knowledge of HIV transmission

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Thinks that a person can get HIV from:					
Kapiri Mposhi	Mosquito bites	17 (26.2)	54 (40.3)	7 (11.7)	<0.001
	Sharing a meal	15 (23.1)	17 (12.7)	0 (0.0)	0.001
	Infected needles	61 (93.8)	119 (88.8)	60 (100.0)	*
	MTCT	51 (78.5)	116 (86.6)	58 (96.7)	0.011
	Breastfeeding	41 (64.1)	76 (58.0)	46 (78.0)	0.030
Nchelenge	Mosquito bites	6 (22.2)	11 (45.8)	1 (2.5)	*
	Sharing a meal	2 (7.4)	3 (12.5)	4 (9.8)	*
	Infected needles	26 (96.3)	22 (91.7)	39 (97.5)	*
	MTCT	26 (96.30)	21 (87.5)	34 (82.9)	*
	Breastfeeding	21 (80.8)	13 (52.4)	23 (56.1)	0.077
Chirundu	Mosquito bites	117 (25.6)	10 (52.6)	10 (13.3)	*
	Sharing a meal	48 (10.5)	1 (5.3)	4 (5.3)	*
	Infected needles	441 (96.5)	18 (94.7)	74 (100.0)	*
	MTCT	396 (86.8)	16 (84.2)	70 (94.6)	*
	Breastfeeding	327 (73.3)	15 (78.9)	45 (60.8)	0.067
Livingstone	Mosquito bites	29 (22.7)	22 (45.8)	19 (11.1)	<0.001
	Sharing a meal	10 (7.8)	15 (31.3)	15 (8.8)	<0.001
	Infected needles	123 (96.9)	44 (91.7)	164 (95.9)	*
	MTCT	111 (88.1)	43 (89.6)	154 (90.1)	0.862
	Breastfeeding	96 (75.6)	39 (81.3)	111 (65.7)	0.048
TOTAL sites	Mosquito bites	169 (25.0)	97 (43.1)	37 (10.7)	<0.001
	Sharing a meal	75 (11.1)	36 (16.0)	23 (6.6)	0.001
	Infected needles	651 (96.3)	203 (90.2)	337 (97.7)	<0.001
	MTCT	584 (86.6)	196 (87.1)	316 (91.3)	0.083
	Breastfeeding	485 (73.2)	143 (64.4)	225 (65.6)	0.009

* Expected frequencies less than 5

4.5.3 Knowledge of HIV Prevention

Table 25 shows the proportion of respondents that know the correct ways to prevent HIV: abstinence, being faithful, and condom use. Surprisingly, more respondents could name abstinence and faithfulness as an HIV prevention method than condom use. The uniformed personnel had the highest proportion (96.8 %) of respondents citing abstinence as an HIV prevention method, while the proportions among truck drivers and minibus drivers were 91.9 percent and 83.0 percent respectively. The differences between groups is statistically significant ($p < 0.001$). Uniformed personnel also had the highest proportion (92.5%) of respondents citing faithfulness as an HIV prevention method, while truck drivers and minibus drivers were 89.3 percent and 73.8 percent respectively. Again, these differences were statistically significant ($p < 0.001$). The respondents reporting condom use as an HIV prevention method were 85.4 for the uniformed personnel, 75.0 percent for the truck drivers and only 66.7 percent for the minibus drivers.

Table 25: Knowledge of HIV prevention

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Knows that people can prevent HIV by:					
Kapiri Mposhi	Abstinence	58 (92.1)	118 (88.1)	59 (98.3)	0.060
	Being faithful	54 (83.1)	107 (79.9)	57 (95.0)	0.027
	Condoms	49 (75.4)	105 (78.4)	56 (93.3)	0.019
Nchelenge	Abstinence	27 (100.0)	20 (87.0)	39 (95.1)	*
	Being faithful	26 (96.3)	18 (75.0)	36 (90.0)	*
	Condoms	19 (70.4)	16 (66.7)	31 (77.5)	0.615
Chirundu	Abstinence	410 (89.7)	19 (100.0)	72 (97.3)	*
	Being faithful	409 (89.5)	18 (94.7)	67 (90.5)	*
	Condoms	457 (71.1)	14 (73.7)	62 (83.8)	0.075
Livingstone	Abstinence	125 (97.7)	29 (60.4)	165 (96.5)	*
	Being faithful	119 (93.0)	23 (47.9)	159 (93.0)	<0.001
	Condoms	115 (89.8)	30 (62.5)	144 (85.2)	<0.001
TOTAL sites	Abstinence	620 (91.9)	186 (83.0)	335 (96.8)	<0.001
	Being faithful	608 (89.8)	166 (73.8)	319 (92.5)	<0.001
	Condoms	508 (75.0)	150 (66.7)	293 (85.4)	<0.001

* Expected frequencies less than 5

The proportions of respondents who had a *complete knowledge of HIV prevention* – defined as being able to name all three prevention methods (abstinence, faithfulness and condom use) - were 76.3 percent among uniformed personnel, 65.5 percent among truck drivers and 51.3 percent among the minibus drivers. *Comprehensive knowledge of HIV* – defined as knowing all three prevention methods in addition to having no misconceptions about HIV transmission – was highest among the uniformed personnel, with 78.7 percent having a comprehensive knowledge of HIV, while the group with the lowest proportion was among the minibus drivers. Comprehensive knowledge was significantly higher among the uniformed personnel ($p = 0.001$). **Table 26** presents the findings of the comprehensive knowledge.

Table 26: Comprehensive knowledge of HIV/AIDS

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Comprehensive knowledge of HIV/AIDS					
Kapiri Mposhi	Yes	25 (65.8)	43 (62.3)	46 (86.8)	0.001
	Total	38	69	53	
Nchelenge	Yes	14 (70.0)	7 (77.8)	26 (72.2)	*
	Total	20	9	36	
Chirundu	Yes	225 (71.2)	7 (77.8)	46 (75.4)	*
	Total	316	9	61	
Livingstone	Yes	77 (84.6)	6 (33.3)	111 (78.7)	*
	Total	91	18	141	
TOTAL sites	Yes	341 (73.3)	63 (60.0)	229 (78.7)	0.001
	Total	465	105	291	

* Expected frequencies less than 5

Questions measuring a population's knowledge of how to prevent HIV are an indication of how well various educational efforts have reached their target, but they are unable to show whether people are putting this knowledge into practice. Figure 1

illustrates the knowledge of HIV prevention methods, and **Table 27** presents condom use practices of those respondents who identified consistent condom use as a way to prevent HIV transmission, and also reported having sex with a commercial or non-regular sex worker.

Figure 1: Knowledge of HIV Prevention Methods (Abstinence, Being faithful and Condom use)

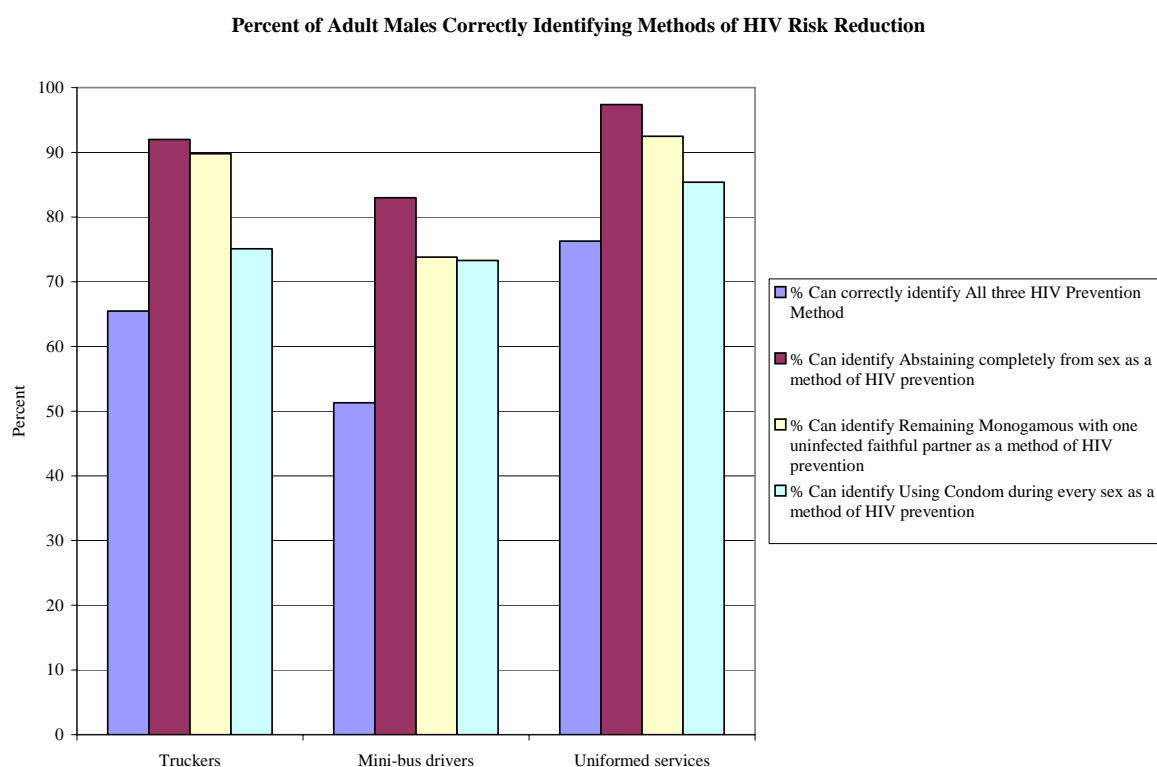


Table 27. Consistent condom use among those respondents who know condoms prevent HIV

Characteristic	Truckers % (95% CI)	Minibus drivers % (95% CI)	Uniformed personnel % (95% CI)
Knows condoms prevent HIV and did NOT use condoms consistently with CSW	11.43 (6.1 – 16.8)	35.9 (23.9 – 48.0)	15.6 (2.3 – 28.9)
Knows condoms prevent HIV and did NOT use condoms consistently with non-regular partners	17.7 (0.0 – 37.9)	55.6 (35.5 - 75.6)	28.6 (19.7 – 46.4)

As seen above in **Table 27**, approximately eleven percent of truck drivers and 16 percent of uniformed personnel reported that they had sex with a commercial sex worker in the past year and did not use a condom, although they were aware that consistent condom use was a method of preventing HIV transmission. Over a third of minibus drivers had sex with commercial partners without a condom, although they were aware that consistent condom use is a method to prevent HIV.

A larger percentage of almost all groups reported not using condoms consistently with non-regular partners than with commercial sex partners, despite knowing that condoms reduce their risk of acquiring HIV. Once again, minibus drivers had over

half of the respondents who knew that consistent condom use could reduce the risk of HIV infection, yet they did not use a condom consistently with a non-regular partner.

4.6 Attitudes Toward People with HIV/AIDS

The survey included a series of questions aimed at exploring the respondents' views about the extent of HIV stigmatisation. Although the degree varies significantly between groups, the overall results of this section, which can be seen below in **Table 28**, have shown that a certain amount of stigma and discrimination does exist. The findings showed that the majority of all respondents felt that an HIV positive student should be allowed to continue with school, with the minibus drivers having the lowest proportion feeling this way (79.9%). Most of the respondents also felt that HIV-positive teachers should be able to continue teaching, with the minibus drivers once again having the lowest proportion (76.5%). Approximately 92 percent and 99 percent of the truck drivers and uniformed personnel expressed they would allow HIV-positive teachers to continue teaching.

Although over 98 percent of both the truck drivers and uniformed personnel expressed that they would take care of an HIV-positive relative, only 62.7 percent of the minibus drivers would care for an HIV-positive relative in their home. A smaller proportion of all respondents reported that they would want to keep the HIV-positive status of a relative a secret – 27.1 percent of minibus drivers, 23.5 percent of truck drivers and 18 percent of uniformed personnel would want the status to be kept a secret.

There appears to be higher levels of stigma and discrimination amongst all the groups with regards to buying food from HIV-positive people. When asked whether or not they would buy food from a shopkeeper with HIV, 74.7 percent of the uniformed personnel and 69.3 percent of the truck drivers said they would. However, only 50 percent of the minibus drivers were willing to buy food from an HIV-positive shopkeeper.

Table 28: Attitudes toward people living with HIV/AIDS

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Feels HIV+ students should be able to continue with school					
Kapiri Mposhi	Yes	51 (81.0)	104 (78.2)	59 (98.3)	0.002
	Total	63	133	60	
Nchelenge	Yes	27 (100.0)	14 (58.3)	40 (97.6)	*
	Total	27	24	41	
Chirundu	Yes	437 (96.3)	17 (89.5)	73 (98.6)	*
	Total	454	19	74	
Livingstone	Yes	118 (95.2)	44 (91.7)	168 (98.8)	*
	Total	124	48	170	
TOTAL sites	Yes Total	633 (94.8) 668	179 (79.9) 224	340 (98.6) 345	<0.001
Feels HIV+ teachers should be able to continue teaching					
Kapiri Mposhi	Yes	50 (76.9)	96 (71.6)	59 (98.3)	<0.001
	Total	65	134	60	
Nchelenge	Yes	26 (96.3)	18 (75.0)	41 (100.0)	*
	Total	27	24	41	
Chirundu	Yes	426 (93.4)	17 (89.5)	72 (97.3)	*
	Total	456	19	74	
Livingstone	Yes	118 (92.9)	41 (85.4)	167 (98.8)	*
	Total	127	48	169	
TOTAL sites	Yes Total	620 (91.9) 675	172 (76.5) 225	339 (98.5) 344	<0.001
Would take care of any HIV+ relative in household					
Kapiri Mposhi	Yes	63 (96.9)	91 (67.9)	60 (100.0)	<0.001
	Total	65	134	60	
Nchelenge	Yes	27 (100.0)	15 (62.5)	41 (100.0)	*
	Total	27	24	41	
Chirundu	Yes	448 (98.2)	19 (100.0)	72 (97.3)	*
	Total	456	19	74	
Livingstone	Yes	128 (100.0)	16 (33.3)	167 (98.8)	*
	Total	128	48	169	
TOTAL sites	Yes Total	666 (98.5) 676	141 (62.7) 225	340 (98.8) 344	<0.001
Would buy food from a shop keeper known to have HIV					
Kapiri Mposhi	Yes	29 (45.3)	63 (47.4)	48 (81.4)	<0.001
	Total	64	133	59	
Nchelenge	Yes	23 (85.2)	9 (37.5)	37 (90.2)	<0.001
	Total	27	24	41	
Chirundu	Yes	325 (71.6)	11 (57.9)	49 (66.2)	0.308
	Total	454	19	74	
Livingstone	Yes	88 (69.8)	29 (60.4)	121 (71.6)	0.330
	Total	126	48	169	
TOTAL sites	Yes Total	465 (69.3) 671	112 (50.0) 224	255 (74.4) 343	<0.001

* Expected frequencies less than 5

4.7 HIV Voluntary Counselling and Testing

The respondents were asked a series of questions pertaining to access and use of voluntary counselling and testing services. The findings show that the majority of respondents reported having access to confidential HIV testing, though this varied significantly between groups ($p < 0.001$). Approximately 50 percent of truck drivers, 22.7 percent of minibus drivers and 21.9 percent of uniformed personnel had ever been tested for HIV. Most (81.2%) tested expressed that they took the test voluntarily, and approximately 90 percent of all tested reported receiving the results of the HIV test. Minibus drivers had the lowest proportion of respondents receiving the results. **Table 29** presents the findings of the access and use of VCT services.

Table 29: Access to and use of VCT services

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Possible to get a confidential HIV test in your community					
Kapiri Mposhi	Yes	33 (57.9)	101 (76.5)	55 (91.7)	<0.001
	Total	57	132	60	
Nchelenge	Yes	15 (55.6)	17 (70.8)	38 (95.0)	0.001
	Total	27	24	40	
Chirundu	Yes	364 (80.0)	19 (100.0)	66 (91.7)	*
	Total	455	19	72	
Livingstone	Yes	90 (70.3)	40 (83.3)	135 (79.9)	0.079
	Total	128	48	169	
TOTAL sites	Yes Total	502 (75.3) 667	177 (79.4) 223	294 (86.2) 341	<0.001
Ever been tested for HIV					
Kapiri Mposhi	Yes	12 (18.5)	31 (23.1)	7 (11.7)	0.171
	Total	65	134	60	
Nchelenge	Yes	4 (14.8)	6 (25.0)	8 (19.5)	*
	Total	27	24	41	
Chirundu	Yes	151 (33.1)	5 (26.3)	29 (39.7)	0.424
	Total	456	19	73	
Livingstone	Yes	65 (50.8)	9 (18.8)	31 (18.3)	<0.001
	Total	128	48	169	
TOTAL sites	Yes Total	212 (31.4) 676	51 (22.7) 225	75 (21.9) 343	0.001
Received test results					
Kapiri Mposhi	Yes	10 (83.3)	20 (69.0)	7 (100.0)	*
	Total	12	29	7	
Nchelenge	Yes	3 (75.0)	6 (100.0)	7 (100.0)	*
	Total	4	6	7	
Chirundu	Yes	138 (92.6)	5 (100.0)	29 (100.0)	*
	Total	149	5	29	
Livingstone	Yes	43 (95.6)	8 (79.6)	26 (83.9)	*
	Total	45	9	31	
TOTAL sites	Yes Total	194 (92.4) 210	39 (79.6) 49	69 (93.3) 74	*

* Expected frequencies less than 5

4.8 Corridors of Hope Project Indicators:

The Corridors of Hope project has targeted behavioural and STI interventions toward sex workers and their clients, namely truck drivers and uniformed personnel at border posts. The 2003 BSS was designed to track behavioural trends among these groups within selected COH project sites. Behavioural data from minibus/light truck drivers, who were not directly targeted by the COH project, were also collected to serve as a comparison group.

4.8.1 Exposure to the COH Project

The 2003 survey included questions that asked for exposure to the COH project. The following indicators are used to assess the exposure to the project (**Table 30**)

- Interaction with COH staff member
- Visits to the drop-in-centre
- Source of information about COH project
- Source of STI/HIV information

Nearly 64 percent of all the respondents had ever talked to a staff member of COH. Approximately 70 percent of truck drivers and 60.7 percent uniformed personnel had talked to a COH staff member. However, the proportion of minibus drivers was significantly lower at 24.3 percent, most likely because they have not been directly targeted by the COH project. Despite the relatively large proportion of men who had spoken to a COH staff member, only 6.1 percent, 2.3 percent and 2.7 percent of uniformed personnel, truck drivers and minibus drivers respectively actually visited the COH/Blue House drop-in centre for any reason. While peer educators were the major source of information about the COH for most respondents, friends were the main sources for minibus drivers. When asked what their main source was for STI/HIV information, approximately 40 percent of all respondents said it was the radio, 17.6 percent said it was the television. The COH project as a source of STI/HIV information was mentioned by only 2.1 percent of all respondents.

Table 30: Project Exposure Indicators

Site	Characteristic	Truckers n (%)	Minibus drivers n (%)	Uniformed personnel n (%)	p value
Ever talked to a COH staff member					
Kapiri Mposhi	Yes	20 (69.0)	3 (21.4)	25 (64.1)	0.008
	Total	29	14	39	
Nchelenge	Yes	17 (77.3)	0 (0.0)	0 (0.0)	*
	Total	22	1	1	
Chirundu	Yes	109 (67.7)	5 (41.2)	39 (83.0)	*
	Total	161	12	47	
Livingstone	Yes	27 (75.0)	1 (20.0)	7 (23.3)	*
	Total	36	5	30	
TOTAL sites	Yes Total	173 (69.8) 248	9 (28.1) 32	71 (60.7) 117	<0.001
Ever visited the COH/Blue House drop-in centre					
Kapiri Mposhi	Yes	1 (3.1)	4 (4.3)	0 (0.0)	*
	Total	32	93	6	
Nchelenge	Yes	0 (0.0)	0 (0.0)	0 (0.0)	*
	Total	1	17	5	
Chirundu	Yes	0 (0.0)	0 (0.0)	5 (26.3)	*
	Total	186	1	19	
Livingstone	Yes	4 (4.8)	0 (0.0)	1 (1.5)	*
	Total	83	35	68	
TOTAL sites	Yes Total	5 (2.3) 223	4 (2.7) 146	6 (6.1) 98	*
Who introduced respondent to COH project					
Kapiri Mposhi	Peer educator	8 (72.7)	0 (0.0)	9 (81.8)	*
	Friend, not PE	3 (27.3)	4 (80.0)	2 (18.2)	
	Health care provider	0 (0.0)	1 (20.0)	0 (0.0)	
Nchelenge	Peer educator	9 (90.0)	0 (0.0)	0 (0.0)	*
	Friend, not PE	1 (10.0)	0 (0.0)	0 (0.0)	
	Health care provider	0 (0.0)	0 (0.0)	0 (0.0)	
Chirundu	Peer educator	40 (65.6)	4 (80.0)	32 (78.1)	*
	Friend, not PE	17 (27.9)	1 (20.0)	8 (19.5)	
	Health care provider	4 (6.5)	0 (0.0)	1 (2.4)	
Livingstone	Peer educator	10 (71.4)	0 (0.0)	4 (57.1)	*
	Friend, not PE	3 (21.4)	0 (0.0)	2 (28.6)	
	Health care provider	1 (7.2)	1 (100.0)	1 (14.3)	
TOTAL sites	Peer educator Friend, not PE Health care prov.	67 (69.8) 29 (25.0) 5 (5.2)	4 (36.4) 5 (45.5) 2 (18.2)	45 (76.3) 12 (20.3) 2 (3.4)	*

* Expected frequencies less than 5

5 COMPARISON OF 2000 AND 2003 FINDINGS AMONG TRUCK DRIVERS

In order to explicitly show the differences regarding the knowledge, attitudes and behaviour of truck drivers between the two BSS surveys, the following section presents a comparison of selected results and trends on key variables between the 2000 and 2003 BSS among truck drivers. Data from Livingstone and Chirundu has been compared because these are the two sites that have participated in both studies.

5.1 Socio-demographic Characteristics

Table 31 presents the findings of the comparison of the socio-demographic information of the truck drivers between 2000 and 2003. In both sites and in both rounds, the largest proportions of truck drivers were over 35 years old. The proportions of truck drivers with a secondary or higher level of education increased in both sites between the two rounds, though this was not significant. The proportion of respondents who were married at the times of the surveys did not change significantly between rounds.

Table 31. Comparison of demographics between Round 1 and Round 2 BSS

Characteristic	Livingstone				P value	Chirundu				P value
	Round I		Round II			Round I		Round II		
	N	%	N	%		N	%	N	%	
Age										
< 30	44	15.9	13	10.2	0.022	70	24.1	101	21.8	0.001
30-34	49	17.7	37	28.9		51	17.5	139	30.0	
> 35	184	66.4	78	60.9		170	58.4	224	48.3	
Education Levels - Secondary or higher	198	71.2	97	75.8	0.402	220	75.6	378	81.5	0.066
Currently Married - Yes	241	86.7	114	91.2	0.260	260	89.3	410	88.6	0.827

5.2 Alcohol and Drug Use

Table 32 presents the comparison of alcohol consumption and drug use between the two surveys. Daily alcohol consumption increased in both survey sites between 2000 and 2003, however the increase was not statistically high. Drug use decreased in Livingstone from 13.3 percent to 11.7 percent. However, drug use increased in Chirundu from 13.4 to 17.7 percent, though the increase was not significant.

Table 32. Comparison of alcohol and drug use between Round 1 and Round2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Daily Alcohol consumption	32	11.5	24	18.9	0.065	31	10.7	53	11.5	0.824
Ever used drugs	37	13.3	15	11.7	0.755	39	13.4	82	17.7	0.146

5.3 Sexual Risk Behaviours

Age at first sex has been used as an indicator of length of exposure to high-risk sex. **Table 33** presents a summary of sexual experience among truckers. The reported mean and median age at first sex has remained unchanged between 2000 and 2003. The results also show that the truck drivers in both sites have fewer regular partners in 2003 than they did in 2000, with the larger proportion of truck drivers reporting having no regular partners in the past 12 months. This decrease is statistically significant ($p < 0.001$). The truck drivers in Chirundu are also reporting having fewer commercial partners and non-regular partners in the past 12 months. This decrease is also statistically significant ($p < 0.001$)

Table 33: Comparison of sexual risk behaviours between Round 1 and Round 2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Mean age at first sex	17.9		18.2			18.3		18.1		
# of regular sex partners:										<0.001
0	2	0.8	71	56.8	<0.001	0	0.0	285	63.6	
1	191	74.9	38	30.4		220	82.4	123	27.5	
2+	62	24.3	16	12.8		47	17.6	40	8.9	
# of commercial sex partners:										<0.001
0	210	79.2	97	80.8	0.825	159	56.8	350	82.7	
1	25	9.4	9	7.5		31	11.1	46	10.9	
2+	30	11.3	14	11.7		90	32.2	27	6.4	
# of non-regular sex partners:										<0.001
0	204	76.7	125	100.0	*	194	69.0	440	97.8	
1	48	18.0	0	0		59	21.0	9	2.0	
2+	14	5.3	0	0		28	10.0	1	0.2	

*Expected frequencies less than 5

5.4 Condom Use

Table 34 presents a comparison of condom use with high-risk partners between the two surveys. The findings show that condom use at last sex with a commercial partner decreased by 7.2 percentage points in Livingstone, but remained stable in Chirundu. Similarly, consistent condom use for 30 days with a commercial partner decreased significantly ($p = 0.017$) in Livingstone, but increased in Chirundu from 80.6 percent

in 2000 to 86.3 percent in 2003. The findings also show that both condom use at last sex and consistent condom use with a non-regular partner increased in both sites between surveys, keeping in mind that there was only one respondent in Livingstone in 2003 who had reported sex with a non-regular partner.

Table 34: Comparison of Condom use between Round 1 and Round 2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Condom use at last sex with commercial sex partner	52	92.9	24	85.7	0.431	116	93.5	90	94.7	0.936
Consistent condom use for 30 days with commercial partner	52	92.9	20	71.4	0.017	100	80.6	82	86.3	0.353
Condom use at last sex with non-regular sex partner	44	71.0	1	100.0	1.000	69	77.5	9	100.0	0.197
Consistent condom use for 30 days with non-regular partner	27	44.3	1	100.0	0.452	49	55.1	6	66.7	0.727

5.5 STI Knowledge and History

Table 35 presents the comparison of knowledge and history of STIs among the truck drivers between 2000 and 2003. The findings show that the proportion of respondents who could correctly site more than two STI symptoms in men increased significantly in Livingstone, while remaining stable in Chirundu. However, along with the increase in knowledge came the increase in those reporting a history of genital discharge and genital ulcers. In Livingstone, those who reported having a genital discharge in the past 12 months increased, though not significantly, from 5.5 percent to 8.6 percent, while the proportion declined in Chirundu. There was a statistically significant increase ($p = 0.010$) in Livingstone among the truck drivers reporting a history of a genital ulcer in the past 12 months.

Table 35. Comparison of knowledge and history of STIs between Round 1 and Round 2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Can correctly cite 2 or more STI symptoms in men	199	74.8	108	91.5	<0.001	215	77.3	325	78.7	0.742
History of genital discharge in the past 12 months	15	5.5	11	8.6	0.338	21	7.3	21	4.8	0.219
History of genital ulcers/sore in the past 12 months	13	4.8	16	12.5	0.010	17	5.9	16	3.5	0.170

5.6 HIV/AIDS Knowledge

Knowledge indicators measured the respondents' knowledge with regard to prevention of HIV/AIDS and misconceptions about the transmission of HIV infections and risks. **Table 36** presents the comparison of HIV/AIDS-related knowledge.

The proportion of respondents who had heard of HIV, remained the same at 100 percent between the two rounds. The proportion of truck drivers who know that abstinence could prevent HIV remained relatively stable within the two sites from 2000 to 2003, while the proportions of those acknowledging faithfulness as an HIV prevention method increased in Chirundu significantly ($p=0.010$) and in Livingstone. Consistent condom use as a method of reducing the risk of contracting HIV was the least mentioned in both 2000 and 2003. However, knowledge of consistent condom use as an HIV prevention method increased significantly ($p=0.007$) in Livingstone, but decreased slightly in Chirundu. Despite the high levels of knowledge of HIV prevention methods, there are still many misconceptions with regards to modes of HIV transmission. For example, 22.7 percent from Livingstone and 25.6 percent from Chirundu believed that HIV can be transmitted through mosquitoes. The proportion of respondents believing this increased in both sites between the two surveys, though only significantly in Chirundu.

Table 36: Comparison of HIV/AIDS-related knowledge between Round 1 and Round 2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Ever heard of HIV	273	100.0	346	100.0	*	289	100.0	224	100.0	*
Knows abstinence can prevent HIV	254	93.0	125	97.7	0.098	255	88.2	410	89.7	0.608
Knows being faithful can prevent HIV	226	82.8	119	93.0	0.010	244	84.4	409	89.5	0.054
Knows condom use can prevent HIV	213	78.0	115	89.8	0.007	225	77.9	325	71.1	0.051
Thinks HIV can be transmitted through mosquito bites	43	15.8	29	22.7	0.124	51	17.6	117	25.6	0.015
Thinks HIV can be transmitted through sharing a meal	15	5.5	10	7.8	0.501	26	9.0	48	10.5	0.586

5.7 Voluntary Counselling and Testing

Table 37 presents the comparison of VCT access and use among truck drivers between the two rounds. The results of this section show that there was a significant decrease ($p<0.001$) between the two surveys in the proportion of respondents that reported having access to confidential HIV testing services. This decrease was evident

among truck drivers in both sites, but was more significant in Livingstone. Despite the decrease in reported access to VCT, the proportion of respondents who had been tested remained stable in Chirundu between the two survey periods, and actually increased significantly in Livingstone ($p < 0.001$). Of those tested, approximately 96 percent and 92.6 percent of respondents in Livingstone and Chirundu found out the result of their HIV test. In both sites between 2000 and 2003, the proportions finding out the test result increased, though not significantly.

Table 37. Comparison of VCT access and use between Round 1 and Round 2 BSS

Characteristic	Livingstone					Chirundu				
	Round I		Round II		P value	Round I		Round II		P value
	N	%	N	%		N	%	N	%	
Access to a confidential HIV test in community	245	89.7	90	70.3	<0.001	275	95.2	364	80.0	<0.001
Ever been tested for HIV	98	36.0	65	50.8	<0.001	90	31.1	151	33.1	0.630
Found out HIV test result	88	89.8	43	95.6	0.340	82	91.1	138	92.6	0.864

6 DISCUSSION

Projects like the Corridors of Hope are making serious efforts to confront the challenge of the HIV epidemic in Zambia. Many of the common, curable STIs facilitate HIV spread by increasing both efficiency of transmission and vulnerability to infection. Control of these infections has been accorded high priority since the beginning of the HIV/AIDS epidemic. Prevention through education and effective treatment of STIs continues to be the main strategy available for controlling the spread of the disease. The aim is to change peoples' attitudes not only towards the disease and infected persons, but also to encourage the adoption of safer sexual behaviours.

To assess the outcomes of the COH project and to monitor behavioural trends over time, Behavioural Surveillance Surveys (BSS) are carried out. The results from the 2003 BSS show that despite the widespread knowledge of HIV prevention, high-risk behaviours still persist among truck drivers, minibus drivers and uniformed personnel. However, a decline in the mean number of sexual partners and an increase in the reported use of condoms at last sex with high-risk partners among truck drivers are some encouraging trends that can be seen between 2000 and 2003.

There are a few limitations to consider when evaluating trends. Firstly, while two data points (2000 and 2003) can begin to show what may be happening, additional data

points will be needed before drawing inferences on trends. Secondly, an effort was made to adapt the protocol to maximize comparability with the 2000 BSS. However, while the study participants were selected from similar clusters, there were some geographical differences between the two surveys, therefore only results from Livingstone and Chirundu can be compared. Interpretation of trends during this period must take these methodological issues into account.

6.1 Socio-demographic Characteristics of Study Populations

Light truck and minibus drivers were the youngest group with a mean age of 30.8 years, while the mean age of the long distance truck drivers was 37.1 years. The relatively younger population of minibus drivers has implications for developing program interventions amongst this group, as working with a younger population will require different outreach methods.

Education plays an important role in HIV/AIDS intervention programmes^{11, 12}. Education could act as a precursor to enhanced access to and/or acquisition of HIV/AIDS information. The majority of the respondents surveyed had a secondary or higher level of education, with uniformed personnel having the highest educational level. However, there were still about 20 percent of the respondents who had only a primary level of education. This must be considered when developing behaviour change materials, as the materials will need to be tailored to the level of education of the target population.

Most of the respondents reported that they were currently married. This could be viewed positively with the notion that in general, married men are less likely to engage in multiple sexual relationships. However, we cannot ignore the fact that there is still a proportion of married men who have other high-risk sexual partners. In this situation, the wives or regular partners of these men who engage in high-risk sex are being exposed to high-risk behaviours even when they themselves do not engage in it. It is therefore imperative that HIV prevention programs stress the promotion of faithfulness and fidelity with their spouses or regular partners.

The younger and never married respondents had more sexual partners in the past 12 months, which indicates the possibility of higher levels of sexual activity among the single men, a situation that can lead to an increased incidence of STIs. Research on non-marital sexual networking in the Ekiti District found that high levels of pre-marital sexual activity sustained the STI epidemic¹³. Consistent condom use and abstinence must be promoted among this sexually active category of unmarried men.

6.2 Risk Behaviours and Sexual Partners

Alcohol and drug use have a high correlation with increased risky sexual behaviour since alcohol use undermines judgement and safe sex negotiation. In this survey, the overall response showed that 14.1 percent of the total respondents had alcoholic

¹¹ Agha S. (2002) Declines in casual sex in Lusaka, Zambia: 1996-1999, [Letter] *AIDS*; 16:291-293.

¹² Fylkesnes et al (2001) Declining HIV prevalence and risk behaviors in Zambia: evidence from Surveillance and population-based surveys, *AIDS*; 15:907-916.

¹³ Orubuloye et al. (1991) Sexual Networking in the Ekiti district of Nigeria. *Stud in Family Planning*; 22:61-73.

drinks everyday in the last four weeks. Minibus drivers had the highest proportion (21.9%) followed by the truck drivers (13.4%). The trend data also shows that daily alcohol consumption is increasing among truck drivers in Chirundu and Livingstone. Though drug and alcohol abuse has never been of direct interest to the COH project, program managers should begin to address this issue in light of the study findings. Behaviour change messages should include the dangers associated with alcohol use and high-risk sex.

Almost all of the respondents were sexually active. Minibus drivers had the highest proportion of respondents reporting commercial sex and sex with non-regular partners. Truck drivers had the highest proportion of respondents that were currently married or had live-in partners. Nearly 17 percent of the truck drivers also reported having a commercial sex partner within the past 12 months. However, truck drivers in 2003 are reporting a decrease in the numbers of regular, commercial and non-regular sex partners from 2000. Perhaps this is an indication of more truck drivers practicing faithfulness as an HIV prevention method. Nevertheless, highly mobile populations – truck drivers and minibus drivers – had more sexual partners than the uniformed personnel. This finding reiterates the point that highly mobile men engage in multiple sexual relationships and are more likely to play a substantial part in spreading STIs. The role of truck drivers in the transmission of HIV within the sub-Saharan Africa has been established¹⁴. As seen from this study, minibus drivers also provide a major clientele to the female sex workers and also have a higher reported history of STIs in the past 12 months. This suggests the need for continued aggressive intervention strategies that will target all groups of men vulnerable to HIV with behavioural change messages and the treatment of STIs as means for reducing the transmission of HIV.

6.3 Knowledge, Attitudes and Practices relating to Condoms

Knowledge and awareness about condoms was universal with almost all the respondents having heard about condoms. However, less than two-thirds of all respondents reported ever having used a condom. This exemplifies the fact that while knowledge is a pre-cursor to reducing risk, it by no means is sufficient to ensure safe behaviour. The data makes it clear that HIV prevention programs targeting high risk groups need to go beyond messages that promote knowledge about the virus and how to prevent it, and focus on innovative services that will both persuade people to act on their knowledge and make it easier for them to do so.

Across all groups, consistent condom use was highest with commercial sex partners, and not surprisingly, lowest with wives. Despite the fact that they engage in more commercial sex to begin with however, consistent condom use was considerably low among minibus drivers (42.9%). While consistent condom use with commercial sex partners has increased among truck drivers in Chirundu and Livingstone, the rate is still only at 85 percent. In order to effectively stop the spread of STIs and HIV, short-term prevention efforts must aggressively promote consistent condom use with ALL high-risk partners. Long-term efforts can focus messages that address the importance of consistent condom use with all partners, including regular partners. These efforts should work on changing the social landscape that has dissuaded males to use

¹⁴ Hunt (1989) Migrant labor and STD: AIDS in Africa. *Journal of Health and Soc Beh*; 30:353-373

condoms consistently. Therefore, failure to translate knowledge into practice has to be contextualised. There are important structural barriers that need to be overcome. However, it may be worthwhile to further investigate some of the factors accounting for the mismatch between knowledge and use of condoms. This would initially entail an exploratory phase to identify possible costs and obstacles to behaviour change.

6.4 Knowledge, Symptoms and Practices Relating to STIs

Knowledge on STIs was widespread with almost all the respondents having ever heard of STIs. The proportion of truck drivers who could correctly cite two or more STI symptoms in men increased between the two surveys from 74.8 percent to 91.5 percent in Livingstone and from 77 percent to 78.7 percent in Chirundu. The proportion of respondents who reported a history of a genital ulcer or discharge in the past 12 months was significantly lower among truckers and uniformed personnel as compared to minibus drivers who recorded relatively higher proportions of reported STI symptoms (23.1%). The reported high prevalence among minibus drivers is accompanied by the low consistent condom use with high-risk partners, suggesting that aggressive interventions are warranted in this group.

It is important to note that a higher proportion of respondents (especially minibus drivers) in Livingstone and Kapiri Mposhi reported having STI symptoms in the past 12 months. This may be attributed to the local tourist-based economy that has attracted people from other parts of the country.

The two commonly reported STI treatment sources were government or private institutions for both truck drivers and uniformed personnel, while minibus drivers reported purchasing medication from pharmacies although a government clinic was also an option. Less than 10 percent of all respondents reported seeking treatment at the COH/Blue House for their last STI.

Despite the fact that minibus drivers had the highest reported levels of STI symptoms, they were the least likely to inform their partner, cease having sex, or use condoms consistently. This is significant considering the strong association between STIs and HIV transmission. Truck drivers had the highest proportion of respondents informing their partner, though this was low even among them (25.0%). Partner notification is one of the key strategies for ensuring complete STI cure and ultimately the effective control of STIs.

6.5 Knowledge, Attitudes and Practices Relating to HIV/AIDS

All the respondents said that they had heard of HIV/AIDS. Similarly, very high proportions of the respondents across sites knew of someone that had died of AIDS, just as they had lost a close friend or relative to HIV/AIDS. However, these findings show that although awareness about the existence of HIV/AIDS was high, the knowledge about the modes of transmission was not. Furthermore, there are still misconceptions regarding HIV transmission. For example, 43.1 percent of minibus drivers and 25.0 percent of truck drivers believed that HIV infection could be spread through mosquito bites. Similarly, 16 percent and 11 percent of minibus drivers and truck drivers believed that sharing meals with an HIV positive person could transmit

HIV. This reflects the persistence of misconceptions and myths surrounding the mode of spread of HIV. These misconceptions and beliefs need to be addressed in a comprehensive BCC strategy to remove the misconceptions around HIV transmission, as they further stigmatise those living with HIV/AIDS, which are exemplified by the results of this survey. While truck drivers and uniformed personnel were found to have more accepting attitudes toward people with HIV, the findings also show that more than 20 percent of the minibus drivers were opposed to the idea of allowing an HIV positive teacher or student to continue teaching or studying.

In this survey, the most widely cited methods that people thought infection could be avoided were abstinence, faithfulness and use of condoms, in that order. Our view is that these statements more likely reflect what is accepted by the community, rather than the existing sexual behaviours. Clearly, these men are not abstaining and many are not being faithful to one partner. Similarly the mention of condoms as a preventive device reflects the existing ideals within the HIV/AIDS discourse, whereas in the everyday social interactions condoms might not be consistently used.

6.6 VCT Access and Use

The majority of respondents reported having access to a confidential HIV test in their community. While the proportion of truck drivers who have ever been tested for HIV increased significantly between 2000 and 2003, the proportions of minibus drivers and uniformed personnel who have been tested are still relatively low at approximately 22 percent. Voluntary counselling and testing (VCT) is a crucial entry point into the continuum of HIV/AIDS prevention and care. Efforts to promote VCT services within the COH project requires social marketing of the benefits and perhaps more importantly, creating an enabling environment to reduce stigma towards people with AIDS¹⁵. In order to do this, the project will need to explore VCT strategies that will be suitable for these highly mobile populations.

6.7 Project Indicators

Although long distance truck drivers and the uniformed personnel had been targeted by the COH intervention, two thirds of the respondents had been talked to by a staff member of COH. A very small proportion said they had visited a COH drop-in centre. Peer educators were the main source of information about the COH project, followed by friends. Minibus drivers were the less likely to have talked to a member of staff of COH, mainly because they were not directly targeted by COH interventions. Consequently, very few minibus drivers had visited a drop-in-centre. Expectedly, while peer educators were the major source of information about the COH for truck drivers and uniformed personnel, friends were the main sources of COH information for minibus drivers. The radio was the main source of information for all the respondent categories for HIV/AIDS information in general.

While BSS is not designed to attribute specific changes in behaviour and levels of STIs to specific prevention programs, it can help identify what is working and what is not, and where the gaps are in prevention programming. The 2003 BSS results show

¹⁵ Kalichma SC, Simbayi LC. "HIV testing attitudes, AIDS stigma and voluntary HIV counseling and testing in a black township in Cape Town, South Africa. *Sexually Transm Infect* 2003;79:442-447.

that consistent condom use rates with high-risk partners among both truck drivers and uniformed personnel are significantly higher than the rates among minibus drivers, the group which has not been directly targeted by COH. In addition, the truck drivers and the uniformed personnel have higher proportions of respondents with a comprehensive knowledge of HIV than minibus drivers. Lastly, the truck drivers and uniformed personnel have significantly lower reported rates of STI symptoms than the minibus drivers. These findings start to paint a positive picture, suggesting that the COH project is having some impact. However, the bottom line is that the project is reaching only a small proportion of high-risk men. There is therefore an urgent need to expand outreach programs and innovative methods to improve coverage and facilitate access to the COH project. The role of peer educators as mobilizers within the community needs to be strengthened. In addition, more work place peer educators are needed to reach out to these highly mobile and vulnerable men.

7 CONCLUSION

This survey clearly shows that there are gaps between the knowledge and sexual behaviours necessary to curb the spread of HIV. The findings of this survey show that many of the men are married, but a large proportion of these men also engage in daily alcohol consumption and high-risk sex with commercial and non-regular partners. To compound this issue, consistent condom use with high-risk groups remain low, therefore, levels of risk behaviours to HIV is still high.

Misconceptions concerning HIV transmission and high levels of stigma toward people living with HIV/AIDS still exist among some groups, hence, the need to direct BCC efforts to address both misconceptions and stigma-related issues. Uptake of VCT services is not yet optimal among all high-risk men, therefore expanded efforts within the COH project are needed to promote the importance of HIV testing and knowing the result. With regards to consistent condom use, knowledge of HIV and STI symptoms among truck drivers and uniformed personnel, many men are still not accessing the COH drop-in centre. Therefore, the project must begin to think about expanding its reach to cover a wider range of the target group with both STI and behaviour change interventions services.

8 RECOMMENDATIONS

1. Since the majority of the men who were interviewed were married, behavioural change messages should promote faithfulness in order that they protect their spouses. The messages must emphasise the immense responsibilities the men have to their wives and family and so they should strive to survive the HIV/AIDS epidemic. This entails strengthening “be faithful” messages in addition to condom use. For those men who are not married, behavioural change communication messages should encourage “sticking to one faithful sexual partner” and where necessary advocate for secondary abstinence.
2. High proportion of the respondents knew where to obtain condoms, which were mostly traditional sources such as health facilities and commercial outlets. The particularly low percentage of respondents that cited peer educators should be a source of concern and spur programme managers to intensify their activities. Access to condoms by the men must continue to be improved and peer educators must play a key role as the most convenient suppliers of condoms.
3. There are important barriers that continue to impede the consistent use of condoms among the men at high risk that need to be overcome. It is worthwhile to further investigate some of the factors promoting these barriers and the extent to which they impede consistent use of condoms. This should initially entail an exploratory phase to identify possible costs and obstacles to safer sexual practices. This should then be followed by an empirical examination of the same factors in order to determine the extent to which they hinder the adoption of safer sexual practices.
4. In view of continued existence of some misconceptions about HIV transmission, there is need to develop better ways and strategies for correcting these misconceptions.
5. Although the issues of drug and alcohol use have not been of direct interest to COH, there is currently increasing recognition of the relationship between substance abuse and HIV. In view of the findings from this survey, programme managers must begin to seriously analyse and understand substance use among the high-risk male populations at border posts and other targeted areas.
6. Given the levels of reported STI among the men, the COH project should consider providing STI treatment to the males who are the main clients for the female sex workers at border sites. If not directly targeted, minibuses drivers will frustrate COH efforts. There should be deliberate effort to directly target minibuses drivers and interventions should include other men at high risk such as taxi drivers, clearing agents and money changers at border posts. There is also a need to conduct biologic studies to validate the reported prevalence of STIs among the high-risk men. This will strengthen the argument for or against providing treatment to the male populations at border areas.

- 9 The proportion of the respondents who reported having taken an HIV test was not optimal. HIV testing and receiving the result is a critical entry point to the continuum of HIV prevention and care. It is therefore necessary for the project to address the importance of VCT and rigorously promote the services within the project. A comprehensive care and support system for those found to be living with HIV will need to be established before VCT begins.

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9 APPENDICES

Appendix I: Socio-demographic characteristics of study population by survey site

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Chirundu (%)	Livingstone (%)	Total (%)
Age:					
15-19	1.0	0.0	0.0	0.0	0.4
20-24	10.0	7.0	7.0	10.0	8.4
25-29	25.0	23.0	19.0	24.0	21.8
30-34	25.0	34.0	30.0	25.0	28.1
35-39	19.0	20.0	15.0	12.0	15.2
40-44	11.0	10.0	12.0	16.0	11.3
45-49	6.0	2.0	10.0	8.0	8.3.0
50+	2.0	4.0	7.0	9.0	6.5.0
Total (N)	264	93	558	348	1263
Education:					
Mean # of years	10.3	10.7	10.6	11.1	10.7
None	2.0	1.0	1.0	1.0	1.0
Prim. sch. not completed	8.0	3.0	4.0	5.0	5.1
Prim. sch. completed	20.0	11.0	12.0	9.0	12.8
Jnr. Sec. not completed	31.0	40.0	51.0	28.0	39.7
Snr. Sec. completed	40.0	45.0	32.0	57.0	41.3
Total (N)	264	93	558	348	1263
Religion:					
No religion	1.0	1.0	6.0	0.0	3.2.0
Christian	97.0	95.0	91.0	98.0	94.5
Muslim	2.0	4.0	3.0	1.0	2.3.0
Buddhist/Hindu	0.0	0.0	0.0	0.0	0.0
Total (N)	264	93	558	348	1263
Marital status:					
Ever married: Yes	88.0	89.0	88.0	83.0	86.0
No	12.0	11.0	12.0	17.0	14.0
Married living with spouse	78.0	80.0	78.0	75.0	78.0
Married living with other	4.0	2.0	5.0	4.0	4.1
Married living alone	1.0	2.0	0.0	1.0	0.9
Not married lvg with other	1.0	3.0	2.0	4.0	2.4
Not married, lvg alone	15.0	13.0	13.0	16.0	14.1
Total (N)	264	93	558	348	1263

Appendix II: Country of origin, mobility and alcohol and drug use by study site

Characteristic	Kapiri Mposhi (%)	Nchelenge (%)	Chirundu (%)	Livingstone (%)	Total (%)
Country of origin:					
Zambia	87.0	98.0	37.0	76.0	59.0
Zimbabwe	3.0	0.0	55.0	11.0	32.0
South Africa	1.0	0.0	4.0	8.0	4.0
Malawi	0.0	0.0	2.0	1.0	1.0
Botswana	0.0	0.0	0.0	2.0	0.0
Others	8.0	2.0	1.0	0.0	0.0
Proportion of time Travelling:					
>one month in past year	44.6	23.1	3.8	16.6	83.7
<one month in past year	55.4	79.9	96.2	83.4	16.3
Frequency of alcohol use:					
Every day	12.0	15.0	13.0	17.0	14.1
At least once a week	30.0	46.0	24.0	32.0	29.1
Less than once a week	7.0	9.0	12.0	6.0	9.3
Never	50.0	30.0	51.0	44.0	47.1
Use of drugs					
Type of drugs used:					
Dagga	21.0	21.0	19.0	18.0	19.6
Heroin	0.0	0.0	0.0	0.0	0.0
Cocaine	0.0	0.0	1.0	1.0	0.5
Mandrax	0.0	0.0	0.0	0.0	0.2
Others	0.0	0.0	0.0	0.0	0.2

Appendix III: Sexual behaviour by study site

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Livingstone (%)	Chirundu (%)	Total (%)
Sexual activity: Ever had sex Mean age at first sex	97.0 17.5	100.0 17.3	99.0 17.4	100.0 18.4	99.0 18.4
# Sex partners in last 12 months: Mean Median Range	2.2 2 0-16	3.3 2 0-52	2.3 2 0-30	2.3 2 0-24	2.3 2 0-52
# Regular sex partners 12 months: Mean Range	0.55 1-6	0.77 1-8	0.61 1-8	0.54 1-7	0.58 0-80
# Commercial sex partners: 12 months Mean Range	0.44 1-15	0.67 1-11	0.46 1-10	0.65 1-24	0.56 0-24
# Non-regular sex partners: 12 months Mean Range	0.14 1-5	0.84 1-48	0.07 1-6	0.07	0.13 0-48

Appendix IV: Knowledge, attitudes and condom use with most recent commercial partner by study site

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Livingstone (%)	Chirundu (%)	Total
Condom use during last sexual contact:					
Yes	87.0	75.0	84.0	92.0	87.5
No	13.0	25.0	16.0	8.0	12.4
Condom use suggested by:					
Myself	79.0	73.0	79.0	85.0	81.9
My partner	6.0	7.0	4.0	4.0	4.4
Joint decision	15.0	20.0	17.0	11.0	13.7
Reason for non-use of condoms:					
Not available	20.0	20.0	40.0	56.0	37.9
Too expensive	0.0	0.0	0.0	0.0	0.0
Partner objected	0.0	40.0	20.0	22.0	17.2
Don't like condoms	40.0	20.0	20.0	11.0	20.7
Used other contraceptive	0.0	0.0	0.0	0.0	0.0
Did not think it was necessary	40.0	20.0	10.0	22	20.7
Didn't think of it	0.0	0.0	20.0	0.0	13.8
Total					
Extent of condom use over 12 months:					
Every time	65.0	65.0	86.0	61.0	74.1
Almost every time	3.0	0.0	4.0	11.0	5.2
Sometimes	19.0	20.0	8.0	24.0	15.1
Never	11.0	15.0	3.0	3.0	5.2

Appendix V: Knowledge, attitudes and condom use with most recent non-regular partner by study site

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Livingstone (%)	Chirundu (%)	Total (%)
Condom use during last sexual contact:					
Yes	68.0	73.0	69.0	91.0	72.9
No	32.0	27.0	31.0	9.0	27.1
Who suggested condom					
Myself	86.0	82.0	78.0	80.0	82.4
My partner	5.0	0.0	11.0	0.0	3.9
Joint decision	9.0	18.0	11.0	20.0	13.7
Reason for non-use of condoms:					
Not available	25.0	25.0	60.0	0.0	33.3
Too expensive	0.0	0.0	0.0	0.0	0.0
Partner objected	0.0	0.0	0.0	0.0	0.0
Don't like condoms	25.0	25.0	25.0	0.0	23.5
Used other contraceptive	0.0	0.0	0.0	0.0	0.0
Did not think it was necessary	13.0	75.0	25.0	0.0	35.3
Didn't think of it	25.0	25.0	75.0	0.0	35.3
Extent of condom use over 12 months:					
Every time	57.0	53.0	46.0	64.0	55.1
Almost every time	13.0	7.0	8.0	18.0	11.6
Sometimes	7.0	20.0	31.0	18.0	15.9
Never	23.0	20.0	15.0	0.0	17.4

Appendix VI: Knowledge, availability and accessibility of condoms by study site

Characteristic	Kapiri Mposhi (%)	Nchelenge (%)	Chirundu (%)	Livingstone (%)	Total (%)
Ever heard of condom?					
Yes	100.0	98.0	97.0	100.0	98.7
No	0.0	2.0	3.0	0.0	1.3
Ever used a condom?					
Yes	56.0	65.0	69.0	65.0	64.2
No	44.0	35.0	31.0	34.0	35.6
Know where to obtain a condom?					
Yes	91.0	92.0	91.0	92.0	91.2
No	8.0	8.0	9.0	8.0	7.7
Places where to obtain a condom:					
Shop	71.0	76.0	68.0	67.0	68.7
Pharmacy	29.0	22.0	31.0	39.0	32.2
Market	25.0	24.0	34.0	36.0	32.1
Clinic	36.0	43.0	39.0	45.0	40.5
Hospital	34.0	38.0	36.0	31.0	34.6
Family planning centre	3.0	13.0	8.0	8.0	7.4
Bar/guesthouse/hostel	58.0	58.0	47.0	47.0	50.2
Peer educator	6.0	16.0	19.0	8.0	13.0
Friend	10.0	10.0	9.0	7.0	8.9
Time taken to obtain condoms:					
< 1 hour	89.0	90.3	83.5	87.6	86.3
<1 hours	0.0	0.0	0.9	1.7	0.9
Don't know	11.0	9.7	15.6	10.6	12.8

**Appendix VII: Knowledge, attitudes and practices relating to HIV/AIDS
by study site**

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Livingstone (%)	Chirundu (%)	Total (%)
Ever heard of HIV:					
Yes	100.0	100.0	100.0	100.0	100.0
No	0.0	0.0	0.0	0.0	0.0
Knows someone with HIV:					
Yes	81.0	74.0	84.0	84.0	82.5
No	18.0	25.0	14.0	15.0	15.9
DK	1.0	1.0	2.0	1.0	1.4
Close relative/friend with HIV:					
Close relative	32.0	39.0	36.0	35.0	34.9
Close friend	29.0	25.0	30.0	23.0	26.2
Both	23.0	24.0	23.0	34.0	28.0
Thinks a person get HIV infection from:					
Mosquito bites	15.0	10.0	12.0	15.0	13.7
Sharing meals	6.0	7.0	6.0	5.0	5.8
Infected needles	93.0	96.0	96.0	97.0	95.6
Mother to child during Pregnancy	74.0	73.0	87.0	83.0	81.7
Breastfeeding	64.0	63.0	72.0	72.0	69.5
Thinks HIV infection can be prevented by:					
Condom use	81.0	72.0	84.0	73.0	78.0
Faithfulness	84.0	88.0	12.0	21.0	88.0
Abstinence	91.0	94.0	4.0	6.0	92.0
Can health-looking person be infected?					
Yes	98.0	97.0	97.0	98.0	97.0
No	2.0	3.0	3.0	2.0	3.0

Appendix VIII: HIV voluntary counselling and testing by study site

Characteristics	Kapiri Mposhi (%)	Nchelenge (%)	Livingstone (%)	Chirundu (%)	Total (%)
Access to confidential HIV testing?					
Yes	74.0	76.0	77.0	82.0	78.0
No	23.0	23.0	23.0	18.0	21.0
Ever been tested?					
Yes	19.0	20.0	25.0	34.0	27.0
No	81.0	80.0	75.0	66.0	73.0
Voluntarily been tested?					
Yes	60.0	82.0	78.0	87.0	80.0
No	40.0	18.0	22.0	13.0	20.0
Did you get the result?					
Yes	94.0	89.0	91.0	93.0	92.0
No	6.0	11.0	9.0	7.0	7.0

Appendix IX: Knowledge, attitudes and practices relating to STIs by study site

Characteristics	Kapiri Mposhi (%)		Nchelenge (%)		Livingstone (%)		Chirundu (%)		Total (%)	
Ever heard of STD										
Yes	93.0		98.0		95.0		91.0		93.0	
No	7.0		2.0		5.0		9.0		7.0	
Total										
Knowledge of STD in women										
Abdominal pain	35.0		44.0		27.0		28.0		30.0	
Genital discharge	44.0		63.0		54.0		65.0		56.0	
Foul smelling discharge	24.0		40.0		29.0		37.0		31.0	
Burning pain on urination	25.0		31.0		24.0		34.0		28.0	
Genital ulcers/sores	53.0		71.0		57.0		57.0		57.0	
Swellings in groin area	36.0		45.0		34.0		39.0		37.0	
Genital itching	16.0		27.0		20.0		18.0		19.0	
Knowledge of STD in men										
Genital discharge	65.0		82.0		76.0		70.0		71.0	
Burning pain on urination	41.0		43.0		53.0		41.0		45.0	
Genital ulcers/sores	71.0		76.0		78.0		71.0		73.0	
Swellings in groin area	54.0		60.0		52.0		48.0		51.0	
# of STD symptoms known in women/men	W	M	W	M	W	M	W	M	W	M
0	33.3	12.9	23.7	4.3	39.4	16.7	28.2	7.2	33.9	12.4
1	15.5	16.7	12.9	14.0	10.0	12.2	8.6	9.2	11.0	12.4
2	16.7	34.8	14.0	25.8	15.2	29.9	17.2	33.3	16.0	31.6
3	20.8	22.0	20.4	33.3	15.8	29.9	17.5	32.2	17.7	28.8
4	3.0	13.6	10.8	22.6	11.1	12.0	10.9	18.1	9.3	14.8

Appendix X: Stigmatisation of HIV positive individuals by sites

Characteristic	Kapiri Mposhi		Nchelenge		Chirundu		Livingstone	
	n	%	n	%	n	%	n	%
Should an HIV positive student who is not sick continue in school?								
Yes	214	83.6	81	88	528	96.4	330	96.5
No	39	15.2	9	9.8	19	3.5	10	2.9
Don't know	3	1.2	2	2.2	-	-	1	0.3
Total	256	20.7	92	7.4	548	44.3	342	27.6
Would you be willing to take care of an HIV positive relative in your household?								
Yes	214	82.6	83	90.2	540	98.2	311	90.1
No	45	17.4	9	9.8	10	1.8	34	9.9
Total	259	20.8	92	7.2	550	44.1	345	27.7
Would you buy food from an HIV positive shopkeeper?								
Yes	140	54.7	69	75.0	386	70.4	238	69.4
No	108	42.2	22	23.9	156	28.5	102	29.7
Don't know	7	2.7	1	1.1	5	0.9	2	0.6
Total	256	20.7	92	7.4	548	44.2	343	27.7
Would you want the status of an HIV positive relative remain a secret?								
Yes	68	26.6	17	18.5	119	21.7	76	22.2
No	181	70.7	73	79.3	405	73.8	255	74.6
Don't know	7	2.7	2	2.2	25	4.6	11	3.2
Total	256	20.7	92	7.4	549	44.3	342	27.6
Should an HIV positive teacher who is not sick be allowed to continue teaching?								
Yes	205	79.2	85	92.4	516	93.8	326	94.8
No	47	18.1	7	7.6	31	5.6	15	4.4
Don't know	7	2.7	-	-	3	0.5	3	0.9
Total	259	20.8	92	7.4	550	44.2	344	27.6
Is it possible for someone in your community to get a confidential HIV test?								
Yes	189	73.5	70	76.1	450	82.0	265	76.8
No	60	23.3	21	22.8	97	17.7	80	23.2
Don't know	8	3.1	1	1.1	2	0.4	-	-

The ADULT questionnaire includes the following sections:

Section 0 – Questionnaire identification data (6 codes)	
Section 1 – Background characteristics	17 questions
Section 2 – Marriage	4 questions
Section 3 – Sexual history: numbers and types of partners	3 questions
Section 4 – Sexual history: regular partners	12 questions
Section 5 – Sexual history: non-regular partners	6 questions
Section 6 – Sexual history: commercial partners	13 questions
Section 7 – Male and female condoms	13 questions
Section 8 – STDs	9 questions
Section 9 – Knowledge, opinions, and attitudes towards HIV/AIDS	18 questions
Section 10 – Exposure to prevention	10 questions
TOTAL NUMBER OF QUESTIONS	105 Questions

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Section 1: Background characteristics

No.	Questions and filters	Coding categories	Skip to
Q100	TIME INTERVIEW STARTED		
Q101	In what month and year were you born?	MONTH [][] DON'T KNOW MONTH 88 NO RESPONSE 99 YEAR [][] DON'T KNOW YEAR 88 NO RESPONSE 99	
Q102	How old were you at your last birthday? (COMPARE AND CORRECT Q102 IF NEEDED)	AGE IN COMPLETED YEARS [][] DON'T KNOW 88 NO RESPONSE 99 ESTIMATE BEST ANSWER	
Q103	Have you ever attended school?	YES 1 NO 2 NO RESPONSE 99	→Q106 →Q106
Q104	What is the highest level of school you completed: primary, secondary or higher? CIRCLE ONE	PRIMARY 1 SECONDARY 2 HIGHER 3 NO RESPONSE 99	
Q105	How many total years of education have you completed up to now?	# YEARS COMPLETED [][] NO RESPONSE 99	
Q106	What is your religion? CIRCLE ONE	Christian 1 Muslim 2 Buddhist 3 Hindu 4 Other (specify)----- 6 NO RELIGION 0	→Q108 →Q108 →Q108 →Q108 →Q108
Q107	What is your Christian denomination or church?	NO RESPONSE 99 Catholic 1 United Church of Zambia 2 Seventh Day Adventist 3 Reformed Church in Zambia 4 Pentecostal 5 Anglican 6 Jehovah Witness 7 Others (specify)_____8	→Q108
Q108	How long have you stayed here at this site/border? (days/months/years)	days _____ months _____ Years _____	
Q109	FILTER CHECK Q110 TO Q115 FOR TRUCK DRIVERS AND MINI/BUS/LIGHT TRUCK DRIVERS ONLY.... []	NON DRIVER (UNIFORMED PERSONNEL) []	→Q117
Q110	How many times have you come through this border/site in the past 3 months, that is since the beginning of last February 2003(ESTIMATION FOR MINIBUS/BUS/LIGHT TRUCK DRIVERS	NUMBER OF TIMES SINCE LAST [][] DON'T KNOW 88 NO RESPONSE 99	
Q111	How long did you stay last time you were at this border/site?	DURATION IN DAYS [][] DON'T KNOW 88 NO RESPONSE 99	
Q112	How long do you usually stay at this border/site	DURATION IN DAYS [][] DON'T KNOW 88 NO RESPONSE 99	
Q113	In which country are you or your company based? (if trucker base of truck company)	South Africa 1 Somalia 2	

No.	Questions and filters	Coding categories	Skip to
	CIRCLE ONE	Malawi 3 Zimbabwe 4 Tanzania 5 Kenya 6 Mozambique 7 Congo DR 8 Botswana 10 Zambia 11 OTHER----- 12 NO RESPONSE 9	
Q114	Where do you reside when you are not travelling? RESPONDENT TO PICK ONLY ONE	South Africa 1 Somalia 2 Malawi 3 Zimbabwe 4 Tanzania 5 Kenya 6 Mozambique 7 Congo DR 8 Botswana 10 Zambia 11 OTHER----- 12 NO RESPONSE 99	
Q115	What is your country of origin?	South Africa 1 Somalia 2 Malawi 3 Zimbabwe 4 Tanzania 5 Kenya 6 Mozambique 7 Congo DR 8 Botswana 10 Zambia 11 OTHER----- 12 NO RESPONSE 99	

Q116	What other occupation apart from driving do you do?	NONE 1 OTHER (specify) _____2																																					
Q117	During the last 4 weeks how often have you had drinks containing alcohol? Would you say READ OUT CIRCLE ONE	Every day 1 At least once a week 2 Less than once a week 3 Never 4 DON'T KNOW 88 NO RESPONSE 99																																					
Q118	Some people have tried a range of different types of drugs. Which of the following, if any, have you tried? Any other? READ LIST	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Daga (Ichamba)</td> <td>1</td> <td>2</td> <td>88</td> <td>99</td> </tr> <tr> <td>Heroin</td> <td>1</td> <td>2</td> <td>88</td> <td>99</td> </tr> <tr> <td>Cocaine</td> <td>1</td> <td>2</td> <td>88</td> <td>99</td> </tr> <tr> <td>Mandrax</td> <td>1</td> <td>2</td> <td>88</td> <td>99</td> </tr> <tr> <td>Other-----</td> <td>1</td> <td>2</td> <td>88</td> <td>99</td> </tr> </tbody> </table>		YES	NO	DK	NR	Daga (Ichamba)	1	2	88	99	Heroin	1	2	88	99	Cocaine	1	2	88	99	Mandrax	1	2	88	99	Other-----	1	2	88	99	IF NO DK NR → Q201						
	YES	NO	DK	NR																																			
Daga (Ichamba)	1	2	88	99																																			
Heroin	1	2	88	99																																			
Cocaine	1	2	88	99																																			
Mandrax	1	2	88	99																																			
Other-----	1	2	88	99																																			
Q119	IF EVER TRIED ANY OF THE DRUGS During the last 4 weeks, would you say you took the above drug 1-everyday 2-at least once a week 3-less than once a week or 4- never	<table border="0"> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>99</th> </tr> </thead> <tbody> <tr> <td>Daga (Ichamba)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>99</td> </tr> <tr> <td>Heroin</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>99</td> </tr> <tr> <td>Cocaine</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>99</td> </tr> <tr> <td>Mandrax</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>99</td> </tr> <tr> <td>Other -----</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>99</td> </tr> </tbody> </table>		1	2	3	4	99	Daga (Ichamba)	1	2	3	4	99	Heroin	1	2	3	4	99	Cocaine	1	2	3	4	99	Mandrax	1	2	3	4	99	Other -----	1	2	3	4	99	
	1	2	3	4	99																																		
Daga (Ichamba)	1	2	3	4	99																																		
Heroin	1	2	3	4	99																																		
Cocaine	1	2	3	4	99																																		
Mandrax	1	2	3	4	99																																		
Other -----	1	2	3	4	99																																		

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Section 2 Marriage and live-in partnerships

No.	Questions and filters	Coding categories	Skip to
Q201	Have you <i>ever</i> been married?	YES 1 NO 2 NO RESPONSE 99	→ Q203 → Q203
Q202	How old were you when you first married?	Age in years [][] DON'T KNOW 88 NO RESPONSE 99	
Q203	What is your current marital relationship? (PROBE IF RESPONSE NOT CLEAR)	currently married, living with spouse currently married, living with other sexual partner currently married, not living with spouse or any other sexual partner not married, living with sexual partner not married, not living with sexual partner NO RESPONSE	1 2 → Q301 3 4 → Q301 5 99
Q204	IF MARRIED: Do you have more than one wife?	YES 1 NO 2 NO RESPONSE 99	

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Section 3 Sexual history: numbers and types of partners

Now I'd like to ask you some questions that *may be difficult and personal*. But as I said at the beginning, your answers to these questions will be treated with strict confidentiality and will not be linked to you in any way. The questions that will follow will all be about your sexual activities and partners...

No.	Questions and filters	Coding categories	Skip to
Q301	Have you ever had sexual intercourse? [For the purposes of this survey, "sexual intercourse" is defined as vaginal or anal sex]	YES 1 NO 2 NO RESPONSE 99	→Q801
Q302	At what age did you first have sexual intercourse?	AGE IN YEARS [__] DON'T KNOW 88 NO RESPONSE 99	
Q303	Have you had sexual intercourse in the last 12 months? That is since last April last year	YES 1 NO 2 NO RESPONSE 99	→Q801
Q304	Think about <i>sexual</i> partners you've had in the last 12 months. How many are: a) your wife (s) b) living in partner c) girl friend not living with you (regular) d) someone paid for sex (commercial) e) non-regular, non-commercial (casual)	WIVES [__] NO RESPONSE 99 LIVING IN PARTNER [__] DON'T KNOW 88 NO RESPONSE GIRL FRIEND [__] NO RESPONSE 99 PAID FOR SEX [__] DON'T KNOW 88 NO RESPONSE 99 CASUAL [__] DON'T KNOW 88 NO RESPONSE 99	

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Section 4 Sexual history: regular partners

No.	Questions and Filters	Coding categories	Skip to
Q401	FILTER: CHECK Q304a HAD SEX WITH WIFE OR LIVING IN PARTNER DURING <u>PAST 12 MONTHS</u> [___] ↓	DID NOT HAVE SEX WITH WIFE [___]→ OR LIVING IN PARTNER DURING <u>PAST 12 MONTHS</u>	Q501
Q402	If married How many times did you have sexual intercourse with your wife over the last 30 days? <i>That is since the beginning of April this year</i>	Number of times [__ __] NO WIFE 77 DON'T KNOW 88 NO RESPONSE 99	→Q407
Q403	The last time you had sex with wife; did you and your wife use a condom?	YES 1 NO 2 DON'T REMEMBER 88 NO RESPONSE 99	→Q405 →Q406 →Q406
Q404	Who suggested condom use that time? CIRCLE ONE	Myself 1 Wife 2 Joint decision 3 NO RESPONSE 99	→Q406 →Q406 →Q406 →Q406
Q405	Why didn't you and your wife use a condom that time? Any other reasons? DO NOT READ CIRCLE ALL ANSWERS MENTIONED	Not available N Y Too expensive 1 2 Partner objected 1 2 Don't like them 1 2 Used other contraceptive 1 2 Didn't think it was necessary 1 2 Didn't think of it 1 2 itching 1 2 Other_____ 1 2 DON'T KNOW 1 2 NO RESPONSE 1 2	
Q406	In general, how often did you and your wife (s) use a condom during the past 12 months? <i>That is since last April 2002----</i> Would you say every time, almost every time, sometimes or never?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	
Q407	Do you have a live in partner, meaning a sexual partner living with you but not married to you? CHECK Q304b	YES 1 NO 2 NO RESPONSE 99	→Q501
Q408	If have live in partner How many times did you have sexual intercourse with your live in partner over the last 30 days? <i>That is since the beginning of April 2003</i>	Number of times [__ __] NO LIVE IN PARTNER 77 DON'T KNOW 88 NO RESPONSE 99	
Q409	The last time you had sex with a living in partner did you and your partner use a condom?	YES 1 NO 2 DON'T REMEMBER 8 NO RESPONSE 99	→Q411 →Q412 →Q412
Q410	Who suggested condom use that time?	Myself 1 My partner 2	→Q412 →Q412

No.	Questions and Filters	Coding categories	Skip to
	CIRCLE ONE	Joint decision 3 NO RESPONSE 99	→Q412 →Q412
Q411	Why didn't you and your partner use a condom that time? Any other reasons? DO NOT READ LIST CIRCLE ALL ANSWERS MENTIONED	N Y Not available 1 2 Too expensive 1 2 Partner objected 1 2 Don't like them 1 2 Used other contraceptive 1 2 Didn't think it was necessary 1 2 Didn't think of it 1 2 itching 2 2 Other _____ 2 2 DON'T KNOW 88 NO RESPONSE 99	
Q412	In general, how often did you and your live in partner(s) use a condom during the past 12 months? <i>That is since last April last year</i> Would you say every time, almost every time, sometimes or never?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	

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Section 5 Sexual history: GIRLFRIEND/ REGULAR partners

No.	Questions and Filters	Coding categories	Skip to
Q501	FILTER: CHECK Q304c HAD SEXUAL INTERCOURSE WITH A GIRL FRIEND (REGULAR/NOT LIVING TOGETHER) IN <u>LAST 12 MONTHS...</u> [__] ↓	HAS NOT <i>HAD</i> SEXUAL INTERCOURSE WITH A GIRL FRIEND (REGULAR/NOT LIVING TOGETHER) IN <u>LAST 12 MONTHS....</u> [__]→	→Q601
Q502	Think about your most recent girl friend (<i>someone you are not living together</i>). How many times did you have sexual intercourse with this person over the last 30 days? <i>That is since the beginning o April this year</i>	Number of times [__][__] DON'T KNOW 88 NO RESPONSE 99	
Q503	The last time you had sex with a girl friend(<i>someone you are not living together</i>), did you and your partner use a condom?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q505 →Q506 →Q506
Q504	Who suggested condom use that time? CIRCLE ONE	Myself 1 My partner 2 Joint decision 3 NO RESPONSE 99	→Q506 →Q506 →Q506 →Q506
Q505	Why didn't you and your partner use a condom that time? CIRCLE ALL ANSWERS MENTIONED	Y N Not available 1 2 Too expensive 1 2 Partner objected 1 2 Don't like them 1 2 Used other contraceptive 1 2 Didn't think it was necessary 1 2 Didn't think of it 1 2 Could reduce the pleasure 1 2 Other_____ 1 2 DON'T KNOW 88 NO RESPONSE 99	
Q506	In general, how often did you and your girl friend (<i>someone you are not living together</i>) use a condom during the past 12 months? <i>That is since Beginning of April last year-</i> Would you say every time, almost every time, sometimes, or never?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	

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Section 6 Sexual history: COMMERCIAL/PAY sexual partners

No.	Questions and Filters	Coding categories	6.7.1.1.1.1
Q601	FILTER: CHECK Q304d HAD SEX WITH COMMERCIAL SEX WORKERS OR SOMEONE YOU EXCHANGED MONEY OR GIFT FOR SEX) DURING <u>LAST 12 MONTHS</u> [] ↓	DID NOT HAVE SEX WITH COMMERCIAL OR SOMEONE YOU EXCHANGED MONEY OR GIFT FOR SEX DURING <u>LAST 12 MONTHS</u> []→	→Q608
Q602	Think about your most recent commercial sexual partner. How many times did you have sexual intercourse with this person over the last 30 days? <i>That is since the beginning of April this year-</i>	Number of times [] [] DON'T KNOW 88 NO RESPONSE 99	
Q603	The last time you had sex with a commercial partner; did you and your partner use a condom?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q605 →Q606 →Q606
Q604	Who suggested condom use that time? CIRCLE ONE	Myself 1 My partner 2 Joint decision 3 DON'T KNOW 88 NO RESPONSE 99	→Q606 →Q606 →Q606 →Q606
Q605	Why didn't you and your partner use a condom that time? ADD OTHER LOCALLY APPROPRIATE CATEGORIES AFTER PRE-TESTING CIRCLE ALL ANSWERS MENTIONED	Y N Not available 1 2 Too expensive 1 2 Partner objected 1 2 Don't like them 1 2 Used other contraceptive 1 2 Didn't think it was necessary 1 2 Didn't think of it 1 2 Other _____ 1 2 DON'T KNOW 88 NO RESPONSE 99	
Q606	In general, how often did you and your commercial/paying partner(s) use a condom during the past 12 months? <i>That is since last April 2002</i> Would you say every time, almost every time, sometimes, or never?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	
Q607	Did you have sex with any other kind of partner in last 12 months (non-commercial/pay partner either spouse/live in partner)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 4	→Q701 →Q701
Q608	FILTER: CHECK Q304e IF HAD SEX WITH NON-REGULAR/NON-COMMERCIAL PARTNER DURING <u>PAST 12 MONTHS</u> [] ↓	DID NOT HAVE SEX WITH NON-REGULAR /NON-COMMERCIAL PARTNER DURING <u>PAST 12 MONTHS</u> []→	→Q701
Q609	Think about your most recent other kind of sexual partner (non-regular and non-commercial) . How many times did you have sexual intercourse with this person over the last 30 days? <i>That is since the beginning of April 2003</i>	Number of times [] [] DON'T KNOW 88 NO RESPONSE 99	

Q610	The last time you had sex with other kind of sexual partner ; did you and your partner use a condom?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99	→Q612 →Q613 →Q613
Q611	Who suggested condom use that time? CIRCLE ONE	Myself My partner Joint decision DON'T KNOW NO RESPONSE	1 2 3 88 99	→Q613 →Q613 →Q613 →Q613 →Q613
Q612	Why didn't you and your partner use a condom that time? ADD OTHER LOCALLY APPROPRIATE CATEGORIES AFTER PRE-TESTING CIRCLE ALL ANSWERS MENTIONED	Not available Too expensive Partner objected Don't like them Used other contraceptive Didn't think it was necessary Didn't think of it Other _____ DON'T KNOW NO RESPONSE	Y N 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 88 99	
Q613	In general, how often did you and other kind of sexual partner (s) use a condom during the past 12 months? <i>That is since last April last year-</i> Would you say every time, almost every time, sometimes, or never?	EVERY TIME ALMOST EVERY TIME SOMETIMES NEVER DON'T KNOW NO RESPONSE	1 2 3 4 88 99	

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Section 7 Condoms

No.	Questions and Filters	Coding categories	Skip to
Q701	FILTER: SEE Q403, Q409, Q503, Q603, Q610 CONDOMS NOT USED..... [] ↓	CONDOMS USED []→	→Q704
Q702	Have you and a sexual partner <i>ever</i> used a male condom? (Show picture or sample of one.) (The respondent may not have used a condom with partners in sections 4-6, but may have used a condom at some other time in the past.)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q703	Have you ever heard of a male condom? (Show picture or sample of one) (I mean a rubber object that a man puts on his penis before sex.)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q704	Have you ever bought a condom?	YES 1 NO 2 NO RESPONSE 99	→Q707
Q705	Last time you bought condom, which brand was it?	Maximum 1 Lovers plus 2 Care 3 Protector 4 Success 5 Others (specify)----- 6	
Q706	Last time you bought condoms, how much did you spend?	ZK _____ DON'T KNOW 88	
Q707	How many condoms do you have on you now or do you have accessible for use? Would you please show them to me?	Number of condoms [][] NONE 88 NO RESPONSE 99	
Q708	Do you know of any place or person from which you can obtain male condoms?	YES 1 NO 2 NO RESPONSE 99	
Q709	Which places or persons do you know where you can obtain male condoms? Any others? PROBE AND RECORD ALL ANSWERS	Shop Yes No Pharmacy 1 2 Market 1 2 Clinic 1 2 Hospital 1 2 Family planning centre 1 2 Bar/guest house/hotel 1 2 Peer educator 1 2 Friend 1 2 OTHER _____ 1 2 NO RESPONSE 99	
Q710	How long would it take you to obtain a condom (male or female) close to your house or to where you work?	Under 15 Mins 1 15 to 30 Mins 2 31 to 60 Mins 3 More than 60 Mins 4 DON'T KNOW 88 NO RESPONSE 99	
Q711	FOR SEXUALLY ACTIVE RESPONDENTS ONLY CHECK Q302 During the past 12 months, did you ever have sexual intercourse <i>without</i> using a condom with any sexual partner other than your wife?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q713

Q712	Why didn't you and your partner use a condom that time? ADD OTHER LOCALLY APPROPRIATE CATEGORIES AFTER PRE-TESTING. CIRCLE ALL ANSWERS MENTIONED.	Not available Too expensive Partner objected Don't like them Used other contraceptive Didn't think it was necessary Didn't think of it Wanted pregnancy Didn't think partner had a disease Other _____ DON'T KNOW NO RESPONSE	Y N 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 88 99	
Q713	Have you ever heard of a female condom? (Show picture or sample of one.)	YES NO DON'T KNOW NO RESPONSE	1 2 8 9	→Q801 →Q801
Q714	Have you <u>ever</u> used a female condom? (Show picture or sample of one.)	YES NO DON'T KNOW NO RESPONSE	1 2 8 9	
Q715	Do you know of any place or person from which you can obtain female condoms?	YES NO NO RESPONSE	1 2 9	
Q716	Where would you feel most comfortable buying female condoms? Where do you prefer to buy condoms? (Read list)	Shop Pharmacy Market Clinic Hospital Family planning centre Bar/guest house/hotel Peer educator Friend Other _____ NO RESPONSE	Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 99	

2003 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR ADULTS

Section 8 STDs

No.	Questions and filters	Coding categories	Skip to
Q801	Have you ever heard of diseases that can be passed through sexual intercourse?	YES 1 NO 2 NO RESPONSE 99	→Q804
Q802	Can you describe any symptoms of STDs in men? Any others? DO <u>NOT</u> READ OUT THE SYMPTOMS CIRCLE 1 FOR ALL MENTIONED. CIRCLE 2 FOR ALL <i>NOT</i> MENTIONED. MORE THAN ONE ANSWER IS POSSIBLE.	Yes No GENITAL DISCHARGE 1 2 BURNING PAIN ON URINATION 1 2 GENITAL ULCERS/SORES 1 2 SWELLINGS IN GROIN AREA 1 2 OTHER _____ 1 2 NO RESPONSE 1 2	
Q803	Can you describe any symptoms of STDs in women? Any others? DO <u>NOT</u> READ OUT THE SYMPTOMS CIRCLE 1 FOR ALL MENTIONED. CIRCLE 2 FOR ALL <i>NOT</i> MENTIONED. MORE THAN ONE ANSWER IS POSSIBLE.	Yes No ABDOMINAL PAIN 1 2 GENITAL DISCHARGE 1 2 FOUL SMELLING DISCHARGE 1 2 BURNING PAIN ON URINATION 1 2 GENITAL ULCERS/SORES 1 2 SWELLINGS IN GROIN AREA 1 2 ITCHING 1 2 OTHER _____ 1 2 NO RESPONSE 99	
Q804	Have you had leakage (genital discharge) during the past 12 months? <i>That is since April last year</i>	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q805	How many times or separate episodes of genital discharge have you had in past 12 months?	ONCE 1 TWICE 2 MORE THAN THREE 3 NEVER 4	
Q806	Have you had a genital ulcer/sore during the past 12 months?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q807	How many times or separate episodes of genital sore/ulcers on private parts have you had in past 12 months? FILTER CHECK Q804 AND Q806 HAD DISCHARGE OR SORE IN THE LAST 12 MONTHS <input type="checkbox"/>	ONCE 1 TWICE 2 MORE THAN THREE 3 NEVER 4 NO DISCHARGE OR ULCER <input type="checkbox"/> → IN LAST 12 MONTHS	→Q901

Q808	<p>The last time you had a genital ulcer / sore or discharge: did you do any of the following?</p> <p>READ OUT: MORE THAN ONE ANSWER IS POSSIBLE.</p> <p>a. Seek advice/medicine from a government clinic or hospital?</p> <p>b. Seek advice/medicine from a workplace clinic or hospital?</p> <p>c. Seek advice /medicine from a church or charity- run clinic or hospital?</p> <p>d. Seek medicine from a private clinic or hospital?</p> <p>e. Seek advice/medicine from a chemist?</p> <p>f. Seek advice/ medicine from a traditional healer?</p> <p>g. Bought capsules on the street?</p> <p>h. Took medicine you had at home?</p> <p>i. Seek treatment from CBI/blue house?</p> <p>j. Stop having sex during the time when you had the symptoms?</p> <p>k. Always use a condom when having sex during the time you had symptoms?</p> <p>l. Tell your sexual partner about the discharge/STD?</p>	<table border="1"> <thead> <tr> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> </tbody> </table>	YES	NO	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
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Q809	<p>If yes to any of above (a-i) how long or how many days did it take between beginning of symptoms and seeking care?</p>	<table border="1"> <tbody> <tr> <td>NUMBER OF DAYS</td> <td>□□□</td> </tr> <tr> <td>DON'T KNOW</td> <td>88</td> </tr> <tr> <td>NO RESPONSE</td> <td>99</td> </tr> </tbody> </table>	NUMBER OF DAYS	□□□	DON'T KNOW	88	NO RESPONSE	99																							
NUMBER OF DAYS	□□□																														
DON'T KNOW	88																														
NO RESPONSE	99																														

Q810	<p>Last time you had STD which was first source of treatment?</p>	<p>.Government hospital/clinic 1 .Work place clinic/hospital 2 .Sought treatment from private clinic 3 Sought medicine from traditional healer 4 Sought treatment from CBI/blue house.5 .Bought medicine from pharmacy/chemisty.6 Bought capsules from market .7 Others (specify)-----8</p>	
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Section 9 Knowledge, opinions, and attitudes

No.	Questions and filters	Coding categories	Skip to
Q901	Have you ever heard of HIV or the disease called AIDS?	YES 1 NO 2 NO RESPONSE 99	→Q1001
Q902	Do you know anyone who is infected with HIV or who has died of AIDS?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q904
Q903	Do you have a close relative or close friend who is infected with HIV or who has died of AIDS?	YES, A CLOSE RELATIVE 1 YES, A CLOSE FRIEND 2 NO 3 NO RESPONSE 99	
Q904	Can people protect themselves from the HIV virus by using a condom correctly every time they have sex?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q905	Can a person get the HIV from Mosquito bites?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q906	Can people protect themselves from the HIV virus by having one faithful, non infected sex partner?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q907	Can people protect themselves from the HIV virus by abstaining (not having) from sexual intercourse?	YES 1 NO 2 DON'T KNOW 8 NO RESPONSE 9	
Q908	Can a person get the HIV virus by sharing a meal with someone who is infected?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q909	Can a person get the HIV by getting injections with a needle that was already used by someone else?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q910	Do you think that a healthy-looking person can be infected with HIV the virus that causes AIDS?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q911	Can a pregnant woman infected with HIV or AIDS transmit the virus to her unborn child?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q912	Can a pregnant woman infected with HIV or AIDS pass the virus to her child at time of delivery (child birth)?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q913	Can a pregnant woman infected with HIV or AIDS pass the virus to her child through breastfeeding?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

Q914	What can a pregnant woman do to decrease the chance of passing HIV to her unborn child? DO NOT READ LIST CIRCLE ALL THAT ARE MENTIONED.	Take medication (Antiretroviral) OTHER _____ DON'T KNOW NO RESPONSE	Yes 1 1 1 88 99	No 2 2 2 88 99	
Q915	Do you know of any hospital program that is offering mother to child transmission of HIV prevention services?	YES NO DON'T KNOW NO RESPONSE	1 2 8 99		
Q916	Where are mother to child transmission prevention services offered in this site?	_____	Don't know 88		
Q917	If a student has HIV but is not sick, should he or she be allowed to continue attending school?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99		
Q918	If a female relative of yours become ill with HIV, the virus that causes AIDS would you be willing to care for her in your household?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99		
Q919	If a teacher has HIV but is not sick, should he or she be allowed to continue teaching in school?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99		
Q920	If you knew a shopkeeper or food seller had the HIV virus, would you buy food from them?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99		
Q921	If a member of your family become ill with HIV, the virus that causes AIDS, would you want it to remain secret?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99		
Q922	Is it possible in your community for someone to get a confidential test to find out if they are infected with HIV? By confidential I mean that no one will know the result if you don't want them to know it.?	YES NO NO RESPONSE	1 2 9		
Q923	<i>Restate confidentiality statement</i> I don't want to know the result, but have you ever had an HIV test?	YES NO NO RESPONSE	1 2 9		If 2 skip to Q926
Q924	Did you voluntarily undergo the HIV test, or were you required to have the test?	Voluntary Required NO RESPONSE	1 2 99		
Q925	Please do not tell me the result, but did you find out the result of your test?	YES NO NO RESPONSE	1 2 9		
Q926	Would you be interested in having an HIV test?	YES NO NO RESPONSE	1 2 9		If 1 skip to Q1001
Q927	Why would you not be interested in an HIV test?	SCARED DON'T WANT TO KNOW FEAR TO BE ISOLATED THERE IS NO CURE FOR HIV LACK OF CONFIDENTIALITY OTHER SPECIFY-----	1 2 3 4 5 5		

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Section 10 Exposure to intervention

No.	Questions and filters	Coding categories	Skip to
Q1001	Do you know of any service sites that offer STI services?	YES 1 NO 2 NO RESPONSE 99	→Q1004 →Q1004
Q1002	What are the names of the places you know that offer STI services? (Probe with CBI/WVI/corridor of Hope project)	_____	IF NOT CBI GO TO 1004
Q1003	Have you ever talked to a staff member of CBI/WVI/Corridor of Hope project?	YES 1 NO 2 NO RESPONSE 99	
Q1004	Have you ever visited the drop-in centre/blue house for any reason?	YES 1 NO 2 NO RESPONSE 99	→Q1007
Q1005	Who introduced you to CBI/WVI/Corridor of Hope project?	PEER EDUCATOR (PE) 1 FRIEND WHO IS NOT PE 2 HEALTH CARE PROVIDER 3 OTHERS-----4	
Q1006	Last time you visited CBI/WVI/Corridor of Hope project where you given any information, or educational material?	YES 1 NO 2 NO RESPONSE 99	
Q1007	Which is your main source of information on STIs and HIV	Radio 1 Television 2 Friends 3 Health centre 4 CBI 5 Other specify _____6	
Q1008	Do you feel you have adequate information regarding STIs and HIV?	YES 1 NO 2 NO RESPONSE 99	
Q1009	At work do you have programs on HIV?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1010	If you are found to have HIV would the company allow you to continue working?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1100	TIME INTERVIEW COMPLETED		

That is the end of our questionnaire. Thank you very much for taking time to answer. We appreciate your help.