ROUND 3

BEHAVIOURAL SURVEILLANCE SURVEY

ZAMBIA, 2006

Female SEX Workers in Border and Transportation Routes

WITH TREND ANALYSIS 2000-2006

Family Health International

Impact implementing AIDS Prevention and Care Project

In July 2011, FHI became FHI 360.

FHI 360 is a nonprofit human development organization dedicated to improving lives in lasting ways by advancing integrated, locally driven solutions. Our staff includes experts in health, education, nutrition, environment, economic development, civil society, gender, youth, research and technology – creating a unique mix of capabilities to address today's interrelated development challenges. FHI 360 serves more than 60 countries, all 50 U.S. states and all U.S. territories.

Visit us at www.fhi360.org.

Behavioural Surveillance Survey

Zambia, 2006

Female SEX Workers in Border and Transportation Routes

With Trend Analysis 2000-2006

REPORT AUTHORED BY:

Dr. Phillimon Ndubani	Consultant
Dr. Augustus Kapungwe	Consultant
Prof. Seter Siziya	Consultant
Mr. Stephen Chanda	COH/FHI
Mr. Joseph Kamanga	COH/FHI

SURVEY EXECUTED BY:
COH/FHI with Consultants

ADMINISTRATORS:
Ministry of Health, Zambia
National HIV/AIDS Council, Zambia

TECHNICAL ASSISTANCE:
Family Health International (FHI)/IMPACT

FUNDED BY:
United States Agency for International Development (USAID), through Family Health International (FHI) Implementing HIV/AIDS Prevention and Care (IMPACT) Project, STIs drugs were provided with support of the Japan International Cooperation Agency (JICA). The views expressed in this report do not necessarily reflect those of USAID, FHI or JICA.

Printed June 2006

EXECUTIVE SUMMARY

Background

It was estimated in the Zambia Demographic Health Survey (ZDHS 2001-2002) that 16 percent of Zambian adults between the ages of 15-49 were living with the HIV. Women (18%) were more likely to be infected with HIV than men (13%) and tended to contract the virus at younger ages. Female sex workers (FSWs) and their clients play an important role in the HIV/AIDS epidemic in Zambia. As part of an overall prevention strategy (or program) in Zambia, the United States Agency for International Development (USAID) and Japan International Cooperation Agency (JICA), through Family Health International (FHI), began to fund the Corridors of Hope Project (COH) in 1999.

The project goal is to reduce sexual transmission of HIV among female sex workers and their clients at border towns and other communities. The project activities include behaviour change communication interventions through outreach and peer education, social marketing of condoms and improved sexually transmitted infections (STIs) services. The project is implemented in ten sites, out of which seven are border towns.

To monitor and assess the progress of the interventions provided to the target groups in the project sites, repeated rounds of cross-sectional behavioural and STIs prevalence surveys (Behavioural and Biologic Surveillance Surveys -BBSS) have been conducted. The first BBSS was done in 2000 (Round One) and the second one was done in 2003 (Round Two). This report is on the third round of the behavioural surveillance survey (BSS) carried out in January 2006 in three of the COH project sites - Livingstone, Chirundu and Kapiri Mposhi, two of these sites Livingstone and Chirundu have participated in all the three rounds.

Objectives

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

- To measure the prevalence of reported STIs among sex workers in Livingstone, Chirundu and Kapiri Mposhi.

- To add to and strengthen the monitoring system that will track behavioural trend data for high risk and vulnerable target groups, which influence the epidemic in Zambia.

- To provide information on behavioural trends of female sex workers in some of the same catchment areas where voluntary counselling and testing (VCT) for HIV is being offered.

- To provide information to help guide HIV prevention programme planning.

- To obtain data in a standardized format, which will enable comparison with other behavioural surveillance studies carried out in Zambia and other countries.

Methodology

The 2006 survey was conducted among female sex workers (FSWs) in Livingstone, Chirundu and Kapiri Mposhi. Trained female research assistants administered a semi-structured behavioural questionnaire to consenting FSWs recruited at night from their places of work. During recruitment at night, COH outreach workers and peer educators identified the FSWs, approached them and informed them about the study. If the FSW was interested, the outreach worker and/or peer educator introduced them to the interviewers. The interviewers invited potential participants to a private setting, assessed their eligibility, obtained an oral consent and administered the questionnaire. Following every interview, field editors reviewed all the completed questionnaires to ensure accuracy in recorded responses. The completed behavioural questionnaires were edited in the field and transported to INESOR for data processing at the end of the survey. The questionnaires were coded and entered into the database using Epi Info Version 6. Double entry of the questionnaires was done by two different data entry clerks. The files were converted into the Statistical Package for the Social Sciences (SPSS) for analysis.

Results

Socio-demographic Factors

A total of 1,114 FSWs were interviewed. The median age of these women was 24 years. The majority of respondents (34%) were in the age range 20-24 years. Four percent did not attend school, 45% had primary level while 51% had secondary level of education.

Five percent of the respondents reported being currently married. Sex work was the sole source of income for 64.5% of the respondents. Of those who did alternative work to sex, they were mainly marketers and waitresses.

Eight was the mean number of years the respondents had stayed at the site where they were interviewed. Twenty-three percent had stayed for 20 years and above in the sites where they were interviewed. Approximately, 38% of the respondents reported drinking alcohol at least once per week in the last four weeks and 32% said they drank alcohol daily. About 14.3% reported having tried *dagga* (marijuana).

Sexual Behaviour

The median age of first sexual intercourse was 15 years, nearly 29% had first sex before age of 15. The median age at which money was first received in exchange for sex was 18 years. Nine hundred fifty (86.4%) percent had at least one transactional sex in past seven days prior to the survey. The number of paying sexual partners in the seven days preceding the survey ranged from one (26.8%) to more than five (13.9%), while the median number of sexual partners on last day worked was one (1). About 39% of the respondents had sex with non-paying partners in the last seven days. The number of non-paying partners ranged from one (57.4%) to four and above (9.8%) partners in the last seven days.

Knowledge of male condom was high (99.5%) with 97% percent having ever used a male condom and 81.5% used a male condom at last sexual contact with a paying client. A quarter (38.6%) said they used a condom every time they had sex with a paying client over the last 30 days. In addition, about 61.3% of FSWs used a condom with a non-paying client at last sexual act and 25.3% consistently used it over the past twelve months. About 53% of the respondents had male condoms on hand during the time of the interview whilst 91.2% had heard about a female condom and 31.2% said they ever used it. Among those who used a condom with a paying partner at last sex 72.5% said it is them who suggested that they use it. Fifty-six percent attributed the non-use of condoms to mainly objection by the partner.

A correlation of condom use and knowledge was done. Among those who used a condom at last sex and consistently with a paying partner in past 30 days, many knew that a condom prevents HIV. Condom use was higher at both last sex and consistently among those who said they knew it prevents HIV: 86.2% vs. 83.9% respectively at last sex and 89.1% vs. 83.9% for consistently respectively.

STI Knowledge, Symptoms and Treatment

General knowledge of STIs was high, with the proportions of respondents who could name at least two or more symptoms in both men and women being 70.5% and 87.6% respectively. The respondents were asked whether they experienced any STIs symptoms in the past twelve months prior to survey and 24.3% of them reported experiencing vaginal discharge ("leakage") while 26% had genital ulcer disease. Of those who had an STI, 66.5% reported seeking treatment at the COH Drop-in Centre seconded by those who sought treatment at government clinics (34.3%). Asked if they continued to have sex during the time they had these symptoms, 70% said they did not stop having sex during the time they had an STI symptom. In addition, 21.8 percent who said they had sex while with an STI symptom always used a condom and 30 percent told their sexual partners that they had an STI.

Family Planning

Over three quarters (75%) said they were currently using a family planning method and slightly below half (40.8%) of the women were on oral contraceptives whilst 62.1 percent used a male condom as a family planning method.

HIV/AIDS Knowledge, Opinions and Attitudes

Almost all (99.4%) of the respondents had heard about HIV/AIDS and 71.2% knew someone who was infected with or had died of AIDS. Over half (58.5%) of the respondents had a close relative or friend infected or who died of AIDS. More than one third (35.5%) believed that mosquito bites could transmit the HIV virus and 14.3% believed that it was possible to contract HIV by sharing a meal with someone infected with the virus. With regards to PMTCT, 75.1% knew about transmission of HIV during pregnancy, 86.4% knew about transmission during delivery and 91.6% knew about transmission during breastfeeding. Also, 67.9% knew that taking ARV lowers the chances of passing the HIV from mother to the baby, and 4.1% knew that mothers can lower chances of passing on HIV to a baby by stopping breast feeding.

Attitudes towards People with HIV/AIDS
On questions related to stigma, about 82% thought an HIV-positive student should continue with school, and 84.6% thought an HIV-positive teacher should be allowed to continue teaching. Over a half (67.9%) said they would buy food from a shopkeeper known to be HIV positive although 74.4% said if a member of family had HIV infection, they would want it to remain a secret.

VCT and Perception of Risk to HIV
Ninety-one percent reported having access to VCT services whilst 55.1% had ever been tested for HIV but only 89.5% of the ever tested said they were tested voluntarily and 85.7% of the ever tested found out their HIV test results. Among those who had never been tested, 81.9% said they would be interested to have an HIV test. Fear or being scared of the results was a common reason (62.8%) for not testing for HIV. About 34% perceived their chances of getting HIV to be high or great while 16.9% felt there was no chance of getting AIDS virus.

Exposure to the Corridors of Hope Project
About 90.7% of the respondents had heard about COH Drop-in Centre or Blue House. Of these, 62.7% were registered members and had received STIs and BCC services. For most of the registered members, it was the peer educator (66.2%) who introduced them to the COH Drop-in Centre or Blue House. For those who visited the COH Drop-in Centre, 95.5% said they were very satisfied with the services and almost all of them (98.9%) said they would go back to seek care at COH again.

Among non-members, the majority (86.9%) indicated willingness to register and join the project Overall knowledge level was higher among FSWs registered members than non-registered members with COH--37.6% vs. 31.5%. In comparing condom use among those FSWs registered with COH project with those not registered, there was a difference as 84.3% of the registered as against 76.7% of those not registered used a condom the last time they had sex with a paying partner. While 44.1% and 34.9% of the registered and the non–registered, respectively, said they used a condom consistently with paying partners in the last 30 days.

Changes and Trends over Three Rounds of BSS (2000- 2006) for Livingstone and Chirundu.

There was a decline in the proportion of the sex workers aged 20 years and below from 31.7 percent in 2000 to 19.1 percent in 2006. In both Chirundu and Livingstone, the proportions of younger sex workers in the under 20 year age range declined between Round 1 and Round 3 with the proportions of the 30 years and above age groups increasing ($p<0.001$).

The proportion of the sex workers who reported having attained secondary or higher level of education increased from 10.1 percent in 2000 to 53 percent in 2006. Those who attained secondary or higher levels of education remarkably increased ($p=0.001$) for Livingstone (11.6% - 34.8%) and Chirundu (7.1% - 37.3%).

The proportion of the respondents who reported taking alcohol every day in the past four weeks increased from 14.9 percent in 2000 to 34.2 percent in 2006. The proportions increased statistically significant from 16.2 percent during Round 1 to

41.5% in Round 3 ($p<0.001$) for Livingstone whilst in Chirundu the increase was from 12.7% in 2000 to 21.7% in 2006 ($p=0.021$).

Male Condom Use

Knowledge about the male condoms was high among the sex workers. The proportion of the respondents that had heard about the male condom was quite high both during 2000 (98.5%) and 2006 (99.2%). Condom use at last sexual intercourse with paying partners increased from 49.6 percent in 2000 to 78.6 percent in 2006. The respondents who reported having condoms at hand increased from 23.5 percent in 2000 to 48.1 percent in 2006.The sex workers who reported ever having used a male condom increased significantly between Round 1 and Round 3 from 88.9% to 96.1% ($p<0.001$) in Livingstone whilst in Chirundu it increased from 90.1% to 95.9% between the two rounds ($p=0.02$). The proportion of FSWs who had a condom on hand at the time of the survey increased from 20.8% to 40.5% and 28.2% to 61.2% for Livingstone and Chirundu respectively ($p<0.001$). There was a significant increase in condom use at last sex with a paying partner between Rounds 1 and 3 in both towns. In Livingstone condom use went from 48.8% - 75.1% ($p<0.001$) and in Chirundu it went from 51.0 % to 84.6% ($p<0.010$). In terms of consistent condom use with a paying partner in the last 30 days, there was a slight increase for Livingstone (17.8% – 23.3%; $p<0.027$) whereas Chirundu had a larger increase (17.5% - 54.6%; $p<0.00$). Conversely, a statistical increase in condom use at last sex with a non-paying partner between Rounds 1 and 3 was observed in Livingstone (32.7% - 53.5%; $p<0.001$), whilst no significant trend was observed in Chirundu ($p=0.8$).

Knowledge about STIs

Knowledge about STIs was universal among the sex workers. The proportion of those who knew any STIs symptoms increased from 84.7 percent in 2000 to 94.8 percent in 2006. Knowledge about STIs was universal among the sex workers and the number of symptoms in women known by the respondents had increased as evidenced by the decrease in those who did not know any symptoms between Round 1 (15.4%) and Round 3 (5.8%) in Livingstone ($p<0.001$). In Chirundu, knowledge about STIs was widespread and with regards to the number of symptoms in women known by the sex workers. A similar trend as the one obtaining in Livingstone is evident where the proportion of those who did not know any symptoms decreased significantly from 15.2% to 4.4% between 2000 and 2006.

Voluntary Counselling and Testing

The proportion of the respondents who reported ever taking an HIV test increased from 13.9 percent in 2000 to 49.8 percent in 2006. Of these, 52.7 percent took the test voluntarily in 2000 and 89.5 percent did so in 2006. The sex workers who reported having been tested increased from 12.5% to 49.9% ($p<0.001$) between Rounds 1 and 2 in Livingstone. Fifty percent of those tested in 2000 and 90.9% in 2006 said they tested voluntarily ($p<0.00$). No significant trend was observed in the proportion of the respondents who tested that received their HIV results ($p=0.752$). In Chirundu, there was a significant increase in those ever tested from 16.2% in Round 1 to 49.6% in Round 3 ($p<0.001$). Similarly, there was an increase in those who took the test voluntarily from 56.5% to 87.2% ($p<0.001$) between Rounds 1 and 3. The trend was similar with regards to collecting the results as 56.5% as compared to 86.5% ($p<0.001$) collected their results between Rounds 1 and 3.

Knowledge about HIV and its Prevention

Complete knowledge of HIV did not change significantly between 2000 (62.2%) and 2006 (69.8%) whereas comprehensive knowledge declined from 43.1 percent in 2000 to 37.5 percent in 2006. There was no significant change between Rounds 1 and 3 (63.3% - 61.9%; p=0.773) in Livingstone whilst in Chirundu there was a statistically significant increase from 60.1% to 83.1% (p<0.001). Among the FSWs, there was a non-statistically significant decline in comprehensive knowledge (ABC with no misconceptions) between Rounds 1 and 3 in Livingstone and Chirundu. In Livingstone, it went from 46.9% to 40.6% and in Chirundu from 39.0% to 33.1% between 2000 and 2006. Stigma related issues such as willingness to share a meal showed a non-significant increase in trend between Rounds 1 and 3 (10.1% to 13.6%; p<0.641) in Livingstone and (13.5% - 19.9%; p<0.425) in Chirundu.

Conclusions

There still remain gaps between knowledge and sexual practice. Despite adequate knowledge that consistent condom use can prevent the acquisition of STIs including HIV, the use still has not reached the desired high level of use required to have a full impact on prevention. The delay in seeking medical care by those infected, the low levels of partner notification, inability to refrain from sex whilst having symptoms and let alone low condom use whilst infected all pose a great challenge in the fight against the spread of HIV and other STIs. These data, as in the previous BBSS, continue to send a message about how difficult it is to achieve optimal behavioural change especially in vulnerable populations as that of female sex workers. Contextual issues that negatively affect condom and sexual negotiation among women need to be taken into serious consideration. The limited use of female condoms among sex workers represents an underutilized women-controlled method to HIV prevention.

Recommendations

1. There are important physical and personal barriers that continue to impede meaningful behavioural change among the female sex workers. Some of these factors include the inability by sex workers to exert the use of condoms due to both economic and physical vulnerability. Notwithstanding these factors, intensified behavioural change interventions are required.

2. While it is important that sex workers have the knowledge and the skills to negotiate condom use, this is not enough. Short-term prevention efforts should target both sides of the commercial sex equation, as well as its context. Long-term prevention efforts should work on changing the social landscape that deprives women of choices. Furthermore, all prevention efforts need a multi-sectoral approach with the recognition that only targeting the risk behaviours and not vulnerability may not work.

3. A high proportion of the respondents knew where to obtain condoms, which were mostly traditional sources such as health facilities, commercial outlets and the COH peer educators. However, there appears to be complacence in consistent condom use as evidenced by small proportions of those with condoms at hand. It should be emphasised that the peer educators and

outreach workers must continue to play a key role as the most convenient behavioural change agents as well as suppliers of condoms while at the same time coordinating other partners involved in condom distribution and sales and encourage sex workers to equip themselves with condoms all the time.

4. In view of continued existence of some misconceptions and stigma against people with HIV/AIDS, there is need to develop better ways and strategies for correcting the misconceptions and negative attitudes. One of the ways to correct these misconceptions is for the programs to broaden its coverage and reach out to more women at high risk with accurate information. Providing accurate information through innovative and appropriate message delivery strategies will also assist to lessen stigma against people with HIV/AIDS.

5. There is an increasing recognition of the relationship between substance abuse and risky sexual behaviours that predispose people to HIV. Program managers should begin to seriously analyse and understand substance use among the high-risk female populations at border posts with a view of integrating HIV/AIDS messages with primary prevention of substance abuse.

6. STIs control in the project needs to be further strengthened. An expansion of peer education and outreach work will sensitise the sex workers and other members of the community on the dangers of STIs and the benefits of early treatment-seeking behaviour. To achieve this, the women who are at high risk need to be targeted, above and beyond the established sex workers, because it will not be possible to control the prevalence of STIs if the majority of the vulnerable female population are not reached.

7. Based on the reported high prevalence of STIs among sex workers, the management guidelines, including frequency of re-visit, need to be reviewed and revised in line with current STIs infection prevalence and drug sensitivity patterns. Effective STIs services that are of high quality with continued availability of drugs, condoms, partner treatment services, and provider referral are needed.

8. There was an encouraging proportion of respondents who had taken an HIV test. 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.

ACKNOWLEDGEMENTS

Data collection from female sex workers (FSWs) is not an easy task. The authors of this report are extremely grateful to the team of thirteen female research assistants who administered the questionnaire. This team was comprised of Agness Banda, Chinyama Hachilala, Frida Malupande, Patricia Sundaram, Ireen Tembo, Chisha Silavwe, Mwila Kanema, Lea Banda, Monalisa Kahuli, Beatrice Phiri, Tifelani Jere, Tunika Zulu and Mwangala Manyando who tirelessly put in all they could to ensure that data collection was successfully carried out.

The authors are also grateful to all the sex workers who participated in the survey and are sincerely thanked for agreeing to respond to questions, which sometimes not only took their precious time but also involved sensitive personal matters. Further thanks are accorded to the District Health Management Teams in the three survey sites for supporting the survey. The Corridors of Hope (COH) project, World Vision Zambia and Society for Family Health (SFH) site staff provided valuable assistance to the survey especially through the involvement of outreach workers namely Austin Simfukwe, Fedelis Phiri, Joyce Kaluba, Shankly Moono and Violet Phiri in Kapiri Mposhi; Emmanuel Phiri, Trevor Zimba, Phenet Munga, Muyaba Nketani and Masumba Kakoma in Livingstone; and Zikalo Phiri, Angela Kafwilo, Maggret Mulenga, Charity Lombe, Donald Kapembwa and Brian Hangoma in Ndola who facilitated the contact between the sex workers and the interviewers.

We are grateful to the FHI staff, Leslie Long, COH Chief of Party for editing the document. Drs. Waimer Tun and Walter Obiero are greatly thanked for the technical assistant rendered.

The tireless efforts of all the data entry staff are acknowledged and these are Chisha Mwambazi and Victor Kabwe and Maureen Sakala.

To all who in one way or the other participated, facilitated or indeed had a keen interest in this survey, it is hoped that each will find some information in this report that could be used to inform their respective constituents or line of business.

LIST OF ABBREVIATIONS

AIDS	Acquired Immuno-Deficiency Syndrome
ARV	Anti Retroviral
BCC	Behavioural Change Communication
BSS	Behavioural Surveillance Survey
BBSS	Biologic and Behavioural Surveillance Survey
CBI	Cross Border Initiative
COH	Corridors of Hope
CSO	Central Statistical Office
CSW	Commercial Sex Worker
DHMT	District Health Management Team
DR	Democratic Republic (Congo DR)
FHI	Family Health International
FSW	Female Sex Worker
GRZ	Government of the Republic of Zambia
HIV	Human Immuno-Deficiency Virus
IEC	Information, Education and Communication
IMPACT	Implementing AIDS Prevention and Care Project
INESOR	Institute of Economic and Social Research
JICA	Japan International Co-operation Agency
LDTD	Long Distance Truck Drivers
MOH	Ministry of Health
MTCT	Mother to Child Transmission
NAC	National HIV/AIDS/STD/TB Council
NGO	Non-Governmental Organisation
PEPFAR	President's Emergency Plan for AIDS Relief
SFH	Society for Family Health
SP	Southern Province
SPSS	Statistical Package for the Social Sciences
STIs	Sexually Transmitted Infection
SW	Sex Worker
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation
WVZ	World Vision Zambia
ZDHS	Zambia Demographic and Health Survey
ZSBS	Zambia Sexual Behaviour Survey
ZHECT	Zambia Health Education Communication Trust

LIST OF TABLES

Table 1: Basic Demographics by Site
Table 2: Basic Demographics by Site (continue)
Table 3: General risk behaviours (Alcohol and Drug use) by Site
Table 4: Sexual Risk Behaviours by Site
Table 5: Number of Paying Sex Partners by Site
Table 6: Number and Frequency of Non-paying Partners by Site
Table 7: Knowledge and Availability of Male Condoms by Site
Table 8: Knowledge and Availability of Female Condoms by Site
Table 9: Condom use with Paying Partners by Site
Table 10: Condom use with Non-paying Partners by Site
Table 11: Association between Condom Knowledge and Use at the Individual Level
Table 12: Knowledge of STIs by Site
Table 13: STIs Symptoms and Related Behaviour by Site
Table 14: Family Planning Practices and Loss of Pregnancy by Site
Table 15: Knowledge, Opinions and Attitudes related to HIV by Site
Table 16: Knowledge, Opinions and Attitudes related to Mother-to-Child Transmission
Table 17: Attitudes related to People with HIV by Site
Table 18: Attitudes related to VCT by Site
Table 19: COH Project Exposure Indicators by Site
Table 20: Comparison of Intervention vs. Non-intervention Variables by Site

Changes and Trend Analysis: 2000-2006 Chirundu and Livingstone

Figure 1: Changes in Age Distribution
Figure 2: Changes in Educational Level
Figure 3: Increasing Trend in Daily Alcohol Use
Figure 4: Proportion of FSWs who had sex work last 12 Months outside Area of Interview
Figure 5: Proportion of FSWs Ever Used and those found with Condom on Hand at Time of Interview
Figure 6: Condom Use at Last Sex and Consistent Use with Paying Partners
Figure 7: Condom Use at Last Sex and Consistent Use with Non-paying Sex Partners
Figure 8: Knowledge Level on STIs

Tables in Appendix I

Table 21: Changes in Social Demographic Characteristics by Site
Table 22: Trend in Alcohol Use, Sex Work and Number of Partners by Site
Table 23: Trends in Male Condom Use by Site
Table 24: Trends in Knowledge and Experiences with an STI
Table 25: Trends in Voluntary Counselling and Testing
Table 26: Trends in Knowledge about HIV and its Prevention

TABLE OF CONTENTS

EXECUTIVE SUMMARY

	Background	i
	Methodology	ii
	Results	ii
	Conclusions	v
	Recommendations	v
1	**INTRODUCTION**	
1.1	HIV/AIDS Situation in Zambia	1
1.2	Program Description	2
2	**OBJECTIVES**	3
3	**SURVEY DESIGN AND METHODOLOGY**	**3**
3.1	Sample Sizes, Sampling and Survey Procedures	4
3.2	Informed Consent, Confidentiality and Ethical Review	4
3.3	Data Processing and Analysis	6
4	**RESULTS**	
4.1	Socio-Demographics and General Risk Behaviors	6
4.2	Sexual Behavior	9
4.3	Condom Knowledge, Availability and Use	12
4.4	STIs – Knowledge, Symptoms and Behaviors	16
4.5	Family Planning	19
4.6	Knowledge and Attitudes towards HIV/AIDS	20
5	**CORRIDORS OF HOPE INTERVENTION**	**24**
6	**TRENDS ANALYSIS BY SITE**	**26**
6.1	Socio-demographic Characteristics	26
6.2	Alcohol Use, History of Sex Work and Number of Paying and Non-paying Clients	28
6.3	Male Condom Use	29
6.4	Knowledge and Experience of STIs	30
6.5	Voluntary Counselling and Testing (VCT)	31
6.6	Knowledge about HIV and its Prevention	32
7	**DISCUSSION**	
7.1	Socio-Demographic Characteristics of the Study Population	33
7.2	Alcohol and Drug Abuse	34
7.3	Sexual Behaviour	34
7.4	Knowledge and Attitudes towards Condoms	34
7.5	Sexually Transmitted Infections	35
7.6	Knowledge and Attitudes towards HIV/AIDS	35
7.7	Voluntary Testing and Counseling (VCT)	36
7.8	Project Indicators	36

8 CONCLUSION **36**

9 RECOMMENDATIONS **37**

APPENDIX I: Trends **40**

APPENDIX II: QUESTIONNARE

1 INTRODUCTION

1.1 HIV/AIDS in Zambia

Zambia is one of the Sub-Saharan countries hardest hit by the HIV epidemic. The Zambian population is estimated to be 10 million and one in every six people (16%) is living with HIV (ZDHS, 2001-2002). The provincial HIV prevalence rates range from 8.0 percent in Northern Province to 20.7 percent in Lusaka Province. In the provinces there are variations within districts. The 10 districts with HIV prevalence rates higher than 20 percent are Livingstone (30.9%), Ndola (26.6%), Kitwe (26.6%), Chingola (26.6%), Chipata (26.3%), Kabwe (23.8%), Mazabuka (22.5%), Lusaka (22.4%), Kafue (22.4%) and 22.2% in Mongu (NAC, 2004). The prevalence of HIV is more than twice as high in urban areas as in rural areas--23 percent vs. 11 percent, respectively.

The HIV/AIDS prevalence rates in Zambia are highest 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 Chililabombwe (Kasumbalesa border with Congo DR), and from Kapiri Mposhi (inland) to Nakonde (border with Tanzania). The major trucking borders are Chirundu and Livingstone (both border with Zimbabwe), Kazungula (border with Botswana), Chipata (border with Malawi), Nakonde and Kasumbalesa. Kapiri Mposhi, at the junction of the two railway routes, is a major internal trucking town. While on the copper belt, Ndola is a centre for truck depots and collection points of oil coming through the Tanzania Zambia pipeline and coal from Bwana Mkumbwa mine.

A number of factors in Sub-Saharan Africa and in particular Zambia contribute to the vulnerability of the population to HIV infection. Amongst these are a decline in the standards of living due to growing deprivation, poverty, and unemployment and gender inequality. Under these circumstances, factors increasing the likelihood of a rapid spread of HIV include lack of knowledge about HIV and STIs and their modes of transmission, liberalization of sexual behaviour, cultural factors, high rates of sexually transmitted infections, transactional sex, substance abuse and coercive sex. In addition to the age specific focus of the disease, statistics indicate that women have consistently been found to have higher (in some cases as much as six times as high) incidence rates of HIV infections compared to men. The last Zambia Demographic and Health Survey (ZDHS 2000-2002) revealed that 58 percent of the young people living with HIV in the 15 – 24 year age group were female. Overall 42 percent of all infections in Zambia are among youth age 15 – 24.

Data from the recent Zambia Sexual Behaviour Survey (ZSBS, 2006) on UNAIDS' VCT and stigma indicators show that among the entire population only 8.5 percent (7.2% males, 9.6% females) were counselled and tested for HIV, only 31.1 percent (33.9% males, 28.5% females) had accepting attitudes of those with HIV. Among men living in urban centers, 50 percent used a condom at last sexual intercourse with non-regular partners while only 44.9 percent among women reported using a condom at last sexual intercourse with non-regular partners. According to ZSBS 2006, among respondents who reported having sex in the last year prior to survey, 24.5 percent (28.8% in urban, 22.5% in rural) had sex with high risk population and only 37.5

percent (50.0% in urban, 29.9% in rural) used condom at last sex with high risk sex or with a sex worker.

1.2 Program Description

The link between mobility and HIV vulnerability has been recognized in facilitating HIV spread and highways and borders are environments of elevated HIV vulnerability. Female sex workers are a sub-group identified as at particular higher risk of HIV transmission because of frequency of sex partner changes. Long distance truck drivers have also been identified because in the nature of their work they spend much of their time and nights away from their homes and families and therefore become vulnerable to sexual relationships which put them at risk to HIV and other sexually transmitted infections.

Resulting from recognition that some sub-populations have an elevated risk of HIV and that the prevalence of HIV/AIDS is high along major highways due to the concentration of high-risk groups in border areas, the United States Agency for International Development (USAID) and the Japan International Cooperation Agency (JICA) through Family Health International (FHI) have funded the implementation of the Corridors of Hope (COH) project (initially called the Cross-Border Initiative Project-CBI) since 1999. World Vision Zambia (WVZ) and Society for Family Health (SFH) began implementing activities in border sites and the major trucking towns in 1999. In 2004, WVZ and SFH were joined by Zambia Health Education and Communication Trust (ZHECT), the latter was given a mandate to target and implement workplace interventions.

At the end of 2005, the COH project was working in six of the nine provinces of Zambia covering 10 district sites namely Chirundu, Livingstone and Kazungula in the Southern Province, Kasumbalesa and Ndola on the Copperbelt, Kapiri Mposhi in the Central Province, Nakonde in the Northern Province, Chipata and Katete in the Eastern Province and Lusaka in Lusaka Province. Three of these sites (Chipata, Lusaka, and Ndola) were established in April 2004 with funds from the President's Emergency Plan for AIDS Relief (PEPFAR).

The main targets for the project are FSWs and their clients specifically long distance truck drivers passing through these sites. The project aims to change behavior through peer education and promotion of condoms and voluntary counselling and testing (VCT) services as well as providing STI care.

To assess the outcomes of the COH project in Zambia, and to monitor behavioural trends over time, Behavioural Surveillance Surveys (BBSS) are carried out periodically. The BSS measure reported high-risk behaviors that can help explain biological trends including HIV prevalence over time. Prevalence of HIV and other STI risk behaviours capture short-term outcomes of the prevention interventions and supplement the HIV surveillance data that are collected by the government of Zambia.

In addition, BSS is justified in its own right by the need to obtain data on behavioural trends among populations that are not often targeted by population-based surveys such as the ZDHS and ZSBS. The BSS as a repeated cross-sectional survey of

behaviour in a representative population of female sex workers is an essential component of second generation HIV surveillance systems.

The importance of BSS carried out by COH is further justified by fact that it focuses on the most vulnerable and high-risk segments of the population (FSWs and LDTDs), whose behaviours can have a significant impact on the course of the epidemic.

Three rounds of BSS have so far been carried out. The first was in 2000, the second was in 2003 and the third was in January 2006. The third behavioural surveillance survey was carried out by FHI Zambia with the support of three consultants and technical assistance from FHI/IMPACT among long distance truck drivers. Data were gathered in Livingstone, Chirundu and Kapiri Mposhi in January 2006. Two of these sites, Livingstone and Chirundu have participated in the two previous studies while Kapiri Mposhi participated in the last BSS carried out in 2003.

2 OBJECTIVES

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

- To measure the prevalence of reported STIs among sex workers in Livingstone, Chirundu and Kapiri Mposhi.

- To add to and strengthen the monitoring system that will track behavioural trend data for high risk and vulnerable target groups, which influence the epidemic in Zambia.

- To provide information on behavioural trends of FSWs in some of the same catchment areas where voluntary counselling and testing (VCT) for HIV is being offered.

- To provide information to help guide HIV prevention programme planning.

- To obtain data in a standardized format that will enable the comparison over time and with other behavioural surveillance studies carried out in Zambia and other countries.

3 SURVEY DESIGN AND METHODOLOGY

The survey was a cross-sectional design that conformed to a standardised sampling process and collected information on standardised indicators. Because a representative sample of FSWs was obtained from defined geographic locations, the process can be repeated to monitor trends over time and compare indicators among sites. The sample sizes in this study were calculated to detect a change of 10 percentage points or more in key risk or knowledge indicators among FSWs.

3.1 Sample Sizes, Sampling and Survey Procedures

3.1.2 Sample Size Calculation

This cross-sectional survey of FSWs was done in three of the COH projects sites of Livingstone, Chirundu and Kapiri Mposhi. The sample size was calculated to detect an increase of 10 percentage points in reported consistent condom use with paying sex (commercial) partners based on the 2003 BBSS. The results of the BSS (2003) showed that the prevalence of consistent condom use in the last 30 days with paying clients was about 20 percent. The desired change to be detected ($P_2 - P_1$) was 10 percentage points, therefore P_2 was set at 30 percent. The design effect (D) was estimated at 1.2 which is the recommended design effect for conducting "Time-location" sampling in hidden populations. The level of precision was set at 0.05 and the power at 0.80. These parameters yielded a desired sample size of 388 female sex workers. Adjusting for a non-response rate of 10 percent and rounding up, 432 sex workers was calculated for each site, a total of 1,294 for three sites. However, a total of 1,151 were available and of these 1,114 (96.8%) female sex workers were actually recruited and interviewed for this study. In one site (Chirundu), the number of the FSW population estimated during a mapping exercise was less than sample size calculated.

3.1.3 Data Collection Instruments

Family Health International's standard BSS questionnaires (attached in appendix), which have been adopted by WHO and UNAIDS, were modified to suit the Zambian context and used to collect the behavioural information from participants. The questionnaire, consisting primarily of close-ended questions, contained nine sections and a total of 128 questions. The questionnaire addressed areas such as socio-demographic information, marital status, work history, sexual history, knowledge and use of male and female condoms, knowledge of and history of STIs, knowledge surrounding HIV, and service utilisation and exposure to COH interventions. The questionnaire was the same as the one used during the BSS 2003 with minor additions of a few new questions to address exposure and access to COH interventions, and stigma and discrimination against people living with HIV/AIDS. The questionnaire was translated into one local language, *Chinyanja,* as an alternative for people who did not understand or prefer not to be interviewed in English. The questionnaire was pre-tested prior to the start of the survey.

3.1.4 Sampling Procedure

The survey used a time-location approach[1] to recruit the majority of the FSWs who participated in the survey. Prior to the survey, mapping of the site was conducted to identify locations where FSWs meet clients. FSWs were recruited during the times they were at work, usually at night. Using the time-location approach, interviewers attempted to recruit all the FSWs found in the popular nightspots such as bars, restaurants and nightclubs between 20:00 hrs and 23:00 hrs. This "take-all" recruitment approach was identical with the one used during the BSS 2000 and BSS 2003. In addition, some few FSWs referred by peers were also recruited during the day at the COH drop in centre. These went through the same process as those recruited in the night.

[1] Behavioral Surveillance Surveys, Guidelines for Repeated Behavioral Surveys in Population at Risk of HIV, published by FHI 2000.

During recruitment at night, COH outreach workers and peer educators identified the FSWs, approached them and informed them about the study. If the FSWs were interested, the outreach worker/peer educator introduced them to the interviewers. The interviewers invited potential participants to a private setting, assessed their eligibility, obtained consent and administered the questionnaire. The eligibility criteria included being a female sex worker--either self-identified or identified through an outreach worker/peer educator. The team did not explicitly recruit FSWs under the age of 18 years, but they were not necessarily excluded because of age.

3.1.5 The Interview Team

Twelve female research assistants, recruited and trained in Lusaka, conducted the interviews with FSWs. The interviewer training consisted of a five-day training workshop, which included presentations, discussions and role-playing. The topics covered during the training included survey purpose, interviewing skills, ethical principles, informed consent procedures, confidentiality principles and procedures, roles and responsibilities of the interviewers and other survey members. The trainees were taken through the questionnaire, stressing the importance of reading the questions the way they are phrased and in probing techniques. Practice sessions identified questions and challenges they were likely to encounter during the actual fieldwork. The pre-testing of the questionnaire was conducted among FSWs during the last two days of the training in two townships of Lusaka.

3.1.6 Data Collection

The research team was coordinated by a principal researcher from COH/FHI. The team was divided into three groups each headed by a consultant and one by the monitoring and evaluation officer working for FHI. In addition, each group had a field editor. Research assistants were randomly assigned to any of the research sites: six in Livingstone, three in Chirundu and another three in Kapiri Mposhi. They were supported at the sites by outreach workers as facilitators. The outreach workers identified female sex workers at night and introduced them to research assistants. Research assistants obtained oral informed consent, assigned a study number and carried out the face-to-face interviews in private rooms. Following every interview, field editors reviewed all the completed questionnaires to ensure accuracy in recorded responses. The editors were also responsible for coordinating the interviewers' daily activities, ensuring that the survey procedures and requirements were strictly followed, and supporting the interviewers whenever there were concerns or questions. The consultants and M&E officer directly supervised the data collection by accompanying the research team into the field and also by participating in editing the completed questionnaires in the field. Each team spent 14 days at the site.

3.2 Informed Consent, Confidentiality and Ethical Review

This survey addressed issues of sex and sexuality, issues of STIs, attitudes and actions towards people who have HIV or AIDS among socially marginalized women. Great care was taken to minimize any potential physical, psychological, or social harm that would occur to the participants as a result of participating in this survey. To this end, FSWs were initially approached by outreach workers, some of whom they knew and were known to the community. Study staff was familiar with ethical issues and the procedures of confidentiality that were used in this survey. All consent forms and

questionnaires were marked only with a study number and no names were recorded anywhere. Informed consent was obtained from all participants.

3.3 Data Processing and Analysis

The completed questionnaires were edited in the field and transported to INESOR for data processing at the end of the survey. The questionnaires were coded and entered into the database using Epi Info Version 6. The questionnaires were entered (double entry) by two different data entry clerks and validated, any discordance in entry was addressed. 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 medians to determine the proportion of relevant variables by site and for the total sample. Chi-square tests for 2 x 2 tables and the Pearson Chi-square were used. Chi-square tests were used to compare proportions and for trends between three rounds of survey 2000-2006 on some variables. A result yielding a p-value less than five percent was considered statistically significant.

4 RESULTS

A total of 1,151 female sex workers were invited to participate, 1,114 (96.8%) of them gave consent to participate. Of the 37 who did not participate, eleven were excluded because a client came to take them away, four because they were rushing for a client, five where hostile because they did not find benefits of interview and had been interviewed many times before, eight where suspicious that they were going to be exposed to the public, four did not complete the interview because they were too drunk and five were excluded because they did not meet definition of a sex worker[2].

4.1 Socio-Demographics and General Risk Behaviors

Table 1 presents socio-demographic characteristics of respondents--age, educational level, marital status and occupation.

4.1.1 Age Distribution

The median age for the sex workers was 24 years. Most of the FSWs interviewed were in the age group 15-29 years, with the 20-24 year age group accounting for 34 percent of all the women. About 16 percent of the respondents were under 20 years of age. Livingstone had more sex workers in the younger groups under the age of 20 (23.5%) and 20-24 (38.5%). Conversely, Chirundu and Kapiri Mposhi had more sex workers in the older age groups of 25-29 years with 33.3 percent and 27.7 percent respectively and 25.1 percent and 44.2 percent for those ages 30 and above, respectively **(Table 1).**

4.1.2 Education

Most (95.7%) of the respondents reported having been to school. Of these, about 44.7 percent had completed a primary level of education. More than half (51.0%) claimed to have attained secondary or higher level of education (**Table 1**). Livingstone had the

[2] Sex work defined as transactional sex; exchanging sexual services for cash or in kind/material .

least with primary level education (20.4%) whilst Kapiri Mposhi had the highest with secondary or higher levels of education (47.0%) as shown in **Table 1**.

4.1.3 Marital status

The majority (95.2%) of the FSWs were not currently married. This seemed consistent in all the three sites with only seven percent of the sex workers in Chirundu who reported currently married.

4.1.4 Occupation

Most (64.5%) of the respondents reported that sex work was their sole source of income. Among those who reported other sources of income (n=389), some mentioned more than one source. They mentioned marketing and other minor economic activities such as waitress. In Livingstone only 20.1 percent said that they had occupations other than sex work compared to 45.1 percent in Chirundu and 48.3 percent in Kapiri Mposhi. More than half of the sex workers reported supporting other people with whom they lived from their income.

Table 1: Basic Demographics by Site

Characteristic	Chirundu	Kapiri Mposhi	Livingstone	Total (%)
	n (%)	n (%)	n (%)	N (%)
Age (years)				
<20	30 (11.2)	34 (9.3)	111 (23.5)	175 (15.9)
20 – 24	81 (30.3)	114 (31.3)	182 (38.5)	377 (34.1)
25 – 29	89 (33.3)	101 (27.7)	102 (21.6)	292 (26.4)
30+	67 (25.1)	115 (31.6)	78 (16.5)	260 (23.6)
Total	**267**	**364**	**473**	**1,104**
Median Age	25	26	23	24
Education Level				
None	25 (9.2)	15 (4.1)	7 (0.8)	47 (4.3)
Primary	145 (53.5)	179 (48.9)	170 (20.4)	494 (44.7)
Secondary /Higher	101 (37.3)	172 (47.0)	290 (34.8)	563 (51.0)
Total	**271**	**366**	**467**	**1,104**
Current Marital Status				
Married	19 (7.0)	19 (5.2)	15 (3.2)	53 (4.8)
Not married	252 (93.0)	349 (94.8)	457 (96.8)	1058 (95.2)
Total	**271**	**368**	**472**	**1,111**
Earned money doing work other than sex work				P<0.00
Yes	121 (45.1)	174 (48.3)	94 (20.1)	389 (35.5)
No	147 (54.9)	186 (51.7)	374 (79.9)	707 (64.5)
Total	**268**	**360**	**468**	**1,096**
Do other work other than sex				P=0.008
Marketers	53 (43.8)	84 (48.3)	27 (28.7)	164 (42.2)
Waitress	8 (6.6)	22 (12.6)	9 (9.6)	39 (10.0)
Kaponya	37 (30.6)	18 (10.3)	4 (4.3)	59 (15.2)
Owned restaurant	2 (1.7)	7 (4.0)	1 (1.1)	10 (2.6)
Other	33 (27.3)	66 (37.9)	66 (70.2)	165 (42.4)
Total	**121**	**174**	**94**	**389**

4.1.5 Religion

Christianity was the predominant religion among the respondents. Less than one percent were Muslim and one percent professed no religion.

4.1.6 Place of Birth

Almost half (45.6%) were born in the Southern Province, (53.1% interviewed in Chirundu, 74.4% in Livingstone which are all in the Southern Province and 3.3% in Kapiri Mposhi which is in the Central Province), followed by nearly 21 percent born on the Copperbelt (41.8% interviewed in Kapiri Mposhi which is near to the Copperbelt Province, 15.5% in Chirundu and 7.3% in Livingstone), the least number (0.9%) said were born in Northwestern Province (**Table 2**).

4.1.7 Time Period of Residence and Mobility

The mean number of years the sex workers had lived in the current site was eight years. Although when sites are compared, Livingstone had the highest mean number of years (14) that the sex workers had lived. Overall, close to half (45.5%) of the respondents had lived in the same area for five or more years and approximately 23 percent had lived in same area for 20 or more years with Livingstone having 35.2 percent who claimed to have lived for 20 years and above (**Table 3**).

Table 2: Basic Demographics by Site (continued)

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Place of birth				
Copperbelt	42 (15.5)	153 (41.8)	34 (7.3)	229 (20.8)
Lusaka	49 (18.1)	27 (7.4)	38 (8.2)	114 (10.3)
Central	8 (3.0)	119 (32.5)	12 (2.6)	139 (12.6)
Luapula	5 (1.8)	5 (1.4)	5 (1.1)	15 (1.4)
Eastern	7 (2.6)	5 (1.4)	5 (1.1)	17 (1.5)
Northern	3 (1.1)	36 (9.8)	5 (1.1)	44 (4.0)
Southern	114 (53.1)	12 (3.3)	346 (74.4)	502 (45.6)
North-western	2 (0.7)	4 (1.1)	4 (0.9)	10 (0.9)
Western	8 (3.0)	5 (1.4)	12 (2.6)	25 (2.5)
Other (outside Zambia)	3 (1.1)	0 (0)	4 (0.9)	7 (0.6)
Total	**271**	**366**	**465**	**1,102**
Time at current residence				
<1	26 (10.2)	31 (8.8)	26 (6.4)	83 (8.2)
1 – 1.9	25 (9.8)	22 (6.2)	10 (2.4)	57 (5.6)
2 – 4.9	66 (26.0)	64 (18.1)	51 (12.5)	181 (17.8)
5 – 9.9	67 (26.4)	86 (24.3)	73 (17.8)	226 (22.2)
10 – 14.9	25 (9.8)	63 (17.8)	47 (11.5)	135 (13.3)
15 – 19.9	9 (3.5)	35 (9.9)	58 (14.2)	102 (10.0)
20+	36 (14.2)	53 (15.0)	144 (35.2)	233 (22.9)
Total	**254**	**354**	**409**	**1,017**
Mean Number Years	5	**7**	14	8

4.1.8 Alcohol and Drug Use

About 31.6 percent and 38 percent reported taking alcohol every day and at least once a week, respectively. Livingstone had the highest proportion of those who reported taking alcohol every day (41.5%). For those who took alcohol once a week, the proportions were almost the same across all the three sites at 39.7 percent for Chirundu, 36 percent for Kapiri Mposhi and 38.5 percent for Livingstone. Overall, 14 percent reported having ever taken dagga (marijuana). The proportions of respondents who ever used dagga are similar across the sites are presented in **Table 3**.

Table 3: General Risk Behaviors (Alcohol and Drug use) by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Alcohol Consumption in past 4 Weeks				
Everyday	59 (21.7)	96 (26.2)	195 (41.5)	350 (31.6)
At least once a week	108 (39.7)	132 (36.0)	181 (38.5)	421 (38.0)
Less than once a week	39 (14.3)	44 (12.0)	19 (4.0)	102 (9.2)
Never	66 (24.3)	95 (25.9)	75 (16.0)	236 (21.3)
Total	**272**	**367**	**470**	**1,109**
Drug ever use				
Dagga	33 (12.1)	55 (14.9)	71 (15.1)	159 (14.3)
Total	**272**	**368**	**469**	**1,109**
Heroin	0 (0)	1 (0.3)	2 (0.5)	3 (0.3)
Total	**269**	**367**	**444**	**1,080**
Cocaine	0 (0)	4 (1.1)	2 (0.5)	6 (0.6)
Total	**269**	**366**	**444**	**1,079**
Mandrax	0 (0)	3 (0.8)	4 (0.9)	7 (0.7)
Total	**266**	**365**	**444**	**1,075**

4.2 Sexual Behavior

4.2.1 Age at First Sex, by Type

The median age at first sexual intercourse for the female sex workers was 15 years and this was the same across all the three sites. Although Kapiri Mposhi had more sex workers (32.4%) who had their first sexual intercourse under the age of 15 compared to the other sites, the majority (65.3%) of the respondents had their first sexual intercourse between age 15 and 19 years. The median age at which money was first received in exchange for sex was 18 years. However, as shown in **Table 4**, most respondents (54.7%) started receiving money in exchange for sex between the ages of 15 and 19 years. There were more in Kapiri Mposhi who received money for sex under 15 years (16.1%) compared to Livingstone (10.3%) and Chirundu (8.4%).

Table 4: Sexual Risk Behaviors by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total (%)
	n (%)	n (%)	n (%)	N (%)
Age at first sex				
<15	72 (29.3)	112 (32.4)	118 (25.9)	302 (28.8)
15 – 19	162 (65.9)	211 (61.0)	311 (68.2)	684 (65.3)
20+	12 (4.9)	23 (6.6)	27 (5.9)	62 (5.9)
Total	**246**	**346**	**456**	**1,048**
Median age	15	15	16	15
Age at first sex for money				
<15	21 (8.4)	55 (16.1)	47 (10.3)	123 (11.7)
15 – 19	119 (47.6)	169 (49.4)	286 (62.6)	574 (54.7)
20 – 24	63 (25.2)	65 (19.0)	88 (19.3)	216 (20.6)
25 – 29	30 (12.0)	27 (7.9)	23 (5.0)	80 (7.6)
30+	17 (6.8)	26 (7.6)	13 (2.3)	56 (5.3)
Total	**250**	**342**	**457**	**1,049**
Median age	19	17	17	18

4.2.2 Number of Sex Partners by Type of Partner

The question was posed to FSWs, among all of your partners in the last seven days, how many were paying clients. There were 164 (14.7%) who had none in last seven days. The median number of paying clients for those who had at least one paying client in the last seven days was two. The number of paying clients in the seven days ranged from one (26.8%) to more than five (13.9%). More respondents from Livingstone (16.9%) reported five or more clients in the last seven days compared to Chirundu (8.3%) and Kapiri Mposhi (14.3%). About 60 percent of the respondents reported one sexual partner on the last day worked. Similarly, more respondents from Livingstone (11.4%) reported four or more clients on the last day worked compared with Chirundu (1.1%) and Kapiri Mposhi (5.8%). **Table 5** below presents the number of paying clients.

Table 5: Number of Paying Sex Partner by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Number of paying clients in last 7 days				
1	74 (30.6)	103 (35.02)	78 (18.8)	255 (26.8)
2	84 (34.7)	66 (22.4)	110 (26.6)	260 (27.4)
3	44 (18.2)	43 (14.6)	105 (25.4)	192 (20.2)
4	20 (8.3)	40 (13.6)	51 (12.3)	111 (11.7)
5+	20 (8.3)	42 (14.3)	70 (16.9)	132 (13.9)
Total	**242**	**294**	**414**	**950**
Median	2	2	3	2

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Clients on the last day worked				
0	1 (0.4)	2 (0.5)	18 (3.9)	21 (1.9)
1	234 (87.0)	228 (62.6)	201 (43.2)	663 (60.4)
2	30 (11.2)	73 (20.1)	133 (28.6)	236 (21.5)
3	1 (0.4)	40 (11.0)	60 (12.9)	101 (9.2)
4+	3 (1.1)	21 (5.8)	53 (11.4)	77 (7.0)
Total	**269**	**364**	**465**	**1,098**
Median	1	1	2	1

Six hundred seventy three (60.4%) of the respondents said they did not have any non-paying partners in the last seven days. Among the 441 who reported sex with a non-paying (not wife or regular girl friend) slightly over a half (57.4%) reported having only one non-paying partner in the last seven days. More sex workers (86.7%) from Chirundu reported one non-paying partner in the last seven days than in Kapiri Mposhi (56.5%) and Livingstone (41.8%). The frequency of sexual intercourse with non-paying sexual partners in past 30 days also varied. Overall, 27 percent said they had sexual intercourse with a non-paying partner three to five times whilst nearly 19 percent said they did so 12 and more times over the last 30 days. **Table 6** shows the number of non-paying partners and frequency of intercourse.

Table 6: Number and Frequency of Non-paying Partners by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Number of non-paying partners in the last 7 days				
1	91 (86.7)	83 (56.5)	79 (41.8)	253 (57.4)
2	10 (9.5)	34 (23.1)	60 (31.7)	104 (23.6)
3	3 (2.9)	15 (10.2)	23 (12.2)	41 (9.3)
4+	1 (1.0)	15 (10.2)	27 (14.3)	43 (9.8)
Total	**105**	**147**	**189**	**441**
Median	1	1	2	1
Frequency of sexual intercourse over the last 30 days				
<3	43 (16.5)	121 (34.2)	51 (12.1)	215 (20.7)
3 – 5	86 (33.0)	94 (26.6)	100 (23.6)	280 (27.0)
6 – 8	75 (28.7)	48 (13.6)	83 (19.6)	206 (19.8)
9 – 11	31 (11.9)	40 (11.3)	72 (17.0)	143 (13.8)
12+	26 (10.0)	51 (14.4)	117 (27.7)	194 (18.7)
Total	**261**	**354**	**423**	**1,038**
Median	6	4	8	6

4.3 Condom Knowledge, Availability and Use

4.3.1 Knowledge and Availability of Condoms

4.3.1.1 Male Condoms

Knowledge of a male condom was high as 99.5 percent of the respondents had ever heard of a male condom. Similarly, the total proportion of the respondents who reported ever using a male condom was high (97%). About 52.7 percent of the respondents had a condom on hand at the time of interview. However, the pattern differed across sites with Livingstone being the least (40.5%) in those who had a condom at hand compared to Chirundu (61.2%) and Kapiri Mposhi (61.9%). The most common source of condoms was the shop (71.2%), followed by pharmacy (36.9%) and market (34.6%). About 33.6 percent mentioned peer educators as a source for condoms. The shop (80.4%), hospital (34.3%) and bar/guesthouse (67.9%) were the most reported source of condoms in Kapiri Mposhi. For Livingstone, the pharmacy (66.2%), market (47.2%), the clinic and a friend (16.0%) were the most reported sources of condoms. In Chirundu the most reported sources of condoms were peer educators (49.1%). On the whole, 76.9 percent said it took them less than 15 minutes to obtain a condom**. Table 7** presents the knowledge and availability of the male condom.

Table 7: Knowledge and Availability of Male Condoms by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total (%)
	n (%)	n (%)	n (%)	N (%)
Ever heard of a male condom	269 (98.9)	362 (100)	465 (99.4)	1,096 (99.5)
Total	**272**	**362**	**468**	**1102**
Knows condom can prevent HIV	231 (87.2)	334 (93.3)	363 (80.3)	928 (86.3)
Total	**265**	**358**	**452**	**1,075**
Ever used a male condom	256 (95.9)	359 (99.4)	447 (96.1)	1,062 (97.2)
Total	**267**	**361**	**465**	**1,093**
Had a condom on hand at time of interview	156 (61.2)	221 (61.9)	180 (40.5)	557 (52.7)
Total	**255**	**357**	**444**	**1,056**
Ever bought a male condom	196 (75.7)	261 (73.3)	324 (77.0)	781 (75.4)
Total	**259**	**356**	**421**	**1,036**

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total (%)
	n (%)	n (%)	n (%)	N (%)
Sources used to obtain male condoms	**n = 222**	**n = 312**	**n = 337**	**N = 871**
Shop	135 (60.8)	251 (80.4)	234 (69.4)	620 (71.2)
Pharmacy	19 (8.6)	79 (25.4)	223 (66.2)	321 (36.9)
Market	91 (41.0)	51 (16.3)	159 (47.2)	301 (34.6)
Clinic	37 (16.7)	58 (18.6)	150 (44.5)	245 (28.1)
Hospital	16 (7.2)	10734.3)	82 (24.3)	205 (23.5)
Family planning clinic	11 (5.0)	6 (1.9)	82 (24.3)	99 (11.4)
Bar/guest house /house	85 (38.3)	212 (67.9)	218 (64.7)	515 (59.1)
Peer educator	109 (49.1)	74 (23.1)	110 (32.6)	293 (33.6)
Friend	13 (5.9)	8 (2.6)	54 (16.0)	75 (8.6)
Other	64 (28.8)	219 (70.2)	47 (13.9)	330 (37.9)
Time taken to obtain a male condom (minutes)				
<15	186 (71.5)	282 (80.6)	341 (77.1)	809 (76.9)
15 – 30	66 (25.4)	26 (7.4)	77 (17.4)	169 (16.1)
31 – 60	6 (2.3)	20 (5.7)	15 (3.4)	41 (3.9)
>60	2 (0.8)	22 (6.3)	9 (2.0)	33 (3.1)
Total	**260**	**350**	**442**	**1,052**

4.3.1.2 Female Condoms

The use of the female condom was not as widespread as that of the male condom. The number of females who had heard about the female condom was relatively high (91.2%), but fewer reported ever having used it (31.2%). There were more sex workers in Kapiri Mposhi (35.6%) who said they ever used the female condom compared to Chirundu (24.2%) and Livingstone (31.8%). Twenty-two percent said they had ever bought a female condom. The most commonly cited source of the female condom was the pharmacy (34.6%) followed by the shop (26.9%), peer educator (22.6%), the clinic (20.8%) and hospital (17.2%). About 19 percent of the respondents mentioned peer educators as their main source of the female condom.

The sources of female condoms differed across sites with the shop (35.6%), hospital (22.4%) being the most reported in Kapiri Mposhi. Peer educators, like for the male condom, were the most reported source of the female condoms. Livingstone appeared to enjoy wider sources of female condoms over the other sites as the most reported sources were pharmacy (62.1%), clinic (40.9%), family planning clinic (26.1%) and the market (10.8%). **Table 8** below presents knowledge, use and availability of female condoms.

Table 8: Knowledge and Availability of Female Condoms by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Ever heard of a female condom	254 (93.7)	348 (95.3)	404 (86.5)	1006 (91.2)
Total	**271**	**365**	**467**	**1,103**
Ever used a female condom	61 (24.2)	124 (35.6)	128 (31.8)	313 (31.2)
Total	**252**	**348**	**403**	**1,003**
Ever bought a female condom	35 (22.6)	89 (43.2)	104 (49.8)	228 (40.0)
Total	**155**	**206**	**209**	**570**
****Sources used to obtain female condoms**	**n = 155**	**n = 205**	**n = 203**	**N = 563**
Shop	22 (14.2)	73 (35.6)	51 (25.1)	146 (26.9)
Pharmacy	7 (4.5)	62 (30.2)	126 (62.1)	195 (34.6)
Market	10 (6.5)	8 (3.9)	22 (10.8)	40 (7.1)
Clinic	15 (9.7)	19 (9.3)	83 (40.9)	117 (20.8)
Hospital	12 (7.7)	46 (22.4)	39 (19.2)	97 (17.2)
Family planning clinic	8 (5.2)	3 (1.5)	53 (26.1)	64 (11.4)
Bar/Guest house/ Hotel	10 (6.5)	36 (17.6)	37 (18.2)	83 (14.7)
Peer educator	74 (47.7)	9 (4.4)	44 (21.7)	127 (22.6)
Friend	5 (3.2)	1 (0.5)	14 (6.9)	20 (3.6)
Other	47 (30.3)	136 (66.3)	28 (13.8)	211 (37.5)

****These are respondents who had ever heard of female condom and knew places or persons from which female condom could be obtained.**

4.3.2 Condom Use by FSWs

4.3.2.1 Condom Use with Paying Partners (Clients)

Close to 81.5 percent of the respondents reported using a condom at last sexual act with a paying client. Of the women who did use a condom at last sex, 72.5 percent said it was they who had suggested using a condom. The proportions of those who used a condom at last sexual intercourse were relatively high across the three sites with Kapiri Mposhi being the highest (87.3%) followed by Chirundu (84.6%) and then Livingstone (75.1%). For those who did not use a condom at last sex, the main reason reported was partner objection (55.7%). There were more partner objections reported in Livingstone (57.8%) and Kapiri Mposhi (56.5%). About 13.3 percent of the respondents cited non-availability for not using a condom with a paying partner while 14.3 percent did not think it was necessary. Interestingly, the variations across the sites for those who did not think it was necessary to use a condom was wide with Chirundu recording 31.7 percent, Kapiri Mposhi 21.7 percent and Livingstone 5.2 percent.

The overall proportion of respondents reporting **consistent condom use** (using a condom every time in the past 30 days) with paying partners was 38.6 percent whilst 3.5 percent said they never used a condom. Livingstone was the least (23.3%) in reported condom use every time over the last 30 days compared to Chirundu (54.6%) and Kapiri Mposhi (46.3%). **Table 9** presents the condom use with paying partners.

Table 9: Condom use with Paying Partners by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Condom use at last sexual intercourse	226 (84.6)	317 (87.3)	349 (75.1)	892 (81.5)
Total	**267**	**363**	**465**	**1,095**
Who suggested condom use				
Myself	163 (72.1)	232 (73.2)	252 (72.2)	647 (72.5)
Partner	17 (7.5)	27 (8.5)	50 (14.3)	94 (10.5)
Joint	46 (20.4)	58 (18.3)	47 (13.5)	151 (16.9)
Total	**226**	**317**	**349**	**892**
Reasons for no condom use	**n = 41**	**n = 46**	**n = 116**	**N = 203**
Not available	4 (9.8)	6 (13.0)	17 (14.7)	27 (13.3)
Too Expensive	0 (0)	0 (0)	1 (0.9)	1 (0.5)
Partner objected	20 (48.8)	26 (56.5)	67 (57.8)	113 (55.7)
Don't like them	3 (7.3)	1 (2.2)	8 (6.9)	12 (5.9)
Used other contraceptives	0 (0)	0 (0)	1 (0.9)	1 (0.5)
Didn't think it was necessary	13 (31.7)	10 (21.7)	6 (5.2)	29 (14.3)
Didn't think of it	2 (4.9)	7 (15.2)	4 (3.4)	13 (6.4)
Condom use over 30 days (consistently)				
Every time	147 (54.6)	168 (46.3)	109 (23.3)	424 (38.6)
Almost every time	46 (17.1)	79 (21.8)	71 (15.2)	196 (17.8)
Sometimes	63 (23.4)	105 (28.9)	272 (58.2)	440 (40.0)
Never	13 (4.8)	11 (3.0)	15 (3.2)	39 (3.5)
Total	**269**	**363**	**467**	**1,099**

4.3.2.2 Condom Use with Non-paying Partners

Condom use with a non-paying sexual partner was even lower than condom use with a paying partner, with only slightly over half (61.3%) of the overall respondents reporting that they used a condom at last sexual contact. Of those who used a condom, 69.9 percent reported that it was they who suggested the condom use. Condom use at last sex with non-paying sexual partners was highest in Kapiri Mposhi (79.9%) followed by Livingstone (53.5%) and Chirundu (47.1%).

As was in the case with paying partners, the main reason for not using a condom at last sex was partner objection (53%). Livingstone (67.2%) and Kapiri Mposhi (60.7%) sex workers reported higher rates of partner objection than Chirundu (31.5%). Although Chirundu reported less partner objection to condom use, there were more respondents who did not think it was necessary to use a condom (53.7). The overall proportion of respondents reporting **consistent condom use** (using a condom every time in the past twelve months) with non-paying partners was 25.3 percent. Consistent condom use in the past twelve months varied across the three sites

with Kapiri Mposhi having the highest (35.5%) and Livingstone the lowest (16.0%). **Table 10** details the results of condom use with non-paying partners.

Table 10: Condom use with Non-paying Partners by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Condom use at last sexual act	48 (47.1)	111 (79.9)	77 (53.5)	236 (61.3)
Total	**102**	**139**	**144**	**385**
Who suggested condom use				
Myself	30 (62.5)	85 (76.6)	50 (64.9)	165 (69.9)
Partner	5 (10.4)	9 (8.1)	14 (18.2)	28 (11.9)
Joint	13 (27.1)	17 (15.3)	13 (16.9)	43 (18.2)
Total	**48**	**111**	**77**	**236**
Reason for no condom use	**n = 54**	**n = 28**	**n = 67**	**n = 149**
Not available	3 (5.6)	3 (10.7)	10 (14.9)	16 (10.7)
Too expensive	0 (0)	0 (0)	1 (1.5)	1 (0.7)
Partner objected	17 (31.5)	17 (60.7)	45 (67.2)	79 (53.0)
Didn't like it	12 (22.2)	0 (0)	2 (3.0)	14 (9.4)
Used other contraception	0 (0)	1 (3.6)	1 (1.5)	2 (1.3)
Didn't think was necessary	29 (53.7)	4 (14.3)	4 (6.0)	37 (24.8)
Didn't think of it	1 (1.9)	2 (7.1)	3 (4.5)	6 (4.0)
Other	3 (5.6)	4 (14.3)	6 (9.0)	13 (8.7)
Regularly of condom use over 12 months (consistent)				
Every time	25 (24.8)	49 (35.5)	23 (16.0)	97 (25.3)
Almost every time	12 (11.9)	33 (23.9)	23 (16.0)	68 (17.8)
Sometimes	26 (25.7)	50 (36.2)	78 (54.2)	154 (40.2)
Never	38 (37.6)	6 (4.3)	20 (13.9)	64 (16.7)
Total	**101**	**138 (100)**	**144 (100)**	**383 (100)**

4.3.3 Correlating Condom Knowledge and Use at the Individual Level

In order to correlate condom use and knowledge at all sites combined, further analysis at the individual level was conducted. One analysis focused on the question of those who used a condom, how many knew it prevents HIV? The results of the analysis show that condom use with paying partners (both at last sex and consistent condom use) is slightly higher among those that knew that condoms prevent HIV. The results show that 86.2 percent of the female sex workers who used a condom at last sex with a paying partner know it prevents HIV. Among those who did not use a condom at last sex with a paying partner, 83.9 percent said they did know that condoms prevent HIV. The difference was however not statistically significant (p=0.475). However there was a statistically significant difference (p=0.002) with regard to consistent condom use with paying partners in last 30 days: 89.1 percent of those who knew condoms prevent HIV used a condom at last sex with a paying partner and 83.9

percent who said they did not know condoms prevents HIV used it consistently. See **Table 11** below.

Table 11: Association between Condom Knowledge and use at the Individual Level among FSWs all Sites Combined.

	Condom use at last sex with paying partner		
Characteristics	**Yes (%)**	**No (%)**	**P value**
Among FSWs who know condoms prevent HIV	755 (86.2)	167 (83.9)	0.475
Among FSWs who said do not know condoms prevent HIV	121 (13.8)	32 (16.1)	
Total	**876**	**199**	
	Consistent condom use with paying partner in last 30 days		
Among FSWs who know condoms prevent HIV	375 (89.1)	552 (83.9)	0.002
Among FSWs who said do not know condoms prevent HIV	46 (10.9)	106 (16.1)	
Total	**421**	**658**	

4.4 STIs – Knowledge, Symptoms and Behaviors

4.4.1 STIs Knowledge

Almost all the sex workers (98.2%) had heard of sexually transmitted infections. Of them, 70.5 percent could name two or more symptoms in men, and 87.6 percent could name two or more symptoms in women. The most commonly known STI symptoms in women were genital ulcers (72.6%) and abdominal pains (58.2%), while the most commonly known STI symptoms in men were genital ulcers (74.7%) and burning pain during urination (57.3%). Knowledge of STI symptoms both in men and women was similar in all sites. **Table 12** details the results.

Table 12: Knowledge of STIs by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Ever heard of STIs				
Yes	261 (98.9)	345 (100)	414 (96.2)	1,020 (98.2)
Total	**264**	**345**	**430**	**1039**
Can name two or more symptoms in men				
Yes	158 (72.8)	179 (62.2)	252 (76.4)	589 (70.5)
Total	**217**	**288**	**330**	**835**
Can name two or more symptoms in women				
Yes	195 (86.7)	284 (89.6)	266 (86.4)	745 (87.6)
Total	**225**	**317**	**308**	**850**

4.4.2. STIs Symptoms, Treatment and Sexual Behaviours

About 24 percent of the respondents reported a history of a discharge (or "leakage") while 26.0 percent had genital ulcers in the past twelve months preceding the survey. Livingstone had the highest rate of reported genital discharge (32.4%) and genital ulcers (31.8%). Over half (66.5%) of the respondents who reported a history of an STI said they sought advice from the COH Drop-in Center whilst 34.3 percent sought advice from government hospital or clinic. The pattern with regards to seeking advice from the COH Drop-in Center was similar across the three sites although was lower at Livingstone (52.9%) than the other two sites. With regards to seeking advice from the government clinic, Chirundu had the lowest rate (13.8%) compared to Livingstone (41.3%) and Kapiri Mposhi (40.3%). The median duration between beginning of symptoms and seeking treatment among those who had symptoms of an STI was seven days.

The majority of those infected said they continued having sex in spite of the symptoms. Thirty percent said they stopped having sex during the time they had STI symptoms. Kapiri Mposhi reported a remarkably high rate of those who stopped having sex (66.2%) and those who told their sexual partners about the symptoms (62.3%) compared to Chirundu and Livingstone. Among those who reported having had an STI in the past twelve months, less than a quarter (21.8%) said they always used a condom during sex when they had symptoms of STIs and 32.0 percent notified their sexual partners about their symptoms. **Table 13** presents history of reported STI symptoms in the past twelve months and health-seeking and sexual behaviour during last STI symptoms.

Table 13: STIs Symptoms and related Behaviour by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
STI symptoms in past 12 months				
Genital discharge	60 (22.2)	54 (15.3)	151 (32.4)	265 (24.3)
Total	**270**	**354**	**466**	**1,090**
Genital ulcers	64 (24.5)	69 (19.5)	148 (31.8)	281 (26.0)
Total	**261**	**354**	**466**	**1,081**
Last STI first sought advice from:	**n = 58**	**n = 77**	**n = 104**	**N = 239**
Government Hospital/clinic	8 (13.8)	31 (40.3)	43 (41.3)	82 (34.3)
Workplace clinic	0 (0)	1 (1.3)	6 (5.8)	7 (2.9)
Church health facility	3 (5.2)	2 (2.6)	0 (0)	5 (2.1)
Private health facility	3 (5.2)	0 (0)	2 (1.9)	5 (2.1)
CBI-drop in center	45 (77.6)	59 (76.6)	55 (52.9)	159 (66.5)
Pharmacy/Chemist	0 (0)	16 (20.8)	2 (1.9)	18 (7.5)
Traditional healer	2 (3.4)	7 (9.1)	6 (5.8)	15 (6.3)
Buys med on street	1 (1.7)	10 (13.0)	5 (4.8)	16 (6.7)
Took medicine at home	2 (3.4)	12 (15.6)	3 (2.9)	17 (7.1)
Time taken before seeking 1st medication (days)	4 (6.9)	7 (9.1)	7 (6.7)	7 (2.9)
Sexual behaviour with STI symptoms	**n = 58**	**n = 77**	**n = 104**	**N = 239**
Stopped having sex	15 (25.9)	51 (66.2)	6 (5.8)	72 (30.1)
Always used condom	3 (5.2)	43 (55.8)	6 (5.8)	52 (21.8)
Told partner about STI	17 (29.3)	48 (62.3)	7 (6.7)	72 (30.1)

4.5 Family Planning

4.5.1 Family Planning Practices

More than half (75.0%) of the sex workers were using a family planning method at the time of the survey. The most commonly reported family planning method was the male condom (62.1%) followed by oral contraceptives (40.8%). The use of a family planning method was high across all the three sites although Chirundu had the highest rate (83.6%) of reported family planning use. With regards to the male condom, there were more sex workers in Kapiri Mposhi (74.8%) who reported it as a family planning method followed by Chirundu (64.1%) and then Livingstone (49.4%). Oral contraceptives were reported by close to half (49.0%) in Livingstone, over a third in Chirundu (39.2%) and slightly less than a third in Kapiri Mposhi (32.7%). **Table 14** shows family planning practices among the surveyed population of female sex workers.

Table 14: Family Planning Practices and Loss of Pregnancy by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
Currently using family planning method	209 (83.6)	78 (76.8)	312 (68.9)	799 (75.0)
Total	**250**	**362**	**453**	**1,065**
Family planning method used:	**%**	**%**	**%**	**%**
Traditional method	1.9	0.7	1.9	1.5
Oral contraceptives	39.2	32.7	49.0	40.8
Injection	11.5	6.5	13.5	10.5
Nor plant	0	0	0.6	0.3
IUD	0	0	0.6	0.3
Male condom	64.1	74.8	49.4	62.1
Female condom	0.5	7.6	4.8	4.6
Spermicide	0	0	0	0
Diaphragm	0	0	0	0
Natural	1.9	0	1.6	1.1
Total	**250**	**362**	**4531,085**	**1065**
Use of any of the Family Planning method - oral injection, nor plant	21 (10.0)	78 (28.1)	140 (44.9)	239 (29.9)
Total	**209**	**278**	**312**	**799**
Ever lost a pregnancy	75 (27.6)	120 (32.5)	89 (18.8)	284 (25.5)
Total	**272**	**369**	**473**	**1,114**

4.6 Knowledge and Attitudes towards HIV/AIDS

4.6.1 Knowledge, Opinions and Attitudes related to HIV/AIDS

All sex workers had heard about HIV/AIDS. Approximately 71.2 percent knew someone living with HIV/AIDS. For most of these women (58.5%), this person was either a close relative or close friend with Kapiri Mposhi having the highest rate (73.6%). About 86.8 percent knew that a healthy looking person could be infected with HIV.

In general, a high proportion (95.0%) of FSWs knew that HIV/AIDS could be transmitted through infected needles. However, misconceptions about routes of HIV transmission still exist. For example, of all the women interviewed, more than one third (35.5%) believed that mosquito bites could transmit the HIV virus. Additionally, about 14.3 percent of the respondents thought that it was possible to contract HIV by sharing a meal with someone infected with the virus. The belief about a mosquito transmitting HIV was strongest in Chirundu (50.7%), followed by Kapiri Mposhi (34.4%) and Livingstone (27.5%). Eighty-five percent, 79 percent and 87 percent, respectively, knew that correct condom use, being faithful and abstinence could prevent HIV. **Table 15** presents the data on knowledge opinions and attitudes about HIV.

Table 15: Knowledge, Opinions and Attitudes related to HIV/AIDS by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total (%)
	n (%)	n (%)	n (%)	N (%)
	n = 268	n = 363	n = 461	N = 1,092
Ever heard of HIV	268 (99.3)	363 (100)	461 (98.9)	1,092 (99.4)
Knows someone living with HIV/AIDS	168 (62.7)	289 (79.6)	320 (69.4)	777 (71.2)
Has a close relative or close friend infected with HIV or who died of AIDS	133 (49.6)	267 (73.6)	239 (51.8)	639 (58.5)
Healthy looking person can be infected with HIV	266 (99.3)	299 (82.4)	383 (83.1)	948 (86.8)
Think that a person can get HIV from:				
Mosquito bite	136 (50.7)	125 (34.4)	127 (27.5)	388 (35.5)
Sharing a meal	52 (19.4)	41 (11.3)	63 (13.7)	156 (14.3)
Infected needles	262 (97.8)	340 (93.7)	435 (94.4)	1,037 (95.0)
Knows that people can prevent HIV by:				
Correct condom use	230 (85.8)	335 (92.3)	362 (78.5)	927 (84.9)
Faithfulness	264 (98.5)	245 (67.5)	354 (76.8)	863 (79.0)
Abstinence	260 (97.0)	334 (92.0)	353 (76.6)	947 (86.7)

4.6.2 Knowledge, Opinions and Attitudes related to Mother-To-Child Transmission

High percentages of respondents knew that an infected woman could pass on infection to her child during pregnancy (75.1%), at time of delivery (86.4%), or through breast-feeding (91.6%). Of these women, 67.9 percent knew that an infected woman could lower the chances of passing HIV to her unborn child by taking ARVs. Additionally, 75.7 percent knew of a hospital that offers PMTCT services. The knowledge of mother-to-child transmission was high across all the sites although about 59.8 percent of the respondents from Livingstone reported knowing that a pregnant woman can pass on the infection to her child, lower than Chirundu and Kapiri Mposhi. **Table 16** shows knowledge, opinions and attitudes related to PMTCT.

Table 16: Knowledge, Opinions and Attitudes Related to Mother-to-Child Transmission by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
	n= 268	n = 363	n = 461	n = 1092
Knows that a pregnant woman can pass on infection to her child:				
During pregnancy	237 (88.4)	217 (59.8)	366 (79.4)	820 (75.1)
At time of delivery	239 (89.2)	302 (83.2)	402 (87.2)	943 (86.4)
Breast feeding	254 (94.8)	330 (90.9	416 (90.2)	1,000 (91.6)

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
	n= 268	n = 363	n = 461	n = 1092
Knows an infected woman lower her chance of passing HIV to her unborn child by				
Taking ARV	206 (76.9)	212 (58.4)	323 (70.1)	741 (67.9)
Early or No /stop breastfeeding	17 (6.3)	25 (6.9)	3 (0.7)	45 (4.1)
Knows of a hospital program that is offering PMTCT of HIV services	210 (78.4)	303 (83.5)	314 (68.1)	827 (75.7)

4.6.3. Attitudes towards People with HIV/AIDS

Over 82 percent of the total respondents felt that an HIV-positive student should be able to continue school. Similarly, about 84.6 percent of respondents thought that an HIV-positive teacher should be able to continue teaching. About 96 percent of the women thought they could take care of an HIV-positive female relative and 67.9 reported that they would buy food from a shopkeeper known to be HIV positive. About 74.4 percent said they would like it to remain a secret if a family member was HIV positive. These high positive attitudes towards people with HIV are observed across all the three sites. **Table 17** presents findings related to attitudes towards people living with HIV/AIDS.

Table 17: Attitudes related to be HIV Positive People by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
	n = 268	n = 363	n = 461	N = 1,092
Feels HIV + students should be able to continue school	234 (87.3)	283 (78.0)	378 (82.0)	895 (82.0)
Feels HIV + teachers should be able to continue teaching	239 (89.2)	296 (81.5)	389 (84.4)	924 (84.6)
Would take care of HIV+ female relatives	262 (97.8)	347 (95.6)	440 (95.4)	1,049 (96.1)
Would buy food from shopkeeper known to be HIV+	163 (60.8)	237 (65.3)	342 (74.2)	742 (67.9)
If a member of family has HIV, would want it to remain secret	187 (69.8)	258 (71.1)	367 (79.6)	812 (74.4)

4.6.4 VCT and Perception of Risk to HIV Infection

About 91 percent of the respondents reported that it was possible in their communities to get a confidential HIV test. Slightly over half (55.1%) reported ever having taken an HIV test. Of those tested, approximately 89.5 percent took the test voluntarily and 85.7 percent went back for their results. Kapiri Mposhi had the highest rate (65.8%)

of respondents who ever took an HIV test. Among those who never had an HIV test, 81.9 percent said they were interested in having the test. The main reasons given for those who would not want an HIV test, 62.8 percent was due to fear while 13.2 percent just did not want to know their status. Chirundu reported more respondents (83.7%) who gave fear as the reason for not being interested in taking an HIV test compared to Kapiri Mposhi (27.8%) and Livingstone (55.6%). Most female sex workers considered themselves at risk of contracting the HIV virus with 34 percent considering themselves to be at great risk while 16.9 percent perceived themselves to be at no risk at all. **Table 18** presents the results of questions pertaining to VCT

Table 18: Attitudes related to VCT by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	**n (%)**	**n (%)**	**N (%)**
	n = 268	**n = 363**	**n = 461**	**N = 1,092**
Access to VCT	265 (95.5)	350 (96.4)	388 (84.2)	994 (91.0)
Ever been tested	133 (49.6)	239 (65.8)	230 (49.9)	602 (55.1)
	n = 133	**n = 239**	**n = 230**	**N = 602**
Voluntarily tested	116 (87.2)	214 (89.5)	209 (90.9)	539 (89.5)
Found out test result	115 (86.5)	222 (92.9)	179 (77.8)	516 (85.7)
	n = 135	**n = 124**	**n = 227**	**N = 486**
Never been tested but would be interested to have an HIV test	87 (64.4)	115 (92.7)	196 (86.3)	398 (81.9)
Reasons for no interest	**n = 49**	**n = 18**	**n = 54**	**N = 121**
Scared	41 (83.7)	5 (27.8)	30 (55.6)	76 (62.8)
Don't want to know	4 (8.2)	3 (16.7)	9 (16.7)	16 (13.2)
Fear to be isolated	10 (20.4)	2 (11.1)	0 (0)	12 (905)
Because there is no cure for HIV	3 (6.1)	2 (11.1)	0 (0)	5 (9.9)
Lack of confidentiality	0 (0)	1 (5.6)	0 (0)	1 (0.8)
What do you think of your chances of getting AIDS virus	**n = 217**	**n = 338**	**n = 438**	**N = 993**
No chance	38 (17.5)	71 (21.0)	59 (13.5)	168 (16.9)
Small	48 (22.1)	112 (33.1)	81 (18.5)	241 (24.3)
Moderate	89 (41.0)	101 (29.9)	56 (12.8)	246 (24.8)
Great	42 (19.4)	54 (16.0)	242 (55.3)	338 (34.0)

The main reason for self-assessed high risk given by the sex workers was that they did not use condoms every time they had sex and that close to half (42.6%) of them had multiple sexual partners. However, the opposite was the case among those who considered themselves at no risk of contracting the HIV virus. Chirundu had more (41.0%) respondents who considered themselves at moderate risk whilst Livingstone had more (55.3%) respondents who considered themselves at great risk of HIV infection. In all the survey sites, consistent use of condoms was the reason given by those who considered themselves at no risk of contracting the HIV virus.

5 CORRIDORS OF HOPE INTERVENTION

This survey is one of the monitoring tools for the COH project; therefore questions related to exposure to the intervention were incorporated into the questionnaire. The majority (90.7%) of those interviewed had ever heard about COH Drop-in Center or Blue House. Of those who had heard about COH, most of them (66.2%) were introduced to the project by peer educators and/or outreach workers. Chirundu had the least (26.6%) respondents who had heard about COH. There was a gap between awareness of the COH program and actual membership to the program as 62.7 percent of the respondents who knew about the program were actually registered members. About 18.1 percent, 37 percent and 45 percent of the registered members had received services from the program once, few times and several times respectively. Among those who were not already members, 86.9 percent expressed a willingness to join the project.

Among the registered COH members, 94 percent reported having received IEC material during their last visit. In addition, 95.5 percent of the respondents were satisfied with the services at their last visit. Almost all of them (98.9%) said they would go back to the COH/Blue House for care. **Table 19** presents results of the exposure to the intervention.

Table 19: COH Project Exposure Indicators by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
	n = 269	n = 363	n = 464	N = 1,096
Ever heard of COH/Drop in Center	264 (98.1)	327 (90.1)	403 (86.9)	994 (90.7)
	n = 137	n = 223	n = 228	N = 588
Who introduced respondent to COH				
Peer Educator	98 (71.5)	121(54.3)	170 (74.6)	389 (66.2)
Friend (not a PE)	30 (21.9)	46 (20.6)	40 (17.5)	116 (19.7)
Health Care Provider	4 (2.9)	7 (3.1)	15 (6.6)	26 (4.4)
Others	5 (3.6)	49 (22.0)	3 (1.3)	57 (9.7)

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
	n (%)	n (%)	n (%)	N (%)
	n = 264	**n = 327**	**n = 403**	**N = 994**
Registered member of COH	142 (53.8)	233 (71.3)	248 (61.5)	623 (62.7)
	n = 118	**n = 92**	**n = 149**	**N = 359**
Not registered with COH would be willing to register	99 (83.9)	85 (92.4)	128 (85.9)	312 (86.9)
	n = 134	**n = 234**	**n = 236**	**N = 602**
Number of times services were received				
Once	32 (23.9)	38 (16.4)	39 (16.5)	109 (18.1)
A few	69 (51.5)	98 (42.2)	56 (23.7)	223 (37.0)
Several	33 (24.6)	96 (41.4)	141 (59.7)	270 (44.9)
	n = 143	**n = 234**	**n = 249**	**N = 626**
Was given IEC material during last COH visit	142 (99.3)	206 (93.2)	241 (96.8)	598 (98.5)
Was very satisfied with services at last visit	140 (97.9)	218 (93.2)	240 (96.4)	598 (95.5)
Would go back to seek care at COH again	141 (98.6)	232 (99.1)	246 (98.8)	619 (98.9)

During analysis, key variables were compared based on sex workers that were registered members of COH versus those that were not registered with COH. The results revealed that there was an overall higher (37.6) level of HIV knowledge among sex workers that were registered with the COH project compared with those who were not registered (31.5%) though this was not found to be statistically significant (p=0.006). The data also show that members of the project were more likely (84.3%) to consistently use condoms with paying clients than non-members (76.7%) with a paying partner at last sexual intercourse (p=0.004). Forty-four percent of the members used condoms consistently with paying partners in the last 30 days as opposed to non-registered respondents (34.9%; p=0.006). Among those registered with COH, the levels of HIV knowledge across all the three sites were below half with Chirundu having the highest rate (43.2%) followed by Kapiri Mposhi (37.1%) and Livingstone (35.0%). Across the three sites, it appears that the differences between COH members and non-members with regard to condom use with a paying partner at last sex is insignificant as shown by the proportions in **Table 20.**

Table 20: Comparison of Intervention vs. Non-Intervention variables by Site

Characteristics	Chirundu	Kapiri Mposhi	Livingstone	Total
Overall knowledge of HIV	P<0.001	P=0.189	P=0.08	P=0.066
COH member	60/139 (42.3)	86/232 (37.1)	84/240 (35.0)	230/611 (37.6)
Non-COH member	20/113 (17.7)	26/91 (28.6)	63/142 (44.4)	109/346 (31.5)
Used condom with paying partner at last sex	P=0.162	P=0.195	P=0.094	P=0.004
COH member	122/139 (87.8)	208/232 (89.7)	192/248 (77.4)	522/619 (84.3)
Non-COH member	96/119 (80.7)	77/92 (83.7)	104/150 (69.3)	277/361 (76.7)
Used condom consistently with paying partner for the past 30 days	P=0.142	P=0.020	P=0.252	P=0.006
COH member	85/141 (60.3)	125/233 (53.6)	65/249 (26.1)	275/623 (44.1)
Non-COH member	60/119 (50.4)	35/91 (38.5)	31/151 (20.5)	126/361 (34.9)

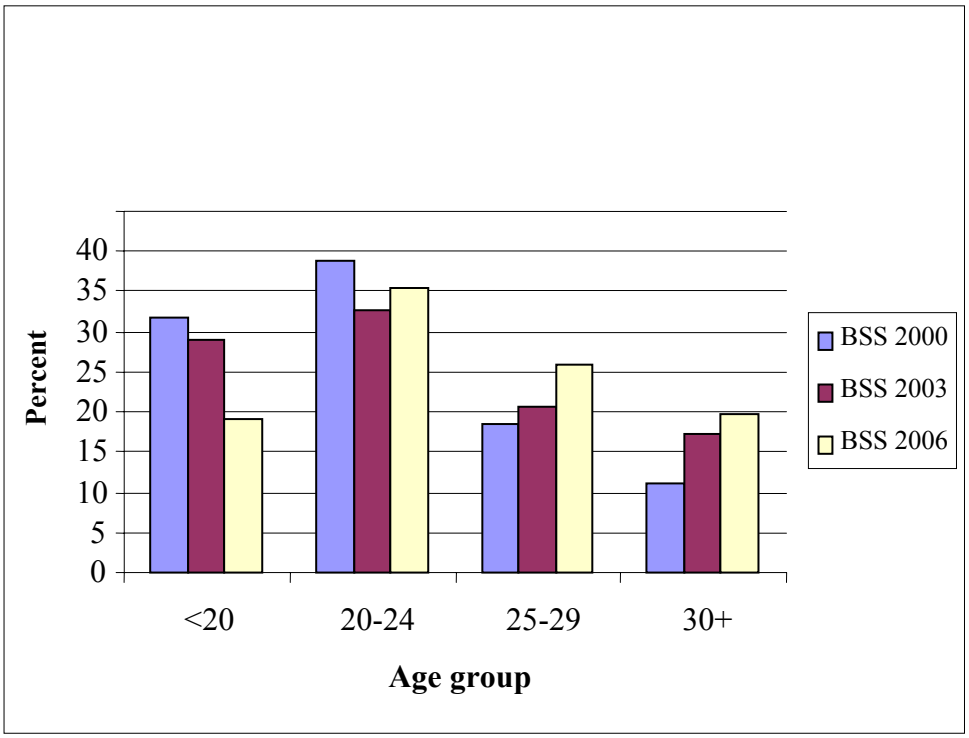
6 CHANGES AND TRENDS ANALYSIS

The following section presents changes and trends over the three study times 2000, 2003 and 2006 for Livingstone and Chirundu.

6.1 Socio-demographic Characteristics

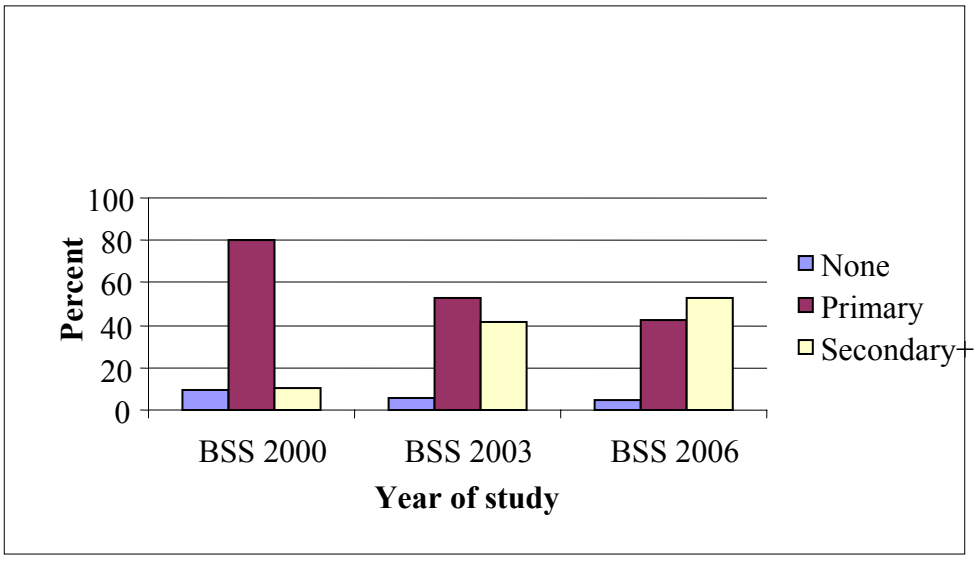
There was a decline in the proportion of the sex workers aged 20 years and below from 31.7 percent in 2000 to 19.1 percent in 2006. **Figure 1** presents changes in some of the social demographic characteristics of the study participants. In Livingstone, the proportion of younger sex workers in the under 20 year age range declined between Round 1 and Round 3 from 35.6 percent in 2000 to 23.5 percent in 2006. The proportion of the 30 year and above age group increased from 9.2 percent in Round 1 to 16.5 percent ($p<0.001$). Chirundu had a similar pattern of the population getting older ($p<0.001$). See **Table 21** in **Appendix I**.

Graph 1: Changes in Age Group Distribution



The proportion of the sex workers who reported having attained secondary or higher level of education increased from 10.1 percent in 2000 to 53 percent in 2006. The proportion of the respondents who attained secondary or higher levels of education remarkably increased for Livingstone (11.6% - 34.8%) and Chirundu (7.1% - 37.3%). See **Table 21** in **Appendix I.**

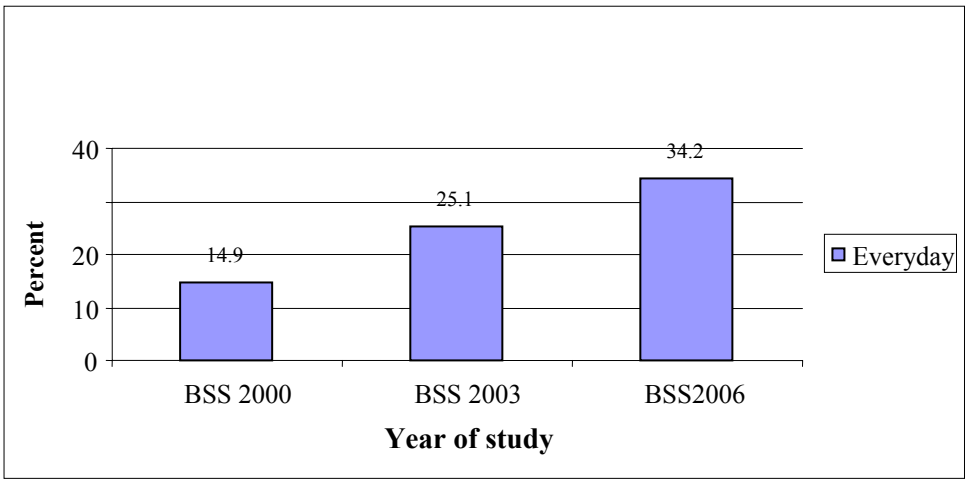
Graph 2: Changes in Education Level



6.2 Alcohol Use, History of Sex Work and Number of Paying and Non-paying Clients

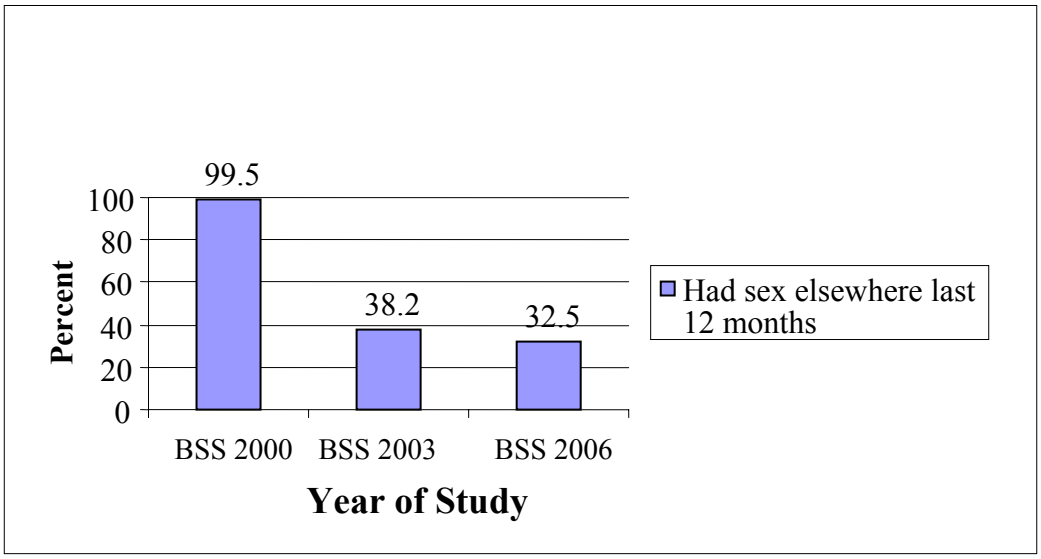
The proportion of the respondents who reported taking alcohol everyday in the past 4 weeks increased from 14.9 percent in 2000 to 34.2 percent in 2006. The proportion of the sex workers who reported using alcohol everyday increased significantly from 16.2 percent during Round 1 to 41.5 percent in Round 3 ($p<0.00$) for Livingstone. In Chirundu, the increase was from 12.7 percent in 2000 to 21.7 percent in 2006 ($p=0.021$) in 2006 ($p<0.001$). For Chirundu, all the sex workers interviewed reported having done sex work elsewhere in 2000 compared to 28.7 percent in 2006 ($p<0.001$). See **Table 22**.

Graph 3: An Increasing Trend in Daily Alcohol Use



The mobility of the sex workers in terms of reported sex work elsewhere drastically declined from 99.5 percent in 2000 to 32.5 percent in 2006. Site-specific data also show a decline for both Livingstone and Chirundu. In Livingstone, 99.2 percent reported having done sex work elsewhere in 2000 compared to 34.7 percent. See **Table 21** in **Appendix I**.

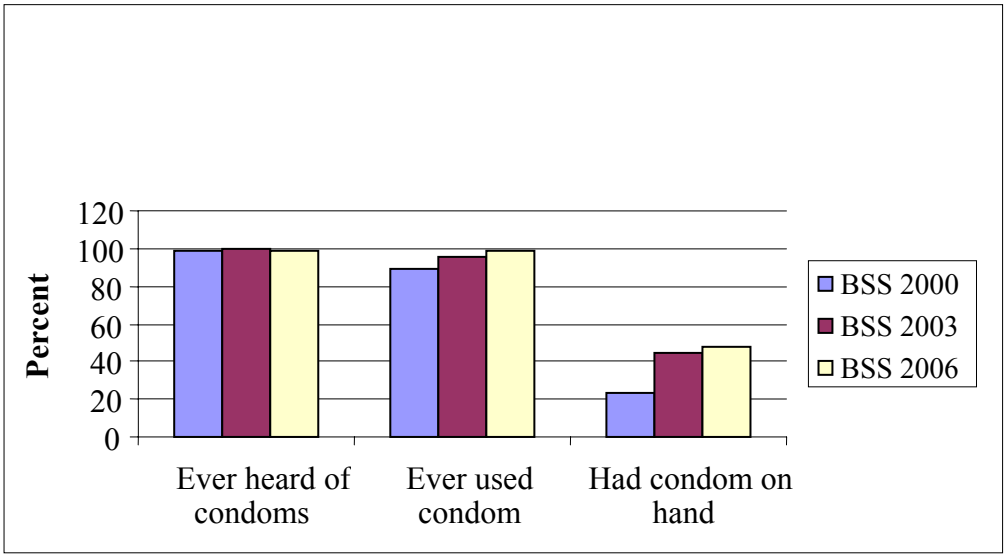
Graph 4: Proportion of FSWs who had Sex Work last 12 Months outside Area of Interview



6.3 Male Condom Use

Knowledge about male condoms was high among the sex workers. The proportion of the respondents that had heard about the male condom was quite high both during 2000 (98.5%) and 2006 (99.2%). This was also the case with ever used a male condom with 89.4 percent in 2000 and 99.1 percent in 2006 who reported ever used a male condom. The respondents who reported having condoms at hand increased from 23.5 percent in 2000 to 48.1 percent in 2006. Condom use at last sexual intercourse with paying partners increased from 49.6 percent in 2000 to 78.6 percent in 2006. The sex workers who reported ever used a male condom increased significantly between Round 1 and Round 3 from 88.9 percent to 96.1 percent ($p<0.001$) in Livingstone whilst in Chirundu it increased from 90.1 percent to 95.9 percent between the two rounds ($p=0.02$). Condoms at hand at time of interview increased from 20.8 percent to 40.5 percent and 28.2 percent to 61.2 percent for Livingstone and Chirundu respectively ($p<0.00$). Even though there was an increase in condom use at last sex with a paying partner between Rounds 1 and 3 in both towns, Livingstone exhibited a lower increase (48.8% - 75.1%: $p<0.001$) than Chirundu (51.0 % – 84.6%: $p<0.01$). In terms of consistent condom use with a paying partner in the last 30 days, there was a slight increase for Livingstone (17.8% – 23.3%; $p<0.027$) whereas Chirundu had a larger increase (17.5% - 54.6%; $p<0.00$). Conversely, a statistical increase in condom use at last sex with a non-paying partner between Rounds 1 and 3 (32.7% - 53.5%; $p<0.001$) was observed in Livingstone, whilst no significant trend was observed in Chirundu ($p=0.8$). There was no statistical increase in condom use in the previous twelve months with non-paying partner in both Livingstone and Chirundu between Rounds 1 and 3. See **Table 23** in Appendix I.

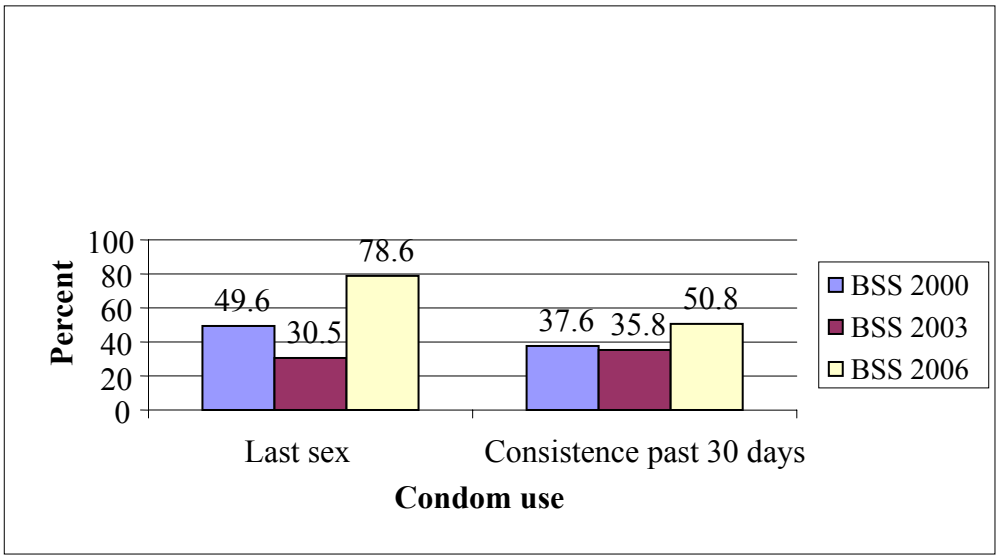
Graph 5: Proportion of FSWs Ever Used and Those found with Condoms on hand at Time of Interview



6.4 Knowledge and Experience of STIs

Knowledge about STIs was universal among the sex workers. The proportion of those who knew any STIs symptoms increased from 84.7 percent in 2000 to 94.8 percent in 2006. The trend is not clear with regards to reported history of STIs. The proportion of the respondents with a history of genital ulcers declined slightly from 32.1 percent in 2000 to 29.2 percent in 2006 whilst that of genital discharge increased slightly from 26.7 percent in 2000 to 28.7 percent in 2006. The number of symptoms in women known by the respondents had increased as evidenced by the decrease in those who did not know any symptoms between Round 1 (15%) and Round 3 (5.8%) in Livingstone ($p<0.001$). In Chirundu, knowledge about STIs was widespread. With regards to the number of symptoms in women known by the sex worker, a similar trend as the one obtaining in Livingstone is evident where the proportion of those who did not know any symptoms decreased significantly from 15.2 percent to 4.4 percent ($p<001$) between 2000 and 2006. No significant trends were observed in the proportion of those who had a genital discharge in the past twelve months and in those who reported a genital ulcer in the past twelve months in both towns. See **Table 24** in **Appendix I**.

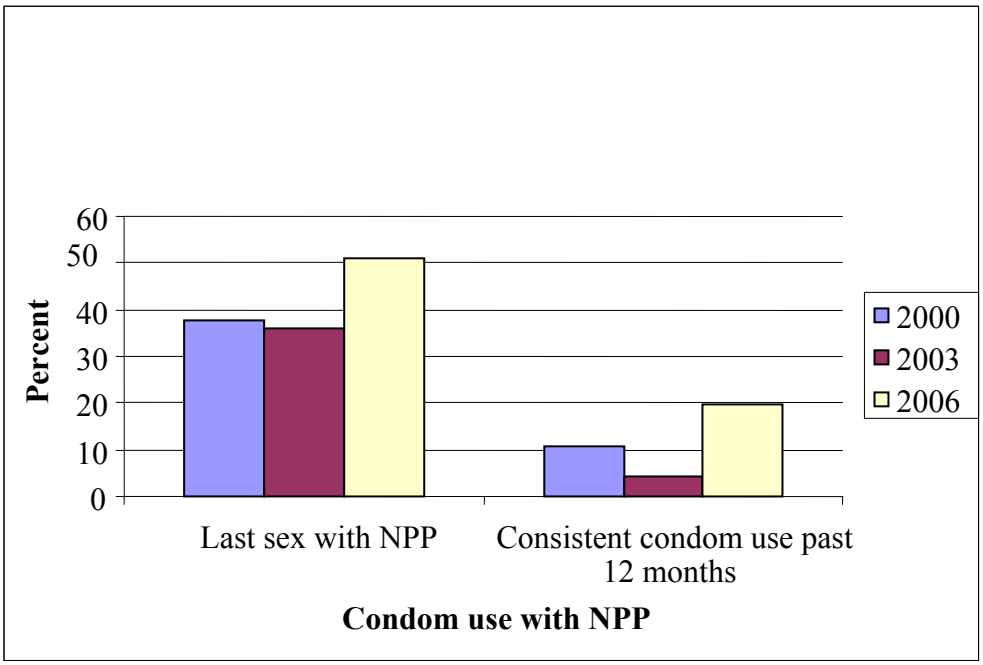
Graph 6: Condom Use at last Sex and Consistent Use with Paying Partners



6.5 Voluntary Counselling and Testing (VCT)

The proportion of the respondents who reported ever taking an HIV test increased from 13.9 percent in 2000 to 49.8 percent in 2006. Of these, 52.7 percent took the test voluntarily in 2000 and 89.5 percent did so in 2006. The sex workers who reported having been tested increased from 12.5 percent to 49.9 percent ($p<0.001$) between Round 1 and 3 in Livingstone and 50.0 percent in 2000 and 90.9 percent in 2006 said they tested voluntarily ($p<0.00$). No significant trend was observed in the proportion of the respondents who received their HIV results ($p=0.7$). In Chirundu, there was a significant increase in those ever tested from 16.2 percent in Round 1 to 49.6 percent in Round 3 ($p<0.001$). Similarly, there was an increase in those who took the test voluntarily from 56.5 percent to 87.2 percent ($p<0.001$) between Rounds 1 and 3. The trend was similar with regards to collecting the results as 56.5 percent as compared to 86.5 percent ($p<0.00$) collected their results between Rounds 1 and 3. See **Table 25**.

Graph 7: Condom Use at Last Sex and Consistent Use with Non-paying Sex Partners



6.6 Knowledge about HIV and its Prevention

Complete knowledge of HIV did not change significantly between 2000 (62.2%) and 2006 (69.8%) whereas comprehensive knowledge declined from 43.1 percent in 2000 to 37.5 percent in 2006. There was no increase between Rounds 1 and 3 (63.3% - 61.9%; p=0.773) in Livingstone whilst in Chirundu there was a significant increase from 60.1 percent to 83.1 percent (p<0.001). Similarly, there was no increase in comprehensive knowledge (ABC = no misconception) between Rounds 1 and 3 (46.9%) in Livingstone and Chirundu (39.0%). Stigma related issues such as willingness to share a meal showed a non-significant trend between Rounds 1 and 3 (10.1% to 13.6%; p<0.641) in Livingstone and (13.5% - 19.9%; p<0.425) in Chirundu.

Graph 8: Knowledge Level on STIs.

7 DISCUSSION

This survey targeted all the sex workers in Livingstone, Chirundu and Kapiri Mposhi that were found in the identified nightclubs and bars for recruitment. The survey used a semi-structured questionnaire to collect the data on behavioural variables. The data shows that the median for reported ages for both sexual debut and at which money was first received in exchange of sexual intercourse was quite low. Whilst the number of paying sexual partners in the last seven days ranged from one to more than five, about two thirds used condoms consistently with a paying partner in the last seven days and only a quarter said they used condoms consistently with paying partners in the last 30 days. These data, as the previous BSS, reveal enormous gaps between knowledge and sexual practices among FSWs and these data continue to convey a message about how effective or ineffective the interventions are. The discussion of these results is systematically presented below. The discussion also highlights trends in sexual behaviour of FSWs for Livingstone and Chirundu for Rounds 1 to 3 (2000, 2003 and 2006) of the BSS.

7.1 Socio-Demographic Characteristics of the Study Population

Most of the female sex workers interviewed were in the age group 15-29 years with the highest concentration being in the 20-24 year age bracket. This is consistent with the assumption that FSWs are likely to be younger due to a number of socio-economic factors that force young women into prostitution in Zambia. However, over the years there has been a shift in the age of sex workers with older women being more noticeable in Livingstone and Chirundu. The shift in the educational trend to more sex workers who have attained higher levels of education is a strong indicator of limited employment opportunities for women. This situation compels most young women to earn a living through sex work. Majority of the sex workers are not married, a situation that compounds their economic difficulties. These findings show that female sex workers are not as mobile as it is always assumed. This finding is important as it suggest that sex workers are a stable and therefore a captive population. This presents

a good opportunity for HIV/AIDS intervention activities or programs that target female sex workers with site-specific and targeted interventions.

7.2 Alcohol and Drug Use

Many female sex workers reported taking alcohol at least once per week although slightly more than a quarter said they took alcohol every day. Similarly, some of the female sex workers reported having taken dagga (marijuana). Other drugs reported included heroin and cocaine, although insignificant for this population. Psychoactive substance abuse is becoming a major social and public health problem in Zambia. A study conducted in Lusaka's Kanyama and Chinika compounds established that drug abuse was rampant among young people (Ndubani et al. 2003). A similar increase in substance abuse has been observed with respect to the female sex workers both in Chirundu and Livingstone during Rounds 1 to 3 of the BSS. Reports suggest that there is a high correlation between substance abuse and risk sexual behaviour (Mwansa et al. 2004). In view of the above observations, programmes targeting sex workers, most of whom are predominantly younger women, should begin to take into consideration strategies of reducing substance abuse among this high risk population by integrating into behavioural change messages primary prevention of substance abuse.

7.3. Sexual Behaviour

The median age at first sexual intercourse reported by the FSWs in this survey is still quite young and this is consistent with the 2000 and 2003 BSS results. There appears to be a strong link between early sexual debut and the age at which money was received in exchange for sex. The reported number of both paying and non-paying sexual partners in the last seven days was high during the 2006 BSS. Although by its very nature, sex work requires that one changes sexual partners as much as possible in order to derive maximum economic benefits, the risk to infection could be quite high. Engaging in multiple sexual relationships indicates the extent of sexual networking within a population and has the consequence of exacerbating the spread of HIV and other STIs (White et al. 2000). The sexual contacts of these FSWs will often be married people or those who engage in other sexual relationships with regular partners where they are less likely to use condoms.

7.4. Knowledge and Attitudes towards Condoms

Knowledge and ever used a male condom was quite high among the FSWs. However, it is important to note that ever used a condom did not mean consistent use or use at last sexual intercourse with a paying partner. For example, 81.5 percent said they used a condom the last time they had sex with a paying partner whilst only 38.6 percent said they used condoms every time they had sex with a paying partner and about half had condoms on hand. These data show that knowledge of and ever used a male condom does not necessarily result into consistent use, which is the only way condoms can protect people from infections as opposed to selective or inconsistent use. The behaviour of sex workers continues to expose them to the risk of HIV and other STIs. For example, the data indicate that consistent condom use with a paying partner for both Livingstone and Chirundu for Rounds 1 to 3 left much to be desired. Similarly, although ever head and ever used condoms was high, the actual use as

determined by condom at hand, condom use at last sex and consistent condom use over a period of 30 days was low. In Livingstone, condom at hand, which is one of the main predictors of condom use, was low at 20.8 percent in 2000, 47.0 percent in 2003 and 40.5 percent in 2006. However, condom use at last sex with a paying partner progressively increased over these periods from 48.8 percent in 2000 to 75.1 percent in 2006. It is also clear from the data that availability or non-availability of condoms is not a major determinant of condom use but rather that partner acceptance or objection seems to be the main determinant. This suggests the extent to which female sex workers lack the ability to negotiate safer sex. In the 2000 and 2003 BBSS, the proportion of FSWs who cited non-availability of a condom for non-use tremendously declined in Livingstone and Chirundu (BBSS 2003). Knowledge and use of the female condom was not as widespread as that of the male condom. With the majority of sex workers indicating that most of their clients object to male condom use, there is a need to promote the use of female condoms although the attitudes of males towards female condom use are not well documented in Zambia.

7.5 Sexually Transmitted Infections

Knowledge of STIs was widespread as almost all the sex workers had heard of diseases that are transmitted through sexual intercourse. The reported prevalence of STIs among this population appears to be higher than those found in other subgroups of the populations where self-reported STIs symptoms is usually less than a third (ZSBS 2006). Whilst in the previous BSS, those who reported a history of an STI in the past 12 months indicated either government hospital or clinic as their first source of treatment, during the 2006 BSS, the majority of the respondents reported COH Drop-in Centre. This suggests that, with passing of time, the COH project has made some impact on the sex worker populations. However, risky sexual behaviours during the illness have continued as most of those who report STIs symptoms in the last 12 months do not refrain from sexual intercourse whilst fewer report using condoms during the illness and/or notify their sexual partners. As with other risk behavioural indicators, there are considerable gaps between factual knowledge and safer sexual practices necessary to prevent further HIV transmission between FSWs and their male clients. The delay in seeking medical care by those infected, the low levels of partner notification, inability to refrain from sex whilst having symptoms and let alone low condom use whilst infected all combine to pose a great challenge in the fight against the spread of HIV and other STIs among the sex workers.

7.6 Knowledge and Attitudes towards HIV/AIDS

These findings further show that, although the proportions of the FSWs who responded accurately to knowledge questions about HIV was high, misconceptions and negative attitudes also existed as some believed that mosquito bites could transmit the HIV virus and that it was possible to contract HIV by sharing a meal with someone infected. This is a contradiction since most of them knew quite well that sexual intercourse was the predominant mode of HIV transmission and that condoms could reduce the transmission of HIV. In stressing the efficacy of the condoms, the majority of the FSWs considered themselves to be at great risk of contracting the virus mainly because they never used condoms every time they had sex and that they practice multiple sexual relationships. Moreover, those who considered themselves at no risk of contracting the HIV virus cited consistent condom use as the main reason

for not being at risk of contracting the HIV virus. The above findings highlight the fact that despite widespread knowledge of the risks involved in their work, FSWs do not take necessary measures to protect themselves against HIV and other STIs. There could be contextual barriers to effective adoption of safer sexual practices that are beyond the sex workers' control that need to be further understood. Notwithstanding, most of the FSWs in this survey perceived themselves to be susceptible and therefore have the potential for changing sexual behaviour. Unless there is perceived susceptibility, behaviour may never change (Becker and Miaman 1975).

7.7 Voluntary Testing and Counseling (VCT)

Close to half of the female sex workers said they had undergone voluntary counselling and testing (VCT) for HIV and even fewer had collected the test results. Fear of results was the main reason for not taking an HIV test although there were many who indicated willingness to take an HIV test. But the effect of knowing HIV status among FSWs is not well known. One side of the argument is that a sex worker who knows she is HIV+ may not adopt positive behaviour change such as insisting on condom use while those who are HIV- may change positively their behaviour. In the control of HIV and AIDS, VCT is an entry point to care and prevention. Therefore this service and intervention should be made available to sex workers who need it in a non-stigmatising manner. However caution and well-planned counselling services and linkages to care and prevention continuum including reproductive health services are needed.

7.8 Project Indicators

The findings indicate that not all the FSWs have heard and benefited from the COH project. There needs to be a sustained awareness and recruitment drive for membership to COH. The advantages of COH are underscored by the fact that those who were members expressed satisfaction with the services they received the last time they visited the drop-in centre and almost everyone interviewed was willing to go back to the drop-in centre. Also, among non-members, a majority indicated willingness to join the project. Furthermore, COH is a major source of education materials as revealed by the proportion of those who had received such materials from the project the last time they visited. The prevalence of STIs was lower among the registered members relative to non-members. Given that both female sex workers exposed to project services and those not exposed share the same clientele, it is not possible to reduce prevalence levels without the majority of these sex workers accessing the STIs services.

8 CONCLUSION

There still remain gaps between knowledge and sexual practice. Despite adequate knowledge that consistent condom use can prevent the acquisition of STIs including HIV, the use is still lower than expected. The delay in seeking medical care by those infected, the low levels of partner notification, inability to refrain from sex whilst having symptoms and let alone low condom use whilst infected all pose a great challenge in the fight against the spread of HIV and other STIs. These data, as the previous BBSS, continue to send a message about how difficult it is to achieve optimal behavioural change especially in an economically vulnerable population as

that of female sex workers. Contextual issues which include economic empowerment in order to enhance negotiation ability need to be taken into serious consideration. The limited use of female condoms among sex workers reduces their ability to control their sexuality.

9 RECOMMENDATIONS

1. There are important physical and personal barriers that continue to impede meaningful behavioural change among the female sex workers. Some of these factors include the inability by sex workers to exert the use of condoms due to both economic and physical vulnerability. Notwithstanding these factors, intensified behavioural change information is required.

2. While it is important that sex workers have the knowledge and the skills to negotiate condom use, this is not enough. Short-term prevention efforts should target both sides of the commercial sex equation, as well as its context. Long-term prevention efforts should work on changing the social landscape that deprives women of choices. Furthermore, all prevention efforts need a multi-sectoral approach with the recognition that only targeting the risk behaviours and not vulnerability may not work.

3. A high proportion of the respondents knew where to obtain condoms, which were mostly traditional sources such as health facilities, commercial outlets and the COH peer educators. However, there appears to be complacence in consistent condom use as evidenced by small proportions of those with condoms at hand. It should be emphasised that the peer educators and outreach workers must continue to play a key role as the most convenient behavioural change agents as well as suppliers of condoms while at the same time coordinating other partners involved in condom distribution and sales and encourage sex workers to equip themselves with condoms all the time.

4. In view of continued existence of some misconceptions and stigma against people with HIV/AIDS, there is a need to develop better ways and strategies for correcting the misconceptions and negative attitudes. One of the ways to correct these misconceptions is for the programme to broaden its coverage and reach out to more women at high risk with accurate information. Providing accurate information through innovative and appropriate message delivery strategies will also assist to lessen stigma against people with HIV/AIDS.

5. There is increasing recognition of the relationship between substance abuse and risky sexual behaviours that predispose people to HIV. Programme managers should begin to seriously analyse and understand substance use among the high-risk female populations at border posts with a view of integrating HIV/AIDS messages with primary prevention of substance abuse.

6. STIs control in the project needs to be further strengthened. An expansion of peer education and outreach work will sensitise the sex workers and other members of the community to the dangers of STIs and the benefits of early treatment seeking behaviour. To achieve this, the women who are at high risk need to be targeted, above and beyond the established sex workers, because it

will not be possible to control the prevalence of STIs if the majority of the vulnerable female populations are not reached.

7. Based on the high prevalence of STIs among sex workers, the management guidelines, including frequency of re-visit, need to be reviewed and revised in line with current STIs infection prevalence and drug sensitivity patterns. Effective STIs services that are of high quality with continued availability of drugs, condoms, partner treatment services, and provider referral are needed.

8. There was an encouraging proportion of respondents who had taken an HIV test. 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.

10 REFERENCES

Becker MH. Miaman AL. Sociobehavioural determinants of compliance with health and medical care recommendations. Medical Care 1975; 13:10-24.

CSO, Zambia Demographic Health Survey 2001-2002

CSO, Zambia Sexual Behaviour Survey. Central Statistical Office, 2006

Mwansa A. Nkowane, Lee Rocha-Silva, Shekha Saxena, Joseph Mbatia, Phillimon Ndubani, Gina Weir-Smith. Psychoactive Substance Use among Young People: Findings of a Multi-Centre Study in Three Countries. *Contemporary Drug Problems* 2004; 31/Summer: 329-356.

NAC/MOH, the HIV/AIDS Epidemic in Zambia: Where are we now, Where are we going, 2004?

Ndubani P., Mwale S. Zulu R. Msoni M. UNDCP/WHO Global Initiative on Primary Prevention of Substance abuse: A Post- intervention Evaluation in Kanyama and Chinika, 2003.

White R. Cleland J. Carael M. Links between premarital sexual behaviour and extramarital intercourse: a multi-site analysis. AIDS 2000; 14:2323-31.

APPENDIX I

Table 21: Changes in Social Demographic Characteristics: Age and Educational Level 2000-2006 by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n (%)**	**BSS 2006 n %)**	**p value**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value**
Age (Years)				**<0.001**				**<0.001**
<20	93 (35.6)	120 (34.3)	111 (23.5)		35 (24.6)	48 (21.1)	30 (11.2)	
20-24	103 (39.5)	132 (37.7)	182 (38.5)		53 (37.3)	57 (25.1)	81 (30.3)	
25-29	41 (15.7)	60 (17.1)	102 (21.6)		33 (23.2)	60 (26.4)	89 (33.3)	
30- +	24 (9.2)	38 (10.9)	78 (16.5)		21 (14.8)	62 (27.3)	67 (25.1)	
Total	**261**	**350**	**473**		**142**	**227**	**267**	
Median	21	21	23		23	25	25	
Education level				**<0.001**				**<0.001**
None	12 (4.8)	8 (2.3)	7 (0.8)		25 (19.7)	27 (11.8)	25 (9.2)	
Primary	209 83.6)	167 (47.6)	170 (20.4)		93 (73.2)	139 (60.6)	145 (53.5)	
Secondary or higher	29 (11.6)	176 (50.1)	290 (34.8)		9 (7.1)	63 (27.5)	101 (37.3)	
Total	**250**	**351**	**467**		**127**	**229**	**271**	

Table 22: Trend in Alcohol Use, History of Sex Work and Number of Paying and Non-paying Clients by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n (%)**	**BSS 2006 n (%)**	**p value for trend**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value for trend**
				<0.001				<0.021
Alcohol use past 4 weeks								
Everyday	42 (16.2)	106 (30.2)	195 (41.5)		18 (12.7)	39 (17.2)	59 (21.7)	
Total	**260**	**351**	**470**		**142**	**227**	**272**	
Has had sex work elsewhere					143 (100)	95 (42.2)	78 (28.7)	<0.001
Yes	259 (99.2)	120 (35.5)	164 (34.7)		143 (100)	95 (42.2)	78 (28.7)	
Total	**261**	**338**	**473**		**143**	**225**	**272**	
Median number of paying clients last day of work	1	1	2		1	1	1	
Median number of paying clients last 7 days	2	3	2		1	2	2	
Median number of non-paying clients last 7 days	1	0	0		0	0	0	

Table23: Trend in Male Condom Use 2000-2006 by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n (%)**	**BSS 2006 n (%)**	**p value for trend**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value for trend**
Ever heard of a condom				0.115				0.674
Yes	254 (98.1)	347 (100)	465 (99.4)		142 (99.3)	227 (99.1)	269 (98.9)	
Total	**259**	**347**	**468**		**143**	**229**	**272**	
Ever used a condom				<0.001				0.020
Yes	225 (88.9)	332 (95.7)	447 (96.1)		128 (90.1)	216 (95.6)	256 (95.9)	
Total	**253**	**347**	**465**		**142**	**226**	**267**	
Condoms on hand at time of interview				<0.001				<0.001
Yes	53 (20.8)	155 (47.0)	180 (40.5)		40 (28.2)	85 (40.0)	156 (61.2)	
Total	**254**	**330**	**444**		**142**	**212**	**255**	
Condoms use at last sex with paying partner				<0.001				<0.010
Yes	127 (48.8)	191 (55.2)	349 (75.1)		73 (51.0)	122 (46.3)	226 (84.6)	
Total	**260**	**346**	**465**		**143**	**227**	**267**	
Consistent condom use past 30 days with paying partner				0.027				<0.001
Yes	46 (17.8)	52 (15.1)	109 (23.3)		25 (17.5)	27 (11.9)	147 (54.6)	
Total	**259**	**344**	**467**		**143**	**226**	**269**	
Condom use last sex with non-paying partner				<0.001				0.860
Yes	48 (32.7)	37 (48.7)	77 (53.5)		28 (43.6)	11 (19.0)	48 (47.1)	
Total	**147**	**76**	**144**		**55**	**58**	**102**	
Consistent condom use with non-paying partner last 12 months				0.055				0.050
Yes	13 (8.8)	5 (6.5)	23 (16.0)		9 (16.4)	1 (1.7)	25 (24.7)	
Total	**147**	**77**	**144**		**55**	**58**	**101**	

Table24: Trends in Knowledge and Experience of STIs 2000-2006 by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n %)**	**BSS 2006 n (%)**	**p value for trend**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value for trend**
Ever heard of STIs				0.906				0.486
Yes	249 (96.1)	336 (98.0)	414 (96.3)		140 (97.9)	226 (99.1)	261 (98.9)	
Total	**259**	**343**	**430**		**143**	**228**	**264**	
Number of STIs symptom in women known								
0	38 (15.4)	27 (7.7)	18 (5.8)	<0.001	21 (15.2)	12 (5.2)	10 (4.4)	<0.001
1	29 (11.7)	38 (10.8)	24 (7.8)		24 (17.4)	24 (10.5)	20 (8.9)	
2	61 (24.7)	53 (15.1)	50 (16.2)		25 (18.1)	36 (15.7)	80 (35.6)	
3	65 (26.4)	83 (23.6)	85 (27.6)		45 (32.6)	54 (23.6)	62 (27.6)	
4	25 (10.1)	83 (23.6)	52 (16.9)		17 (12.3)	47 (20.5)	26 (11.6)	
5 +	29 (11.7)	67 (19.1)	79 (25.6)		6 (4.3)	56 (24.5)	27 (12.0)	
Total	**247**	**351**	**308**		**138 (100)**	**229**	**225 (100)**	
Had genital discharge past 12 months				0.230				**0.092**
Yes	70 (27.0)	123 (35.7)	151 (32.4)		37 (26.1)	94 (41.0)	60 (22.2)	
Total	**259**	**345**	**466**		**142**	**229**	**270**	
Had genital ulcer/sore past 12 months				0.431				**0.142**
Yes	87 (33.7)	129 (37.3)	148 (31.8)		41 (29.1)	85 (37.1)	64 (24.5)	
Total	**258**	**346**	**466**		**141**	**229**	**261**	

Table25: Voluntary Counselling and Testing by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n (%)**	**BSS 2006 n (%)**	**p value for trend**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value for trend**
VCT ever been tested				<0.001				<0.001
Yes	32 (12.5)	56 (16.2)	230 (49.9)		23 (16.2)	30 (13.5)	133 (49.6)	
Total	**256**	**346**	**461**		**142**	**223**	**268**	
Voluntarily tested				<0.001				<0.001
Yes	16 (50.0)	39 (90.7)	209 (90.9)		13 (56.5)	20 (74.1)	116 (87.2)	
Total	**32**	**43**	**230**		**23**	**27**	**133**	
Received the results				0.752				<0.001
Yes	25 (83.3)	30 (73.2)	179 (77.8)		13 (56.5)	19 (70.4)	115 (86.5)	
Total	**30**	**41**	**230**		**23**	**27**	**133**	
Used family planning method								
Yes	111 (43.2)	123 (35.0)	312 (68.9)	0.001	48 (33.6)	44 (19.3)	209 (83.6)	**0.001**
Total	**257**	**351**	**453**		**143**	**228**	**250**	

Table 26: Trend in Knowledge about HIV and its Prevention by Site

	LIVINGSTONE				CHIRUNDU			
Characteristics	**BSS 2000 n (%)**	**BSS 2003 n (%)**	**BSS 2006 v (%)**	**p value for trend**	**BSS 2000**	**BSS 2003**	**BSS 2006**	**p-value for trend**
Knowledge of HIV Has complete knowledge of HIV prevention (ABC)				0.773				<0.001
Yes	162 (63.3)	209 (61.3)	280 (61.9)		86 (60.1)	124 (55.6)	222 (83.1)	
Total	**256**	**341**	**452**		**143**	**223**	**267**	
Has comprehensive knowledge about HIV/AIDS (ABC + no misconception)				0.345				0.273
Yes	120 (46.9)	122 (35.8)	183 (40.6)		55 (39.0)	69 (30.9)	87 (33.1)	
Total	**265**	**341**	**452**		**141**	**223**	**267**	
Stigma related issues Willingness to share a meal				0.641				
Yes	26 (10.1)	79 (23.0)	63 (13.6)		19 (13.5)	67 (29.9)	52 (19.9)	0.425
Total	**257**	**343**	**463**		**141**	**224**	**268**	

APPENDIX II: QUESTIONNAIRE

***Round 3 BSS2006*:**

FAMILY HEALTH INTERNATIONAL (FHI)
HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEYS (BSS)
FOR USE WITH FEMALE SEX WORKERS (FSWs)

Chirundu, Kapiri Mposhi and Livingstone

Introduction: "My name is…….. I'm working for the Corridors of Hope (COH) project and Family Health International (FHI). We are interviewing people here in [name of town, province or site] in order to find out about peoples HIV/AIDS knowledge, attitudes and risk behaviour. Have you been interviewed in the past few days or week for this study? **IF THE RESPONDENT HAS BEEN INTERVIEWED BEFORE DURING THIS ROUND OF BSS, DO NOT INTERVIEW THIS PERSON AGAIN. TELL THEM YOU CANNOT INTERVIEW THEM A SECOND TIME. THANK THEM AND END THE INTERVIEW. IF THEY HAVE NOT BEEN INTERVIEWED BEFORE, CONTINUE: GET CONSENT USING THE STANDARD CONSENT FORM.**

001 QUESTIONNAIRE IDENTIFICATION NUMBER |___|___|___|___|

002 TOWN_____

003 PROVINCE_____

004 PLACE SAMPLED

1. Bar /tavern
2. Drop- in centre (COH)
3. Hotel/Lodge/Guesthouse
4. Street
5. Brothel/FSW home
6. Others (Specify) _____

005 NAME AND PLACE OF INTERVIEW_____

006 CLUSTER/ZONE_____

007 INTERVIEWER: Code [____|____] Name_____

008 DATE INTERVIEW: __\ ____ \ _____
D \M \Year

009 TOTAL TIME USED _____

010 CHECKED BY EDITOR: Signature _____ Date _____

The FEMALE SEX WORKER questionnaire includes the following sections:

Section 0 – Questionnaire identification data (6 codes)	
Section 1 – Background characteristics	17 questions
Section 2 – Marriage, family, work	10 questions
Section 3 – Sexual history: numbers and types of partners	7 questions
Section 4 – Sexual history: paying clients	6 questions
Section 5 – Sexual history: non-paying partners	7 questions
Section 6 – Male and female condoms	16 questions
Section 7 – STDs	12 questions
Section 8 – Knowledge, opinions, and attitudes towards HIV/AIDS	37 questions
Section 9 – Service delivery and access	16 questions
TOTAL NUMBER OF QUESTIONS:	**128 questions**

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 1: Background characteristics

No.	Questions and filters	Coding categories	Skip to
100	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/RECONCILE Q101 & 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**
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	How long have you lived here in (NAME OF COMMUNITY/ TOWN NEIGHBORHOOD/ VILLAGE)?	NUMBER OF YEARS [__|__] RECORD 00 IF LESS THAN 1 YEAR DON'T KNOW 88 NO RESPONE 99	
Q107	Where were you born	Copperbelt Province 1 Lusaka Province 2 Central Province 3 Luapula Province 4 Eastern Province 5 Northern Province 6 Southern Province 7 North-Western Province 8 Western Province 9 Other (Specify……..) 10	
Q108	Where have you lived in past 12 months?	_____ _____ _____	
Q109	How many times have you moved from one town to another in the past 12 months and stayed, on average, at least 2 nights in each place?	NUMBER OF TIMES [__|__] NO RESPONSE 99	

Q110	In the past 3 months, have you spent at least one night at any of the following towns, Kazungula, Chirundu, Nakonde, Chipata, Katete/Chanida, Kasumbalesa, Kapiri Mposhi, Ndola, Lusaka	Yes 1 No 2 Don't know 3	□ **Q112** □ **Q112**
Q111	Where did you spend a night in the following towns in past 3 months:	Yes No Don't know Kazungula 1 2 3 Livingstone 1 2 3 Chirundu 1 2 3 Nakonde 1 2 3 Chipata 1 2 3 Katete/Chanida 1 2 3 Kasumbalesa 1 2 3 Kapiri Mposhi 1 2 3 Ndola 1 2 3 Lusaka 1 2 3	
Q112	What is your religion? CIRCLE ONE	Christian 1 Muslim 2 Buddhist 3 Hindu 4 Other (specify……) 5 NO RELIGION 0 NO RESPONSE 99	□ **Q114** □ **Q114** □ **Q114** □ **Q114** □ **Q114** □ **Q114**
Q113	What is your religious denomination or Church? CIRCLE ONE.	CATHOLIC 1 UNITED CHURCH OF ZAMBIA 2 SEVENTH DAY ADVENTISTS 3 REFORMED CHURCH IN ZAMBIA 4 PENTECOSTALS(Born again) 5 ANGLICAN 6 JEHOVA'S WITNESS 7 OTHER (SPECIFY)---------- 8 NO RESPONSE 99	
Q114	To which ethnic group/tribe do you belong? **CIRCLE ONE.**	Lozi 1 Tonga 2 Nsenga/Ngoni 3 Bemba 4 Lala 5	

		Lamba 6 Kaonde 7 Other (specify)---------- 8 NO RESPONSE 99	
Q115	During the last 4 weeks how often have you had drinks containing alcohol? Would you say **READ OUT and 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	
Q116	Some people have tried a range of different types of drugs. Which of the following, if any, have you tried? **READ LIST AND ASK FOR ANY OTHER.** **CIRCLE ALL THAT APPLY.**	YES NO DK Daga (Ichamba) 1 2 88 Heroin 1 2 88 Cocaine 1 2 88 Mandrax 1 2 88 Other:_____ 1 2 88 _____ 1 2 88 _____ 1 2 88	IF NO TO ALL SKIP TO 201
Q117	Would you say you took the above drug frequently?	YES NO DK Daga (Ichamba) 1 2 88 Heroin 1 2 88 Cocaine 1 2 88 Mandrax 1 2 88 Other:_____ 1 2 88 _____ 1 2 88 _____	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 2 Marriage, family, work

No.	Questions and filters	Coding categories	Skip to
Q201	Have you ever 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	Are you *currently* married or living with a sexual partner?	currently married, living with spouse 1 currently married, living with other sexual partner 2 currently married, not living with spouse or any other sexual partner 3 not married, living with sexual partner 4 not married, not living with sexual partner 5 NO RESPONSE 99	□ **Q206** □ **Q206**
Q204	Does your spouse/partner have other sexual partners?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	□ **Q206** □ **Q206**
Q205	How many other partners does he have?	NUMBER OF PARTNERS [__|__] DON'T KNOW 88 NO RESPONSE 99	
Q206	Do you earn money- doing work other than sex work?	YES 1 NO 2 NO RESPONSE 99	□ **Q208**
Q207	What is this other work? **MULTIPLE ANSWERS POSSIBLE**	YES NO Marketer 1 2 Waitress 1 2 Vender 1 2 Owns restaurant 1 2 Other---------- 1 2 -- 88 DON'T KNOW 99 NO RESPONSE	
Q208	Are you supporting anyone (children, parents or others) now?	YES 1 NO 2 NO RESPONSE 99	□ **Q301**
Q209	How many people are you supporting now?	NUMBER OF PEOPLE [__|__] NO RESPONSE 99	
Q210	Do the children/parents or others live with you now?	YES 1 NO 2 NO RESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 3 Sexual history: numbers and types of partners

No.	Questions and filters	Coding categories	Skip to
Q301	**Now I'd like to ask you some questions that may be difficult and too personal to answer. But like 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…** At what age did you first have sex?	AGE IN YEARS [__|__] DON'T REMEMBER 88 NO RESPONSE 99	

Q302	At what age did you first receive money for sex	AGE IN YEARS [__|__] DON'T REMEMBER 88 NO RESPONSE 99	
Q303	Where else did you do sex work before coming to this community? (other towns than site of interview)	_____ 1 NONE 2 Other (Specify……..) 3 NO RESPONSE 99	
Q304	How long have you been doing sex work in this community? *STATE TOWN/CITY WHERE YOU ARE DOING INTERVIEWS*	YEARS [__|__] MONTHS [__|__] WEEKS [__|__] RECORD 00 IF LESS THAN ONE WEEK	
Q305	Among all of your partners in the last seven days (one week), how many were: a) PAYING CLIENTS: That is, how many were partners who you had sex with in exchange for money? b) NON-PAYING PARTNERS: How many Partners you had sex with who did not give you money in exchange for sex **(EXCLUDE HUSBAND, LIVE-IN SEXUAL PARTNERS)** c) LIVE-IN PARTNERS/SPOUSE	PAYING CLIENTS [__|__] DON'T KNOW 88 NO RESPONSE 99 NON-PAYING PARTNERS [__|__] DON'T KNOW 88 NO RESPONSE 99 LIVE-IN PARTNERS/SPOUSE [__|__] DON'T KNOW 88 NO RESPONSE 99	
Q306	With how many *different* sexual partners in total have you had sex during the last seven days (one week)? (INCLUDE SPOUSES AND LIVE-IN SEXUAL PARTNERS) NOTE: CHECK TOTAL NUMBERS OF PARTNERS IN Q305a, Q305b AND Q305c TO MAKE SURE THE NUMBERS MATCH Q306.	NUMBER IN LAST 7 DAYS __|__] DON'T KNOW 88 NO RESPONSE 99	
Q307	With how many different sexual partners in total have you had sex during the last 30 days (one month)? (INCLUDE SPOUSES AND LIVE-IN SEXUAL PARTNERS)	NUMBER IN LAST 30 DAYS __|__] DON'T KNOW 88 NO RESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 4 Sexual history: paying clients

No.	Questions and Filters	Coding categories		Skip to
Q401	On the last day you worked, how many clients (people who gave you money in the exchange of sex) did you have?	Number of clients DON'T KNOW NO RESPONSE	|__|_ _| 88 99	
Q402	The last time you had sex with a client (*someone who gave you money in exchange of sex*) how much money did you receive?	Enter amount of money in local currency DON'T KNOW NO RESPONSE	_____ 88 99	
Q403	The **last time** (round) you had sex with a client, did you and your client use a condom?	YES NO DON'T KNOW NO RESPONSE	1 2 88 99	 □ **Q405** □ **Q405** □ **Q405**
Q404	Who suggested condom use that time? **DO NOT READ LIST** **CIRCLE ONE**	Myself My partner Joint decision DON'T KNOW NO RESPONSE	1 2 3 88 99	□ **Q406** □ **Q406** □ **Q406** □ **Q406**
Q405	Why didn't you and your client use a condom that time? Any other reasons? 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	
Q406	In general, how often did you and all of your clients use condoms over the last 30 days, that is since the end of October 2005 this year?	EVERY TIME ALMOST EVERY TIME SOMETIMES NEVER DON'T KNOW NO RESPONSE	1 2 3 4 88 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 5 Sexual history: non-paying partners

No.	Questions and Filters	Coding categories	Skip to
Q501	FILTER: CHECK Q305 HAS NON-PAYING PARTNER [___] HAS NO NON-PAYING PARTNER → [__]		**Q601**
Q502	Think about your **most recent** non-paying sexual partner. How many times did you have sexual intercourse with this person over the past 30 days? *That is since end of October 2005 this yea-*	NUMBER OF TIMES DON'T KNOW NO RESPONSE |__|__ | 88 99	
Q503	The **last time** you had sex with a NON-PAYING partner, did you and your partner use a condom?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	**→Q505** **→Q505** **→Q505**
Q504	Who suggested condom use that time? **DO NOT READ** **CIRCLE ONE**	Myself 1 My partner 2 Joint decision 3 DON'T KNOW 88 NO RESPONSE 99	**→Q506** **→Q506** **→Q506** **→Q506**
Q505	Why didn't you and your partner use a condom that time? **CIRCLE ALL MENTIONED (DO NOT PROBE)**	Y Not available N 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 1 2 NO RESPONSE 88 99	
Q506	In general, how often did you and your non-paying partner(s) use a condom over the last 12 months? **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	
507	During the past 12 months, did any of your sexual partner(s) paying or non-paying force you to have sex with them even though you did not want to have sex?	YES 1 NO 2 NO RESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 6 Male condoms

No.	Questions and Filters	Coding categories		Skip to
Q601	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 manhood before sex.* ↓	YES NO DON'T KNOW NO RESPONSE	1 2 88 99	 **→Q611** **→Q611**
Q602	Have you and any sexual partner ever used a male condom? **(Show picture or sample of one.)** (The respondent may not have used a condom with partners in sections 4-5, but may have used a condom at some other time in the past.)	YES NO DON'T KNOW NO RESPONSE	1 2 88 99	
Q603	Do you know of any place or person from which you can obtain male condoms?	YES NO NO RESPONSE	1 2 99	 **→Q611**
Q604	Have you ever bought a male condom?	YES NO NO RESPONSE	1 2 99	 **→Q607**
Q605	Last time you bought, which brand was it?	Maximum 1 Lovers 2 Protector 3 Saxos 4 Others (specify) ___ 5 DO NOT KNOW 88 NO RESPONSE 99		
Q606	Last time you bought condoms, how much did you spend?	ZK_____		
Q607	Which places or persons do you know where you can obtain male condoms? **PROBE AND RECORD ALL ANSWERS** Any others?		Yes No	
		Shop	1 2	
		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	

Q608	Which places do you feel comfortable buying in, or where do you prefer to buy condoms **PROBE AND RECORD ALL ANSWERES** Any others	Yes No Shop 1 2 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 (Specify…….) 1 2 NO RESPONSE 99	
Q609	How long does it take you to obtain a condom 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	
Q610	How many condoms do you have on hand right now in your room (if brothel-based) or on your person (if street-based. Would you please show them to me?	Number of condoms on hand |__|__| NO REESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 6 female condoms (continued)

No.	Questions and Filters	Coding categories	Skip to
Q611	Have you ever heard of a female condom? (**Show picture or sample of one**.) *I mean a rubber object that a woman put into her vagina before sex*	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	 **→Q701** **→Q701**
Q612	Have you *ever* used a female condom? (**Show picture or sample of one.)**	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q613	Do you know of any place or person from which you can obtain female condoms?	YES 1 NO 2 NO RESPONSE 99	 **→Q701**
Q614	Which places do you know where you can obtain female condoms? **PROBE AND RECORD ALL ANSWERS** Any others?	Yes No Shop 1 2 Pharmacy 2 2 Market 2 2 Clinic 2 2 Hospital 2 2 Family planning center 2 2 Bar/guest house/hotel 2 2 Peer educator 2 2 Friend 2 2 OTHER_____ 1 2 NO RESPONSE 99	

Q615	Have you ever purchase female condom?	YES 1 NO 2 NO RESPONSE 99	→**Q701**
Q616	Why have you never purchased female condom?	It is expensive 1 Don't know where to buy them 2 Other_____ 3 NO RESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSWs

Section 7 STDs

No.	Questions and filters	Coding categories	Skip to
Q701	Have you ever heard of diseases that can be passed through sexual intercourse?	YES 1 NO 2 NO RESPONSE 99	→**Q704**
Q702	Can you describe any symptoms of STDs in women? ….. Any others? **DO *NOT* READ OUT THE SYMPTOMS** **CIRCLE 1 FOR ALL MENTIONED.** **CIRCLE 2 FOR ALL *NOT* 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 DO NOT KNOW 88 NO RESPONSE 99	
Q703	Can you describe any symptoms of STDs in men? ….. Any others? **DO NOT READ OUT THE SYMPTOMS** **CIRCLE 1 FOR ALL MENTIONED.** **CIRCLE 2 FOR ALL NOT 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 DO NOT KNOW 88 NO RESPONSE 99	
Q704	Have you had leakage (a genital <u>discharge</u>) during the past 12 months-since November 2005? *That is since February last year*	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q705	Have you had a sore on your private parts (genital <u>ulcer</u>/sore) during the past 12 months-since November 2005? *That is since February last year*	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

Q706	FILTER CHECK Q704 AND 705 HAD DISCHARGE OR SORE IN THE LAST 12 MONTHS |__|	NO DISCHARGE OR ULCER |__| → IN LAST 12 MONTHS	**→Q710**
Q707	Did you do any of the following the last time you had a genital ulcer / sore or discharge: READ OUT; MORE THAN ONE ANSWER IS POSSIBLE .	NO / YES	
	a. Seek advice/medicine from a government clinic or hospital?	2 / 1	
	b. Seek advice/medicine from a workplace clinic or hospital?	2 / 1	
	c. Seek advice /medicine from a church or charity- run clinic or hospital?	2 / 1	
	d. Seek medicine from a private clinic or hospital?	2 / 1	
	e. Seek advice/medicine from a chemist?	2 / 1	
	f. Seek advice/ medicine from a tradition healer?	2 / 1	
	g. Bought capsules on the street?	2 / 1	
	h. Took medicine you had at home?	2 / 1	
	i. Seek advice/medicine from the COH/Blue house	2 / 1	
	j. Stop having sex during the time when you had the symptoms?	2 / 1	
	k. **Always** use a condom when having sex during the time you had symptoms?	2 / 1	
	l. Tell your sexual partner about the discharge / STD?	2 / 1	

Q708	If yes to any of the above (a-i) how long or how many days did it take between beginning of symptoms and to seeking care?	NUMBER OF DAYS |__|__| DO NOT KNOW 88 NO RESPONSE 99	
Q709	Last time you had STD which was first source of treatment?	Government hospital/clinic 1 Workplace clinic/hospital 2 Sought treatment from private clinic 3 Sought medicine from traditional healer 4 Sought treatment from COH/CBI/blue house 5 Bought medicine from pharmacy/chemist 6 Bought medicine from market 7 Others (specify……) 8	
Q710	Are you currently using any method to protect yourself fr0m getting pregnant?	YES 1 NO 2 NO RESPONSE 99	→**Q712** →**Q712**
Q711	Which methods are you currently using to protect yourself from getting pregnant?	Yes No TRADITIONAL METHOD 1 2 ORAL CONTRACEPTIVES PILLS 1 2 INJECTION 1 2 NEO PLANT 1 2 IUD 1 2 MALE CONDOMS 1 2 FEMALE CONDOMS 1 2 SPERMICIDES 1 2 DIAPHARM 1 2 NATURAL 1 2 OTHER…… 1 2 NO RESPONSE 99	
Q712	Have you ever lost a pregnancy	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSW

Section8 Knowledge, opinions, and attitudes

No.	Questions and filters	Coding categories	Skip to
Q801	Have you ever heard of HIV or the disease called AIDS?	YES 1 NO 2 NO RESPONSE 99	→**Q901**
Q802	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	→**Q804**

Q803	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	
Q804	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	
Q805	Can a person get the HIV from Mosquito bites?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q806	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	
Q807	Can people protect themselves from the HIV virus by abstaining (not having) from sexual intercourse?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q808	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	
Q809	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	
Q810	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	
Q811	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	
Q812	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	
Q813	Can a 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	

Q814	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.**	YES No Take medication (Antiretroviral) 1 2 OTHER_____ 1 2 DON'T KNOW 88 NO RESPONSE 99	
Q815	Do you know of any hospital program that is offering mother to child transmission of HIV prevention services?	YES 1 NO 2→**Q817** DON'T KNOW 88→**Q817** NO RESPONSE 99	
Q816	Where are mother to child transmission prevention services offered in this site?	_____ _____ ___ DON'T KNOW 88	
Q817	If a student has HIV but is not sick, should he or she be allowed to continue attending school?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q818	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 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q819	If a teacher has HIV but is not sick, should he or she be allowed to continue teaching in school?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q820	If you knew a shopkeeper or food seller had the HIV virus, would you buy food from them?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q821	If a member of your family become ill with HIV, the virus that causes AIDS, would you want it to remain secret?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q822	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 1 NO 2 NO RESPONSE 99	
Q823	Do you personally know someone who has been denied health services in the last 12 months because he/she is suspected to have HIV or has AIDS ?	YES 1 NO 2 NO RESPONSE 99	
Q824	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the past 12 months because he/she is suspected to have HIV or has AIDS?	YES 1 NO 2 NO RESPONSE 99	

Q825	Do you personally know someone who has been verbally abused or teased in the past 12 months because he/she is suspected to have HIV or has AIDS?	YES 1 NO 2 NO RESPONSE 99	
Q826	*Restate confidentiality statement* I don't want to know the result, but have *you* ever had an HIV test?	YES 1 NO 2 NO RESPONSE 99	→**Q829**
Q827	Did you voluntarily undergo the HIV test, or were you required to have the test?	Voluntary 1 Required 2 NO RESPONSE 99	
Q828	Please do not tell me the result, but did you find out the result of your test?	YES 1 NO 2 NO RESPONSE 99	
Q829	Would you be interested in having an HIV test?	YES 1 NO 2 NO RESPONSE 99	→**Q831**
Q830	Why would you not be interested in an HIV test?	SCARED 1 DON'T WANT TO KNOW 2 FEAR TO BE ISOLATED 3 THERE IS NO CURE FOR HIV 4 LACK OF CONFIDENTIALITY 5 OTHER SPECIFY----------6	
Q831	Do you think your chances of getting the AIDS virus are great, moderate, small, or do you think that you have no chances of getting the AIDS virus?	No chance 1 Small 2 Moderate 3 Great 4 DO NOT KNOW 88 NO RESPONSE 99	→**Q833** →**Q833**
Q832	Why do you think your chances of getting the AIDS virus are low? **CIRCLE ALL MENTIONED** Any other reason	USE CONDOMS 1 HAS ONLY ONE PARTNER 2 LIMITS NUMBER OF PARTNER 3 PARTNER HAS NO OTHERS 4 PARTNER LOOKS HEALTHY 5 PARTNER TESTED NEGATIVE 6 OTHER (SPECIFY……) 88 NO RESPONSE 99	
Q833	Why do you think you are at some risk of getting the AIDS virus? **CIRCLE ALL MENTIONED** Any other?	Do not use condom Always 1 Condoms break 2 Condoms not 100% safe 3 Do not trust partner 4 Partner has other partners 5 Partner had STI 6 Partner looks sick 7 Other (specify……) 88 _____ No response 99	

Q834	If you believe that your partner has an STI, can you have sex with him if he refuses to use a condom?	YES 1 NO 2 NO RESPONSE 99	
Q835	Have you heard about antiretroviral (ARV) drugs (USE LOCAL NAMES/EXPLAIN) that people infected with the AIDS virus can get from a doctor at the hospital/clinic	YES 1 NO 2 NO RESPONSE 99	→**Q837**
Q836	If yes, do you know of somebody (friend or relative or co-worker) who is taking antiretroviral drugs?	YES 1 NO 2 NO RESPONSE 99	
Q837	How easy do you think it is for people living with HIV/AIDS to receive health services in public health centres?	Very Easy 1 Somewhat Easy 2 Somewhat difficult 3 Very difficult 4 Don't know 5	

COH 2005 HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEY (BSS) FOR FSW

Section 10 Exposure to intervention

No.	Questions and filters	Coding categories	Skip to
Q901	When your friends have an STI where do they MAINLY seek care? **CIRCLE ONLY ONE ANSWER**	Government health facility 1 Private medical practitioners 2 Traditional health practitioners 3 Self treatment 4 COH project sites 5 DO NOT KNOW 88 NO RESPONSE 99	
Q902	If you had an STI where would you PREFER to seek care? **CIRCLE ONLY ONE ANSWER**	Government health facility 1 Private medical practitioners 2 Traditional health practitioners 3 Self treatment 4 COH project sites 5 DO NOT KNOW 88 NO RESPONSE 99	
Q903	Why would you seek health care from the facility you go to? **MORE THAN ONE ANSWER CAN BE CIRCLED**	YES NO It's near my place 1 2 Staff are friendly 1 2 They have drugs 1 2 Other (Specify…….) 1 2 NO RESPONSE 99	
Q904	Have you ever heard of COH/drop-in centre/blue house?	YES 1 NO 2 NO RESPONSE 99	→**Q913**
Q905	How many times did you visit the drop-in centre (blue house) in the last 12 months?	_____	
Q906	Are you a registered member of the COH/CBI project and receiving regular STIs services?	YES 1 NO 2 NO RESPONSE 99	→**Q914**
Q907	How many times have you received STIs services from COH/CBI?	Once 1 Few times 2 Several times 3 NO RESPONSE 99	

Q908	Who introduced you to COH/CBI project?	PEER EDUCATORS (PE) 1 FRIEND WHO IS NOT PE 2 HEALTH CARE PROVIDER 3 OTHER (Specify……) 4 NO RESPONSE 99	
Q909	Last time you visited COH/CBI project were you given any information, or educational material?	YES 1 NO 2 NO RESPONSE 99	
Q910	Last time you sought care at COH/CBI facility, how satisfied were you with the care you received? Very satisfied, somewhat satisfied or not satisfied?	Very satisfied 1 Somewhat satisfied 2 Not satisfied 3 DON'T KNOW 88 NO RESPONSE 99	
Q911	Would you go back to COH/CBI facility if you needed it again?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	**→Q913**
Q912	Why would you not go back to COH/CBI facility	YES NO Staff not friendly 1 2 No drugs 1 2 There is no privacy 1 2 Other (Specify……..) 1 2 NO RESPONSE 99	
Q913	Last time you visited COH/CBI facility how was the reception?	Very good 1 Good 2 Poor 3 DO NOT KNOW 88 NO RESPONSE 99	
Q914	Would you be willing to register with COH/CBI to receive STIs treatment?	YES 1 NO 2 Already registered 3 DON'T KNOW 88 NO RESPONSE 99	
Q915	Have you been asked same set of question or interviewed in the past in any of the sites; Chirundu, Kapiri Mposhi, Livingstone or in Chipata	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	**→Q919**
Q916	Were you interviewed in 2000 (probe if blood and swabs were taken)	YES 1 NO 2	
Q917	Were you interviewed in 2003 (probe for blood and vaginal specimens swabs if were taken)	YES 1 NO 2	
Q919	Thank the participant		
	Time interview ended		

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